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Foreword

With over 250 expert articles published in the Baltic Rim Economies discussion forum in 2013 the Pan-European Institute is thankful for another year of successful co-operation in the Baltic Sea region and beyond.

In addition to the traditionally central themes related to the economic development of the Baltic Sea area, in 2013 special emphasis was given to the maritime sector in form of two special issues dedicated to the competitiveness of the sector, as well as its development in a global context. Furthermore, a third special issue presented views on the future of the Arctic, covering fairly topical themes such as geopolitics, emerging business opportunities and the socio-economic development in the region.

It is worth mentioning that the reviews compiled here, are the final publications with the current layout, as in 2014 Baltic Rim Economies presents a renewed design. Naturally, these coming reviews will also be at your disposal at www.utu.fi/pei.

Lastly, let us take the opportunity to express our gratitude for invaluable partnership to the following highly respected organisations: the City of Turku, the Baltic Development Forum, the John Nurminen Foundation, Finland's national Baltic Sea region think-tank Centrum Balticum and the Turku Chamber of Commerce. We are also most pleased to have welcomed the Ministry for Foreign Affairs of Finland as a partner as well. The Pan-European Institute is committed to establishing new partnerships and developing the existing ones in order to maintain the Baltic Rim Economies review as a leading virtual discussion forum dedicated to Baltic Sea affairs.

Turku, 27.6.2014

Kari Liuhto

Editor-in-Chief

Baltic Rim Economies review

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The Baltic Sea Region – a Swedish perspective

By Per Westerberg

The Baltic Sea Region has historically been characterised by both trade and conflict. Until 1917 Russia played an important role in trade relations within the region. During the last few decades the region has again experienced a dynamic development in cross-border cooperation. The independence of Estonia, Latvia and Lithuania, the re-unification of Germany, the political transition of Poland and the emergence of the Russian Federation opened a wealth of possibilities that had so far been blocked. The decisive element was, and remains, democratisation, respect for human rights and the rule of law in the new or transformed states. Their decision to base their economies on market principles was another very important element for trade, investment, and other economic cooperation. We believe, and certainly hope, that these trends will persist in the general development of the entire Baltic Sea Region.

It was natural that the first field for concrete cooperation was the Baltic Sea itself. For many years all states in the region had contributed to polluting it – sewage from industries and dwellings had been released into rivers or directly into the sea, excess fertilizers had been leaking out into the sea and ships had been dumping waste in it. In the early 1990s we were able to see the effects with our own eyes. The depletion of fish stocks confirmed that something had to be done if we were to avoid serious consequences.

The revised Helsinki Convention, or HELCOM, was adopted in 1992 and marked a new era. HELCOM was the first convention ever to take on all sources of pollution around an entire sea. It covers the whole of the Baltic Sea area. An action plan was established to eliminate the 132 ”hot spots“ that were identified. Since then, concerted action has been taken, including on co-financing. More than 50 of the ”hot spots“ have been deleted altogether from the list, and HELCOM has been successful in reducing discharges and emissions of a number of hazardous substances. A Baltic Sea Action Plan was adopted in 2007, listing additional measures to restore a good environmental status of the Baltic Sea by 2021.

This illustrates how much we can achieve if we focus our attention and create mechanisms for coordinated action both between the states around the Baltic Sea, and with the many other stakeholders concerned.

It is not only important but also a natural development that cooperation has been successively broadened over the years, and now covers a large number of fields. One early example of this is the Task Force on Organised Crime, which was established in 1996, resulting in joint efforts to combat trafficking in human beings. Similarly, cooperation on combating contagious diseases has continued, and has also developed into discussions about healthy life-styles. We have started to connect energy networks in the region, and to promote energy efficiency. We are also cooperating on improving land transport within the region and to the south, and are currently discussing how to design transport facilities in the north in view of the possible use of the Northeast Passage.

Examples of projects and plans are manifold. So are, nowadays, the number of actors, including states, provinces, municipalities, companies, NGOs and educational institutions. Our experience from long-standing Nordic cooperation is that this is, basically, positive. Close and frequent contacts at all levels will provide both ideas and popular support for more in-depth cooperation.

But, of course, the multitude of initiatives and actors mean that coordination is crucial. Existing structures, such as the Nordic Council of Ministers, and later the Council of Baltic Sea States, have been instrumental in this. The Nordic Council established contacts and initiated the Baltic Sea Parliamentary Conference, at which national and regional parliaments now meet regularly to monitor cooperation in the region. The EU Strategy for the Baltic Sea Region, adopted under the Swedish Presidency of the EU in 2009, was a qualitatively new step. It is not merely another organisation, but rather a framework for common aims and priorities which should guide all actors in the region. The Northern Dimension of the EU, in which Iceland, Norway and Russia participate on an equal basis with the EU, is also an important instrument for coordination.

Cooperation in the Baltic Sea Region can develop further. The better we understand each others' situation, and the more we share the same values, the better the opportunities. There are problems and issues which can only be addressed jointly. However, we should also see the opportunities for an advanced and dynamic world-class region. After all, our resources put together are considerable: raw materials, science, knowledge and modern technology in almost all important fields, and almost 100 million inhabitants who are generally well educated. To realise this potential, our cooperation should be open, but it is not necessary for everyone to participate in every field or every project, as long as it fits into the larger regional perspective. We should promote “creative clusters”, where cross-border contacts will lead to innovation in a broad sense – socially, culturally as well as in services and industry. Adaptability and creativity are key words for tomorrow's successful societies. It is evident the Baltic Sea Region has the capacity to continue the development of a vibrant region.

Per Westerberg

Speaker

Swedish Parliament

Sweden

Croatia – becoming the 28th member state of the European Union

By Zoran Milanovic

The Republic of Croatia, a country of nearly 4.5 million inhabitants, situated at the crossroads of three European regions – Central Europe, South East Europe, and the Mediterranean, currently is approaching the finishing line of its European Union accession path and is set to become the 28th Member State on 1 July 2013. Even though Croatia's road towards the EU was not easy, with the degree of difficulty in some areas surpassing initial expectations, the combination of strong belief and hard work of Croatia and its peoples brought us where we stand today.

From this point we can look back with pride onto the two decades behind us, and with optimism to the decade ahead. The mere comparison of Croatia at the moment of gaining independence in 1991 and Croatia of today speaks volumes of the remarkable and profound changes our state and society have undergone. What needs to be put into the foreground is the unquestionable benefit these changes have brought to the everyday life of our citizens.

It was with great enthusiasm and ambition that Croatia had embarked on this journey. However, Croatia's accession negotiation process made it evident that the needed reforms could not be effectively addressed in just a few months' time. It was a highly complex and challenging process, where the conditions for EU membership became more rigorous over time. I would even say that Croatia faced the most demanding accession negotiations yet. Nevertheless, defining measurable benchmarks and concrete targets, sensitive to the specific regional or national context, has helped us to effectively meet the various EU conditions. Croatia's substantial progress and its preparedness for EU membership has also been recognized by our European partners, who engaged in the process of ratification, which we foresee to be completed by all 27 Member States in time for our accession on 1 July 2013.

Today's time is a challenging one too and we must not lose focus, first and foremost, on surpassing the challenges our economies, and societies, are facing. Before the economic crisis, our growth rates stood at about 5-6%. Today, it is a different set of rules, numbers and results. One thing is sure: all are significantly less than in the past. High unemployment rates, decreasing European investment flows, declining remittances, and a troubled banking sector, have taken much of the luster from the EU. On the other side, with the future of the euro – and indeed of the Union – under serious discussion, it is up to us to find the rationale to remain loyal to the founding principles upon which the Union has been built. It is exactly this context that makes the Croatian willingness to join the EU even more significant as it is based on a thoroughly examined and rational decision, not on emotional idealism. The result of the EU referendum in Croatia in January 2011, at which 66% voted for Croatia's accession to the EU, further strengthened our resolve.

I am convinced that Croatia's membership in the EU opens a new window of opportunity for us, as well as the community we are about to join. We are fully aware that the EU is currently searching for answers to many questions, such as the response to the financial crisis, security threats, climate change or migrations, to name just a few. And we are also aware that through this prism, the continuation of EU enlargement is not always seen as a popular thing. In light of accentuating the positive effects that the accession negotiations have produced, Croatia has learned the value of proactive participation. For this purpose, we have set up a Council for Transition Processes that is to act as a center of excellence, with the primary aim to transfer Croatia's knowledge and experience from EU and NATO accession processes to countries in the region.

I am certain that Croatia as a new Member State will represent an added value to the EU in several ways. Croatia's cultural heritage and contemporary achievements in arts, science, sports and other areas form a part of our common European legacy. Its largely well-preserved environment is a valuable addition to Europe's natural resources and biodiversity fund. As a desired European tourist destination, Croatia will undoubtedly contribute to Europe's competiveness in the world of tourism.

But if you asked me what our biggest asset was, I wouldn't have to think twice. Being a country with a Central European orientation, a Mediterranean spirit and a continental heart, Croatia has the privilege to be the only country in Europe that lies on the shores of both the Danube and the Adriatic Sea. With a specific understanding of its neighbourhood and extensive regional cooperation, Croatia fits perfectly into the mosaic of Europe's unity in diversity. Through its active membership in various regional associations Croatia contributes to regional development in line with the goals of the EU's cohesion policy.

Croatia will continue to exercise its responsibility for the region by sharing its experiences, by listening to the needs of the individual countries and by acting as a strong voice of the European future of all countries in this part of Europe. We sincerely hope, and believe, that our success will encourage our neighbors in the region to follow on our path and serve as a powerful reminder that determination to rise to the challenge will ensure tangible results.

Zoran Milanovic

Prime Minister

The Republic of Croatia

Mutual trust and reciprocity – a key to success in the Baltic Sea Region

By Maria Lohela

The Baltic Sea has always been important for Finland and especially for Southwest Finland. It has provided our country with great opportunities for living and an efficient trade route. Still today, the Baltic Sea region is a very important area for our country. It has both challenges and opportunities that each of the region's states have to respond to in co-operation. Fostering of fundamental values of international relations and international law, trust, reciprocity and feeling of obligation (*pacta sunt servanda*), will be necessary in order to fully benefit from international co-operation of the region.

The Baltic Sea Region is Finland's home ground. What happens in the region directly affects Finland, too.

Therefore, Finland is committed to implementing the EU Strategy for the Baltic Sea Region. It is in the best interests of our country to further goals related to sustainable environmental policy, thriving regional economy, development of transportation services and the safety of the region.

The Baltic Sea is highly vulnerable due to its geographical and physical characteristics, and it is in need of special protection. Finland's own measures mainly affect its coastal waters, whereas international co-operation should aim to protect the open sea. Consequently, joint national and international measures are needed.

The Baltic Sea region consists of states of different backgrounds. In addition to the EU member states, Iceland, Norway, and Russia take part in the organized co-operation of the region. Russia's involvement is especially important in order to protect the sea efficiently and to fully benefit from the economic co-operation. Thus, the European Union is not a sufficient political arena to respond to the challenges of the region. Eventually, central concepts of international relations and international law, mutual trust, reciprocity and feeling of obligation, determine the outcome of the co-operation in the Baltic Sea region.

Reciprocity requires a mutual understanding about which actions are to be expected from those involved and how a co-operation agreement will be enforced. It also requires that the parties know perfectly what actions each counterpart of the agreement has taken. If monitoring of the compliance of the partners becomes difficult, there is a risk that reciprocity becomes irregular and disproportionate to potential violations.

The state of the sea is a common tragedy in the Baltic Sea region. In order to respond to our common challenge, a co-ordinated action is needed. Reciprocity should be fostered in the international relations of the Baltic Sea region's states both internally and externally.

Firstly, mutual trust should be strengthened between the Baltic Sea states by clearly determining what are the rights and responsibilities of each Baltic Sea country. They should be in a right balance in order to secure an efficient co-operation. The co-operation model is not functional nor sustainable if it allows any countries to act as free riders in the region's common environmental problems. A right balance of responsibilities and obligations for each state would make the co-operation more legitimate and fair – and most importantly – more efficient.

Secondly, a fair balance should prevail between the interests of the Baltic Sea states and states from other regions. The Baltic Sea states have to improve the competitiveness of their economies. The competitiveness of the Baltic Sea region states is a complex equation and the countries have to take into account a global perspective while developing their economies.

The European Parliament approved new sulphur directive in September 2012. The new directive lowers the sulphur content of fuel used in the shipping industry by 2015 from its present one per cent to 0.1 per cent in the so-called Sulphur Emission Control Areas, the Baltic Sea, the North Sea, and the English Channel. The directive has been estimated to cost, depending on the source, from 500 million to 1 billion euros a year.

Meanwhile, the ships in the Mediterranean Sea will be allowed to use fuels with 3.5 per cent sulphur content until 2020. Protection of the nature is important, but actions made in the Baltic Sea region have to be proportional to those made elsewhere. The Baltic Sea region states are entitled to look after their interests globally.

Environmental protection of the Baltic Sea is crucial for our well-being, and the well-being of the future generations. Consequently, a joint action is needed in order to make cooperation fair and efficient. International law and monitoring institutions of the Baltic Sea region can have a remarkable role in the regional cooperation. The existing institutions of the Baltic Sea region should have a more significant role in determining what is a legitimate share of obligations for each country and determining whether their actions are serving the purpose or not. Only mutual trust, reciprocity of actions and feeling of obligation can deliver successful results in the Baltic Sea region.

Maria Lohela

Member (The Finns Party)

Parliament of Finland

Finland

Towards a more responsible Baltic Fisheries Policy

By Katja Taimela

Salmon is an important fish for the Finns. Its health effects form a key part of a balanced diet. The vast majority of fresh salmon currently comes from Norway. In Finland, 70 %of the fish consumed is imported from abroad. The share of salmon within the Finnish professional fishery catch is minor; the salmon catch in 2010 was only 0.2%. Thus, the commercial value of the salmon catch accounted for about 3% of the total fishery.

However, for the tourism in Northern Finland, salmon is highly significant. The river Tornio is the largest salmon-fishing river in the whole of Europe, and tourism is the main business in the area of Tornio river valley. Tourism has also a significant business potential for growth. In the Tornio area, the main tourist attractions are the old fishing culture of the location, as well as sport fishing, traditional fishing and recreational fishing. Healthy and viable salmon populations are important for commercial, cultural, and recreational activities. The populations can be ensured only by the Baltic countries in a responsible and long-term co-operation.

In Finland, the coastal fishery has been reduced, and currently, a large part of the domestically caught salmon is farmed fish. Wild salmon stocks have during the recent decades weakened significantly. At this moment, an intense process to amend the situation is taking place. The concrete change within the political approach to Finland's fishery policy has already happened. Prime Minister Jyrki Katainen's government program includes a strong commitment to protect wild salmon stocks. When defining the quotas for 2013, the Finnish Parliament settled for the first time a major decrease in the fishery quotas. In addition, the Government approved a fish passage strategy where the message is clear: natural fish stocks are to be revived.

The Ministry of Agriculture and Forestry set up in December last year a working group whose main objective is to find a consensus on a national strategy for the salmon. The working group will examine the Baltic salmon and sea trout fishery and salmon and sea trout stocks as well as other issues regarding the management of their natural life cycle Results from the working group are expected as early as this spring. It is important, that the forthcoming Salmon Strategy includes scientifically estimated quantified targets for brood fish rising to rivers, the achievement of which guarantees the long-term vitality of wild salmon stocks. Furthermore, the scientific evaluation methods need to be developed in order for them to be more widely accepted as the basis for the fisheries policy.

The decline in salmon stock contributes to the eutrophication of the Baltic Sea. When the ecosystem is significantly weakened by one species, the effects appear at all levels. Salmon reduction has led to the smaller fish populations have grown which the salmon feeds on. These small fish in turn feed on zooplankton, which is consequently reduced. Zooplankton consumes phytoplankton, the amount of which will therefore grow and rampant the sea.

For the recovery of wild salmon stocks, the Baltic salmon fisheries policy has a very important role. Naturally, when fishing at sea, it cannot be determined which stocks are being fished. As a result, all available stocks are being caught from. Whereas, when fishing at a river one can choose to fish only at those rivers where the stock populations are healthy, and not at those where the stock populations are not as strong. Thus, stock recovery problems can thus be solved by either stopping the joint position of fishing in the main basin and the Gulf of Bothnia, or by setting such low catch quotas, that it also ensures the most vulnerable salmon populations to recover. Migratory fish of the joint position of fishing is the key. If fishing continues as it is and the river-specified protection measures have no effect, the spawning fish do not get to return to their home rivers from their migrations at sea.

In the recent years Sweden has begun to actively revive its salmon stocks. It has banned the much discussed long line fishing that has been debated upon in Finland as well. In principle, the oceans are open and nobody owns any wild fish until it’s caught. Therefore, the salmon that a Finnish fisherman had to miss due the quotas might end up, say, to be caught by a Polish fisherman. Baltic fishery policy is therefore a common interest for all of the Baltic Sea countries. None of the Baltic countries can take care of the salmon stocks alone. It requires extensive cooperation within the EU's fishing policy, uniform regulations and adequate supervision.

The WWF estimates, that half of the fish imported to the EU is illegally-caught. Illegal fishery has far-reaching impacts on for instance the deprivation of the poor countries as it kills their own fishing industry. Nature is being harmed through aggressive fishing methods. Fishermen in poor African countries have been robbed of their source of livelihood by illegal fishery and they have been subjected to a cheap labor force. Therefore, the EU’s Common Fisheries Policy is closely linked to the world’s trade and environmental policies and human rights issues as well.

The EU's Common Fisheries Policy is designed to ensure that the fishing will become biologically, economically and socially more sustainable. Currently, the implementation of the objectives is not at a satisfactory level within the EU's internal seas and, in particular, on the imported fish. The most important means to achieve the set objectives for the EU's internal waters are the catch and effort limits. As a rule, these elements must be based on the use of fish stocks in the multi-annual management plans and comply with the scientific recommendations.

Katja Taimela

Member

Parliament of Finland

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Maintaining a sound all-win relationship between China-Finland in the future

By Xing Huang

The year of 2012 has witnessed major changes in political arena throughout the world as a number of states selected their new leaders, that include Russia, Germany, France, USA and Korea etc. Furthermore the Finnish President Sauli Niinisto assumed his office early last year while later in the year China elected the new leadership by the 18th National Congress of the Communist Party of China. New leadership in the two country's' political life not only bring up fresh impetus, but also provide new opportunities and potentials for bilateral relationship between China and Finland.

It is widely recognized that the relationship between China and Finland has been sound and healthy, which is characterized by comprehensiveness, mutual benefit and friendliness. Particularly in the last 20 years, "booming" should be the right word to symbolize the development of cooperation in almost every field. Contacts of people both in high and root level become increasingly extensive, which in turn greatly deepen mutual trust. As major component part of the relationship, bilateral trade volume in 2011 exceeded over 10,000 times of that in 1950. Nowadays Finland has become China's second largest trading partner, technology exporter and third largest source of investment among Nordic countries. And China is Finland's largest trading partner outside EU and one of the most important source of investment. China and Finland have offered a lot to each other but there still exist enormous potentials. Our differences in social institutions, cultural traditions and level of development are outweighed by the similar ideas we share on economic and social development as well as the common interests in international affairs. Finland is one of the first Western Countries who established diplomatic relations and signed a bilateral trade agreement with China. Now, we are delighted to see peoples' enthusiasm to acquaint each other is rising and interest in each other's culture enhancing. Confucius Institute of Helsinki University and Finland Research Center of Beijing Foreign Studies University have both just celebrated their 5th birthdays. Over 30 pairs of cities have established sistership relations between China and Finland.

To review the path of the past 35 year when China made spectacular achievements, the most important experience is self-reliance. Yet, there are still other key factors such as adherence of opening up policy which stimulates development to a large extent. We absorbed capital, advanced technology and experience from other countries including Finland, which significantly contributed to "China speed" . It is foreseen that China will continue to carry out the opening up strategy. To maintain sustainable development of the relationship with Finland is one of our priorities. To this aim, a few principles which served us well in the past should be adhered further.

Mutual benefit, a key for sustainable cooperation. In the background of globalization, countries have become further interdependent to each other, which requires players to set and pursue an all-win target. Fortunately, the Chinese and Finnish economies have long been complementary, and both countries targeted green tech and low-carbon economy as priorities among others of development. Bilateral cooperation in technology innovation, environmental protection, clean energy, modern agriculture has demonstrated as great potentials, while the mutual direct investment should be given an even greater backup by both sides. On the whole economic cooperation certainly serves as backbone in the relationship.

Engagement of people, a fundamental for solid relationship. An old Chinese saying goes: amity between people holds the key to sound relationship among states. Personnel contacts not only serve as a bridge for better understanding in our generation, but act as a relay-race baton to pass our friendship generation by generation. Friendship between China and Finland dates back when new China was founded several decades ago. We always base our relationship on mutual respect, equality and non-interference in each other's internal affairs.

Harmony and diversity, a principle for peace. The ancient master in philosophy and education, Confucius once said that people should coexist in harmony while maintaining their characteristics. Only based on mutual respect and concede differences, can prolonged relationship be preserved. We deeply believe that countries all have certain experiences that can lend to and borrow from others.

Favorable environment, a basic factor for attraction of business. Today, China and Finland are both faced with the challenge to promote national economy and to raise people's living standard, in which process pragmatic cooperation between the two sides can have a great part to play. Therefore favorable environment must be created and effective measures be taken to facilitate business conduct. Simplification for application of visa and working permits, especially for business people, favorable economic and financial policies as well as national treatment for foreign enterprises are among the most effective and pragmatic measures at our disposal.

The world today is undergoing profound and complex changes. Peace and development remain the underlying trends at present era. Yet the world is still far from being peaceful. To effectively tackle global issues needs cooperation of all players in the world. China attaches great importance to bilateral relations with EU as well as with its member states including Finland. These two kinds of bilateral relationship are not contradictory but complementary to each other. Neither of them should be weakened. Sound development of both fits the core interests of the Chinese, the Finns and other Europeans. We hope and believe that the friendly and cooperative China-Finland relationship could set up a good example for China-EU relationship and vise versa. China is ready to endeavor for a even brighter future for its relations with Finland and EU thus to contribute further to promotion of the noble cause of peace, development and harmony of the whole world.

Xing Huang

Ambassador

Embassy of the People's Republic of China in Finland

Latvian defence planning in transforming security environment – political perspective 2011–2013

By Veiko Spolitis

Security of the Baltic States is a topic often discussed in different forums around the Baltic Sea. The Baltic States became members of the NATO in 2004 after Poland in 1999, and today there are strategic debates in both Finland and Sweden about rationale to join the greatest Western Defence Alliance. This article will try to outline rationale behind the Latvian government declaration today. Thus, the article will first outline a major regional development that has made Latvia to continuously opt for embedded integration of the Baltic States. Second, the article will shed light on major defence policy documents. And finally, the article will pinpoint major challenges for the balanced and peaceful domestic development in Latvia, which is a prerequisite for the ongoing and peaceful coexistence in the Baltic Sea area.

The regional security environment after the new Russian defence doctrine was accepted is becoming sensitive. The Baltic States are aware of the increasing number of the over flights by the Russian Air Force, the same as other NATO allies bordering Russian Federation. The fact that countries have exercises is absolutely normal, however for the last two occasions Russia and Belarus have staged joint military exercise "Zapad" while simulating breakthrough out to the Baltic Sea. Such military activity fostered NATO to elaborate contingency plans, and during the upcoming summer the NATO will have the largest military exercise in the Baltic Sea region since disappearance of the bipolar world order. Renewed military activity of the Russian military has only fostered the coordination of the Baltic States exercises with the NATO partner countries within the region. The government declaration and operational program asserts that fostered integration among the Baltic States and increased cooperation with the Scandinavian countries is among medium term goals of this government. Already established regional institutions – Baltnet, Baltron, and BaltDefCo – serve their purpose of not duplicating tasks and churning out well trained staff officers instructed in multi – cultural environment. The integration with the Baltic States is thus embedded; the cooperation with the Scandinavian countries follows the footsteps of NORDEFCO and it is the task of lawmakers to provide priority to the questions of security and defence.

Among primary tasks of the present government are outlined those capabilities that are essential for keeping territorial defence system sustainable. Second, the Latvian defence structure had to be brought in line with the promise Latvia gave to the NATO partners. To achieve the targeted goal the Ministry of Defence prepared the State Defence Concept (SDC) that outlines political guidelines for developing the long term development plan for the National Defence Forces. SDC was passed in the parliament unanimously. The gradual increase of the military spending will set the budget increase by 0.1 percentage points y-o-y basis to the target level of 2% from GDP by 2020. It would allow developing the basic capabilities of defence forces in order to provide territorial defence, and also to make expeditionary deployments sustainable with support and transport capabilities fully developed. The ongoing administrative transformations made the cyber security department CERT to move from the Ministry of Transportation under roof of the Ministry of Defence. Such decision was well rehearsed, because the Defence Forces had paid attention to the formerly unconventional security threats turning hot in neighbouring Estonia, and increasing cyber security capabilities is one of the new priorities for the Latvian Ministry of Defence. The SDC document underlined the principle of quality over quantity, and outlined the need for transforming the home guards into the functioning defence force reserve system. Operationally fit Defence Forces will be able to successfully plan participation in a variety of cooperative networks that Latvian membership in the three major international organizations requires - the EU Battle groups, the UN peacekeeping missions, and NATO operations. The planning documents at this stage do not involve notions about the pooling and sharing among the three Baltic States explicitly. The challenge of synchronization between three capitals for the sake of joint procurements is perhaps the greatest at the moment, because defence forces have developed at different speed and the domestic political considerations bear heavily on smooth policy planning process. Therefore, to achieve increased synchronization of the military planning process the three ministers of defence in their last meeting in Gulbene agreed to assign Latvia to develop a plan for establishment of the Joint Headquarters. Such bold moves would come perhaps more often if the political cycles would be synchronized between the Baltic States as well. For this happening political system must professionalize. The too anachronistic media environment and segregated schooling system does not allow reaching hearts and souls of the Latvian non-citizen population fully. Ridding the corruption, embedding the rule of law and solving the previously mentioned non-citizen dilemma are three major domestic challenges of the Latvian domestic security policy – and key for the balanced development of the Baltic Sea region.

Veiko Spolitis

Parliamentary secretary

The Latvian Ministry of Defence

Latvia

Finland and Sweden – military allies? Never and yet for all times

By Hannu Miettunen

The year 2013 started with a discussion of the common defence between Finland and Sweden. The idea keeps popping up like a cork every now and then although all the debaters know it is futile. The union can only materialize within a larger alliance i.e. NATO.

In principal the idea is quite natural. All of the Nordic countries have values and societies similar enough to form even a common state. The major obstacle for common defense is the human nature: selfishness or the instinct of survival, if you will.

The founding father of modern Finland, J.W. Snellman put it bluntly already in 1863: "Nations sacrifice themselves for others only in the daydreams of schoolboys." He was proven right the next year when Prussia attacked Denmark. Sweden, that at the time controlled Norway, did not lift a finger. The episode was a fatal blow to the idea of Scandinavism. Denmark became a timid poodle of the unified Germany for almost a century. Sweden turned inwards.

In World War I, both countries managed to stay out of the conflict. So did the newly independent kingdom of Norway, and, for quite some time, even the autonomous Grand Duchy of Finland. Russians did not trust the Finns enough to draft conscripts to the Imperial army. Violence entered our shores only after independence in the form of Civil War.

The success of the neutrality in 1914-1918 made it an obvious choice for all of the Nordic countries in the 1920's and 1930's. The only one that could retain the status through the World War II was Sweden, and even that required some awkward concessions.

One could say that the 1864 was re-experienced in the autumn of 1939 and the spring of 1940. When Finland was attacked by Russia, both Denmark and Norway declared themselves neutral. In Sweden, the Military would have wanted to send troops but the Government decided otherwise. Sweden gave Finland substantial material aid though. Volunteers poured in from all three countries.

The tables turned quickly in the spring of 1940. Germany invaded both Denmark and Norway and held them until the end of the war. This time it was Finland and Sweden who looked the other way. Neither could help either the Baltic States that were annexed by the Soviet Union. In order to survive both Finland and Sweden had to fraternize with Nazi-Germany until it was weak enough not to pose a serious threat. That is something Norway and Denmark have never forgotten or fully understood.

The Cold War split the Nordic countries once again. The memory of the Occupation drove Norway and Denmark into NATO. Finland became a reluctant ally of the Soviet Union. Sweden was balancing in the middle. Had it chosen to join NATO, the leash of Finland would have been much shorter. The neutrality in the late 1940's was probably more significant a service Sweden did for Finland than any assistance in the Winter War. In practice, Sweden was an ally of the West.

There is also another well-known secret. In certain areas Finland and Sweden have had common defence for almost a century. In the Gulf of Bothnia both countries have their soft bellies exposed in the coastline that stretches for over thousand kilometres. The fortifications have always been scarce. Nowadays the military installations are historical relics. In the Finnish side of the Gulf even the garrisons have all been abolished. The only way to defend the area is to close the straits on both sides of the Aland Islands. There is however, one obstacle: the demilitarization of the isles.

Ironically enough, Aland was demilitarized in 1856 in order to protect Sweden and her capital from the threat of Russia. The fortifications had been demolished a year earlier by the Anglo-French troops in the Crimean War.

After Finland became independent the status quo was preserved mainly because there was a dispute between Finland and Sweden over the ownership of the islands. The idea of a war between these countries was absurd even back then, but it might not have been so obvious in Geneva in the headquarters of the League of Nations.

In practice, the demilitarization has been a curse. The islands have been occupied in every military conflict in the Baltic. In 1918 alone there were five different military contingents there in a row, most of them disarming the previous ones! Both Finland and Sweden have always been ready to send their troops in when necessary. The demilitarization has just made it a bit more complicated.

In the 1920's Finland spent astronomical sums for building two monumental battleships, monitors Ilmarinen and Väinämöinen. Their main task was to bring fire-power to the waters of Aland. In normal circumstances the job would have been done with coastal artillery. The money and the steel would have been in much better use in submachine guns. Neither of the ships had much use in World War II. Ilmarinen hit a mine and sunk. 271 lives were lost.

In the late 1930's Finland and Sweden had been planning to fortify the Aland Islands together. This was prevented by the diplomatic pressure from Soviet Union.

We don't know what kind of secret plans and unofficial treaties these countries had during the Cold War or have now, but it would be a big surprise if there were none. Finland and Sweden may or may not be joined through a common membership in NATO one day, but one thing is sure: they both have to secure Aland. The only ones that have never realized this are the Alanders. Pacifism is at its best during peacetime.

Hannu Miettunen

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Turun Sanomat, 3rd largest Daily newspaper in Finland

Finland

Mecklenburg-Vorpommern and its relations with the countries of the Baltic Sea Region

By Erwin Sellering

International links of the state of Mecklenburg-Vorpommern have traditionally focused on the region around the Baltic Sea. They are founded on historical and cultural ties, our state's geographical location and its socio-economic development. The objectives pursued by Mecklenburg-Vorpommern's activities in the Baltic Sea Region are closely linked to those givens. Before all, these include strengthening and consolidating the role of Mecklenburg-Vorpommern as a rising and attractive region, developing sustainable links of partnership with all neighbours in the region around the Baltic Sea, an active participation in efforts to protect the Baltic Sea and promoting competitiveness. Mecklenburg-Vorpommern has recognised this outstanding relevance of cross-border cooperation in the Baltic Sea Region early and enshrined it as an objective of our federal state in Article 11 of its constitution.

It is with this in mind that our state shows its commitment by working in a number of multilateral bodies, such as the Council of Baltic Sea States, the Baltic Sea States Sub-Regional Cooperation as well as the Conference of Peripheral Maritime Regions (CPMR). To this one has to add multi-faceted bilateral relations, in particular with Poland, the countries of Scandinavia and the North, the Baltic states and Russia. As early as more than ten years ago, Mecklenburg-Vorpommern laid the groundwork for this type of working together by building partnerships. By now, these regional partnerships have come to form major links for and driving forces behind cooperation around the Baltic Sea.

To me, these regional networks and cross-border structures have come to form a major foundation, on the basis of which our state may tap into new growth potential in an atmosphere of intense world-wide competition, promote innovation and create a high quality of life. Over the past few years, the Baltic Sea region has developed into one of the most economically stable regions, generating a total of one-third of Europe's economic output. Also and as a maritime region, Mecklenburg-Vorpommern is closely intertwined with the Baltic Sea region's economic structures and trade flows. One third of all exports of our federal state are to the Baltic Sea region. Poland, Sweden, Denmark, Finland and Russia are amongst the major recipients.

The Region around the Baltic is an interesting partner with a potential for growth, particularly for our small and medium-sized companies. It is in this spirit that we strive to build the closest and most efficient network of relations possible with our neighbours in the Baltic Sea region, thus also contributing towards a self-sustaining network of economic actors.

The successful structural economic change our state underwent over the past twenty years also results from its clear orientation towards cooperation in the region around the Baltic.

It is particularly in the fields of ports and logistics, tourism and health management that Mecklenburg-Vorpommern has built close contacts and networks with the regions around the Baltic. Under the EU Strategy for the Baltic Sea Region, Mecklenburg-Vorpommern took on the work of a coordinator for tourism. And it is this very cooperation with our partnering regions that is underpinned by appropriate specific projects. The Sassnitz-Ust Luga ferry line links us to the Leningrad region, the ScanBalt Life Science network means active work with south-west Finland and amongst other projects, we developed a joint telemedical venture with our Polish neighbours of the West Pomeranian voidvodship.

We should link into these and generate new impetus. For instance, I think of the field of renewable energy. By today, renewable energy, mainly wind power, generates 66 per cent of Mecklenburg-Vorpommern's requirements. To guarantee our needs for the future, I think it would be right to develop a joint concept for wind energy from the countries around the Baltic. I can also see exchanges among the grouping of bioenergy villages. For this we agreed with our partners from south-east Finland to advance a joint project.

It is not only economic cooperation but especially cultural exchange and meetings of people in the Baltic region, which are a central objective of Mecklenburg-Vorpommern. A major role in this is played by cooperation with Poland, especially by partnerships with the Western Pomeranian and Pomeranian voivodships. Together with our Polish neighbours we want to render our contribution to the economic, cultural and regional development of the border area we share and of the Baltic Sea region.

The involvement of Russia in this regional cooperation offers important added value to which Mecklenburg-Vorpommern contributes actively by way of its partnership with the Leningrad area. It is our objective to further widen such good cooperation as we already have in the field of ports and logistics, and to open up new fields such as health management or an exchange of experts and managerial staff. This was also the target of the visit by a party of entrepreneurs both to Finland and to the Leningrad area in October 2012 led by me.

Over and above, the countries of Denmark and Sweden are major partners of Mecklenburg-Vorpommern in the Baltic Sea region. Here, the focus of economic cooperation is on the fields of transport, tourism, health management and trade. It is our intention to further strengthen relations and to open up new fields of cooperation. This is because the closer this cooperation in the Baltic Sea area, the more dynamic will be the economic and cultural development of this region in its entirety.

Erwin Sellering

Prime Minister

Mecklenburg-Vorpommern

Germany

Cooperation of the Republic of Karelia with Finland at the present stage of development

By Alexander Khudilainen

The Republic of Karelia has a common 800-kilometer long border with Finland, therefore the volume and content of interaction with Finnish regions has a direct impact on its socio-economic situation. The Karelian-Finnish cooperation started already in the previous century. From the history of the Soviet-Finnish relations we can underline such a unique example of cooperation as construction in 1974-1984 of the Mining and Processing Combine in Kostomuksha, and the city itself.

Along the transition of Russia to the market economy and liberalization of foreign economic activities, the Russian-Finnish intergovernmental Agreement on Cooperation of Border Regions (1992) laid foundation of the Karelian-Finnish cross-border cooperation in its modern understanding. After that it has developed also within the framework of joint cooperation programmes of Russia and the EU, bilateral cooperation with the regions of Eastern and Northern Finland and established in 2000 the Euroregion "Karelia". Interaction of Karelia and Finland develops in the business sphere, in the fields of culture, higher and secondary education, social and healthcare, ecology and tourism, sport and transport, within twin-cities relations and on the level of people-to-people diplomacy. The results of this cooperation are reflected in establishing of hi-tech enterprises with participation of the Finnish capital, such as "Elektrokos", "AEK", and wood-processing plant "Setles" etc.

At the same time, the traditionally formed model based on raw materials export became by 2008 ineffective and, in general, exhausted itself. Due to the growth of duties on export of unprocessed wood and crisis developments in the world economy, the decrease of the trade volumes began. In spite of the recovery of the foreign trade turnover in general by the year 2011, the trade turnover with Finland continued to decrease.

Under these circumstances, considering, among others, participation of Russia in the WTO, we defined as a priority the recovery of the foreign trade volume with Finland on a principally new level. In order to achieve that, the Government of the Republic of Karelia developed a new investment policy, directed at granting conditions of most-favored nation treatment to investors, it assists to the modernization of frontier and customs infrastructure and transport routes, also intensifies contacts on all levels.

During the last years, a considerable growth of passenger traffic has been noted on the Karelian part of the Russian-Finnish border. Russia's entering the WTO in the future will increase cargo and passenger flows. Therefore the Government of the Republic of Karelia promotes the ideas of construction of a new international automobile border crossing station "Syuvyaoro-Parikkala", reconstruction of railway border crossing stations "Vyartsilya-Niirala" and "Lyuttya-Vartius" (considering the container and passenger transportation in the future). Reconstruction of border automobile roads is being done. A respective agreement on joint actions together with the OJSC "Russian Railways" has been gained.

Thanks to the efforts of the Government of the Republic of Karelia, "VR Group", OJSC "Russian Railways" and Regional Council of the Northern Karelia, at the end of 2012 was arranged a test trip of a passenger train between Petrozavodsk and Joensuu. As a follow up to this event, the issues connected to establishment of a regular connection on this route are being worked out. We are also interested in development of international passenger air traffic. A few versions of renewing flights between Petrozavodsk and Helsinki are under consideration.

The Government of Karelia has developed the new concept of the investment policy, which implies establishing of conditions of most-favored nation treatment to investors, including foreign investors. These measures are reflected in the regional law "On the State Support of Investment Activities", which grants new considerable preferences and privileges.

During the last six months the mentioned new approaches of the Government of the Republic of Karelia have been discussed during meetings with regional authorities of the Northern and Eastern Finland, members of the Government, Deputies of the Parliament and the President of Finland. Our mutual interest to strengthen and develop border contacts was supported also by the Summit of the Advisory Commission of the Eastern Finland.

The work on intensifying foreign economic ties is also done in the sphere of business. The Presentation of Economic Potential of the Republic of Karelia in September 2012 and Business Mission of Small and Medium Enterprises in October 2012 in Helsinki caused a great interest by the Finnish side. At the Forum of the Eastern Finland in October 2012 was signed the Agreement on Cooperation between the Chamber of Commerce and Industry of the Republic of Karelia, Central Chamber of Commerce of Finland and Chambers of Commerce of South Savo, Kuopio and Northern Karelia. In November 2012 the Business Mission of Finnish entrepreneurs visited Karelia. Undoubtedly, such events give an additional impulse to development of our cooperation. The number of business proposals from Finnish companies has grown.

It is clear that we cannot change the situation at once, especially when we talk about large-scale infrastructure projects, such as construction, reconstruction of border crossing stations and border roads, which require major budget expenses. The Government of Karelia has support from the Federal Authorities on the mentioned initiatives, which was expressed during the meetings with the President of Russia Vladimir Putin. At the same time, assistance from the Finnish partners is also important for us. We hope that by the 100-th Anniversary of establishment of the Republic of Karelia in 2020 we will gain positive results from implementation of those basic projects of cross-border cooperation.

Alexander Khudilainen

Head

The Republic of Karelia

Russia

Northern growth corridor – an opportunity for Southwest Finland

By Janne Virtanen

On one hand the Baltic Sea separates Finland from the EU's key market areas, but on the other hand it connects Finland to them. Developing land-sea-land transport chains is important to improve the smooth flow and competitiveness of Finnish foreign trade transports. It is important for Finland that the EU's key market areas can be reached cost-efficiently. Finland's remote location, long distances to main markets, small population, severe climate conditions and great dependency on foreign trade carried by sea set challenges to the development of traffic infrastructure and logistical system. These special conditions require special attention.

The Baltic Sea is a sensitive ecosystem. On the other hand, the Baltic Sea plays an important role in the traffic system of the region, and it still has unused potential for transports. Developing the transport system in the Baltic Sea region puts, however, the environmental aspects in a particularly important position. The growing transport volume presents challenges to the safety of seaborne traffic. Innovations of an intelligent traffic system, such as systems for automatic monitoring of vessels for improved maritime safety, provide a wide range of means for enhancing safety.

The EU's border states, such as Finland, have common interests in developing connections to third countries. In Finland's case the connections to Russia play a key role. In the Baltic Sea region the east–west traffic corridors in particular need to be developed further. The Central Europe–Scandinavia–Stockholm–Southwest Finland–Russia–Asia traffic corridor is an excellent example of a smooth, reliable and competitive transport chain, whose existing connections need to be improved and usage enhanced. This region-structural idea is supported by the previously determined European-wide transport networks, TEN-T and their priority projects, such as the Nordic Triangle and the Motorway of the Baltic Sea.

The severe, exceptional weather conditions due to the northern location and special requirements for arranging traffic connections emphasise the need for a sufficiently dense traffic network. It secures the service level of the network, allows for flexible and alternative transport routes, and optimisation of costs according to the transport needs. Flexibility and optimization mean energy-efficiency and are worth striving for in terms of climate policy.

While developing the regional structure of Southwest Finland, the position of the area in the Baltic Sea region as part of Europe is taken into account. This is affected most by the traffic corridors that pass through the province. An internationally important connection between the EU and Russia goes via Southwest Finland. The regional structure responds to the challenges generated by globalisation. Regions and urban areas have to specialise and network, which leads to an increase in the importance of development zones. The business world needs quick international and national connections. In passenger and goods transports the key question is which urban regions and areas will be accessible by high-speed trains, motorways and good flight connections. Transport systems and telecommunication connections have great importance to the competitiveness and development of areas.

Finland's logistical functioning has done very well on the whole in international comparisons. Although the importance of managing logistics and supply chain for the competitiveness of companies operating in Finland has continuously increased, the biggest challenges directed at the operation of companies come from other sources than logistics. From the point of view of Finland's logistical competitiveness, the most important items of development in Finland's foreign trade are ports, border crossing points, and the main roads leading to them. Finland's competitiveness and functioning of society lean largely on functioning travel and transport chains. The international connections via Southwest Finland are vital to the export industry of the province, but also to the foreign trade of all of Finland. The success of Southwest Finland in logistics is made possible by the increasing supply of logistics services, the Trans-Siberian rail, a bridgehead position toward Scandinavia and the west, uncongested logistics infrastructure, general cost level, availability and permanence of labour, and varied business structure.

The connection between Finland and St Petersburg is a growth corridor for the European internal market, where the number of consumers may be as much as 20 million depending on the method of calculation. The buying power and mobility of consumers are rapidly increasing. The economic, cultural and societal connection between St Petersburg, Helsinki, Turku and Stockholm is a power that maintains the development of the whole of Northern Europe. It is also the most important direction of Finland's economic development. The northern development corridor is a priority project among the future projects of the Finnish transport system, to which the Finnish government as well as cities and provinces along the corridor have committed themselves. The corridor strengthens Finland's national competitiveness and generates conditions for economic growth by developing a transport corridor between the EU and Russia which will attract international players and new business. The northern growth corridor is an opportunity for Southwest Finland, too!

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Finland

Is Russian economy overheated?

By Sergei Guriev

The end of 2012 brought back a debate from early 2008. At that point, Russian economy was growing at 8 per cent per year, and the ministers of economy and of finance engage in the debate on whether Russian economy was overheated. This debate had very tangible policy implications – in particular, whether Russian government and Central Bank had to sterilize oil revenues and capital inflows or encourage spending (and raise its own spending).

The situation is different now – the capital inflows are gone, there is now a net capital outflow (4% GDP in 2011 and 3% GDP in 2012). Also, there is no debate about further increase in government spending – the government understands that it is already spending too much (the government budget is now balanced at $110/barrel oil price – what a contrast with 2007's breakeven level of $37/barrel!). However, there is now a new instrument. Unlike the pre-crisis years when the monetary policy was conducted through the currency exchange market, now the Central Bank has an array of interest rate tools that have a direct impact on money supply. Therefore the issue of overheating has immediate implications for the interest rates set by the Central Bank.

So, is Russian economy overheated? On the one hand, the growth is much slower than it used to be before the crisis. In 1998-2008, Russian economy grew at 7 per cent per annum. In 2009, Russian GDP fell by 8 per cent and in 2010-11 it grew at 4 per cent reaching pre-crisis levels at the end of 2011 – beginning of 2012. Now, the growth slowed down to 3.5% (the data for the year of 2012) or even lower 2-2.5% (in the second half of 2012). Does this mean that Russian economy is under the trend?

Judging by the fact that the Central Bank raised interested rates in September 2012 and kept them high despite the obvious signs of slowdown in the fourth quarter of 2012, the Central Bank believes that Russian economy is overheated. Why can this be the case? There are quite a few observations that are consistent with this view. Unemployment rate is at all-time low at 5.3% (below the levels reached in the summer of 2008 when the oil prices peaked at $137/barrel). Inflation is above the announced target (6.6% in 2012 instead of 6%). Russians do not spend or invest the income that they generate in Russia – instead, there is a substantial net capital outflow.

How can one make sense of these two seeming contradictory views? There is a simple explanation – based on the fact that the investment climate in Russia is poor (and worse than it used to be before 2008). At the current level of investment climate, the potential growth rate is not 7 per cent but more like 2-3 per cent per year. Therefore 3 per cent may well be an overheating and the Central Bank may be right prioritizing disinflation policies. Can Russia grow faster? President Putin set a target of 6 per cent per year and Prime Minister Medvedev announced 5 per cent per year. These targets are certainly possible – Russia's per capita GDP is still reasonably low to allow a fast catch-up growth. When Korea was at a similar level 15 years ago, its economy grew at 6 per cent per year. There is however an important difference: the quality of institutions in Korea – even 15 years ago – was much better than in Russia today. Therefore, if Russia reforms its bureaucracy and judiciary system, fights corruption, protects property rights and competition, it may well follow the same path. In this case 5-6 per cent per year will certainly be possible. If this does not happen, then the slower growth of 2-3 per cent may be the potential GDP growth.

What does this analysis imply for the monetary policy. The Central Bank should fight inflation – and at least make sure that inflation is within announced targets. In the meanwhile, faster growth can be achieved through the structural reforms (rather than macroeconomic policy). All these reforms – including drastic reform of business regulation and massive privatization – are included in Vladimir Putin's 2012 electoral promises. If all these promises (which have been now formalized in his Decrees and his government Action Plan) are fulfilled then the potential GDP growth will certain be different.

So far, there has been no substantial progress in improving Russian investment climate. Russia's positions in international rankings have not improved substantially. Most importantly, investors have voted with their feet. Despite balanced budget and low leverage in Russia (Russian sovereign debt is below 10 per cent of GDP) and huge fiscal problems and high leverage in Europe and the US, capital flows from Russia to the West. The opportunity to improve investment climate, reverse capital outflow and raise the long-term growth rate of Russian economy should not be missed in 2013.

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Russia

Nordic-Baltic financial zone needs a well-functioning banking union

By Piia-Noora Kauppi

The Nordic-Baltic financial zone is continuously becoming more and more integrated and has weathered the financial crisis well. The structural dynamism of the Nordic-Baltic area is unrivalled in Europe. It might well be the most competitive EU region in the coming years. For the Nordic-Baltic financial industry, development of a full-fledged banking union is a key issue. The Finnish financial industry supports single banking supervision and the Single European Rulebook but considers the joint liabilities possibly included in the union very problematic.

Last spring, the Commission presented its vision on deepening the Economic and Monetary Union. A central part in this was the establishment of a banking union. Main political decisions on the matter were made in the EU Council in June and December.

The Finnish financial industry has naturally been following these developments with great interest. We have presented five prerequisites that must be met so that the banking union can function well and promote stability of the euro area financial system. These prerequisites concern the setting up of a single rulebook, a uniform "toolkit" for crisis management, an independent supervisor with strong prerogatives, the harmonization of the financial health of banks and deposit guarantee schemes, as well as the accentuation of the crisis situation responsibilities of the shareholders, creditors and taxpayers of a bank's home country.

We certainly need more cooperation in the form of a banking union, but it has to be planned and executed right. In our opinion, the banking union requires a single rulebook and uniform tools for potential crises. "Banking union" typically refers to a structure that consists of supranational bank supervision, a common deposit guarantee scheme, and joint financing of crisis management measures. The latter can be complexes formed by national funds, or fully supranational arrangements. While single European banking supervision is justified, the union's possible joint liability elements are highly problematic for the Nordic-Baltic banking sector which – despite the challenges it has seen lately – has still largely remained well-capitalized with well-managed balance sheets.

Uniform rules are an essential prerequisite for a well-functioning banking union. Banking union should not compromise the integrity of the internal market, which is the most precious asset the EU has for the financial industry. Bank supervision in the union must be based on a single rulebook that applies to everyone. This is the only way a European bank supervisor can operate efficiently and even-handedly. A single rulebook also helps to guarantee a level playing field for all banks.

It is of utmost importance that the European banking supervisor will be fully independent from the monetary policy decision-making of the ECB. The ECB's monetary policy duties should be kept strictly separate from its supervisory duties. The same applies to the authority responsible for crisis management, when it is established.

In addition to the single rulebook, a single crisis management mechanism is needed for the recovery, restructuring or controlled shutdown of ailing banks. Such banks must be treated in the same way in all countries.

Crisis situations in particular require strong independence from the authorities: the large banks of large member states must be treated equal to the banks of small countries. It must be possible to shut down any ailing bank, if necessary. From the point of view of fair competition, the new supervisor should have the authority to supervise all banks operating in the EU area, not just euro area banks.

The most difficult issue in the whole banking union debate is the concept of joint liability. In addition to single banking supervision, there are plans to include elements of joint liability in the union. These include financing for crisis management and possibly a single deposit guarantee scheme. Such joint liabilities are always highly problematic, because they involve moral hazards. They are particularly problematic at present as there are significant differences in the financial health of individual countries' banks and deposit guarantee schemes.

Before joint liability can be established, the banking sectors and deposit guarantee schemes of all countries should be set on the same line. We cannot behave as if we were starting from tabula rasa. The owners and home countries of the banks should be responsible in capitalizing their banking sector, taking also care of the funding of the deposit guarantee systems and resolution schemes. In many Member States, the banking system must undergo fundamental structural reforms before they can enter under the umbrella of joint liability.

Even if all banks and deposit guarantee schemes are set on the same line when the union is established, we must prepare for the possibility that, regardless of single banking supervision, an individual country or bank may seek to abuse joint liability elements for its own benefit. To decrease moral hazards, it is of primary importance that the liabilities of bank owners and creditors are explicitly specified in crisis management regulations, and that these regulations are also uniformly applied in all situations.

The union must also operate on the basis that if the total liabilities of a failing bank's owners and creditors are insufficient to cover the expenses of crisis management, they must primarily be paid from the deposit guarantee and crisis management funds of the bank's home country and, if necessary, with input from the country's taxpayers. Joint liabilities must only be considered as the very last resort.

Establishing a European banking union is a long-term project. The union must be prepared carefully, and its impact on banks and economies must be thoroughly assessed. It is therefore clear that the banking union is not a solution to the present crisis – its effects cannot be expected in the near future, perhaps not until the next decade.

When the Financial Services Action Plan was implemented during 1999–2004, the EU had a clear vision: to create the most competitive, integrated financial market in the world. There were naturally shortcomings such as reliance on a patchwork of national supervisors. It is important that these defects are now corrected. However, the post-crisis agenda is heavily based on the safety of financial markets, which sometimes leads to over-regulation. There should be nothing wrong with competitive markets that serve the real economy.

We need more crisis-resilient markets, and regulation should foster that. However, we should not become a museum in the world economy. This can only be avoided by balancing safety and efficiency.

The Nordic-Baltic financial institutions and industry associations are already working closely together. Yet, Nordic countries cannot pursue an efficiency-driven agenda by themselves without allies. In this respect we look to countries like the UK, Ireland and the Netherlands. We might not always agree, but in broad terms our interests often meet, and regardless of our differences, we should strive for a common voice.

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Finland

Internal devaluation can work

By Leszek Balcerowicz and Aleksander Łaszek

In the euro-zone, as in other hard peg areas, nominal devaluation vis-à-vis other members is not possible. Therefore, in case of competitiveness and current account problems, the internal devaluation i.e. reducing the growth of wages and prices relative to that other countries. This has been widely known before the creation of the EMU. Nevertheless there has been recently a lot of heated debate on the difficulties and costs of internal devaluation and a lot of related advocacy that the most affected countries of the euro area should just abandon euro and devalue. The empirical part of this discussion usually focuses on the PIIGS (Portugal, Ireland, Italy, Greece and Spain), and especially on the most difficult case among them – that of Greece. Much less attention is being paid to the variation of performance in this group, eg. the fact that Ireland and Portugal have been doing much better than Greece. Almost completely neglected is the experience of Bulgaria, Estonia, Latvia and Lithuania (the BELL) even though it sheds a lot of light on the contested issue of internal devaluation.

During the period 2003-2007 BELL countries experienced enormous inflow of foreign capital, exceeding 100% of their GDP which fuelled credit booms, asset bubbles, inflation and eroded competitiveness. Housing prices more than doubled during this period. The boom went bust in 2008, when the inflow of capital first slowed down and then reversed. The risk premia skyrocketed with governmental 10Y bond yields raising from less than 5% in 2007 to more than 7% in least affected Bulgaria and even above 14% in case of Latvia. Faced with such a dramatic situation the BELL governments have introduced without much delay tough stabilization programmes, reducing general government deficit, on average, by 4.5% GDP in 3 years, between 2009 and 2012 (the largest adjustment of 8% GDP was in Latvia, the smallest of less than 1% GDP in Estonia). It was achieved despite lower general government revenue (average decline of 1.5% GDP) due to significant reduction of expenditures of 6% GDP on average (ranging from 7.6% GDP in Latvia to 4.3% GDP in Estonia). On the other hand in case of PIIGS the expenditure reduction during the same period was twice smaller (3% GDP on average, ranging from 6% GDP in Ireland to 1% in Italy). Simultaneously general government revenues in PIIGS countries rose by about 2% GDP (it ranged from -0.5% GDP in Ireland to 5.6% in Greece). As one can see, fiscal consolidation in the BELL was largely expenditure-based while in PIIGS raising revenue played much more significant role.

An important reason for this radical approach in BELL has been the desire to preserve euro-based currency board at the unchanged parity, widely shared across the political spectrum and by the population. Therefore, the BELL opted for internal devaluation, i.e. the only way available also for the members of the EMU. Another reason for this tough approach was that they could not have counted on the massive support from the ECB or rather that they did not believe that any bail-out in itself could have solved their problems.

After the burst of credit bubble in 2009 the BELL suffered a deep recession with GDP falls ranging from -5% (Bulgaria) to nearly -18% (Latvia). However, already in 2010 growth resumed (with the exception of Latvia, which followed one year later), accelerating in 2011 when all BELL countries benefited from a strong recovery. According to the latest IMF forecasts Bulgarian and Lithuanian GDP will exceed their precrisis, peak levels in 2014. Estonia will achieve the same result in 2015 and Latvia in 2016. This should be compared with PIIGS countries – IMF forecasts that, with exception of Ireland, in 2017 their GDP will still be lower than before the crisis. The initial drop in import and subsequent growth of export, both contributing to GDP growth, indicates rebalancing of the BELL economies. The current account in all 4 countries followed similar pattern, moving from deficits ranging between 25% GDP (Latvia) and 15% GDP (Lithuania) to surpluses and then remained close to zero. Those facts coupled with the data indicating 20%-30% declines in ULC in manufacturing, which can be taken as a proxy of the tradeable sector, show that internal devaluation has been introduced and that it has worked.

Also, the radical adjustment programme has brought down the yields on the BELL governments bond even below precrisis levels (in November BELL yields ranged from 3.22% in case of Bulgaria to 4,11% in case of Lithuania). This shows that proper policies in response to the crisis are capable of producing not only longer-term effects (e.g. growth of employment or of productivity) but also shorter-term confidence effects in the financial markets. The official bail-outs cannot substitute for the latter benefit, certainly not in a longer run.

The BELL countries tell the story of an enormous boom that went bust. Latvia experienced the biggest boom and as a consequence also the biggest bust. In Bulgaria the boom started later and from lower level of GDP thus eroding competitiveness of the country to a lesser extent, before busting. The main point is that due to prompt and radical fiscal, consolidation and other structural reforms all BELL countries are on the growth path again and have quickly regained normal access to capital markets. That is in strong contrast to most PIIGS where policy of muddling through keeps them in stagnation or recession. The Irish policy response of frontloaded adjustment was similar to policies followed by BELL and currently Ireland is the best performing country among PIIGS. Therefore, Ireland should be moved from the PIIGS to the BELL group.

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Academic capacity building on trade for development in Belarus and Russia – contribution of the UNCTAD Virtual Institute

By Vlasta Macku

In the past two decades, countries of the Commonwealth of Independent States, including those in the Baltic rim, underwent a significant economic transformation, moving from centrally planned to market systems, opening their economies, and joining international economic institutions, such as the World Trade Organization (WTO). During this period, the world became more globalized, offering these countries new trading opportunities, but also exposing them to increased competition in international markets.

Aiming to integrate into the world economy in a manner coherent with their economic development objectives, these countries are now faced with numerous challenges. One of these relates to the capacity of governments and society at large to leverage trade as an engine for development.

The development of trade-related capacities in a country depends on the quality of its tertiary educational system. University graduates well versed in international economic and legal issues will be better prepared to analyse their countries' economic potential, defend their trade interests in international negotiating fora, and design appropriate national policies, laws and regulations. Universities can also provide valuable research inputs into government policy decisions.

Recognizing this pivotal role, the United Nations Conference on Trade and Development (UNCTAD), a UN organization assisting developing and transition country governments to formulate economic policies supportive of sustainable development, created, in 2004, a programme for cooperation with academia, the UNCTAD Virtual Institute (Vi).

With support from donors like the governments of Finland, Spain, Japan, Norway, Canada and Germany, the Vi works with 79 academic institutions in 41 countries to enhance the capacity of its developing and transition country members to teach and research international economic and legal issues. The ultimate objective is to help them make their work useful for the formulation of national economic policies. As the needs and priorities of countries vary, so do the forms of Vi support to individual universities. In the Baltic rim, for example, Vi efforts were successfully deployed in Belarus and the Russian Federation (St. Petersburg).

The Belarus State Economic University (BSEU) joined the Vi in 2007. Its immediate priorities were to increase its international exposure, and strengthen the professional capacities of its staff. The medium-term objective was to develop a Master's programme in international economics and to foster the university's cooperation with the government.

In 2008, the St. Petersburg State University (SPSU) became a Vi member, followed by St. Petersburg State University of Economics and Finance in 2010, and the North-West Institute in 2012. SPSU had already been running an English-language Master's programme on the international trading system, but wished to further enhance it by adding up-to-date teaching materials, developing new courses, and offering its students international learning opportunities, a wish shared by the other two Russian universities. The need for qualified experts in this area further increased with the progress of WTO accession negotiations and Russia's WTO membership in 2012.

The Vi offered its Belarusian and Russian members tailored assistance in support of their objectives. It provided professional development for their staff by facilitating the participation of a BSEU lecturer in UNCTAD's training on investment and granting a Vi fellowship to an SPSU colleague. Staff from both countries also participated in UNCTAD's courses on key international economic issues and in Vi online courses on international economic law, and on trade and poverty.

To support their teaching, all universities received bi-annual shipments of UNCTAD publications and Vi teaching materials for their libraries, and were provided access to the Vi online library of research reports, presentations and multimedia teaching resources. The Vi also assisted BSEU and SPSU in the adaptation of its teaching materials on regional integration, investment, and competitiveness, to the context of their countries, and provided advice on the design of the new BSEU Master's programme. Russian faculty and students benefitted from annual teaching programmes at Geneva-based international institutions through Vi study tours, and videoconference lectures on topical international trade and investment issues by UNCTAD experts.

The Vi also used its networking capacity to include BSEU in a capacity-building project led by its German member, the University of Applied Sciences (HTW) Berlin. As part of the project, BSEU received curricular advice and teaching materials used in HTW's Master's programme, and its staff were granted fellowships in Berlin. In 2009, SPSU was the only academic institution from a transition country selected for the WTO Chairs Programme which provides financial support for teaching, research and outreach activities.

Finally, the Vi assisted BSEU in strengthening links with national policymakers by facilitating its participation in the preparation of the UNCTAD Investment Policy Review for Belarus. Their involvement brought BSEU staff an invitation from their government to contribute to the revision of the Investment Code of Belarus and the evaluation of the country's investment climate.

With Vi and HTW support, BSEU launched its English-language Master's programme in International Economics and Trade Policy in November 2012. SPSU's Master's programme is currently at its 10th intake; the university is also frequently solicited by regional government authorities and the business sector for advice and training on WTO issues.

Faced with the rapid evolution of the world economy, it is crucial for universities to keep abreast of the most recent developments and update their teaching and research on a continuous basis. The long-term partnership between the Vi and the universities in Belarus and Russia, based on mutual trust and commitment, provides a substantial contribution to this challenging endeavour.

Vlasta Macku

Chief

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The Council of the Baltic Sea States in the era of regional strategies, networks and projects

By Jan Lundin

The Council of the Baltic Sea States has been blessed with constant improvements in living standards and connectivity in the region ever since its inception 21 years ago by the then two sole EU Members in the region Germany and Denmark. Today, all Member States but three have chosen to join the EU. A third of the GDP of the European Union is produced here, and some 12 percent of the cargo traffic of the world is carried by the Baltic Sea. By most global comparisons, we are doing well.

The challenge for the organization is to adapt to the new circumstances so as to remain relevant. There are plenty of challenges left to address through regional cooperation; one is the remaining large gap in living standards between the "West" and the "East" of the region. Simultaneously, freedom of movement can certainly be improved further. Arguably, we have yet to regain the degree of regional interaction pervasive in our region 100 years ago, before two world wars set us back in a horrifying way.

The yearly CBSS Ministerials or Baltic Sea Summits make it clear to the world that there is a sense of family in the region, and that the countries concerned want to work together. The truly multilateral character of the CBSS enables all Member States to have a say, and to understand each other better when cooperation is pursued. This serves our neighbourhood well.

Another asset are the more than 20 regional cooperation networks of varying kinds associated with the Council. A one million euro large Project Support Facility (PSF) was launched last spring in support of project development endorsed/pursued by such networks. Amongst these are networks as old as the CBSS itself such as e.g. the Expert Group on Radiation and Nuclear Security. One of my personal favourites is the Monitoring Group on Cultural Heritage. The most recent addition is P3CN, a time limited network of civil servants working on public-private partnership (PPP) issues. Financial support for PPPs is available through the so-called Pilot Financial Initiative (PFI), a financing framework established at the Baltic Sea Stralsund Summit in May, providing a credit line to PPPs and "sustainable" SMEs in North West Russia.

The Task Force against Trafficking in Human Beings TF-THB is an excellent example of the CBSS becoming a more project oriented organisation, as instructed by the Riga Summit in 2008. The TF-THB staff at the CBSS Secretariat in Stockholm has produced a training and literature for consular staff in the region on how to handle trafficking victims. Similar work is pursued by the units on Sustainable Development /Baltic 21, and Children´s issues (Children at Risk – CAR). The Units are all supported by stakeholder networks in the region.

New impetus to regional cooperation is occasionally given through high-level initiatives and generous financing focusing on specific areas. In recent years, the EU Strategy for the Baltic Sea Region (EU SBSR) stands out, being the first macroregional strategy for the region, and a test case for the EU. The strategy has improved transparency in regional cooperation, and the CBSS is together with e.g. Helcom and the Northern Dimension one of several platforms on which EU SBSR cooperation can occur, with participation also by non-EU BSR countries. The CBSS Secretariat has central coordinating responsibilities in civil security cooperation on land, sustainable development and the modernization partnership for the South Eastern Baltic Area (SEBA), a recent cooperation effort focusing on Kaliningrad and surrounding countries/regions.

These and other areas simultaneously harbour a cooperation potential also within the framework of the recently enacted Russian Strategy for Socio-Economic Development of the North-West Federal District until 2020, and the Baltic Sea States Summit in Stralsund in May last year tasked the CBSS to explore this. In the environmental sphere, the Baltic Sea Action Summit (the next one to be organised in spring in CBSS format by the Russian Chair-in-Office in St. Petersburg) and NGOs such as the Baltic Sea 2020 are good examples.

Whenever transparency improves, the risk for duplication and overlap diminishes. One must also take care not to mistake similar activities within different constituencies as duplication. For instance, within the field of Maritime Policy, there are several regional groups active, but they organize varying stakeholders, and thus complement each other. The CBSS Expert Group on Maritime Policy gathers civil servants to discuss issues such as e.g. compliance with new strict emissions requirements for maritime traffic ("clean shipping"), and interacts with other stakeholders on this. It also prepared and executed the recent (5 Dec) CBSS Transport Ministerial in Moscow.

Communication is of course crucial to the CBSS. Anyone visiting www.cbss.org will now find that the homepage offers not only news and basic info, but also access to social media on the internet. It is today possible to interact with the Secretariat through some 70 internet platforms. For former employees of our organisation, an alumni network has been created. An electronic newsletter, *Balticness Light*, has replaced the printed *Balticness*. Feel free to be my friend on Facebook! http://www.facebook.com/cbssdg.

Jan Lundin

Director General

CBSS International Secretariat

The Baltic Sea region and the Pan-European Institute

By Kari Liuhto

The Baltic Sea region (BSR) has been in the core of the research activity of the Pan-European Institute (the PEI), since the foundation of the institute in 1987. The PEI has produced numerous research reports related to the region. Recently, the institute has published reports concerning energy infrastructure and innovation activity in the BSR, which are freely downloadable at the following site. http://www.utu.fi/en/units/tse/units/PEI/reports/Pages/2012.aspx

In addition to academic research, the PEI has also conducted contract research on the Baltic Sea region, for instance, for the Prime Minister's Office of Finland, the European Parliament, and the European Commission. The latest report funded by the European Commission deals with the competitiveness of the maritime cluster in the Baltic Sea region.http://www.utu.fi/fi/yksikot/tse/yksikot/PEI/tutkimus/Documents/SmartComp%20Research%20Report%201,%20December%202012.pdf

At the moment, the Pan-European Institute actively participates in the building of the Baltic Sea databank, called Domus Baltica. http://www.centrumbalticum.org/en We wish that by the end of this year the databank has received its place among the leading BSR databanks. Should you wish that your report, article, or presentation related to the Baltic Sea region will be included in the databank, please send it to Ms. Helena Erkkilä (Helena.Erkkila@centrumbalticum.org).

At the end of October (24.10.2013), the Pan-European Institute together with the Centrum Balticum, Finland's national BSR think tank, organises for the first time national BSR Research Forum targeted to Finnish researchers interested in the region at the Forum Marinum. www.forum-marinum.fi/en/

Prior to the BSR Research Forum, the Centrum Balticum organises national BSR Policy Forum dedicated to Russia due to Russia's presidency at the Council of Baltic Sea States. The BSR Policy Forum will be held in May (23-24.5.2013), and it will gather over 200 Finland's leading experts specialising in the BSR at the Turku School of Economics. The programme of the event can be found at the website of the Centrum Balticum. http://www.centrumbalticum.org/en

The Baltic Rim Economies (BRE) review is one of the flagships of the PEI. Since the beginning of the review in 2004, over 1000 experts have written an article related to the Baltic Sea region. In the future, some of the BRE writings will end in the new information service called newsWave, giving even more visibility to the ideas expressed in the BRE review. In addition to interesting columns dealing with the Baltic Sea region, we will produce a special issue on the Arctic region, which will be published in March.

The Pan-European Institute puts a lot of emphasis on the distribution of the Baltic Rim Economies (BRE) review. Currently, the review spreads into tens of thousands of readers in over 80 countries. We are extremely grateful that the City of Turku, the Turku Chamber of Commerce and the Centrum Balticum continues collaboration in producing the BRE review, which probably is the world's largest virtual discussion forum on the Baltic Sea region affairs. We warmly welcome our two new strategic partners in the BRE collaboration, namely the Baltic Development Forum and the John Nurminen Foundation.

In the autumn, the Pan-European Institute continues producing the special courses related to the BSR, and moreover, the PEI arranges the Studia Generalia devoted to the Baltic Sea region. We also plan to organise some join events with the Royal Society of Arts – Baltic Sea Region. http://rsabalticsearegion.org/

The University of Turku, the Regional Council of Southwest Finland, and the City of Turku are deeply committed to developing their Baltic Sea activities, and hence, I am convinced that Turku will strengthen its status as the Baltic Sea Hub of Finland. The status will be reinforced this year by the festivities of the 60-year-anniversary of the friendship city cooperation between Turku and St. Petersburg. And there is a lot more to come...

Kari Liuhto

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Finland

Energy efficiency in Russia – experiences from Kaliningrad region

By Hans Brask

According to the International Energy Agency (World Energy Outlook 2012), Russia is the world's fourth-largest energy user. According to various studies it has a technical and social potential to decrease its energy consumption by 45%. What a potential!

The Russian Government has taken legal initiatives in order to improve energy efficiency (EE) and energy savings (ES) on all levels of the society. With the Federal Law nr.261 (2009), the objective is to achieve 3% energy efficiency improvement each year and to reduce energy consumption by 15% in 5 year. How can this huge Russian potential be released – what needs to be done? The answer is of course very complex and a satisfactory answer cannot easily be made but maybe Kaliningrad could become a role model.

Baltic Development Forum has gained some insight into the issues through working closely with Russian partners on both municipal, regional (oblast) and district level (Northwest District of Russia) within the project Energy Efficiency and Renewable Energy Solutions in Kaliningrad Oblast (RENSOL www.rensol.eu), which is a partly EU-financed project in Kaliningrad, within the Northern Dimension Environmental Partnership. The perspective is regional and de-central and valuable lessons have already been learned from this cooperation.

The dialogue is open, frank and lively. However, often it turns out to be mainly a dialogue between our Russian partners themselves. There seems to be a big need and demand for consulting, coordinating and discussing these matters between different authorities and other actors in Russia.

The first lesson learned is that there is a need to facilitate better vertical coordination procedures where all relevant local stakeholders are involved and/or consulted. Decision-makers on district and federal levels should also be invited as far as it is possible, not least to obtain political support and awareness of the initiatives.

It is very complex to ripe all the benefits from EE and ES in any society. It requires that all parts of society are mobilised. It includes public information, education and behavioural change of energy consumers, companies and households, and it demands a wider participatory approach. It cannot only be centrally planned.

The second and related lesson is that the Russian society seems to be much better equipped to introduce big-tech solutions, as opposed to small-tech solutions, in the energy sector. This is also reflected when EE and ES policies are made. "Big-tech" represents in this regard the big power producers close to the decision-makers at a federal level where the solutions tend to focus on new and efficient power plants and interconnections. In the case of Kaliningrad, the solution to the challenges of the oblast seems to be the construction of a new Baltic Nuclear Power Plant (BNPP).

There is a strong tradition that national politicians work closely in partnerships with universities and energy planners in finding large scale technological solutions without greater involvement of local authorities or the general public for that matter. According to this tradition, national energy planning is for centrally placed decision-makers, experts and engineers and not for economists, market analysts and local politicians.

Contrary to this tradition, small-tech solutions require the role of active consumers responding to price signal and incentives when investing in energy-efficient appliances, equipments and buildings. In the Kaliningrad case, it requires the involvement of the municipalities, representatives of flat-owners, tenants, businesses and NGOs. From working in Kaliningrad one gets the impression that municipalities as well as NGOs, local organisations, non-commercial partnerships, energy saving unions and other non-state initiatives have started to come out and that this new voice is gradually being more and more listened to.

Ideally big-tech and small-tech solutions should interact and be mutual supportive but often they seem to stand in the way of each other. The big-tech solutions often remove incentives to change behaviour because energy prices stay very low. An additional element is that energy prices are often seen as part of the country's social policy.

What is a very positive experience from Kaliningrad is that the will among most actors to introduce EE and ES measures in order to improve the environment and prevent climate changes. The issue is taken seriously, and there is also an interest to invite neighbours from the Baltic Sea Region into a closer cooperation in the field. The regional authorities and the municipalities want to learn, not least from Nordic municipalities and cities. We have also witnessed that Kaliningrad's EU neighbours are willing to provide the information and knowledge they possess on best available practices and technologies.

The district administration in St. Petersburg pays a lot of attention on Kaliningrad region because this region and its municipalities have come relatively far in its energy planning and in various EE and ES initiatives. There is a real chance that Kaliningrad can become a role model in the Northwest district of Russia and an example for others to follow. It makes it even more interesting for foreign partners to come to Kaliningrad. This vision for Kaliningrad needs to be supported by all the EU countries in the Baltic Sea Region.

A further lesson that has been learned is the need to overcome the obstacles imposed on the entire EE and ES sector by the lack of clear market incentives and the challenges linked to the need to develop adequate financing mechanisms and tools. The lack of information on available financing solutions is one of the main barriers for EE investments in Russia. As part of the RENSOL project, we will identify existing global EE financing practices with a special focus on the Baltic Sea Region experience. The main goal is to propose "up-front payment sensitive EE financing solutions" aligned with the specific legal and economic characteristics of Kaliningrad Oblast and North-West Russia, but no magic formula does exist.

Energy efficiency ought to be a booming business sector in Russia. A lot of money can be saved and used for other economic and social purposes. In the Russian case, it is even more interesting because what is saved can be earned through higher energy export revenues. Russian EE initiatives should attract economic interest of companies and business partners on a global base, especially the neighbouring companies in the Baltic Sea Region with some of the most energy efficient countries and some of the best clean-tech industries in the world.

This leads to the final of lessons learned so far: The need to involve the private sector more in the EE and ES projects. Russian decision-makers on all levels should be more aware of the different energy solutions available, not least the solutions in the small-tech area. It can be a complex and sensitive matter to involve the private sector in projects in a country that is trying to reduce the level of corruption and mismanagement of public funds.

Still, the Russian society will benefit considerably from having access to the latest technologies, products and project skills developed in the private sector. Perhaps public-private partnerships do not work in Russia yet, but at least there are obvious opportunities to improve the public-private dialogue. It is possible our RENSOL project cooperation has shown in Kaliningrad.

Hans Brask

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Baltic Development Forum

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FinlandCare – health from Finland

By Eero Toivainen

Well-known Russian pediatrician, Professor Leonid Roshal, executive director of Moscow Clinical and Research Institute of Emergency Children's Surgery and Trauma said in FinlandCare seminar held in Moscow November 22nd 2012 that Russia spends 3-4% of its GDP on health care. He compared this situation with that in Finland, where 8-9% of the GDP goes to health care. In absolute terms the state of Russia spends about 4 times less money on health care per person than Finland. This means the demand for medical treatments abroad will not disappear from Russia in the short term.

FinlandCare program promotes Russian health tourism to Finland and supports the internationalization of Finnish private healthcare and wellbeing service providers. The program brings together the most distinguished Finnish healthcare and wellbeing service providers to offer services of uppermost quality. It offers a vast variety of medical treatments and procedures that meets even the highest demands. With highly skilled doctors and medical staff and cutting-edge technology at our disposal, the variety and quality of care are truly world class.

Every year tens of thousands Russians travel abroad for medical treatments and the trend is expected to grow. According to Finpro survey, price and reputation of a clinic or a doctor are the main facts that determine the Russian customers' choice. The other very important factors are high quality of health services and the availability of specific treatment and healthcare technologies that are not available in Russia, and Russian-speaking staff. Russian customers' geographical preferences are not among the main decision-making factors.

However majority of medical tourists from the Russian Federation choose treatment in Israel. Germany is on the second place. Among the areas gaining popularity among Russian medical tourists during last years are countries such as Turkey, Singapore and France. Swiss doctors are traditionally in demand among Russian middle class representatives. Sociologists also noticed growing interest in Eastern European countries, as their governments and the private sector are actively promoting their opportunities in health tourism.

FinlandCare started on 2010, when the Ministry of Employment and the Economy (TEM) appointed a working group to prepare a strategy promoting the internationalisation and export of nursing and care services. In pursuing the objectives of the Ministry's strategic welfare project, preparatory work was aimed at the internationalisation of enterprises within the social and health care sector, while strengthening the prerequisites for exporting the related services.

Suggestions by the working group include continuing the strategic development of the welfare sector and welfare entrepreneurship, and promoting the sector's prerequisites for internationalisation. A proposal was made for the establishment of an internationalisation network, with a long-term focus on strengthening the prerequisites for the internationalisation of businesses and exports in the sector. It is proposed that, within the Ministry of Employment and the Economy's administrative sector, resources reserved for promoting internationalisation be focused on the welfare sector. In addition, the working group proposes the creation of an operating model for developing the prerequisites of the productisation and commercialisation of service concepts, research competence and expertise in the social and health care sector. As further work, it is suggested that an operating model be investigated for coordinating services and cooperation between service providers, in connection with clients arriving for medical procedures from abroad. FinlandCare has partly influenced that new firms have been founded specifically to offer operator services as proposed by the working group.

The aim of FinlandCare, the internationalization network, is that the Russian client service and website makes it easier for Russians to find out more about the services and come over for the treatments. FinlandCare.ru website offers information about Finnish healthcare and wellbeing services and a Russian speaking healthcare professional connects the interested Russian customers and Finnish private service providers.

Over 20 Finnish private healthcare and wellbeing companies participates FinlandCare program. They are selling and marketing their services in Russia and developing their business in the Russian market. Treatments include for example in following specialties: cardiology, oncology, internal medicine, hematology, gastroenterology, rheumatology, pediatrics, psychiatry (incl. psychotherapy and psychological testing), ophthalmology, neurosurgery, surgery, heart surgery for children, oral and maxillofacial surgery, vascular surgery and orthopedics.

FinlandCare is a unique program uniting Finnish healthcare and wellness service providers under the common FinlandCare brand. FinlandCare has been developed as a joint effort between the Finnish government and leading Finnish healthcare and wellness service providers.

Our aim is to offer the best possible overall experience for anyone seeking healthcare or wellness services in Finland.

We promise our customers the following core benefits:

Top quality offering
Finland excels in many areas of healthcare and wellness. Our aim is to offer our customers a wide selection of the very best services on our common platform. Regardless of our customers' needs, we can offer high quality, internationally competitive services.

Convenience
Coming to Finland is in its simplicity and convenience an experience of its own. FinlandCare takes that experience even further, making sure that distractions and hassle are replaced by peace of mind and focus.

Safety, security and reliability
Finland is one of the safest places on earth. The unique combination of a reliable and safe system with the sincerity and integrity of our professionals creates an overall experience, which is very hard to find anywhere else.

Eero Toivainen

Senior Consultant

Finpro, Life Sciences

Finland

Gazprom on the antitrust ropes

By Alan Riley

The launch of the European Commission's investigation into Gazprom on September 4th is extremely serious for the company. The EU investigation is no small bureaucratic inquiry which can be swept under the carpet. This antitrust investigation is being undertaken by the Commission's DG Competition, the US Marine Corp of the European Union. As Microsoft knows to its cost they do not give up and they do not tend to lose cases. In fact DG Comp have not lost an abuse of dominance case before the EU's European Court of Justice since the competition rules came into force across the continent in January 1958.

DG Comp does not launch investigations unless it has already obtained a substantial amount of evidence. That evidence in all likelihood was picked up in its raids of Gazprom's premises in the Czech Republic and Germany in September 2011, and from complainants and its own extensive market monitoring operations. Furthermore, once an investigation is launched more complainants usually come into the Commission with more evidence further extending and expanding the inquiry.

Gazprom's leadership have a lot to worry about. The initial focus of the investigation is in respect of three key issues. Firstly, hindering the free flow of gas by dividing markets. This is most likely a reference to destination clauses restricting resale of gas. Any such 'no resale' clauses in gas supply contracts have the effect of splitting up the single market and are per se illegal. Secondly, the Commission baldy says that 'Gazprom may have prevented the diversification of the supply of gas'. This is in large part a reference to steps that may have been taken to deny third party suppliers of non-Gazprom controlled gas access to pipelines. It could also be a reference to attempts to frustrate the building of other gas facilities including LNG stations and alternative pipelines.

The great problem for Gazprom is that the abuse of dominant provision contained in Article 102 of the Treaty on the Functioning of the European Union is much broader in its effect that its US equivalent, the monopolization provision contained in Section 2 of the Sherman Act. Article 102 imposes a 'special responsibility' on dominant companies to respect competition. This special responsibility obligation becomes much more onerous when a business is super dominant. Given that in most of the CEE and Baltic States where the investigation is focused Gazprom has market shares of upward of 50% of total gas consumption, and in some states as high as 100%, these obligations can become extremely onerous.

Many CEE and Baltic States governments may question whether Gazprom has ever taken its antitrust 'special responsibility' seriously. The Lithuanian government for instance alleges a range of threats made against it due to its desire to fully liberalise its gas market. It is clearly observable at least, that Lithuania pays some of the highest gas prices in Europe, which may or may not be connected with the liberalizing decision of the government.

However, the most threatening element of the Commission's initial statement on the investigation to Gazprom is the third focus of the inquiry into the link between oil and gas prices. The linkage of gas prices to oil is vigorously defended by Russian energy officials. They fear that given the liquidity of modern gas markets due to the shale gas boom and the upsurge in LNG production any major break in the link will threaten Gazprom revenues.

Unfortunately it is difficult to justify that linkage in the modern European economy. In the 1960s when oil fired power stations were common across Europe it was not unreasonable to tie long term supply contracts for gas to the oil price. Due to the 1970s oil crises and environmental regulations over the following four decades Europe no longer uses oil to generate power. According to the IEA only 3% of power is generated from oil, whereas gas is overwhelming deployed for power generation.

The antitrust question here is whether it constitutes an abuse of dominance for a dominant firm to seek to impose a method of imposing price which has little relevance to the market in which it operates? Gazprom can legitimately argue that the law on exploitative pricing in limited. However, the Commission is also likely to take account of the lack of justification for the oil link combined with the fact that when prices were very low in the late 1990s and early 2000s, it sought to escape the link.

Undermining the oil price link would clearly undermine Gazprom's current business model. There may still be worse to follow. DG Comp in the CEE and Baltic States can only go back to 1st May 2004 to investigate anti-competitive behaviour under EU law, as that is the date of accession to the EU of those states. However, under the Europe Agreements all those states agreed from approximately 1994 onwards to enact EU equivalent antitrust provisions into their national law. One major additional danger for Gazprom is that the National Competition Authorities of the CEE and Baltic States may launch a combined parallel investigation into their operations from 1994-2004. This could significantly widen the scale of the investigation and the extent of the liability of the company.

There is also the prospect that private antitrust litigation firms also move into the CEE and Baltic States to encourage energy intensive users, energy companies and consumers to follow on Commission and national investigations with civil damages claims. Such claims would be able to run under EU and national law back as far as 1994 with interest from the date of damage.

The initial statement by Gazprom that it is registered outside the EU and is a 'strategic organization administered by the government' will cut no ice in Brussels. As long as Gazprom trades within the EU and sells gas there it is a subject of EU law.

Gazprom needs to move fast to recognize the real threat to its business from the DG Comp investigation. Its best approach would be to seek a private antitrust settlement. Gazprom could offer remedies to address the Commission's concerns; offer compensation and introduce reforms to its practices. Robust defence may be heroic, but it will ultimately prove futile. Ask Bill Gates.

Alan Riley

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Liberalisation of the Estonian gas market

By Taavi Veskimägi

In 2009, the European Parliament and the Council approved Directive 2009/73/EC with the main purpose to create efficient competition in the gas sector, to establish access to natural gas for all markets as well as increase the security of supply for consumers.

As one of the main measures in the development of gas markets, the requirement of ownership unbundling of the system operator was established. According to the preamble of the Directive, "without effective separation of networks from activities of production and supply (effective unbundling), there is a risk of discrimination not only in the operation of the network but also in the incentives for vertically integrated undertakings to invest adequately in their networks".

The Government of the Republic of Estonia supported the proposal of the European Commission on the implementation of ownership unbundling upon the development of the directive. It was indicated in the explanatory memorandum to the decision of the Government of the Republic of 01.11.2007 – "The Position of Estonia on the Third Energy Package of the European Union". However, it was considered necessary to apply for an exception, as the global gas sector seemed entirely different at that time. It seemed unpromising to develop a competition-based gas market in Estonia with just one gas supplier and a single supply chain.

Within the last three years, important developments have taken place in the gas market:

- Rapid development of the non-conventional gas sources (incl. the shale gas);
- New possibilities in liquefied gas transportation;
- Increased attractiveness of gas use due to its low CO_2 emission;
- Changes in gas pricing models;
- Significantly greater liquidity and dynamics in the global gas market;
- Problems with the development of gas fields in the Russian Federation (Stockman and Yamal developments) and the increasing demand in the Northwest Russia leading to additional capacities of Nord Stream;
- Implementation of BEMIP infrastructure projects.

Based on the aforementioned changes, the Government of the Republic of Estonia prescribed in its action programme 2011–2015 the ownership unbundling of the system operator in order to increase the security of supply and bring competition to Estonian gas market and therefore enable Estonian consumers to benefit from the spot and oil price linked arbitrage (currently, Gazprom's maximum price in Estonia about €40/MWh vs. the spot price based price in Tallinn about €30/MWh (Ramboll survey "Pre-Feasibility Study for an LNG Terminal in Tallinn)).

In order to prepare the action package necessary for the liberalisation of the gas market, the Government of the Republic, with the decision of a government meeting of 4 November 2010, obligated Elering AS to develop gas market related competence.

Based on the mandate, at the beginning of 2011 Elering ordered a report from Pöyry Management Consulting in purpose to analyze the possibilities and effects of fully opening the Estonian natural gas market for competition and how this would affect Estonian gas consumers. The bottom line of the report was that in order to open the natural gas market, Estonia has to carry out a whole package of activities, including:

- Creating new natural gas supply chains by establishing a liquefied gas terminal and a Lithuania-Poland gas link;
- Linking the small gas market of Estonia to the larger common market of the Baltic States and Finland which operates under the same set of market rules;
- Introducing new market models which would enable to develop a competitive gas market and provide Estonian consumers with more advantageously priced natural gas.

The report also pointed out that the existing gas monopoly in Estonia would not be interested in such developments in the gas market, as the opening of the market and the entry of new gas suppliers into the market would impair their business. According to the report, the establishment of an independent system operator is the main precondition in terms of taking the next steps in the development of the gas market.

The Natural Gas Act Amendment Act prescribes an obligation to carry out ownership unbundling of the gas network by no later than 1 January 2015 (the amendments entered into force on 08.07.2012). AS Eesti Gaas is obligated to sell the natural gas transmission network to a company that would not, directly or indirectly, be related to the production or sale of natural gas.

Simultaneously with the unbundling of ownership of the transmission network, a number of other measures related to the development of a functional gas market have been taken up.

1. Establishing a regional gas market for the Baltic States and Finland, which shall involve the following elements
    - Consolidating markets – developing a joint harmonised market regime, including:
        - Introduction of the entry-exit model;
        - Equitable rates;
        - Free movement of gas from one state to another;
    - Establishing a regional gas exchange;
    - Establishing a gas release programme;
    - Ensuring third party access (TPA) to the infrastructure by legislation;
    - De facto opening of the market and informing consumers – it is planned to create a working group for the analysis of gas trade opportunities;
2. Establishing a cross-border infrastructure. (Ensures the precondition that in terms of security of supply the 100% N-1 criterion would be met. The state shall ensure the compliance with N-1=100% by 3

December 2014, currently compliance with the criterion is 59.2%)

- BalticConnector (Estonia-Finland gas pipe) – connects the markets and thereby supports competition and increases the security of supply;
- GIPL (Lithuania-Poland gas pipe) – enables limited access to the Polish LNG terminal and the liquid gas market of Western Europe.
- Development of a regional LNG terminal in Estonia.

3. Creation of opportunities to use gas

- 2012–2013 the "Energy Sector Development Plan" shall be updated in the process of which the potential for gas use in the Estonian energy portfolio shall be determined. The most important factors include the possibilities/need for balancing wind energy, increase in natural gas use in the district heating, potential for using natural gas instead of oil shale for power generation post 2023 when the lifetime of oil shale blocks expires.
- Bunkering of ships (SECA requirements as of 2015)
- Several measures that create the basis for the increase of gas use in sea and road transport (studies for promoting the biogas sector carried out within the framework of the SPIN-Project in the Baltic Sea Region regarding Estonia as well as the whole Baltic region, meetings in regard to the project).
- Elering has started to carry out a survey on the potential for using liquefied gas instead of shale oil in district heating power stations and the chemical industry.

None of the aforementioned decisions can be made unless there is certainty that the gas market shall be free and effective in terms of competition. The planning and carrying out of these measures in cooperation with Finland, Latvia and Lithuania shall be, as in the development of the regional electricity market and activation of the Nord Pool Spot electricity exchange in Estonia, the obligation of the gas system operator.

Taavi Veskimägi

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Elering AS

Estonia

Elering is an independent electricity system operator in Estonia who owns and operates 110−330 kV power lines and crossborder connections. Elering manages the Estonian electricity system in real time, ensuring the functioning of the transmission network as well as the balance between production and consumption.

Russian geostrategy in the energy sphere in the Baltic Sea region

By Irina V. Zeleneva

At the beginning of the 21st century Russia more actively integrates into world market of energy resources, taking an active part in all command centres of world energy security. Global character of energy problems, its politization and Russia's increasing role on the world energy arena raised energy issue to be one of the major elements, which Russian foreign politics at the moment lies upon.

Selected countries of the Baltic region, which are the object of study in this article, Latvia, Lithuania and Estonia, all have a similar geographical location and historical past. Baltic Sea countries share a common history, and there were conflicts in which common interests often prevailed despite disagreements. One of the best examples of such co-confrontational type was a Swedish company Nobel Industries. Nobel Industries (Company "Branobel" in Russia) played a decisive role in the development of the Baku oil fields, as well as in the history of the Russian oil industry. Before World War I the company continued to implement a large-scale commercial activities in Russia, despite the fact that at that time, Russia was the main military threat to Sweden. This and other facts are examples that the Baltic Sea has often served as a unifying rather than divisive factor in the region's history, how it should be today.

At the beginning of 21st century, the configuration of the global energy market has begun to change due to a wide variety of both political and economic reasons. The formation of a European common gas market in the world of fierce competition among world exporters for short-term and long-term contracts, the growth of energy consumption in China, Japan, India, the growth of trade in liquefied natural gas "shale revolution" are the most important.

Russian energy policy nowadays is based on the fact that Latvia, Lithuania, Estonia and partly Poland are mostly focused on importing energy resources. For a long time during the Soviet period, Russia had a monopoly on the supply of natural gas to the Baltic states, but at that time the RSFSR was a friendly republic. Now Russia is politically perceived as an external threat to the energy security of these countries. Global political risks and the changes in the international security sphere forced the region to look for ways to stabilize energy supplies.

Russian nuclear energy policy is built upon the challenges it is presented with. In 2009 the EU shut down the Ignalina Nuclear Power Plant in Lithuania because of the environmental risks. Lithuania, Latvia, Estonia and Poland made a decision to build the Visaginas NPP, using Japanese technology (although Poland in 2011 withdrew from the project). Poland and Estonia had since declared their intention to build their own nuclear power plant.

A so-called "third energy package", adopted in 2009, became a challenge and a threat to Russia's energy policy towards the countries of the European Union. The ideas of the "third energy package of the EU" are based on two principles. The first one, «Unbundling», states that the entity should not simultaneously produce energy resources and organize their delivery to the EU. The second principle, «TPA - third-party-access», claims that in addition to the provider and consumer of gas (as two parties of the process), third parties also may use the infrastructure of transportation, pipelines. Without a doubt, these principles are a threat to the energy security of Russia, and, above all, "Gazprom", which, firstly, in most cases, provides transportation of gas to Europe, and, secondly, feels threatened by the emergence of new investment in infrastructure.

Russian "Gazprom" and other energy companies with state participation seek to maintain a stable relationship with the traditional consumers of Russian energy. But at this point and in this region they realize what is known as "geopolitical" approach, defending national interests, for economic prosperity largely depends on exports. Is it possible to change their ways and to go from a geopolitical approach to geostrategic (integrative) one for the region - that is the question. This will depend on whether the Baltic countries are willing to transform from "the last bastion of the West" to "the bridge between East and West." Signs of geostrategic (integrative) approach can be found in the energy policy of Russia in regards to Poland.

In our opinion and according to the geostrategical approach, for a successful energy policy in the region Russia has to balance its own interests with those of the Western European countries, consumers of Russian resources. Perhaps, it would be a wise long term strategy to accept the "third energy package" in the future. At the same time in Europe, not all Western experts agree with the necessity for urgent liberalization of the energy market. The root of their doubts lies in realizing that in this case, Russian may tighten the gas supplies, the alternative to which would be extremely difficult to find. And that will adversely affect the Baltics. The best option for Russia would be the soonest commissioning of the Baltic NPP and participation in the project "The Baltic Energy Ring," which would unite together all countries around the Baltic Sea.

Energy Policy of Russia in the Baltic Sea should be determined by the following three "i" notions: involvement, integration and innovation. We consider them to be not three different approaches, but three components of Russian geostrategy at present, including the energy dialogue between Russia and the EU.

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Russia

Gas – the last frontier in the bilateral relations between the Baltic States and Russia

By Agnia Grigas

Gas is poised to be the main flashpoint in relations between the Baltic states and Moscow in 2013. The ongoing international arbitration between Vilnius and Gazprom as well as the EC's investigation into the latter's monopolistic practices demonstrates that the ongoing gas tensions have transcended the political realm. The 100 percent dependency on Russia's gas remains the last and most potent vestige of Soviet imperialism and now collides with Baltic and EU's efforts at diversification. The main agenda in the Baltic gas sector for 2013 and upcoming years is centred on 1) gas sector unbundling; 2) gas pricing negotiations and 3) diversification efforts via liquefied natural gas (LNG).

EU's 'unbundling' policies call for a separation of the ownership of transmission and distribution of gas from supply. Because Baltic gas dependence on Russia is made more acute by the fact that Russian gas is imported solely via Soviet-era Gazprom-owned pipelines, unbundling is central to any effort to mitigate Baltic gas infrastructural predicament. In the Baltic states, where Gazprom holds significant shares of Baltic gas companies Eesti Gaas (37 percent), Latvijas Gaze (34 percent), Lietuvos Dujos (37 percent), 'unbundling' means potentially splitting up these companies into two separate operations.

Lithuania had taken the lead in its pursuit of 'unbundling' with a law calling for the transmission networks of Lietuvos Dujos to be shifted to the Lithuanian state. Gazprom, Lietuvos Dujos, and even Vladimir Putin have tried to change Vilnius' stance towards unbundling by indirect threats of higher gas prices, international arbitration and media assaults. In mid-2012, Vilnius and Gazprom reached partial agreement at UNCITRAL, but Gazprom reserved its arbitration rights. The newly elected centre-left Lithuanian government is likely to move slower on unbundling and seek compromise with Gazprom, leaving Estonia to carry the torch in 2013. After initially seeking exemption, Tallinn also passed legislation in 2012 calling on Eesti Gaas to sell its pipeline unit by 2015. In contrast to its neighbours, Latvia continues to seek exemption from 'unbundling' until 2014. Riga favours less stringent policies that let Latvijas Gaze retain ownership of transmission operations by making them legally independent stock companies.

In recent years, the Baltic elite have complained that Russia uniquely discriminates against them in gas pricing in comparison to neighbouring states and EU members. In 2012, following an official complaint by Lithuania, the EC launched a formal antitrust investigation against Gazprom's activities and unfair pricing in the Baltics and Central Europe. The investigation could put pressure on Gazprom to alter its pricing model from oil-linked to hub-based prices – a change Gazprom has historically strongly resisted. However, if the investigation fails to deliver results, the Baltic states will be further disadvantaged as Europe moves towards hub-based prices because as 'gas islands', they will not have access to European gas markets. Meanwhile, Vilnius in 2012, filed a claim against Gazprom for $1.9 billion in alleged overpayment for gas. Even though the new Lithuanian government is likely to seek a compromise agreement, lower gas prices are unlikely for any of the Baltic states without a stronger negotiation position which can only be achieved by diversification of gas sources or links with European gas markets.

To-date the Baltic states have made little progress towards gas diversification other than supporting EC's Baltic Energy Market Interconnection Plan (BEMIP), which includes a number of gas projects such as a land-based LNG terminal, a floating LNG terminal, 'LitPol Link' gas pipeline with Poland, and LNG storage in Lithuania among others. However, none of these projects have moved past the planning to the execution stage due to costs, institutional weakness, and vested interests in the gas sector. The LNG terminal has been delayed because of disagreement of participating states over its location. Warsaw has dragged its feet on the 'LitPol Link' but the appointment of an ethnic Pole as the Lithuanian Minister of Energy is hoped to help the project.

Despite these hindrances, LNG has gained traction in all three states resulting in competing plans: a floating low-cost terminal in Lithuania and a land-based terminal to meet needs of the whole region in one of the Baltic states. In 2012 the Lithuanian parliament approved plans for the floating terminal, but it is unlikely to be implemented by the deadline of 2014 with the new government still to take a position on the project. Latvia and Estonia have emerged as the most likely contenders for a land-based terminal, and an independent study led by the EC seemingly concluded that Estonia would be the best location for a regional terminal providing Finland joined the project. The completion of such a floating or land-based terminal would significantly alter the region's gas security, especially if the terminal remains in the ownership of the state or Western investors. The possibility of having alternative sources of gas could strengthen the Baltic bargaining position vis-à-vis Gazprom regarding gas prices and increase gas security.

While 2013 is unlikely to bring diversification of gas for the Baltic states, progress with 'unbundling' and a reassessment of gas pricing is in the cards, which will certainly raise tensions with Moscow. The tensions are likely to spill over into domestic politics since relations with Russia remain highly divisive. Still, Estonia with its centre-right is most likely to keep a steady course on diversification, while inconsistence is likely both from Latvia's centre-right government which is under constant pressure from powerful opposition and the new Lithuanian government which will reassess and challenge the energy diversification projects of the previous government.

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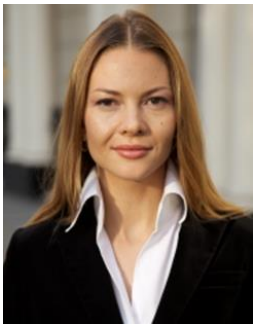

A game of power – the Baltic States and energy security

By Reinis Āboltiņš

The Baltic States face a number of challenges for their energy sector with energy security as the overall umbrella for the debate. Despite the fact that Estonia, Latvia and Lithuania have different energy portfolios with their up and down-sides, energy security is going to remain the overall headline issue for the three countries over the coming ten years at least.

In the 21st century energy security has more to do with laws, regulations, turbines and wires than with armed forces protecting cables and pipelines although the latter option cannot be entirely dismissed as unimportant. There are a number of issues that can definitely be associated with energy security and they are all relevant for the Baltic States. Four issues are of a very tangible character – energy efficiency, generating capacity, share of renewables in energy production, and transmission system including regional interconnections. Policy and legislative framework is the fifth issue and in a way both reflects and sets the mode of thinking about energy security.

Availability of energy is a key factor that keeps any modern economy running. If resources are scarce the there is need to spare resources and it can be done through consuming energy efficiently. Each of the Baltic states separately and all together have enormous potential for improving energy efficiency in public and private sector, in state institutions, households and businesses, every day and industrial processes. With average household annual heat consumption of over 200 kWh per m2 this sector alone could spare a wealth of energy every year if consumption would be cut to half. The recently adopted EU energy efficiency directive will hopefully become only an extra factor motivating Latvians along with Lithuanians and Estonians to invest in energy efficiency.

One can always think of increasing power production capacity to tackle existing or growing demand. After the closure of Ignalina NPP Lithuania is struggling with a growing share of imported electricity. Latvia is trying to solve its problems by installing modern gas-fired power plants consuming 100% Russian gas. Both Lithuania and Latvia face the choice between deploying generating capacities of large or small scale and this is directly linked to going towards spending more on imported gas as opposed to own sources while Estonia is comfortably sitting on its domestic oil shale and thinking of how any existing or future emission trading system might influence its power production.

Another way of thinking of energy security is through an increase in use of domestic renewable resources in power generation. International Energy Agency and the European Commission urge states to grow the share of renewable resources in electricity production thus aiming both at cutting the overall European GHG emissions and improving energy security through a greener and distributed energy production. The Baltic States have a good potential for using biomass with other renewables – biogas, wind, hydro and other – adding to the portfolio depending on specific conditions in particular geographic area.

No wires, no power – it is a simple fact of life. Therefore maintaining and renewing power transmission systems will always remain an essential part of energy security. The Baltic States do not experience particular problems with power transmission between themselves; however, they still effectively represent an energy island in the EU context: there are few power lines and also gas pipelines linking them with other EU countries, but current infrastructure is far from satisfactory. EU-backed Baltic Electricity Market Interconnection Plan will be part of the solution with making the Baltic States connected with Scandinavian countries and Poland. Intra-regional interconnections need to be strengthened to tackle bottlenecks and avail enough capacity to ensure effective participation in Nord Pool electricity market that all three countries will be part of very soon. Ability to accommodate renewable power sources is essential to this end. Domestic networks await investment in power lines and transformers to ensure security of supply and quality of electricity with the latter factor being important for effective and synchronous operation within the high-voltage transmission system across Europe.

Last, but not least, the beginnings of energy security stem from the way we think about it, the way we think about power. In this context it is important to see the ambivalence of the notion of power and to be able to think about power as electricity as well as power as the ability to influence the way things go. The policy and legislative framework leading towards a greater energy security has to stem from such an approach. The technological and technical solutions should go hand in hand with a clear and long-term vision of how various elements of the energy system interact to provide the best result in terms of decreasing technical, economic and political vulnerability of the Baltic States together and each one separately.

Estonia and Lithuania have their long-term energy strategies adopted several years ago and Latvia is on its way to elaborating and adopting a new energy strategy that would set targets for 2030. All of the above issues need to be covered through a complex and integrated approach; this is the only way to win the game of power.

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Gas and oil reserves in Russian Arctic seas remain out of reach to all but two state-run giants

By Mikhail Krutikhin

It was a pathetic effort. 'Liberals' in the cabinet of Dmitry Medvedev, led by Deputy Prime Minister Arkady Dvorkovich, announced they would make a vital decision by the end of 2012 on the way Russia's continental shelf could be developed. They didn't.

The idea was to make a loophole in the draconian mineral legislation initiated by Vladimir Putin in 2008. The current laws on subsoil and on foreign investment allow offshore projects to go ahead only if they are at least 50% controlled by the Russian state; and the license holder must have at least five years of experience in operations on the Russian continental shelf. It leaves only Gazprom and Rosneft on the list of eligible players. The two giants are obtaining offshore licenses without any tenders or auctions.

To make the situation even worse for international companies, Gazprom is already 50% owned by the state and therefore cannot offer any real partnership rights (shares in posted reserves or production volumes) to possible companions. Rosneft, about 75% owned by the state, can offer just 33.3%, and has signed a few such agreements with ExxonMobil, Eni and Statoil. The foreign companies have agreed to assume 100% of geological risks and financing at the exploration stage.

The model impedes the development of Russia's Arctic reserves of course, and Putin instructed the government last summer to find a way to accelerate the work.

The Ministry of Natural Resources suggested a solution: a more lenient approach in a draft program for developing oil and gas reserves on the continental shelf. The draft document, if the cabinet adopted it, could allow exploration companies to get access to offshore blocks and sell the geophysical and geological data to potential developers. It could also permit private companies to acquire the blocks that Rosneft and Gazprom are unwilling to explore and develop (and pay an extra tax for this privilege). And it could allow private businesses to form consortia with the state-controlled duo for obtaining licenses.

The proposals did not go so far as trying to alter the discriminatory laws of 2008, but the liberal attitude of cabinet ministers has provoked an angry reaction of the monopolies, even though the authors of the draft admitted it would take at least three years before the amended rules become effective.

Rosneft President Igor Sechin and Gazprom Chairman Alexey Miller sent a complaint to the president and prime minister in September saying that the government was not acting quickly enough to issue them the remaining offshore licenses—and Putin angrily ordered Medvedev to heed the wishes of the state-run companies. Rosnedra, the governmental agency that issues the licenses, made a weak attempt to argue that Rosneft was not prepared to perform the necessary volume of exploration and Gazprom had not submitted any specific applications for licenses, but it made no effect.

In late November Rosneft refused to endorse the governmental draft of the program for developing the continental shelf and insisted that a liberal approach to licensing would affect the company's financial status and the size of its future revenues to the state coffers.

Cabinet ministers, other relevant government officials and representatives of oil and gas companies convened several times before the end of 2012 but could not come to terms. It appears to be a blind alley. Too much depends on the will of the Russian president, and Putin keeps sending mixed signals to his subordinates. He criticizes the government for failing to accelerate the work on the Arctic shelf but then bashes the same government for delays in issuing all licenses to the two monopolies.

The proposals of the 'liberals' are unlikely to get implemented any time soon. Whatever government theoreticians say about the need to continue privatization and encourage foreign investments, the trend definitely points toward further monopolization of the energy industry and expanding the footprint of the two giants. It does not bode well for the industry and for the Russian economy as a whole because Rosneft may follow in the steps of Gazprom and initiate politicized, costly, and often redundant, projects on presidential orders. The exaggerated budgets of 'friendly' contractors, kickbacks and other losses would be covered by the federal budget (aka taxpayers). For private businesses and foreign companies, the only opportunity is becoming service providers or technology and equipment suppliers to Gazprom and Rosneft, if they want to work in the Russian Arctic seas at all.

The national leadership is evidently convinced that the current prices of oil will remain high enough to continue this practice, and the domestic price of gas can be raised annually to compensate Gazprom's losses from stagnating export.

As to the Arctic offshore projects, most of them are either non-commercial or doomed to remain on paper. Here is one, cynical, explanation for the procrastination. The price tag on such ventures as Shtokman is so high that it leaves no room for an extra budget of making government officials and their cronies in the contractor business happier.

The payback on technically cumbersome Arctic oil and gas development in this country can be reached not sooner than 25 or 30 years after the onset of exploration, and the timeframe is unacceptable to those Russian officials who are accustomed to making a quick profit immediately and disregarding long-term strategic projects.

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Nord Stream pipeline – an energy dialogue or deadlock?

By Maria L. Lagutina

Late 2012 was seen as a landmark by the Russian energy company Gazprom, which has carried out one of its grand projects – the Nord Stream pipeline. Its second branch-line, which links Russia and Germany via the bottom of the Baltic Sea, went into exploitation. In November 2011 gas transport to Europe started out within a first branch-line. According to experts' estimates, up to 55 blnm3 of natural gas can be delivered annually for 50 years after completion of the second branch-line. Currently, Gazprom management team is actively viewing an opportunity of making a sideline to the Kaliningrad region. The board of directors is also negotiating with the UK over its alignment to Nord Stream. However, since 2011 euphoria regarding recent success has been marred by the EU "belligerent actions" in respect of Gazprom's activity in the European market.

Back in 2005, Nord Stream venture was designed by its founders as a new prospective constituent in the Russia-EU energy partnership. The principal idea of Nord Stream venture lays with providing the parties with energy security and building up sustainable strategic partnership, known as the Energy Dialogue, which began in 2000. At that time, the goal of Nord Stream was:

- to deliver gas directly from Russia to Europe, bypassing the territories o the f transit countries for the first time in history;
- to supply European consumers with gas as much as reliably for years to come;
- to make for development of Common European energy area.

At that moment, it was quite obvious that both Russia and the EU needed stable gas supply and independence of economic issues from political ones. Energy "interdependence" of Russia and the EU was also evident: the former needed a new market for its gas, and the latter was interested in uninterrupted gas supplies. Thus, energy security became a common concern for both Russia and the EU. Implementation of Nord Stream venture was to diminish dependence of energy supplies to European consumers from transport related risks through states with unstable political regimes (the Ukraine, Belarus, etc.) and strengthen Gazprom's positions in the EU. In other words, development of Nord Stream venture was to herald a new stage of Russian-European energy cooperation. Nevertheless, unfortunately, by the early 2013 the result has been the opposite. Since 2009 Russia's gas market share has been shrinking in the EU. Nowadays Russia is waging a full-scale war with Europe instead of transit issues with its neighbours in the recent past.

Throughout all stages of discussing Nord Stream venture, its start-up and up to nowadays the project has been seriously opposed by several EU members (e.g. Poland, Estonia, Latvia, Lithuania, etc.). Their stance can be boiled down to the following points:

- Nord Stream is an unreasonably expensive venture;
- Construction of the gas pipeline has been doing unrecoverable harm to the environment of the Baltic region;
- There is a high risk of Europe's dependence on Russian gas in the future;
- Politisation of Nord Stream – Russia will take advantage of this venture as a tool of political pressure on Europeans.

The latter argument sounded in rhetoric of opponents of Nord Stream particular thorny. These discrepancies resulted in the crisis of the Energy Dialogue between Russia and the EU. If to sum up the outcomes of this initiative, one argument is clear: no substantial progress has been achieved in evolution of the Energy dialogue for the 13 years. There has been neither a successful project, nor an actualized initiative. The Energy dialogue between Russia and the EU failed. The main reason for that setback – Russia and the EU are engaged in their own energy dialogues on different languages. Even a notion the "energy security" is construed by both parties in different ways. For the majority of the EU member states the "energy security" implies energy independence, first and foremost, from Russia, whereas for the latter the "energy security" stands for independence from unstable transit countries.

Under these circumstances, unfortunately, hopes for Nord Stream venture appear to be not so magnificent, as it was back in 2005. Having been devised as a platform for effective multilateral cooperation between Russia and the EU, as a new milestone, a breakthrough in Russian-European energy relations, currently Nord Stream is operating exclusively on a bilateral basis with the separate European countries. Apart from that, Nord Stream–2013 is operating in a completely different environment from what it was in 2005. In particular, since 2009 the so-called "shale revolution" has been the reason for decrease of Russia's gas market share in the EU, as tremendous shale gas fields have been discovered in many regions. Qatari cheaper liquefied natural gas (LNG) is also regarded by the Europeans as an alternative for Russian resource.

All things considered, having started a struggle over increase of Gazprom's share in the European market, Russia achieved the opposite outcome. Moscow had put an end to gas warfare with neighbouring transit states, but turned out to be bogged down in a standoff with European consumers. The energy dialogue between Russia and the EU has reached a dead-lock.

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Interpretations of energy security in the Baltic Sea region

By Tomas Malmlöf

Energy cooperation is a prioritized issue on the common agenda for all countries surrounding the Baltic Sea. Yet – with some notable exceptions – in spite of the geographic proximity around a shared inland sea, high-level engagement combined with ambitious political intentions, it has been difficult to reach a consensus on energy issues, let alone build a comprehensive regional energy infrastructure and institutional framework. Energy policies are national by default, and different economies as well as different use of and access to energy imply that the Baltic Sea rim states do not necessarily share the same energy policy objectives. A central watershed preventing deeper regional energy integration is the prevailing diverging perceptions of energy security.

In Russia, energy security is about reliable supply to comply with domestic needs – especially electricity – but also about demand from abroad for Russian oil, coal and gas. Energy is Russia's only competitive commodity of importance, and export generates significant state revenues and also serves as some kind of pay-back assurance for earlier and continuing investments in Russian oil and gas pipeline systems. Besides being an important trade policy instrument, the Russian energy strategy until 2030 also underlines its significance for Russian foreign policy. Not the least during Mr Vladimir Putin's two earlier presidential terms, it was obvious that, to a large extent, Russian energy exports replaced or supplemented other Russian instruments of influence or power projection on the regional scene.

As for the other rim countries – all members of the European Union – a common denominator is the EU approach to energy security, focusing on security of supply, competitiveness and climate change. This part of the Baltic Sea region might be further divided into two sub-regions, with a major fault line between Denmark, Sweden, Finland and Germany on one side and Estonia, Latvia, Lithuania and Poland on the other.

Countries in the western sub-region usually enjoy high energy efficiency, comparatively well-developed energy markets and diversified sources of energy and energy providers. Focus is on competitiveness and climate change. Market mechanisms and emission targets are perceived as the main instruments to take on most energy security issues. Norway also belongs here due to the extensive Nordic energy cooperation, of which the common electricity market is one of the more notable examples. In its unique twin role as a major oil and gas producer and as a strong global advocate of climate change mitigation, Norway also shares the same understandings and perceptions of energy security as the adjacent older EU member states in the Baltic Sea region.

In the eastern sub-region, Estonian, Latvian and Lithuanian views on energy security are highly coloured by the asymmetric Russo-Baltic energy interdependence and the three countries' sometimes very complicated political relationship with Russia. Much less dependent on Russian energy carriers than the other two states, the Estonian approach has yet tilted towards a pan-European perspective, advocating less dependence on Russian energy carriers among all EU member states. At the other end of the scale, in post-Ignalinian Lithuania, leading political circles opposing Russian influence interpret energy independence from Russia as a matter of long-term state survival – no matter the costs. Poland is not as exposed to supply shocks as the Baltic states, as it has large reserves of hard coal and lignite. It buys most of its oil and gas from Russia, which has a proven track-record as a reliable supplier. Nonetheless, Polish energy security is still communicated in terms of 'geopolitical vulnerability', and Poland's energy agenda is coloured by profound distrust of Russia. Poland is also one of the main architects behind EU energy policies related to security of supply. Thus, energy security in the Baltic Sea region encompasses several challenges related to supply and demand as well as environmental impact and market efficiency. Different understandings of the intrinsic urgency of these challenges guide the nine countries towards different policies and strategic initiatives. Nuclear energy is an illustrative example: Germany plans to close its remaining nuclear power plants in 2022 for environmental reasons, while Lithuania plans to build the Visaginas plant for reasons of national security. In Finland a fifth reactor is under construction and a third plant is planned in order to improve self-sufficiency of electricity and prevent Finnish emission of greenhouse gases from rising. In the Kaliningrad region Russia is building the Baltic nuclear power plant specifically for export of electricity to surrounding countries. Polish nuclear plans are motivated by difficulties to live up to EU plans to limit emissions from coal generators without becoming more dependent on Russian gas.

It is probably a long way to go before we will see a comprehensive and coordinated energy strategy covering all parts of the Baltic Sea region. Energy policies will remain national, because this is what the main national actors want. However, as long as energy policies remain securitized in certain countries instead of being transferred from the national security agenda to 'normal' politics, in some cases cooperation will remain excessively constrained.

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Note: The views expressed in this article are the personal opinions of Tomas Malmlöf. They may not reflect the views of the Swedish Defence Research Agency nor Swedish Government policy.

Russian electricity market reform – deregulation or re-regulation?

By Satu Viljainen, Olga Gore and Mari Makkonen

Russia has been reforming its electricity supply sector for ten years. The reform has been perhaps the most ambitious reform in the world because of the enormous size of the market, both geographically and in terms of electricity usage. The electricity industry reform is also one of the largest and most complex restructuring efforts of the post-Soviet era.

The electricity industry reform has meant vertical and horizontal unbundling of the former state-owned monopoly company RAO UES, privatization of generation assets (excluding nuclear and hydro power), and opening of the electricity generation sector to competition. However, the Russian electricity market is still characterized by horizontal integration of electricity generating companies as well as vertical integration of electricity generating companies and fuel companies.

Russia started restructuring its power sector with a very small electricity generation reserve. The lack of investments in electricity generation over the past couple of decades had led into deficits in some regions, and there was a severe need to upgrade the generation fleet. Attracting private investment was one of the primary goals of the electricity market reform.

Deregulation of the electricity market changed the flow patterns and revealed structural bottlenecks in the electricity transmission networks in Russia. For instance, the congested network between the capacity surplus in Siberia and the deficit in the European part of Russia has meant that full use is not made of the electricity of the power plants in Siberia. In other words, some of the cheap hydro power is currently "locked" in Siberia.

To cover the demand for electricity, so called base load and peak load power plants are needed. In Russia, nuclear power plants are always base load plants, and the hydro power plants are mostly "run of river" base load plants, operating passively and generating electricity in accordance with river flow. The base load nuclear and hydro plants are not run against the market price; instead they accept whatever price is formed in the market. Nuclear and hydro power plants together compose one third of total generation in Russia. Combined heat and power plants (CHPs) constitute another third of total generation. During the heating season, CHP plants operate as base load power plants responding to the need for heat. The thermal power plants that produce only electricity constitute the remaining third of total generation in Russia. Only these power plants are run against the market price.

The Russian electricity market consists of the electric energy market and the capacity market. Electricity generators receive payments for the electricity they produce and for being available to produce. The capacity payments obtained on the basis of availability constitute a large share of generators' revenues. New generation investments are mainly incentivized through capacity payments. The government has adopted a strong role in promoting new investments in the electricity generation sector by signing contracts with generators and guaranteeing returns on investments for 10–20 years ahead.

At the start of 2011, electricity end-users' in the Russian market have experienced price increases of 30-40%. Further pressure on the end-users' electricity prices are expected as the most intense period of the generators' investment programs is reached in 2016-2020.

A fully liberalized electricity market in Russia was to be achieved by 2011 (excluding the household sector, which will remain regulated at least until 2014). At present, new investment has been attracted but competition in the market is poor. For instance, the agreements between the generators' and the government, to some extent, close the market from new entrants. This conflicts with the idea of free competition, which assumes easy market entrance with equal conditions for all market actors.

When assessing the state of the Russian electricity market, three characteristics stand out: 1) the heavily congested electricity transmission network leads to deviations from the market-based merit order of generation; 2) the concentrated ownership structure of electricity generation assets does not support competition; and 3) the need to attract extensive new investments in electricity generation has led to strong government involvement in the sector. Thus far, price increases have been allowed but with some reluctance and hesitation.

In the nearest future, the pressure to increase electricity prices will grow as extensive new investments in electricity generation start to materialize. This will be the real test for the Russian electricity market liberalization—are the markets allowed to work freely without intense price regulation? The answer to this question will eventually determine whether the Russian electricity market reform should be addressed as deregulation or re-regulation.

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The Baltic Sea ports – resonance of trends in the container shipping

By Eero Vanaale

The present short article aims to provide a very brief overview of main trends taking place in global container shipping and assess impact that may have for the ports in the Baltic Sea region and the main argument is placed on the impact of cascading and size increase in regional trades.

General industry dynamics

Since early 1980-s global seaborne trade grew on average at around 3% per annum exceeding 8.2 billion tonnes or 18% of the total in 2011.

Historically, the container shipping industry was driven by the need to operate the biggest ships in each trade in order to provide the scale and realise the lowest slot costs. Accompanied by technological advances and booming trade of the first decade, the orderbooks for new container ships have been open wide. Currently post-panamax container ships represent over 80% of the sector's orderbook and over two thirds of that are ships of over 10,000 teu capacity. Virtually all major carriers have vessels of 12-18 thousand teu already in service or on order.

However, large orders of new fleet created substantial oversupply on the global market. After recovering of the crisis' shock in 2010, the leading carriers have been engaged in a true battle for market share for most of 2011. This battle, accompanied by slow and uncertain world economy, devastated freight rates and pushed the industry into "the red" for a second time in history despite a decent growth in trade of just below 7% globally.

In 2012, all carriers engaged in a series of rate increases aiming to offset the collapse of the past year and bring the industry back into profit. A task extremely challenging in the conditions of slow or no trade growth and substantial fleet oversupply. It is important to note that the sector average EBITDA for container terminal operators is historically strong and has shown strong resilience in recent years, while the carriers face unprecedented volatility in earnings and were largely "in red" in 2009 and 2011. 2012 provided mixed messages with loss-making quarters followed by very strong results in the next period.

Increasing vessel size

New, larger vessels come into service replacing the existing fleets. These ULCV's[1] need to be deployed effectively creating what is known as cascading: vessels of over 10,000 teu capacity replace those of 6.5-8 thousand teu, which in turn replace those of 4-5 thousand teu, which themselves come into service on markets previously served by ships of 2-4 thousand teu capacity.

Importantly, the ordering of new fleet is effectively in batches of ten, thus suggesting unchanged round voyage times, speeds and time spent at ports. Or in other words, carriers expect the port operators to increase their handling efficiency and make necessary upgrades by default.

The Baltic region is no exception and the average vessel size is clearly increasing here. Albeit draft limitations and foremost the ice-class requirements are the main obstacles for further growth in size of ships that can serve the market. The mild winter of 2011-2012 however, allowed non-ice class ships (on Baltic trades visibly larger than classed ones) to service the northern ports such as St. Petersburg and Rauma in late November. Thus, the terminal operators must be ready to accommodate such calls quickly and efficiently.

For the purposes of the current argument May of 2011 and July 2012 were randomly picked up to analyse the change in the average container vessel size. Of the three ports selected, Gdansk saw the sharpest increase, due to its deep-sea service with vessels growing over 37% (in gross tonnage equivalent) on average. But also other ports such as Rauma and St Petersburg where the average size increased by 21% and 15% respectively on average.

Baltic container market

Historically, Eastern Europe produced the highest average growth rate globally at 20% CAGR in 2000-2011, outpacing other emerging container markets such as Africa or Mid-East. However it is also the smallest global market by throughput, which makes it extremely sensitive to any fluctuations in trade: as was clearly demonstrated by extremely volatile V-shaped growth dynamics in 2009-2010.

Baltic region experienced strong recovery in 2010 followed by almost exceptional growth in 2011, braking previous throughput records in almost all ports from Gdansk all the way up to Rauma. As of the first half of this year, smaller ports continue the growth rally, but not the larger ones such as St Petersburg or HaminaKotka for the notable exception of Gdansk which seems to be on the way to brake 1m teu level in 2012.

Russia's market influence

Analysing container market in the Baltic Sea is not complete without mentioning Russia. St Petersburg is Russia's as well as the Baltic's largest container port. In 2011 it handled 2.36 million teu, which is effectively 51% of all Russian ports total throughput[2] and roughly about 30% of the Baltic container market.

Ports of Finland, Estonia, Latvia and Lithuania compete with St Petersburg and now also Ust-Luga for Russian container transit. In addition, Gdansk competes with Hamburg-Le Havre range ports for transhipment volumes. In short, Russia plays very important part in the development of the Baltic container trade. It provides the main critical volume and size for the region and to a large extend defines trends in Baltic container shipping.

Recently Russia was accepted as a full member of WTO. This is certainly expected to facilitate the trade with this large economy. However from the shipping viewpoint, Russia's trade and production profile, its geographical location and cost base are all significantly different from what China was in 2001. The nation's income is dependent on the exports of raw materials and foremost oil and gas where WTO would have marginal impact. Therefore purchasing power to facilitate growth in (containerised) imports will remain to be dependent on the oil and gas prices – at least in near term – not tariff liberalisation. Shortly, the accession would have very minimal impact on container shipping. The draft and climate will remain the same and the market will continue to be served via transhipment in major European hubs. There is a subjective view that liberalisation may facilitate transit via neighbouring ports however.

[1] Ultra Large Container Vessels

[2] Including cabotage trades

In conclusion

Increasing competitiveness and aiming to attracting carriers and shippers would require ports to upgrade infrastructure, cranes, landside operations etc to provide required efficiency. However, in the current financial climate such changes are hard to make and investors are cautious as well as a few. Nevertheless, as indicated above, unlike shipping companies, port operators are more resilient businesses and attract institutional investors.

As most of the ports in the Baltic region will continue being feeder-fed, the increase in vessel size in the Baltics would not be as dramatic as on the major trades. Therefore leaving other options to upgrade often without substantial superstructure works, eg by improving operational productivity at existing facilities, improving management, yard systems and IT infrastructure.

The outlook for the Baltic is that it will continue growing strongly in longer term. Despite the current downturn and uncertainty in the Euro area, the region still has relatively low starting base in both economy terms as well as containerisation.

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The Northern Sea Route – a viable alternative to Suez Canal Route as a liner shipping route?

By Tuomas Kiiski

The Northern Sea Route, NSR, (formerly known as a Northeast Passage) is a sea route passing through the Russia's Arctic regions connecting main lands of Europe and Asia. In the past the NSR has been traditionally ice-covered almost around the entire year. However during the last decades there has occurred significant loss of ice cover along the route due to the global warming in the Polar Regions. As a result, NSR's navigational periods have become longer and it is assumed that this trend will continue in the future. The process has been prominent to the extent that it has become possible to make realistic forecasts concerning of the route's future potential for commercial shipping between Europe and Asia.

This article considers the potential of the NSR mainly from the liner shipping industry's point of view. Liner shipping with fixed schedules, ports and routes is a demanding frame to work with. Unpredictability of scheduling is one of its worst enemies. Currently this is one of the main weaknesses of the NSR. It is commonly recognized that NSR's main advantage is a significantly shorter distance between the main Northern European and Northern Asian base ports compared to the current main shipping route via Suez Canal. The difference is about one third shorter between e.g. Hamburg and Yokohama. The advantage gained cannot, however, be exactly measured just by staring at the geographical distance between ports. The reason behind this is that ice conditions are constantly varying along the NSR, which makes it impossible to use exactly the same route. Besides, the NSR has at least three different routing alternatives with unique ice-conditions and draught limitations in each of them.

Currently there is significant interest among the shipping industry to harness the NSR for regular shipping. Therefore many shipping companies have already made trial journeys mostly with bulk ships along the NSR with encouraging results. This is mainly because the route is located nearby rich raw-material resources hidden underneath the icecap or below the seabed waiting to be transported via the route. These resources consist mainly of oil, gas and other natural resources that Russian Arctic has to offer.

When comparing the traffic in the NSR to the current main container transport route via the Suez Canal, there are several pros and cons that need to be taken into consideration in order to get a holistic picture of its real potential. The shorter geographical distance by using NSR can create significant savings in fuel and voyage costs. Ideally, the NSR could be a counter strike to slow steaming, which has become a growing trend in Suez Canal traffic. Both of these options are meant to gain savings in fuel costs, but using the NSR may enable to maintain the original transit times.

The NSR is still a hypothetical solution with a lot of uncertainties in it. There are several physical, financial and managerial constraints to the use of the NSR as a regular liner shipping route. The most significant ones are those related to the physical conditions of the area and the current management system of the route. Prevailing difficult weather and extreme sailing conditions are also challenges that need to be overcome. The Finnish expertise in Arctic seafaring and in ice-breaking technology could easily come in hand for this purpose. The need for new Arctic equipped ice-breakers in NSR traffic is imminent because most of the Russian ice-breaker fleet is soon becoming at the end of its mileage. In the NSR it is mandatory to have ice-strengthened tonnage and to use ice-breaker assistance. Currently the supply of ice-breakers and their physical dimensions may also be a limiting factor for growing of traffic. The managerial constraints are related mostly to the present slightly complicated and unpredictable administrative procedures needed to undergo before using the route. From the economic point of view the current TEU-based ice-breaking tariff does not encourage to increase the traffic volumes. The NSR lacks also one important advantage that the Suez Canal route possesses: the availability of feeder-hub-ports along the route to get additional volumes. Politically the ownership of the Arctic resources and right to passage are also hot issues that need to be resolved.

As a conclusion you do not have to be a foreteller to predict that the NSR will become a more and more intriguing transport route in the near future as the polar icecaps keeps melting along the route as a result of the climate change. This will create longer navigational periods and possibly also totally ice-free periods on the route. The shipping operations will continue to be ice-breaker assisted until the arctic shipping technology enables the ships to sail solo via the NSR. Also the search and rescue capabilities along the route have to be promoted to a sufficient level. In the first phases the route will be most suitable for bulk shipping because of the rich supply of raw-materials along the route to be transported and due bulk transported commodities are more suitable for non-stop port to port traffic. The container liner shipping will eventually follow after the current administrative obstacles hampering the route's potential are solved; sufficient supply of ice-breakers and the infrastructure along the route is developed to an up-to-date level.

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Immediate tasks for G20, regional associations and international economic organizations

By Viacheslav M. Shavshukov

The global crisis of 2008–2009 raised a principle issue of post-crisis development of the world economy. Geo-economic and geo-political events, natural and technogenic catastrophes in the beginning of the XXI century threatened the very philosophy of globalization and raised the question about its reversibility. It was a crisis of mankind, culture, economy, environment and all institution of the modern world, raising civilizational and social economic issues urgent for all countries, monetary authorities, investors, manufactures and consumers. The most important among these were about **the future of the global economy, the development vector of its architecture, the position of the leader of the world economy, the reversibility of globalization in the post-crisis period.**

Centrifugal trends in the EU, Latin America, The Eurasian Economic Community (EurAsEC) do not exclude de-globalization scenario. Thirty years of globalization history have elucidated obvious threats for non-competitive economies and new opportunities for social and social and economic progress. However, globalization benefited no only developed countries, but also a large number of developing ones – China, Russia, Southeast Asian countries, Israel, India, Brazil, Argentina, Mexico, Chili, South African Republic, Persian Gulf countries, Turkey, Eastern Europe.

At the same time, prosperity growth rates, accumulation of profits in OECD countries threaten traditions, customs, values of western sub-civilization and, what is more, the very stability of the foundations of democratic society. Globalization, having opened economic barriers, brought about new ethnical and cultural challenges to sub-civilizations, responding not only with a rejection of both "Occidental lifestyle" and western management standards of production transferred to developing countries, but also with a conflict of civilizations in European countries. The idea of European tolerance is undergoing a serious crisis. Workforce from Turkey, Balkan states, Africa, Asia failed to adapt to the social systems of England, France, Germany, Belgium, Switzerland, the Netherlands and Scandinavian countries. More than that, it has resulted in strengthening nationalism tendencies in the European consciousness, society and politics, in antiglobalism and protectionism. Pan-globalism might be replaced by regional globalism with large-size regional alliances sharing geo-economic and geo-political interests, single central bank, single currency, consolidated budget and common monetary policy.

Global crisis of 2008-2009 for the first time has demonstrated joint aspiration and ability of G20 to cope with such difficulties effectively. However, pendency of system-based problems and constant search of new sources for growth under the new technological mode resulted in a smoldering situation and created expectations of a "second wave". These conditions necessitate further joint actions of G20 in order to provide for global financial stability and new sources for world economy development.

At the moment, EU is in urgent need for higher rates of economic growth, strengthening protective measures of European economy and deeper integration.

There are two possible ways in the course of solving these problems: paying off sovereign debts and providing for long-term financial stability. Overcoming debt crisis of Roman countries concerns not only Germany and France, but all zone of euro as it is a system-based EU problem. Its possible solution may be based on tightening budget discipline as well as budget integration. Financial stability can be guaranteed by consolidated efforts of the European Financial Stability Facilities (EFSF), European Systemic Risk Board, joint approach to recapitalization of credit institutions and constant support of bank liquidity by European Central banks.

The USA, being the leading world economy, bears a particular responsibility and has to play an important role. World economy will be given renewed momentum if the USA takes a resolution to cut budget deficit and lessens the mortgage debt load on households.

IMF has appealed to **Japan** as being the third world economy to cut national debt and carry out reforms aimed at increasing long-term economic growth rates. The country has all chances to repeat the "economical miracle", first of all, in a search for economically effective alternative sources of energy with its High-tech achievements being the basis of it.

China, BRICS countries and emerging markets as a whole with a high proficit of current accounts and large stock of official international reserves may give rise to a growth of world economy by refocusing national growth targets from exporting to domestic consumption.

The IMF and World bank group should focus on the policy of providing global financial stability, new sources of world economic growth and solving civilizational problems of mankind.

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"Clash of civilizations" in the Finnish-Russian relations?

By Ilmari Larjavaara

Clash of civilizations

"Clash of civilizations" - a theory proposed by Samuel P. Huntington is very present in the Finnish-Russian relations. "Clash of civilizations" seems not becoming milder - in next years it can turn to be even more present and actual. According to Transparency International, the Finnish-Russian border is one of the sharpest corruption borders in the world. "Clash of civilizations" in the Finnish-Russian relations has created phenomena and problems that have not had best possible explanations and solutions.

It is an argument here that it is important to understand basic institutions and concepts for to solve concrete problems. Different societies may have rather different basic institutions that might be contradictory to each other's. What is more or less normal in Russia, may be punishable in Finland and vice versa.

Everyone knows that business might require bribes in Russia

Everyone knows that business might require bribes in Russia, but if you get caught, it is very bad for you. A company that is caught bribing in Russia faces very negative publicity and drastic measures from the side of authorities in Finland.

If bribes are required from companies to operate in Russia, they are very alone to face this issue. Small Finnish entrepreneurs in St. Petersburg can be threatened to be pulled the muzzle, unless they do not pay bribes. Most troublesome are local corruption networks where different authorities team up for to cash companies. In these situations for companies there is no-one to turn to.

Officially it is not possible to discuss this question. By surface Finnish businessmen have a sharply negative view of bribes in Russia. There could be more open publicity and discussions of what is true in Russian environment.

Because the real things cannot be spoken out, Russian experts will go to grave with their secrets. You cannot ever tell that you have bribed (or what else did) in Russia, because this is a crime.

Trade experts have differing views of necessity of business corruption in Russia. It is described by some consultants that the use of these methods is practically essential. On the other hand it is recommended that the use of bribes should be avoided at all costs. There are no much recommendations, how to face this question in a practical level. If bribes are needed, this should be dealt in a very hidden and without any support from the official system in Finland.

Consultants promise that everything can and should be done legally in Russia, but then if it is not possible? Companies learn it by themselves, how one can cope and even be successful in Russia.

One issue are various organizational levels within companies. Between organizational levels in companies various groups might not understand each other's in a best way. Finnish CEOs do not want to hear of real conditions in Russia and view Russian workers as potential threats. Russian salesmen think that their Finnish bosses understand nothing of Russia. There are wide gaps between the worlds.

Discussions of Russia in Finland are characterized by multi-level double standards and hypocrisy. Different spheres are far from each other's and poorly share a common language. In particular, the Finnish bureaucracy may not have enough touch with the business realities in Russia. Grass root level companies who operate in Russia might not much value state authorities in Finland.

How the companies operating in Russia actually manage to succeed? Nobody has ever committed any research of this topic. We do not know how widespread and compulsory bribing in Russia really is. It would be interesting to get an empirical answer to the basic paradigmatic question, whether it is possible to operate and succeed without corruption in Russia or are corrupt methods more or less compulsory. Anyway, for the Finnish companies to be successful it could be useful to learn more how to manage personal relations in Russia.

There is a need of new approaches

What would be the right way to approach divergences of the business environments? It is a problem that in Finland there is no coherent and systematic policy how to approach question of corruption in business environment in Russia.

Finger pointing and punishment of companies do not help. These measures do not eliminate problems in the Russian side. What kind of policy authorities in Finland should take? There could be some international support networks that engage in business activities for them to be clean. One should have less moralistic and more practical level approaches to face bribes in Russian environment, to support companies' operations and to avoid risks related to bribes.

How do institutions develop in Russia in the near future? In West a common assumption is, of course, that WTO will force Russia to modernize. Another concept to describe present trends in Russia is "demodernization" – Russia at a fast pace turns to the past. Anyhow, when visas will be abolished, Russian mindsets and habits will land to Finland much stronger than now. Perhaps then we see the same development as in the drug policy - the otherness that was once most illegal and marginal will become nearly common and accepted, even in Finland.

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Eurasian integration – a positive view

By Vladimir G. Sherov-Ignatyev

The perception of integration initiatives with a dominant role of Russia depends on the origin and age of the observer. Many of those, who were born in the USSR and whose best (younger) years passed in that country, sympathise the attempts of reintegration of post-soviet states. According to Gallup polls of 2007-2008, more than half of respondents in 10 out of 11 examined countries of the former Soviet Union (FSU) supported economic or political integration of former Soviet states (except Azerbaijan).

Meanwhile, many American economists criticize the last and the most successful attempt of that kind – the arrangement of the customs union of Russia, Belarus and Kazakhstan (CU RBK). They make an accent on higher efficiency of North-South integration in general case and on limitations of trade liberalization in customs unions compared with the free trade agreements (FTA).

Here we suggest some arguments in support of Eurasian integration, more serious than the personal sympathy. More precisely, arguments are necessary to defend the choice of European model of regional integration (customs union – common market – economic union) instead of open regionalism (a network of overlapping multilateral and bilateral FTA) – approach, encouraged and promoted by the U.S. Arguments are as follows.

Customs union allows trade facilitation. Comprehensive CU must have three features: 1) the common external tariff; 2) the common pool for collected import duties and the mechanism of their distribution among member countries; 3) eliminated customs control at mutual borders. The latter feature is of special importance, since cutting border crossing barriers alleviates access of locally produced goods to the neighbor markets. The scale of anticipated effect in the case of CU RBK is serious, since, according to Sergey Glazev, the former CEO of CU RBK, border-crossing waiting and procedures constitute in some cases up to half of the time of importing goods within the Commonwealth of Independent States, despite free trade among most of its members.

The customs union can allow softening of some negative consequences of the WTO accession and of the resource curse. Competitiveness of Russian manufacturing will fade in several sectors with the reduction of import tariffs after the WTO accession in 2012. Consequences for Belarus and Kazakhstan are similar, since these two countries, being members of the CU with Russia, are obliged to make the same tariff concessions. Competitiveness of locally produced finished goods is under threat also due to the well-known fact: Russia and Kazakhstan are resource exporting countries. As such, they suffer from the Dutch disease. It means, that during the periods of high prices for oil and natural gas, Russian Ruble and Kazakhstan's Tenge appreciate in real terms, making domestic goods more expensive compared with imported goods.

In these conditions the importance of mutual trade and cooperation of three countries grows, since the share of manufactured goods in intra-RBK trade is higher than in the export of three countries to the rest of the world. This advantage becomes even more tangible with above mentioned elimination of border barriers between Russia and Kazakhstan (customs control on Russia-Belarus border was eliminated much earlier).

Regional aspect of competitiveness deserves special attention for such a large country as Russia. Agglomerations and sea ports usually benefit from global trade liberalization more, than landlocked regions and small towns. Russia's WTO accession is expected to aggravate the problem of regional disparities. Two capitals, Moscow and St. Petersburg, and a number of metal producing cities and import hubs will enjoy main benefits of the WTO accession. On the other hand, many of Russian regions with low per capita incomes and low degree of engagement in export are located in the middle of the country, close to the border with Kazakhstan. **Deeper regional integration gives a chance to** such **"Introvert" regions**, their manufacturing enterprises becoming able to expand to the neighbour market easier than before.

Eurasian integration stimulates institutional competition. Moving towards common economic space of three countries (CES RBK) requires the convergence of regulatory systems, and it is logical to build upon the more advanced standards. The comparison of the famous Doing business (DB) ratings of Russia, Belarus and Kazakhstan brings the shocking outcome: Russia is lagging behind its partner countries by most of indicators of the quality of business environment. Kazakhstan, Belarus and Russia hold, respectively 49th. 58th and 112th positions among 185 countries of the DB-2013 ranking. "Discovery" of this fact led Russian leaders to take steps to remedy the situation by simplifying bureaucratic procedures.

Some positive results of CU RBK/CES formation are country-specific. Belarus gained access to cheap Russian fuel and increased export of manufactured products. About 45% of machinery and 2/3 of food, traded within CU RBK in 2012,, originated from Belarus. Kazakhstan receives faster and easier transit, important for this landlocked country.

Summing up, there is a number of good news about the economic effects of Eurasian integration. Theoretical principles are important, but god and devil live in details, and it is worth analysing each integration initiative individually.

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Finnish window in St.Petersburg – beyond its size?

By Elina Kahla

Working in the heart of city of St. Petersburg, at Bolshaya Konyushennaya 8, where the House of Finland, housing the cultural institute and various representative offices, is located in the fabulously renovated historical building from 1847, a Finn feels quite at home. Let me explain. Within the Grand Duchy of Finland (1809-1917), Finns made their living in these neighborhoods, some of them as craftsmen, industrialists or merchants, some others jewelers, servants and workers. In this building, Uno Cygnaeus established the first Finnish-language primary school. It is amazing that Finland's educational success (if the PISA test rankings from recent years are any indication) began here. There is a public Finnish primary school in the building again. In broader terms, one is proud that today connections between Finland and St. Petersburg, which are equal in size at about 5 million inhabitants, have been restored, people are traveling and getting to know each other. The Allegro express train takes only 3 h 36 min from one northern capital to another. Some of the previous mutual benefits have remained intact. Finns still deliver dairy products and construction projects, while the inhabitants of St. Petersburg travel west for leisure and shopping, for unpolluted nature, peace and quiet, or cultural tourism.

In recent years, tourism has grown rapidly and reached not only border towns like Lappeenranta and Imatra, but farther destinations like Lapland or Aland. Over time, Finns have more consciously invested in Russian travelers and built strategies around them. However, business logic diverges from grass-roots opinion. Visa-free travel is regarded both as a threat and an opportunity. According to estimates, if visa-free travel between the EU and Russia will be endorsed in 2018, incoming tourism from Russia to Finland will grow four or five times; in 2020 about 20-25 million Russians would visit Finland annually.[1] The inhabitants of the border towns Lappeenranta and Imatra are the most worried, since mass travel would bring crime, they wonder if their quiet life may come to an end. In polls, these attitudes were clear.[2] A statistician expert says that the younger generation, under 25 years, is most open, whereas elder generations of Finns may still be traumatized by war memories. "Would we be ready to climb out of the trenches and smile at our neighbors?" wonders a journalist.

Cultural sensitivity is needed to handle the discrepancy between business strategies and citizens' anxiety. Awareness of one's neighbor's history and culture would naturally not minimize a mouse's fear in the claws of a cat, but for a cultural institution it is a question of life and death. In the "information jungle" it is our mission to provide scholarship-based information on both Finnish-Russian history and hot contemporary topics. St. Petersburgers may not know that the Karelian Isthmus, including its capital, Vyborg, was once part of independent Finland; calling Vyborg "an ancient Russian town" is simply misleading, since it was founded by Swedes in 1293. In contrast, Finnish "Karelia back" revanchists may seem more offensive than their actual positions are. It is the institute's privilege to address these issues in a friendly setting, by way of artistic and literary events, academic lectures, photo exhibitions and the like. These events reveal much more universal similarity than difference. The institute's competitive edge is to raise the profile of cultural dialogue. Only by dialogue and trustworthy information can the polarities between business logics and people's sensitivities be dissolved.

The House of Finland was originally built as a church mansion (podvorje). The Finnish and Swedish citizens amounted to some 25,000 in St. Petersburg already in 1880, since then, even more. Their parish life involved not only religious services but also schools and social activities. The three storey Finnish Lutheran Church of St. Mary proudly reminds us of its historical significance. It has not lost its mission, but rather is successfully undergoing with continual transformation. The majority of its parishioners today are Russian speakers, with Ingrian Finnish roots. For the Ingrian parishioners, the resurgence after decades of repressions and deportations to Siberia is part of their identity, their "otherness" as compared to the Russian Orthodox majority. How different would Finland look today if its majority denomination (78%) were not Lutheran, differing from Orthodox Christianity in their greater practicality and tolerance when it comes to human rights and interfaith questions?

Is it an advantage to be a Finn here? I often find myself answering that question, and always positively. To repeat the words uttered by Tsar Alexander II: "Finland is the only part of my empire which never has caused me any harm what so ever." This phrase was reformulated as "Consider it solved," by our minister for EU affairs, Alexander Stubb, who coined a slogan for the Finnish country brand.[3] This practicality is perhaps what makes things easier when doing business or travelling to Finland for stressed city dwellers.

In regard to the positive country brand, to represent the House of Finland in St. Petersburg is a dream come true. Perhaps, though, the window sometimes seems bigger than the house itself. This is true while matching of professionals in each subarea of cultural and other cooperative activity is complicated. Business success requires the establishment of personal ties, and is always a long term project. The director's appointments should perhaps not change every three years. One should raise efficiency via human capital and avoid starting from zero.

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[1] Konttinen J., 30.12.12 *Helsingin Sanomat*, D4 "Entäs kun tulee se kahdeskymmenes miljoonas?"

[2] 82% of Russian citizens favour mutual visa-freedom with Finland, only 6% are against it, while the rest have no opinion. 38% of Finnish citizens favour visa-freedom, but 39% are against it. Rahkonen J., 10.1.13 *Helsingin Sanomat,*A5 "Suomi voi kohta olla valmis viisumivapauteen".

[3] Stubb, A. Consider it solved. *Blue Wings,* 2011, 32.

The challenge of keeping the Gulf of Finland clean from oil – what should we do?

By Inari Helle and Sakari Kuikka

The Baltic Sea has always been an important route for transporting people and goods, and shipping activities have intensified further in the 21st century. Today, around 2000 vessels operate in the area at any given moment. As approximately 20–25% of the ships are oil tankers, dense maritime traffic has raised concerns about large-scale oil accidents.

The Gulf of Finland, the easternmost basin of the Baltic Sea, can be considered as a hot spot for this development. During the period from 1995 to 2012, the yearly amount of oil transported via the gulf increased 700 %, from 20 million tons to over 160 million tons. A major reason for this considerable growth has been Russia's investments in new pipelines and oil terminals. Although the Gulf of Finland seems to be a safe route for oil transportation given the political and economic stability of the area, the geological and climatic factors like shallowness, indented coastline and ice-cover in winter impose challenges for navigation.

These factors make also oil combating more challenging. The Gulf of Finland has a fragile brackish water ecosystem and it harbors many conservation areas. It is also an important migratory route for arctic birds. A large oil spill could potentially have major negative impacts on these nature values. Also direct and indirect monetary losses could be substantial, as shoreline clean-up activities are usually costly and time-consuming, and a spill could result also in bans on fisheries and fall-off of tourism. One problem is the uneven distribution of these risks among coastal countries, as Russia who transports the majority of oil has only short coastline and thus limited amount of resources at risk.

There are mainly two ways in which the negative impacts of oil spills can be avoided: to prevent oil spills from happening, or to apply effective oil combating after the spill before the slick reaches shoreline. Within the past 15 years many improvements in maritime safety have been carried out. These include e.g. the implementation of Vessel Traffic Services (VTS) and Gulf of Finland Reporting System (GOFREP), which monitor maritime traffic and offer ships information related to the safety of navigation. However, these measures have not been able to completely erase the chance of an accident.

Finland has also made major investments in oil combatting capacity. In Finland, oil combatting is based on mechanical recovery. Today Finland has altogether 16 oil combatting vessels capable of recovering oil independently in offshore conditions. However, the efficiency of vessels depends on many factors such as oil type and conditions at sea. For instance, when wave height exceeds 1–1.5 meters, even the recovery efficiency of large vessels drops sharply.

A major issue in oil spill management is high uncertainty. We do not know when an accident is going to happen, neither can we know the size of the spill or where oil slicks are going to drift. In this respect oil spills differ e.g. from eutrophication, which is an already materialized environmental problem and the effects of which are highly visible and have been studied extensively for many decades. Uncertainty also makes decision making challenging. How much should be invested in oil spill prevention and combating, when the consequences can be severe, but the accident may happen today or 50 years from now?

In order to answer these kinds of questions, we need to apply probabilistic modeling, which takes into account as many uncertainties as possible. Given that we cannot know what will happen, modeling is the only way to find the best possible solution. By combining all available information from field data of oil spills (luckily mainly missing from the Gulf of Finland), laboratory experiments, models and experts we can screen different alternatives and prioritize between investments.

The results of this kind of analysis depend on the utilities we can expect to gain or, vice versa, the losses we can witness. However, gains and losses are extremely difficult to define and value, especially in case of nature values or human lives. In this respect, measures that prevent accidents from happening are important as immeasurable losses are not involved. Furthermore, the results of a recent research project[1] suggest that in the future it may be more cost-effective to invest in some preventive measures than to increase oil combatting capacity. This conclusion derives largely from the high uncertainty related to oil accidents.

However, as maritime traffic continues to grow in the Gulf of Finland, it seems that we need to invest both in oil recovery equipment and in preventive measures. In the former the challenges lie especially in rough seas and ice conditions, where traditional methods are mostly ineffective. In the latter case more alternatives should be studied, including e.g. extended piloting regulations. It is positive that also private actors have become active in this sector. One example is John Nurminen Foundation's Tanker Safety project[2], which is based on the idea that oil tankers send their route plans voluntarily to VTS centers before leaving port. In the end, it should be the interest of oil and shipping companies not to be involved in accidents that have large media coverage and a substantial negative impact on public opinion.

Given the uneven distribution of risks and the independent spirit of seafaring, it is also evident that no country can solve problems alone. Co-operation with neighboring countries is important especially regarding efficient and functioning maritime traffic control and adequate level of oil combating capacity. However, many improvements to common practice and more strict regulations need decision making at higher levels, like in the EU and International Maritime Organization (IMO). To be able to communicate our needs to these quarters efficiently, we need a firm understanding of the ecological features of the Gulf of Finland as well as of the technical and psychological characteristics of the accidents. This requires multidisciplinary research and a strong collaboration between biologists, marine scientists, meteorologists, engineers and sociologists.

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[1] More information (in Finnish): http://www.ymparisto.fi/download.asp?contentid=139647&lan=fi

[2] More information: http://www.puhdasitameri.fi/en/tanker-safety

Does it pay to combat eutrophication in the Baltic Sea?

By Kari Hyytiäinen

The Baltic Sea is an important source of subsistence, welfare and joy for millions of people living in the nine countries sharing its coastline. However, the sea is fragile and vulnerable to damage caused by excessive nutrient loads, oil spills and hazardous substances due to its physical characteristics and high human pressure. The Baltic Sea is a shallow and almost enclosed marine region with a catchment area that is four times larger than the sea itself and inhabiting more than 80 million people in fourteen countries.

Human-induced eutrophication is a particular problem of the Baltic Sea. Long-term excessive loads of nitrogen and phosphorus have increased the occurrences of massive algae blooms and hypoxic areas on the sea bed in addition to other undesirable changes in the overall functioning of the Baltic Sea ecosystem. These changes have reduced the possibilities for citizen to enjoy recreation and other ecosystem services. Unless the overall development of water quality is reversed, the future generations are not able to benefit from similar services of healthy marine ecosystem than earlier generations did.

In tandem with increasing environmental consciousness, the Baltic Sea countries have put increasing emphasis and effort in water protection since the 1980s. Countries have set up policies and investment schemes directed to reduce nutrient loads from industries, agriculture and communal waste water treatment facilities. Although efforts in reducing nutrient loads have had an effect, most of the commonly set targets have not been met and the Baltic Sea is still in poor condition. More effort is indisputably needed to reverse the undesired trend in water quality. This raises a question: how much more should the riparian countries invest in water protection? This can be answered from two points of view, an ecological and socio-economic.

The ecological viewpoint is unequivocal: society should reduce the nutrient loads to a level that leads to functioning marine ecosystem and a good ecological state of the sea. HELCOM Baltic Sea Action Plan (BSAP), an international programme targeting at restoring the good ecological status, is based mainly on the ecological viewpoint. The socio-economic viewpoint, on the other hand, focuses on the consequences of nutrient abatement on human welfare. This viewpoint was investigated in recent research project, conducted as a part of the international BalticSTERN research network. A cost-benefit analysis was carried out on the overall benefits and costs of implementing the BSAP. The consequences of implementing the BSAP were compared to the baseline development, in which the present level of water protection is maintained, but no additional investments are done.

According to the research findings, the overall benefits of load reductions clearly exceed the subsequent costs. Thus, the ecological and socio-economic viewpoints give parallel recommendations for the implementation of the BSAP: in addition to reaching a good ecological status of the Baltic, the plan also increases the overall welfare of people living in its catchment. That is to say, it is economically viable to implement the BSAP. The overall benefits from improved water quality were estimated to be some 3800 million euros annually, while the annual costs of meeting the reduction target varied between 1500 and 2800 million euros annually depending on how the nutrient abatement measures were allocated across countries. The benefits exceed the cost for the evaluated project and all the intermediate levels of water protection between the BSAP and present level of water protection. On the other hand, more ambitious plans of nutrient abatement, that go clearly beyond the targets of the BSAP, would require large structural changes in agriculture and local food production, and are not likely to be economically justifiable with current technology.

The research findings also suggest that there is potential to reduce the overall costs of nutrient abatement by planning the measures cost-effectively and locally, i.e. such that the intended load reductions are achieved with the least costs and that the measures are tailored to local conditions in each watershed. Demand for new measures creates business opportunities for the industries to develop technologies for more effective nutrient reductions in waste water treatment, agriculture, forestry, industries, shipping and all relevant sectors causing nutrient loads.

One challenge for the implementation of the BSAP is that the benefits and the costs of nutrient abatement are unevenly distributed across different stakeholders, economic sectors, regions and countries. The clear gainers of improved water quality in the Baltic Sea are the citizen, industries and businesses (such as tourism) that enjoy and utilize the services and products of the sea. Sharing of costs and technologies, international financial instruments (e.g. Cohesion and Structural Funds of the EU) and joint nutrient abatement projects are possible tools to encourage implementation of the BSAP and to make it worthwhile for all stakeholders. Also the role of international organizations such as HELCOM and EU is important in facilitating and coordinating the process.

Quantifying the costs of nutrient abatement and the benefits of improved water quality is a challenging task. Despite several underlying uncertainties related to research results, the message is clear: the research findings give support to the decision makers to pursue the implementation of the policy targets of the BSAP. Failure to fulfil these targets would imply foregoing substantial societal benefits. Policy makers need to take strong action to safeguard healthy marine ecosystem for the future generations.

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Oil transportation in the Baltic Sea – environmental impacts and future challenges for maritime transport

By Vanessa Ryan

The use of the Baltic Sea is intensifying. Sectors like offshore energy production are experiencing rapid growth, and this also applies to one of the most visible and intensive forms of sea use, namely shipping. The Baltic Sea is one of the most heavily trafficked sea areas in the world, with approximately 9 % of the world's cargo transportation taking place in this unique brackish water environment with its small water volume and slow water exchange. This, combined with the Baltic Sea's characteristically few species (most of which are living under constant stress due to the either too low or too high salinity) and already heavy pollution load, makes the Baltic sensitive to disturbance. Regarding shipping, these harmful disturbances include gaseous emissions, waste water discharges, underwater noise, and accidental and illegal discharges of oil and hazardous substances. Certain features of our sea also pose navigational hazards to shipping. The shallow water, extensive archipelago areas and icy winter conditions are only a few players in this game, which should be a game of strategy and skill rather than one of chance.

Baltic shipping decreased slightly during 2009 and 2010 but increased again in 2011. The expected and continued increase in shipping in coming years highlights the need for further improvements in maritime safety in the future, but also the need for further developing oil spill response methods and contingency planning. Although the Baltic Sea region is a forerunner in maritime safety and environmental regulation, and has benefited from its PSSA status, recent years (2004 – 2011) have seen over 100 shipping accidents annually – most of them a result of human error. Luckily, few accidents lead to pollution; this figure was 8 % in 2010. Measures like the coordinated Baltic aerial surveillance, which has proven to be a deterrent for illegal oil discharges, should be considered proof that protective measures indeed work, but should not lead to complacency. Rather they should lead to increased efforts to reach ambitious environmental protection and safety targets, and to efficiently catch and prosecute anti-pollution regulation offenders.

At present, around 11% of the world's oil transportation is carried out on the Baltic and the transported volume is expected to continue increasing; how fast remains to be seen. Some estimates predict a more moderate development compared to that of the past ten years, which saw oil transportations in the Gulf of Finland almost quadrupling as a result of the rapid oil production and exports of mainly Russia. However, while oil transportation has the potential for creating catastrophic spill events of several tens of thousands of tonnes, spills caused by other vessels than oil carrying tankers should not be overlooked. Analyses by HELCOM's BRISK and BRISK-RU projects estimate that large-scale spills of more than 5,000 tonnes could occur in the Baltic once every 26 years, and medium sized spills of 300 – 5,000 tonnes once every 4 years (with sub-regional differences). However, even a small amount of oil in the wrong place at the wrong time can severely damage breeding or migrating populations of birds or important spawning areas for fish. Overall cargo and passenger traffic is expected to grow rapidly in the Baltic Sea region, with container traffic having experienced a growth of 18% in 2011.

The maritime industry needs to develop into an environmentally ambitious industry, which instead of reacting to incidents which have already happened, or tightened emission regulation, set ambitious environmental targets. This requires a combined effort into technological development, emission control and fuel technology, noise reduction measures and fleet renewal (with an emphasis also on ship recycling), but it also requires setting boundaries where necessary; spatial and/or temporal shipping restrictions, as well as an active involvement of the shipping and related sectors in maritime spatial planning efforts both nationally and regionally. For example routing measures like avoiding sensitive areas or areas where oil pollution after a spill is more likely to reach the shoreline, can greatly affect the impact spills may have on the ecosystem or individual species.

We are all connected by the Baltic Sea, and the opportunities and resources it provides. While green and blue growth concepts are being developed, the inherent value of the environment and the value of the non-provisioning ecosystem services it provides are often left out of the equation - despite their importance. There are many ways in which we can protect these values from the harmful effects of shipping. Identifying and classifying the most vulnerable species and habitats both above and below the surface is the first step. Based on sound scientific knowledge about the effects of oil and oil clean-up methods on individual species and communities, but also of other harmful effects of shipping like noise disturbance and increased spatial demands, we can implement concrete measures for environmental protection.

We should also not forget that the only permanent solution to the problems caused by fossil fuel use and transportation is a substitution of these for more sustainable alternatives. Renewable energy strategies of the EU and targets set by individual countries in the region may yet lead to a slowing down of the rapid increase of oil transportations witnessed in the region over the past decade, and this is something the region as a whole should aim for.

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What explains foreign direct investment in the Baltic Sea Region?

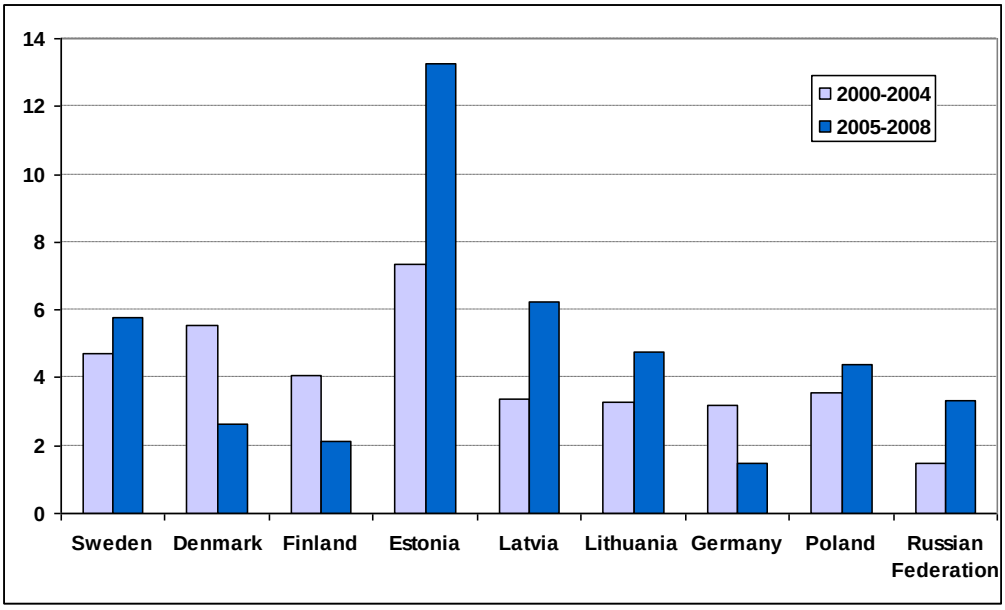
By Markku Kotilainen

We have recently prepared two research reports on foreign direct investment (FDI) inflows in the Baltic Sea Region (BSR).[1] In this column, I will briefly describe the main results of the studies.

We have defined the Baltic Sea Region as consisting of the following countries and regions: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden, and the regions of St Petersburg, Leningrad Oblast and Kaliningrad in Russia. In the case of Russia, we had, because of lack of data, to use the statistics concerning the whole country.

In the following figure, we see FDI inflows in two periods. In the period of 2000 – 2004 most BSR countries received rather similar amounts of FDI as a proportion of GDP. Russia, however, received relatively less than the average, and Estonia relatively more.

Foreign direct investment to the BSR, net inflows (% of GDP)



Source: World Bank.

In 2005 – 2008 the Baltic countries received a lot of FDI. This is because their economies grew at a fast pace. Estonia's relative FDI gains were more than double what they were in the other Baltic countries. Also Poland strengthened its position in the eyes of foreign investors. Nordic countries and Germany were unable to get as much FDI as in the previous period. Sweden was an exception as it improved its situation from the previous period. Germany's rather low figures can at least partially be explained by its big size and its capital richness.

In the first study (Kotilainen and Nikula, 2010) we investigated the determinants of FDI in the Baltic Sea Region in three ways. First, we studied the factors affecting FDI on the basis of the theoretical and empirical literature. Secondly, we studied the characteristics of the existing FDI in the Baltic Sea Region. Thirdly, we researched the investment motives through two firm questionnaires: 1) firms participating in the MIPIM real estate fairs and 2) Finnish firms active in the Baltic Sea Region (Finpro register)[2].

In the theoretical part of the study, we used John Dunning's so-called eclectic theory on FDI as a starting point. Dunning covers and classifies a wide variety of investment motives, of which just a part can be studied empirically. We also covered the more economics based new economic geography approach on FDI and location. Using this survey, we formulated our empirical research questions.

The common results of both questionnaire studies were: 1) the most important reasons for FDI are market size and its growth potential, 2) companies do not see the BSR as a single market in their actual decision making process, 3) membership in the EMU may promote FDI, but the results are not very robust: obviously they are weakened by the already rather credible pegs of the Estonian, Danish, Latvian and Lithuanian currencies and the diversification benefits of the floating Swedish krone, and 4) governmental investment promotion organizations have a rather small role in the actual investment decision making process. Their role is rather in giving general information on the country's investment environment.

The most important differences between the two samples of firms were: 1) in the real estate sector the majority of FDI is done through buying an existing firm, whereas in the sample of Finnish firms most FDI is done as a greenfield investment (establishing a new firm), 2) among the real estate firms Sweden, Finland, Germany and Poland are the most important destinations for FDI, while in the Finnish sample of firms (including more manufacturing and service firms) St Petersburg, Poland, Estonia and Sweden are the most important destinations, 3) in the sample of real estate firms R&D and the proximity of the Russian market are not important motives for FDI, contrary to the Finnish, more manufacturing and retail trade-oriented sample, and 4) among the real estate firms the potential for large increases in real estate prices is an important motive for FDI.

In the other study (Nikula and Kotilainen, 2012) we investigated foreign direct investment flows in 1995-2010 to

[1] Kotilainen, M. and Nikula, N. (2010) "Why Do Firms Invest in the Baltic Sea Region"? The Research Institute of the Finnish Economy (ETLA), Discussion Papers, No. 1229, and Nikula, N. and Kotilainen, M. (2012) "Determinants for FDI in the Baltic Sea Region". The Research Institute of the Finnish Economy (ETLA), Reports, No. 1. (See http://www.etla.fi/en/publications/.) The research was done in the context of the BaltMetPromo project, co-financed by the Baltic Sea Region Programme of the European Union. (See http://www.baltmetpromo.net/public/).

[2] In this case we studied Finnish firms' FDI in the rest of BSR.

the Baltic Sea Region countries econometrically. We used two basic models: the first one treats aggregate FDI inflows by countries, and the second focuses on bilateral FDI flows between country pairs. Because of limitations in data availability, the second model was built for a smaller group of countries. In this model we took into account the origin country of the FDI.

Our results show that macroeconomic factors such as corporate taxes are important determinants for FDI flows. We notice that these factors and their effects vary between the Baltic Sea Region countries.

Foreign trade with the investing country is also a statistically significant determinant for FDI, i.e. the countries that have trade with each other also invest in each other. On the other hand distance between countries doesn't explain FDI flows.

Institutional factors such as EU membership or a common currency are not statistically significant in our estimations but this could be because of data limitations and because of the fact that these changes in countries' international status are incorporated in the other variables and are also foreseen by the investors.

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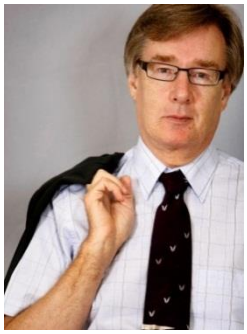

The East is – empty

By Ilkka Henrik Mäkinen

Millions are you – and hosts, yea hosts, are we,
And we shall fight if war you want, take heed...

The poem "The Scythians" from the Russian revolutionary poet Alexander Blok, written in 1918, paints in Kurt Dowson's translation a powerful picture of innumerable hordes of "Scythians", whose "slanted eyes" greedily watch the wealth of "Europe's comely race", while the poet predicts its impending destruction. The poetic picture achieves its hypnotic power not only from its dramatic and rhythmic language, but also from the fact that it was in its time recognisable as a - romanticised - description of potential reality: the oppressed masses of the East would eventually overthrow the old world order by force of their sheer numbers.

The poem reflects a traditional description of the demographic development of the world, a popular one due to its simplicity. The rich countries' population is dwindling, while that of the poorer and more "backward" corners of the world grows incessantly. In time, this process will render Europe to a very insignificant place in the world both economically and in other respects. This general idea has shaped views on potential futures in many types of demographic environments.

Of course, this idea emanates from a specific demographic situation. It seemed true during a period when the populations of the developed countries began to stagnate because both the reproduction rates and those of mortality were bottoming out, while the populations of the somewhat less developed were still growing strongly due to falling mortality. But this would not last forever: even the "Scythians" now face the same grey fate.

The causes of the gradual emptying of Eastern Europe, and not least its villages, lie in well-known factors: low fertility, high mortality, and immigration that does not suffice to keep the population from diminishing. These processes have been at work during the last 60 years at least, however, they were masked by the "demographic reservoir" of the Southern and South-Eastern parts of the Soviet Union as long as it existed. Nativity in the largest Soviet cities fell below replacement levels already in the end of the 1950s (in Estonia and Latvia this line had been crossed already before the World War II), and fertility in the entire Russia hovered around the critical point until end-1980s, but as long as the gaps could be filled with in-movers there was no problem. However, in the economic uncertainty of the transition period nativity went "through the floor", in Russia from 2.1 to 1.3 children per woman in only seven years, 1988-95. The first year of diminishing population in Russia was in fact recorded soon after the Soviet Union had been dissolved, 1994. The natural increase of population (births minus deaths) had turned into red already some years earlier.

It is however important to note that the cause of the diminishing population figures is not only low nativity. The chronically high levels of mortality even among middle-aged population makes the process run much faster than it would otherwise have done. During the first years of transition, Russia lost 600-700,000 persons in working ages every year. The death rate among males younger than 65 equals that of the entire Swedish male population, retirees included.

Looking at the mortality statistics of Russian Federation (and those of the surrounding ex-Soviet countries are rather similar in many respects), one is struck by the fact that the Russian figures exceed those of other European countries in so many categories, sometimes by so much that they seem incredible. For example, alcohol poisonings, according to Andrew Stickley and colleagues, are at a level of nearly 30 cases per 100,000 inhabitants (implicating the death of some 42,000 Russians!) per year, while European countries have less than 1 case. Russia is also nearly world-leading in homicide and suicide. The latter has, since the 1990s, wiped out a share of the population corresponding to the entire province of Novgorod (!). Considering that the figures for suicides and those for alcohol poisonings are of similar magnitude, and that those for homicide are not much smaller, the enormous scope of the influence of the excessive (and potentially avoidable) mortality becomes clear. The three above-mentioned causes of death, however, are not even among the largest killers in Russia or Eastern Europe.

Barring natural increase, the only possibility to maintain a certain size of population in an area is migration. According to Timothy Heleniak, migration, mostly from the Russian diaspora in the "near abroad", mainly Kazakstan, Uzbekistan, and Kyrgyzstan, can be estimated to have increased the Russian population by 3.6 million persons. This flow held the Russian population from dwindling even faster during the 1990s, however, the movement will unlikely go on forever, even though most of the Russians in the ex-Soviet countries have not returned. The Baltic countries, which had no such reservoirs (if the relatively small numbers of returning expatriates from the West is not counted) have since their newly-won independence experienced large-scale emigrations to both East and West. Between 1990 and 2010, the populations of Estonia, Latvia, and Lithuania diminished by 15%.

At the same time, the population of Eastern Europe is turning grey itself. The median age in Russia is 39.3 years, which places it among the oldest fourth of countries. Together with low fertility and high mortality, the relatively old (and rapidly ageing) population constitutes a major obstacle for economic growth, at least growth that is not based on the export of raw materials.

How are the Eastern European societies reacting to the problem? In 2006, Vladimir Putin raised demography among the central national themes in Russia by calling it "the most acute problem of contemporary Russia" in his presidential address to the Federal Assembly of the Russian Federation". Numerous measures larger and smaller have been planned and taken since then, the most famous of them probably being the sizable "bonus" (exceeding 10,000 USD) for the second child, the lack of which in modern Russian families is considered as the main threshold to be crossed if Russia is going to replace its population in the future. Ukraine has "maternity grants" corresponding to between 3,500 and 14,000 USD to mothers from the first birth on. The Baltic States remain more passive.

A complicating factor in the assessment of the demographic situation in Eastern Europe is the uncertainty of the data. For example, while the Census of 2011 finds 11.5 million inhabitants in Moscow, it is also estimated that additional 1.8 million persons are actually living in the city but

claiming residency elsewhere, not to mention the illegally residing population estimated to 1 million. In other places, the statistics show more inhabitants than there actually are: the Latvian Census of 2011 counted 155 thousands (or some 7% of the entire population) fewer inhabitants than was previously thought due to unregistered emigration. On the positive side it may be noted that the nativity rates were higher than expected due to there being less persons to calculate the population-related figures upon.

As much as the Russian government might worry about the demographic situation, Russia is by no means the country that has been hardest hit in the region. The silent emptying of the Eastern shores of the Baltic Sea has been a process with astonishingly large consequences. According to Latvian demographer Juris Krumins, Sweden had a century ago 5.52 million inhabitants, while Denmark had 2.76 million, to be compared to 1.07 million in Estonia, 2.55 million in Latvia, and 2.83 million in Lithuania. Put together, the population of the three Baltic countries amounted to 78% of the combined number of Sweden and Denmark. A century later, in 2011, the populations of both Sweden and Denmark have nearly doubled, to 9.48 million and 5.56 million respectively, while those of the Baltic countries have been more or less stagnant or even diminishing, with 1.29 million Estonians, 2.07 million Latvians, and 3.05 million Lithuanians living on their national territories. The current population of the Baltic countries is only 43% of that of the Scandinavian comparison. The picture painted by these figures is strong and counter-intuitive: it shows clearly that in the new demographics of Europe, the poorer areas no more act as suppliers of labour force for the richer ones, in fact, they do no longer even substitute their own populations but de-populate.

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Lithuania's Berlusconi – the Viktor Uspaskich phenomenon in Lithuania

By Ruslanas Iržikevičius

Lithuania's political establishment remains puzzled by Viktor Uspaskich's continued success. A political party created by the Russian businessmen suspected of tax fraud is the third most influential political force in Lithuania. Will Uspaskich continue to be one of the most influential politicians in Lithuania, and what are the reasons behind his success?

Uspaskich is a native of Archangelsk, Russia, and arrived in Lithuania in the mid-80s as a welder. It has been said he was one of the best welders in the USSR. He chose to stay in Lithuania and at some point huge amounts of money began pouring into his pockets. Ignoring the origins of this money — it is a matter for the Lithuanian State Security Department to decide if any laws were broken — why do so many Lithuanians vote for him?

Lithuanians are referred to as the Italians of the Baltics, but an Italy without a Berlusconi is not Italy! Lithuania's Berlusconi is a symbol of La Dolce Vita. His voters want to be just like him. Possessing a charming personality, Uspaskich speaks the language of the people; his limited Lithuanian-language skills come across as endearingly folksy. Although easy-going, he is at the same time a very rich and confident person. Upon being asked which politician they would like to have a drink with most Lithuanians chose Uspaskich. How many Lithuanians politicians can weld, play a guitar, sing, tap dance and crack jokes during a single TV interview? Asked why he had so many female numbers in his phone he joked it was better to be a womaniser than to be gay.

Uspaskich loves the camera, and the camera loves him. His appearance in any program dramatically increases its viewership. He doesn't need to own a media empire like Berlusconi because talk shows already vie for his attention. It should be noted his electorate get most of their information from TV. One opinion poll director noted a pattern; when Uspaskich was busy in Brussels during his term as Member of the European Parliament, the Labour Party's popularity plunged. Then only a few days after his return to Lithuania and taking part in various TV shows, popularity of the Labour Party ballooned once more: without the Uspaskich balloon the party cannot fly.

The deepening divide between city and country helps Uspaskich nurture his electorate. The three major cities were conquered by the Conservative Party during the last parliament elections for the first time. Still, small towns dramatically affected by emigration are turning into the black holes in Lithuania; the educated are moving on and leaving their townsfolk behind. Thus a party with no political ideology is attractive not only to such an electorate, but also to new recruits.

It is difficult for newcomers to advance in established political parties. It's not in the Lithuanian character to work patiently towards a goal; if I can take it now I will. So instead of working their way up in traditional parties, many politically active Lithuanians take the easy way out by joining a new party for a chance at success. It's also worth remembering Lithuania has a tradition of new political parties being created just a few months before elections. Few of those make it to Parliament and generally die out before the next election. Some of them, like the Labour Party, are still at large. It remains to be seen how long this will last.

A popular, funny, and rich man, Uspaskich was tolerated by the Lithuanian political establishment but never became a part of it. He is still an outsider, despite making various moves to be accepted into the "club". The political winds in Vilnius indicate his days are numbered. He has faced legal problems since 2006 due to alleged fraudulent bookkeeping practices of the Labour Party, which plays into the hands of various ruling coalitions. If he was said to have been "persuaded" to support a bill, the Labour Party was also seen to be willing to support it. However, he and his party seemingly crossed a line during the last Parliamentary elections.

A massive number of vote-buying cases alleged against Labour Party candidates set off alarm bells in Vilnius. If a political party starts attempting to buy its seats in Parliament this could spell the end of established parties. Established parties can compete in many ways with Uspaskich, but not with his money, especially if its origins are unclear. Such a hard-fought democracy already for sale? This is too much for many to bear. Uspaskich's immunity was swiftly stripped and legal proceedings against him are gaining momentum while his windows of opportunity are closing fast. He faces imprisonment; if he is to be sentenced it would spell the end of the party. The Social Democrats are already counting the new members that would pour into their ranks if the Labour Party meets its demise.

Uspaskich once said entering politics was a mistake. But was there really any other option in his mind? The man always appears to be on a mission. Lithuanians like to quietly speak about his real masters, but under no circumstances will they name them. Let that stay an open secret! However it seems this time the Lithuanian political establishment has won or Uspaskich's masters decided his mission is complete. Will the Italy of the North be able to live without its own Berlusconi? Not for too long it seems, because a second Lithuanian Berlusconi is already in the making.

To be continued…

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Evolving threats to property rights in Russia

By Jordan Gans-Morse

The collapse of the Soviet Union and the ensuing chaos produced extreme lawlessness. In rapid fashion a society with massive industrial assets plunged into an institutional vacuum. Courts, law enforcement bodies, and state regulatory agencies capable of enforcing the rules of the game for a modern market economy had to be created from scratch or rebuilt from the remnants of socialist institutions. In the absence of effective state institutions, firms turned to alternative forms of protecting property and enforcing contracts. Mafia rackets and private security agencies provided physical protection, collected debts, and adjudicated disputes among firms. When large sums of money were at stake, contract killings became a prominent means of acquiring or protecting assets. In short, outright force or the threat of physical coercion became common tools for protecting property and ensuring adherence to business agreements.

Today, two decades after the fall of the Iron Curtain, high-profile cases of property rights abuses continue to dominate journalistic accounts of Russia, as well as many policy and academic studies. But this narrow focus is misleading. It offers a skewed portrayal of modern-day Russian business practices. In part, this is because such accounts often concentrate on a handful of tycoons and the extent to which these "oligarchs" hinder or promote the development of the rule of law.

By contrast, my ongoing research, based on surveys of Russian enterprises and in-depth interviews with Russian businesspeople, lawyers, and private security agencies, reveals a fundamental shift in threats to property rights in Russia. Whereas extortion rackets and other forms of physical intimidation once posed the gravest threat to property rights, state actors are now the primary aggressors. There has been a dramatic decline in threats related to private coercion, due partly to firms' increased reliance on formal legal institutions. By contrast, state threats to property rights have increased sharply. Key threats include seizing firms' assets, illegal corporate raiding, extortion, illicit fines, and unlawful arrests of businesspeople.

The decline of private force

Criminal rackets now play a minimal role in Russian business. In the late 1990s, surveys reported that more than 40% of small firms experienced recent contact with protection rackets. By contrast, less than 8% of small firms (and less than 4% of all respondents) reported such contact in a survey I conducted during the summer of 2010. Similarly, whereas approximately 40% of businesspeople in the late 1990s reported having experienced violence or threats of violence, less than 5% reported such incidents in my recent survey. Research by Russian sociologists confirms these findings. N.S. Matveeva, for example, analyzed murders of businesspeople in the Central Federal District of Russia and found that such murders have fallen yearly, from over 200 in 1997 to 33 in 2005.

The rise of law

Russian firms now use the courts extensively. The number of annual cases initiated by firms in Russia's commercial courts (*arbitrazhnie sudy*) rose from a low point of approximately 200,000 in 1994 to over 1 million by 2009 – a 400% increase. This rise is not due to increased conflicts but rather to firms' increased willingness to use litigation. According to my survey, 54% of respondents reported being more willing to turn to the courts today as compared to 10 years ago. Meanwhile, 33% of respondents said that their willingness to use the courts remained unchanged, and only 6% of respondents replied that they would be less willing. Even far outside of the major cities, increased use of courts is apparent. As a lawyer in the Siberian town of Barnaul explained to me, "People more or less have come to resolve disputes in a civilized way, by going to court….[The courts are so full that] to move through the corridors of a courthouse is now impossible." Firms increasingly are willing to litigate even against the government. Between 2000 and 2008, cases against the tax authorities and similar government agencies rose from around 24,000 to over 90,000.

The emergence of a predatory state

The decline of violence and criminal rackets is a significant improvement in the Russian business climate. But other types of threats have risen in their place. As Russian firms turned away from private force in the mid-to-late 1990s, they began to rely on corrupt government officials. For a fee, law enforcement officials offered many of the same services previously provided by criminal protection rackets, such as debt collection, contract enforcement, and adjudication of disputes. Along with law enforcement rackets, corrupt bureaucrats continue to pose a significant challenge for Russian businesses. At times, government officials themselves instigate inspections or harassment of businesses in order to receive bribes. In other cases, firms pay officials to selectively conduct tax, fire, or sanitation inspections in order to pressure competitors or counterparties in a dispute. In the survey I conducted, 25% of firms reported a violation of their legal rights related to collection of fines or payments by a government agency.

The most fearsome threat occurs when law enforcement officials, either at their own behest or on behalf of a paying client, threaten entrepreneurs with trumped up criminal charges such as fraud or money laundering. To avoid prosecution, firms are forced to pay bribes or sell off assets at below market prices. Nearly 6% of respondents — more than 1 out of every 17 firms — in the 2010 survey I conducted reported having been charged with crimes they did not commit.

Conclusion

The Russian business world has undergone a remarkable transformation throughout the last two decades. The coercion and criminality of the 1990s have largely faded into the past, but new forms of corruption and extortion, often linked to state officials, continue to make Russia a rugged place to do business. Russian firms are increasingly willing to rely on the judicial system and law enforcement agencies to resolve business conflicts. In this sense, a "demand" for law is emerging from the private sector. Whether Russia's leaders are willing and capable of providing a "supply" of high-quality legal institutions remains to be seen.

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FRUCT – Academia-to-industry cooperation engine and incubator of new competences and businesses

By Sergey Balandin

The main emphasis of FRUCT Association is incubation of new competences and businesses as a product of academic and industry-to-academia cooperation. FRUCT has been established in 2007 and nowadays unites teams from 22 universities of Russia, Finland, Ukraine and Denmark. Originally FRUCT was an acronym for Finnish-Russian University Cooperation in Telecommunications. The region of Finland and North-West Russia is the main geographical focus of the association, but nowadays it has partners and activities also in many other regions, e.g., Italy, Norway, India, etc.

FRUCT Association is an independent informal community with minimal bureaucracy overhead. It is community-driven provider of cooperation ecosystem that helps to find research and development partners. It is important to note that FRUCT does not pretend to ownership of the developed intellectual property and is not involved in IPR registration, i.e., when partners decide to create new IPR they directly negotiate conditions.

Also FRUCT is a forum to find partners interested in sharing costs of certain activities and services, e.g., FRUCT organizes regional outreach tours of lectures to promote technologies, attract best students to university study programs, find good employees, etc.

Many university groups are actively working to apply their scientific results in business. But to be efficient they need industrial feedback and guidance on up-to-date trends and demands. FRUCT is based on idea that cooperation of industrial and academic research is the key driver for growth of the innovation ecosystem and development of successful startups.

The main challenge is to facilitate development of such cooperation, i.e., propose a scalable process with high ratio of success stories. FRUCT was designed as an open innovation framework targeted in developing partnership between industrial and academic research. FRUCT projects target long-term research topics that are interesting for industry. Unlike topics related to product roadmaps, long-term priorities of companies usually are open and often even well visible via various challenges, joint research labs and so on. Focus on long-term research is more natural for universities and provides wider scope of opportunities for young teams, comparing to well-established areas with clear gurus. But such long-term research projects are very risky and often industry is ready to pay for results or clear progress, but not just for research, i.e., move risks to university. We address this challenge by giving students an opportunity to lead development of such projects. Of course it is voluntary activity and students know that there is no direct payment for such projects, but it is a huge opportunity to work on real research topics under supervision of top experts from industry and academy. Plus if project gets successful then often student receive some reward from companies or at least can present the project in challenges and award contests and so get compensation. Most importantly students are getting new knowledge, understanding on how to use it and professional network. As a result FRUCT graduates are welcome to the best industrial and academic organizations and many decide to apply developed competences for own startups.

This approach is also beneficial for the supervising academia and industrial teams, as such projects fuels cooperation in the very early stage, incubates required competences and provides ground for further development of classical cooperation projects between the partners.

To be attractive for the students, FRUCT is active in community building activities, education renewal and organization of events and activities that increase students' interest and motivation to learn more about future of ICT. So we target to enhance interest to science and builds efficient and cozy infrastructure for collaborative work on distributed research projects. FRUCT Oy has been created as a business incubation and company for managing the association activities.

Yearly association organizes winter and summer schools, at least three free student conferences, helps students to publish over 70 papers, facilitates work of over 50 projects, takes part and wins many contests, grants and so on. FRUCT and IEEE ComSoc are the sister societies.

FRUCT association is created on top of voluntary community and nowadays turned into a competence and business incubator. The activities can be clustered to three groups: trainings, research and infrastructural.

In average FRUCT organizes free trainings on hot modern technologies once per 3 weeks and mostly cover region of North-West and Central Russia and Finland. Research potential of FRUCT is based on a regional network of 8 laboratories. The key research priorities are: mobile healthcare (m-Health) for early diagnostic, wellbeing, fitness and smart new services; Internet of Things and Smart Space technologies; geo-location, context-awareness and LBS; cross-platform architectures. Infrastructural activities are targeted to develop efficient distributed cooperation framework for FRUCT community and coordinate work of the professional communities. FRUCT supports four regional communities: Mobile Healthcare community, Smart Spaces and Internet of Things community «Are You Smart» ruSMART, Russian Qt community and Russian Mobile Linux community.

We welcome new academic and industrial partners to join our activities. More information can be found at www.fruct.org and by email info@fruct.org.

Sergey Balandin

President

FRUCT Oy

Finland

The marine valley in Klaipėda – for development of Lithuanian maritime sector

By Julija Bendikienė

In 2008 the Government of Lithuania has launched the most ambitious goal ever to invest into its R&D market: 5 different programmes for development of 5 Integrated Science, Studies and Business Centres (called valleys) with public investment of about EUR 500 million (75% - EU funds) were launched with an aim to support the synergy of science, studies and business in different sectors. All valleys are located in 3 largest Lithuanian cities. One of five valleys – the Marine Valley - is located in Klaipėda, the only one seaport city of Lithuania. Though our coastline is one of the shortest among EU maritime countries (~90 km), the sea and the coastal region are very significant for the state's economy and welfare. Our maritime sector, comprising about 900 companies, is directly or indirectly linked to 18 % of GDP and creates around 30 thousand jobs, which accounts for almost 4% of all jobs in Lithuania. Despite positive economic effects, the Lithuanian maritime sector lags behind other Baltic Sea countries both in terms of the size and its value added per employee. Thus sufficient financial and scientific resources are required for stimulation of innovations and technological development. For this purpose main objectives of the Marine Valley have been set, including the creation of a modern research infrastructure; increasing the scope of R&D activities in maritime projects and raising global competitiveness of our maritime businesses.

The main initiator of the Marine Valley is Klaipėda University, since its establishment in 1991 concentrating its activities on marine science and academic studies. Its strong background was one of key pillars for physically settling the Marine Valley in the University campus and determining two major research fields - marine environment and marine technologies.

Different stakeholders, involved in the Marine Valley, play special roles: Klaipėda University consolidates modern research infrastructure and scientific potential, Klaipėda Science and Technology Park facilitates the cooperation between science and business in the region, Association "Baltic Valley" coordinates interests of associated key players of maritime industries. Such triple-helix partnership characterizes necessary elements of the research-driven cluster. As an emerging marine cluster, the Marine Valley has joined the network of European marine clusters of Sweden, Great Britain, Portugal, Ireland and France in recently commenced FP7 project REMCAP.

Being the flag bearer of the Marine Valley, Klaipėda University experiences the period of challenges. One of the tasks is to develop research infrastructure. Four new open-access research laboratories are established and gradually supplied with modern research facilities: Laboratory of Marine Ecosystems, Laboratory of Marine Chemistry, Laboratory of Researches of Reliability of Maritime Structures, Laboratory of Waterborne Transport Technologies. In two years the research facilities will be supplemented by new multifunctional research vessel for carrying out any modern oceanographic research. In November 2012 the contract for design and construction of the vessel has been signed with shipbuilder "Western Baltija Shipbuilding" (BLRT Group AS), located in Klaipėda.

Besides development of the research infrastructure, another task is of vital importance – to consolidate scientists working in interdisciplinary maritime fields that are dispersed in different University departments, as well as other research institutes. For this reason the Marine Science and Technology Centre, as a knowledge core of the Marine Valley, has been established in the University. It incorporates open access research laboratories and unites scientists of different University divisions – the Coastal Research and Planning Institute, already internationally recognized in the interdisciplinary Baltic Sea and lagoon research, Mechatronics Science Institute and others. In collaboration with Lithuanian and foreign partners, scientists consolidate their efforts to tackle major marine environmental problems within different projects (CLEANSHIP, INNOSHIP, SAMBAH, MOMENT-UP, SUBMARINER, DEVOTES, VECTORS, ARTWEI, WEBLAB, REMOWE, MARINECLEAN, PARTISEAPATE, ECO-REFITEC, etc.).

To encourage formation of the innovation ecosystem in the Marine Valley, the Technology Business Incubator is to be opened in 2014 for start-up companies that need open space, special equipment and tools for virtual modeling and producing prototypes. However, several key issues should be properly approached in order to make the established infrastructure serve as high-performance platform for cooperation among research, education and industry:

- effective and clear management of infrastructure, with clear dedication to excellence and feasible key performance indicators (such initiatives as RAMIRI is a great possibility for improving management skills of personnel);
- implementation of smart specialization principle, avoiding duplication of resources of different players;
- closer interaction with businesses and continuous development of capacities required for translating research results into new products and services;
- encouraging mobility of researchers, inspiring their motivation for international competitiveness; raising entrepreneurial culture;
- availability of sufficient financial resources for operational phase of the infrastructure.

Overcoming of these challenges, cooperation with all stakeholders of the Marine Valley, networking with European infrastructures and scientific communities and devoting necessary resources will enable us to contribute to unlocking the potential for the blue growth.

Julija Bendikienė

Deputy Director

Marine Science and Technology Centre

Klaipėda University

Lithuania

The Yanka Kupala State University of Grodno (YKSUG) and its international projects in the Baltic Sea region (BSR)

By Irina Ledchenkova

The University named after the famous Belarusian poet Yanka Kupala has always been one of the most "Baltic" higher educational institutions in Belarus. One reason for this is the place of origin. The city of Grodno is divided by the river Neman, the basin of which unites Belarus with three other Baltic states – Poland, Lithuania and Kaliningrad region of Russia – and finally with the Baltic Sea. It is the Neman that created the topic for a number of projects in the region actively supported by the University:

- Tacis/Phare CBC Small Project Facility "Creation and Networking of the Belarus Bureau of the "Neman" Euroregion in Grodno".
- Tacis project "Regional Development and Nature Conservation in the Niemen Euroregion".
- INTERREG IIIB / TACIS № SV-148 "Cross-border cooperation of neighboring regions of Belarus and Lithuania for improving ecological safety of a common water basin".

Those projects apart from other things have resulted in strengthening the role of YKSUG in developing the strategies for Grodno region and cooperation with local authorities. And finally it led to the opening of the Bureau of the Euroregion Neman at the University in April 2012. The Bureau is responsible for coordination and development of cross-border projects in Grodno region.

The stable contacts of YKSUG with Polish and Lithuanian partners put the beginning for a new range of cross-border cooperation projects in such fields as tourism, ecology, cultural heritage, business and innovation. Such actions are giving an opportunity to solve the common problems and learn from neighbors.

It is the cross-border cooperation programme Poland-Belarus-Ukraine 2007-2013 that in 2011 gave funding to the project "Improvement of cross-border region attractiveness through introduction of ethno-cultural resources into tourist activities" coordinated by YKSUG. And it is the first time when the Belarusian university took the leading role in EU project. The project aims at improving competitiveness and cross-border tourist attractiveness in the region.

Apart from cooperation with institutions from neighboring regions the YKSUG has been developing its "Baltic" activities by networking with partners in Latvia, Finland, Germany, Sweden and Estonia.

One example is the Tempus-TACIS SCM-2003 Project "Transferring EU Quality Assurance to YKSUG" with Mjärdevi Science Park (Linköping, Sweden) as a lead partner. The action was finished in 2008.

Cooperation with the Riga Business School of the Riga Technical University (Latvia) presents another good example of academic interaction. The project was targeted at the creation of the Master of Business Administration Program (MBA program) in Belarus.

Among the presently running initiatives is the BalticAirCargo project funded by the Baltic Sea Region Programme 2007-2013. The mentioned project coordinated by Hochschule Wismar (Germany) unites 14 Partners from 8 programme area countries and aims at improvement of the air cargo transport sector by service oriented ICT-methods and processing logistic network. A number of important strategic decisions for further development of aircargo sector in regional airports is expected to be the project results.

Another interesting ongoing initiative to be mentioned is the Baltic Sea Region Caucasus Network (BASERCAN), the project launched by the Aleksanteri Institute of the University of Helsinki granted by CIMO, the Centre for International Cooperation within its North-South-South Higher Education Institution Network Programme, and funded through the development cooperation funds of the Ministry for Foreign Affairs of Finland. BASERCAN is planned to become an active instrument to increase student and teacher mobility between universities in Finland, Georgia and Belarus.

An important role in the Baltic vector of the YKSUG international activities is given to the membership in the Baltic Sea Region University Network (BSRUN) and the Baltic University Programme (BUP). While the first one mainly gives opportunities for administrative staff to network and launch new projects, the latter one provides the platform for teachers and students to cooperate for sustainable development.

International exchanges are an integral part of academic and administrative processes of the YKSUG and most of them are with the partners from the Baltic Sea Region. In 2011 the University joined two Erasmus Mundus projects coordinated by the University of Turku and one more by Mykolas Romeris University in Vilnius.

Thus, the projects with the BSR partners have always been strategically important for the YKSUG. And at the same time it often became the bridge for cooperation between the organizations inside and outside the Baltics.

The Republic of Belarus is not always directly associated with the Baltic Sea Region. But the example of one particular University and the overview of its international projects show how fully the country is in the Region at least on the level of people-to-people contacts. The status of Belarus as an Observer in the Council of the Baltic Sea States, its involvement in a wide range of EU funding instruments is leading to intensification of cooperation with the Baltic neighbors and results in new projects that are bringing more value for further development of the region from both sides of the border.

Irina Ledchenkova

Head of Project Office

International Cooperation Centre

Yanka Kupala State University of Grodno (YKSUG)

Belarus

Borders to define a Baltic Sea region

By Karri Kiiskinen

It is easy to take for granted the freedom of movement in the Baltic Sea region especially after the Baltic countries and Poland joined the Schengen area in 2007. Border crossings have become a self-evident part of diverse projects activities as well as in everyday life. Even if we still tend to lead lives that look for roots rather routes, it is increasingly possible to encounter each other also "at home". It is, however, far less clear what it means that certain practices of border crossing have become self-evident, and what are their effects on the way that people live their lives in the region? Apart from the EU funded border-crossing programs, we also have those that put emphasis on local and regional cultural originality as means to support people in facing the demands of this "borderless" era. It seems that our capacity for bordering, that is, how we can negotiate the many borders in the BSR (Schengen, physical, social *and* cultural) is a force to be considered when deciphering the present/future processes shaping the region.

In terms of safeguarding the well-being of people in the present as well as in the future, issues of environment tend to come to the fore. Considering the future of the Baltic Sea itself it is a self-evident matter that national borders need to be transcended. One can ask, however, if the border related practices contribute in a sustainable future, and for whom? Within the EU, border crossings are increasingly understood in terms of shared practices networking, commodified culture (i.e. art, heritage) as well as objectified differences (often stereotypic images of national/regional/local cultures). Undoubtedly, these can serve well interactions across borders and the networking based on common interests but to what extent can these practices meet the demands of local well-being? Some (extreme) examples from internal and external EU borders suggest how people are engaged in actions for a common future.

First one has to note that there is nothing self-evident when it comes to borders in a "borderless" world. In case of such transnational regions as the Øresund region between Sweden and Denmark, where the actual everyday border crossings increase, there is also hit back effect which suggests that "nothing changes". National stereotypes seem to flourish since they simplify interactions ("others" are similar but different in a safe way) and when they can be used to emphasize the experience of border crossing (i.e. in order to attract tourists). Here also other, partly conflicting, experiences emerge when for daily commuters across the sound bridge, or migrants, border crossings seem to be "nothing specific".

At the Polish-Ukrainian external border of the European Union an immigrant is hardly able to cross the border without facing its strict controls; selectivity is a known and "self-evident" aspect of the border (i.e. smuggling, visa). The border is also affected by narratives of ethnic cultural heritage (Poland had to give up its eastern part to Soviet Union after II World War). Now this "common heritage" is not only a symbol of good relations (and networking) between Poles and Ukrainians, but may suggest the capacity of local people in safeguarding local well-being at the border. Typically, cultural projects here engage local people at home and across the border by discovering local, multicultural material heritage - with diverse results. However, also the EU border itself can be engaged. As one Polish local actor put it: "It can be a crazy idea", but he seeks to "engage the structures". He organizes annually a religious procession to a chapel located at the borderline as well as a popular music concert. First, the audience is the local community, but then a public of 30000 people takes part in the concert at the borderline. For him, it is important that the EU defines the border, but since it is not doing that in a proper way, local heritage and culture is a resource for defining it. Now, a border crossing point is under construction in one of the concert locations.

It seems that the outcomes and cultural logics of projects can be increasingly diversified. Project actors may focus on pragmatic aspects (as in Finnish-Russian cooperation). Focus on pragmatic aspects is clearly not the only option for defining engaging local people. Also the EU funded cross-border cooperation programs at the external EU border (ENPI 2007-2013) define 'culture', not only in terms of support for cultural diversity, but also as a "difficult to define" area of cooperation. Thus, not only the EU border itself, but also diverse programs suggest space for thinking alternative border crossings and considering whose borders are addressed. In cooperation, routines are needed but there is also room for people who do "crazy" things, find new ways of including "others", and address those (often hierarchizing) processes that continue to mark, not only people, but also their futures as different.

In the BSR, the Baltic Sea is a natural border which is shaping the "self-evident" practices of border crossing. The question is how these contribute in cultural bordering also further away from the physical border? Perhaps the BSR can, someday, be verified as a transnational region where also everyday lives in many places are "nothing specific" (i.e. work migrants a resource also with intention and possibility to settle down). We can contemplate this "challenge" (also in future projects) by thinking the boundaries that tie us to places - not forgetting that this is already a reality for many.

Karri Kiiskinen

PhD student

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The Arctic – regional challenges with global consequences

By Klavs A. Holm

The Arctic agenda is both political and global.

Only a few years ago, the Arctic was not known for much more than simply being in the opposite end of Antarctica. But due to the melting of the ice cap, the Arctic agenda today consists of a number of issues that each carries such importance that countries thousand miles away have a close interest in the area.

One of the items often mentioned are the possible navigation opportunities that open up the Northern Sea Routes, NSR when the ice melts. This will cut 25 % and 40 % respectively of the sailing distance from Europe. Yet, it is less than 100 ships that sail northeastwards to Asia each year in contrast to the more than 20,000 ships that pass through the Suez Canal. Nevertheless, a country like Singapore follows the development closely because it can pose a future competitive challenge for the port of Singapore, which today is the major distribution center for goods to all over Asia.

Another important agenda point is the role of the Defense force. Analyses often refer to an increase of the military expenses in the Arctic and that we thereby have proof of a new arms race. But one tends to forget that the assignments of the Defense in the Arctic region have changed. A main task is of course still sovereignty enforcement through the presence of aircrafts, ships, dog sledges, satellites, etc. But at the same time the Defense must also deal with a number of more civilian tasks, such as environmental monitoring, license compliance, fishery inspections, and rescue at sea.

Exploration of oil and gas resources is also a sensitive issue. Data from the USA estimate that 30 % of the world's gas reserves and 13 % of the oil reserves lie hidden in Arctic. But the reserves are hard to reach. Arduous geological surveys and advanced drilling ships have to be used. The task is so huge and complex that the oil companies cooperate, but the efforts in the Greenlandic area have not yet resulted in oil or gas findings that can be commercially exploitable. However, when this happens it can impact the global oil price and have consequences for countries e.g. in the Middle East.

At the same time "the worst-case scenario" lurks beneath the surface: an unforeseeable oil spill accident. In the vulnerable Arctic environment, such an accident could cause incalculable consequences for the Arctic nature, which people live and feed off. Also, the already exposed economies in the Arctic would suffer unpredictable consequences.

In the Arctic Council, member states are just finalizing negotiations on an oil spill agreement. The agreement sets out the division of labor between the countries in the event of an oil spill, and the intention is to carry out practical exercises between the Arctic countries, just as it has been done on the rescue area.

Also, the exploitation of minerals in the Arctic, especially rare earths, is followed closely around the world. In this area, China has slowly built up its production capacity and controls more than 90 % of the global production.

The Arctic has become the scene of economy and politics. But the international cooperation in the area is going really well – in fact so well that it could be a lesson for a number of the world's hotspots. First and foremost, the countries involved have pledged to resolve potential territorial conflicts through negotiations based on international law. Denmark, Greenland and the Faroe Islands contributed by proposing the strong declaration text – The Ilulissat Declaration adopted in 2008 – between the five Arctic coastal states: USA, Canada, Norway, Russia and the Kingdom of Denmark.

In addition to the agreements on Search and Rescue (SAR) and combating oil spills, the negotiations move forward in the International Maritime Organization (IMO) concerning rules for navigation in Polar Regions. In the meantime, discussions on a wide range of other issues take place in the Arctic Council in a viable and cooperative atmosphere which you rarely experience as a negotiator in international forums.

There is a lot of hype in the media about the Arctic. This concerns both the economic outlook (with Klondike references in the rhetoric) and high political perspectives associated with other countries' involvement in the Arctic. There is therefore reason to look at the interests of some of the other players.

The media has especially focused on China. It is true that China has shown interest in the Arctic, not only in Greenland, but also Iceland. It is no surprise if the Chinese want to take part in exploiting the existing economic opportunities just like Danish companies aspire to establish themselves and make profits in China. So far, media attention has focused mainly on possible Chinese involvement in the establishment of an iron mine in the Godthåb fiord. That's not quite the same as saying China is settling on all of Arctic.

Researchers have also paid attention to the role of Russia. The Arctic was the scene of a major build-up during the Cold War, not least from Russia. And economically, much is at stake for Russia in the Arctic – it is assumed that about 30 % of Russia's GDP in 10-15 years will be generated in the Arctic area.

That is why the economy is the main interest of Russia that is first and foremost security of natural resources, but also the North-East passage and territorial claims towards the North Pole. But does this make Russia into a potential threat to security in the Arctic? In this aspect, one must probably call off the confrontation scenario. Russia, as the other Arctic powers, has no interest in a military conflict in the region.

The conclusion is that the situation today doesn't give rise for concern that the Arctic is becoming a new confrontation area. It is more likely that the cooperation between the Arctic players – both state players, business and NGOs – will enhance in the light of the immense tasks that lie ahead of us in the 10 million square kilometer big region we call the Arctic.

Klavs A. Holm

Under-Secretary for Arctic Affairs

Ministry of Foreign Affairs

Denmark

Arctic cooperation and business

By Hannu Halinen

Since spring 2012 there has been a renewed and intensified interest in the Arctic issues at Finland's political leadership. For President Niinistö this question is one of his priorities and he has shown from the beginning that he is ready to take initiatives. The government has had two special sessions on the Arctic, agreeing on priorities and guidelines, and launching a process to completely redo our Arctic Strategy from 2010. The new strategy is expected to be finalized by summer 2013. It would contain setting coals; concrete measures to achieve them; identifying responsible actors and stakeholders; and finally, assessing costs involved. The task force preparing the strategy will also listen to the views of a wide variety of relevant sectors of the society.

The Arctic vision of the Finnish government is as follows: "Finland knows how to reconcile business opportunities and potential in the Arctic with sustainable development and environmental requirements through international cooperation".

The starting point is the firm belief that Finland has a significant Arctic expertise based on our long experience as an Arctic country, as well as on our clear focus on research, training and education. In exploiting the business potential we see two basic conditions:

- all activities need to be based on international and national laws and regulations; and
- the environment, sustainable development and social wellbeing of the people living in the area have to be taken into account.

What it means is that arctic issues have to be dealt with in an integrated rules-based multilateral framework, with an emphasis on comprehensive security and environmental sustainability.

The government is looking for ways and means to facilitate business contacts and promote effectively our economic interests. In addition to existing channels the newly activated Team Finland concept will look into this sector. Simultaneously, Finland will expand her bilateral Arctic Partnerships from Russia to other Arctic countries.

There are a number of topical issues – and challenges – we need to tackle with – in Finland and in the region around us – in order to reach a flourishing Arctic business. Let me just list here some of them: lack of information has been highlighted particularly in Northern Finland and among the SMEs; obstacles to investments (many activities are capital intensive and there are clear gaps in capital markets); infrastructure and logistical needs (here we need to cooperate with the neighboring governments, set priorities and reach decisions); insufficient regulatory frameworks; labour markets (need for qualified labour, and policies to respond to changing demands); languages (particularly Russian and Norwegian); and alleviation of border transits.

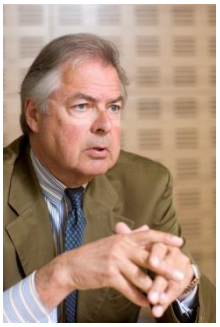
All in all, in the Arctic there is no hype, but there are no easy wins, and no gold rush, either. The circumstances are – and even with the climate change remain – tough. With determination, planning and cooperation much can be achieved. Internationally, the organizations – like the IMO – are doing their share. And now regionally the Arctic Council is upgrading its role in the economic matters. In its inception in 1996 the Arctic Council was an environmental forum. During the years its importance has grown and its mandate expanded. While adding business on its agenda the council would be wise not only to look how to enhance economic potential within the Arctic, but recognize its global role and engage and facilitate global business interests.

In concluding I would stress that the public and private sector should proceed hand in hand in the Arctic. Governments – at least in the case of Finland – are doing quite a lot. It is now for the companies, whether large, small or medium-sized, to catch the ball and get deals. The challenges mentioned before can be overcome together. But the deals are up to the business.

Hannu Halinen

Ambassador, Arctic Affairs

Finland



What's next in the Arctic?

By Martti Hahl

Up to one third of the world oil and gas reserves are in the European High North. The basic minerals and precious metals are just being discovered in the same area. Iron ore has been, and still is, the backbone of the High North minerals supply. And the professional minerals exploration is just getting started. The High North is the treasure cave of European Arctic.

But even more exciting is the development in transports and logistics.

In 2012 in the period of May to November 46 ships passed along the Northern Sea Route. In 2011 the number was 36 and in 2010 only 4. There is a good reason for this steep growth, but still modest numbers. By using the Northern Sea Route the travel time is cut from the average of 30 days from Rotterdam via Suez to Shanghai down to 14 days. Each day costs minimum 100.000 € for the shipping companies so the math is simple. But the Northern Sea Route shipping season is still short, only 6 months at best. There are not enough of ships of proper ice classification, especially the large ones. The piloting ships/ice breakers are limited to those of Rosatomflot. The number of ice breakers is not sufficient and the fleet is becoming old. The rescue and environmental protection structures are still in their infancy.

Russia has understandably kept a tight leash on the ships willing to use Northern Sea Route. Rosatomflot is escorting all the ships along the Russian coast line with its nuclear ice breakers. This is in order to ensure the safety of the ships, avoid accidents and thereby prevent environmental risks. Rosatomflot is of course charging market prices for its services.

Summer 2012 was special. The Chinese ice breaker Snow Dragon made the East-West journey from Bering Strait in the convoy led by a Russian nuclear ice breaker. After completing the Northern Sea Route the Snow Dragon continued its route to Iceland. From there it took the aim straight through the ice of the Arctic Ocean very close to the North Pole. By doing this, it succeeded with a minor prestige coup in the same way it had done a few years earlier. It had "disappeared" from the Canadian defense radar and appeared unannounced in the small Canadian arctic city Tuktoyaktuk in 1999. Now it accomplished the same kind of feat by appearing in the Russian radar only after already having crossed the Arctic Ocean and entering the Bering Strait on the way home to China.

This was showing Chinese muscle and making a point that the Transpolar Route across the Arctic Ocean may render the Northern Sea Route obsolete before it even gets started. Of course this would take time, but the global warming has already melted the Arctic Ice cap area to all time low. The Arctic is an ocean, which is "just water" covered by ice. When the ice melts away, it will be a new short transport route on international waters.

In the Arctic Summit, arranged by the Economist, in Oslo, in Mid-March 2013, Mr. Huigen Yang, Director General, The Polar Research Institute of China, made a statement, which was an eye opener for many. The distance between Shanghai and Hamburg is 5200 kilometers shorter via NSR than through Suez. China is expecting to reroute 5-15% of Chinese ship transports, mostly container traffic, by 2020 to Northern Sea Route. If the volume would be 10% of the Chinese container transports, the value of the transported goods would be more than 500 B€ per year.

It is less than seven years until 2020. If the scenario is going to be realized, there will be imminent need for support and service structures, ice going container ship technology, ice going ships, ice breakers of different types, support vessels, safety and rescue equipment, ice mapping and navigation support by satellites, oil spill prevention and management etc.

For Nordic and Baltic countries the opening of Northern Sea Route, the appearance of Chinese and Korean ship transports between Asia and Europe would change the spectrum for transports and logistics dramatically. Export of minerals, export and import of energy like LNG, import of tools will require rethinking of the national, Nordic and Baltic transport strategy, which in turn will decide the future competitiveness of the Nordic and Baltic countries globally.

The People's Republic of China has applied for an observer status in the Arctic Council. The Arctic Council members, The Kingdom of Denmark, including Greenland and the Faroe Islands, The Russian Federation, United States of America, Canada, Norway, Iceland, Sweden and Finland have to decide how they will respond to the requests for observer status from shipping countries like Singapore, Italy and others. The current observers in the Arctic Council are France, Germany, the Netherlands, Poland, Spain, and the United Kingdom.

China, by applying for the observer status in the Arctic Council, is also aware of that by being admitted, it will comply with the United Nations Convention on the Law of the Sea, which has not always been the case on other parts of the globe.

So the answer to the applicant requests is simple and I will refer to Mr. Espen Barth Eide, Norwegian Minister of Foreign Affairs in Kirkenes during the 20th Anniversary of the Barents Regional Cooperation. He concluded the Arctic Council observer status applicant situation in the following way: "It is better to have them inside with us, instead of having them outside and against us".

Martti Hahl

President

Barents Center Finland Oy

Finland

Barents Center Finland Oy was established by the initiative of the Northern Finnish Cities, Counties, Universities and Professional High Schools in January 2011. The objective was to create a good communication with the authorities in the Barents Region.

It is a non-profit match-making organization promoting Finnish competence in the Barents area.

BCF has created a database of all open Public-Private, Public and Published Private Tenders in Northern Norway, Northern Sweden and North West of Russia. The database/tenders are up-dated monthly and the up-dates/reports are provided to the shareholders.

BCF communicates directly with the local Finnish Embassies and Consulates in the Barents area in order to provide assistance for business and entities, in applicable cases, and advise for relevant Finnish authority support.

Arctic of Russia – freezing hot business topic

By Kirsi-Maarit Poljatschenko

The world's Arctic territory remains passion and puzzle for the many exploring people who are eager to solve problems of urbanizing local citizens in cold and dark conditions. At the same time specialists consider ways to preserve and protect sensitive environment which is becoming accessible both for global technology giants and possibly for global campers and eco-tourists. Certain Arctic areas are under dispute and when it comes to national and international waters along the Northwest Passage, dialog is complex and long lasting. National stakeholders safeguard their countries' rights and ownership on basis of historical events and border setting. In bull's eye are those expected economic opportunities which should materialize in wealth and income in the future. Everyone seems to agree that the Arctic ice continues melting.

What could be Finland's role in the race for Arctic business opportunities? We are arctic people ourselves and the know-how related to snow, ice and darkness should be a serious asset when doing business in Russian Arctic territory, Murmansk region as an example. Yet many Finns have reasons for not going there – surprisingly these reasons actually relate to snow, ice and darkness! The root cause for many perceived inconveniences in Russian market might actually be the language barrier: Finnish people don't commonly speak Russian. This is a stumble block – many Arctic business tenders are public and available for bidding over websites, but in Russian language, not English.

Writer was recently involved in Finnode foresight study on topic of Arctic Sea Exploration, with purpose to motivate and inspire Finnish business stakeholders to assess their product offering with respect to Arctic territory of Russia and it's future. Conclusion was that the existing Finnish technologies are and will continue to be in high demand in regions of Murmansk and Arkhangelsk – we actually called our report 'world's largest shopping list'- but the Finnish entrepreneurs seem hesitant to go and explore the market. Diversification of local arctic production is an opportunity for neighbor countries and necessity for Russia; natural resources may be endless reserve for the country but modernization of technologies is required in order to compete against competition with new products such as shale gas.

Another observation: while the Russian Federation officially promotes attractive finance portfolios and investment schemes for technologies and industries in the Arctic, the local labor market is firstly urbanizing and secondly diminishing. The trend is baffling: Rubles coming in and people moving out. For Russian Federation, it is of utmost strategic importance to attend and appreciate wellbeing of the Arctic people; the recently signed Arctic Strategy 2020 of Russia underlines development needs of communal services and facilities of housing, recreation and education. Reasons for negative demographic trend of the local population seem to coincide and match with reluctance of Finns to do business in the Arctic: freezing environment, isolation and poor infrastructure. All these challenges provide business opportunities today and tomorrow.

Logistics of people and goods have always enabled opportunities in international commerce and Arctic zone is not an exception – road infrastructure and cargo logistics require planning work and Arctic construction know-how which Finland can offer. There is plenty of room for virtual services and innovations: various cloud services, e-solutions and virtual platforms are required in order to get remote assistance in harsh weather conditions or simply to have fun in the Arctic. There is also room for inspiring online games, cold-resistant devices and voice interfaces for communication. Traditional construction business will be booming for decades as the Soviet infrastructure is ageing. Some practical and simple steps could be taken at any moment in order to vitalize business relations: airline connection from Northern Finland to Murmansk would initiate opportunities and boost new businesses both in Russia and Finland simply if travelling was easier for people in business and pleasure.

The distressing general fact remains, that most of the historic future visions never came true and the future became different. Some of the revolutionary visions actually did come true but as the forecasts were not taken seriously, future again became different than what was expected. Professional futurists suggest businesses to consider options, scenarios and alternative futures in order to become flexible to survive in different circumstances – precise forecasting is quite clueless in global economy due to variety of variables and high speed of change.

The future of Arctic Russia seems to be even more interesting for the public eye that it's present. It might be beneficial for stakeholders and business leaders to focus at variety of opportunities today rather than wait for tomorrow, because most of the current needs and market demand will at least stay, if not accelerate, for quite a number of years. Arctic Russia is a freezing hot business topic.

The Finnode report is retrievable at: http://www.finnode.fi/files/323/Finnode_report_Arctic_sea_exploration_brief_final_PDF.pdf.

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Russia and the Arctic

By Kari Synberg

Climate change in the Arctic is expected to make the region much more interesting as new strategic resources become available. The Russian Federation is a key player in this context. Currently the Russian Arctic represents approximately one quarter of Russia's national lands, but less than 2 % of country's population. It includes, either fully or partially, the territories of the Republic of Saha (Yakutiya), Murmansk and Arkhangelsk regions, Krasnoyarsk Krai, Nenets, Yamalo-Nenets and Chukotka Autonomous Okrug. Many of these regions are very sparsely populated and therefore areas overall development is difficult. In any case, the Arctic has identified in Russia as national heritage and on the other hand zone of national interests.

That's why Russia's Arctic strategy, as well as several other documents, despite the fact that they are poorly known outside Russia, is very essentials for arctic co-operation. At present, the territory and boundaries of the Arctic are inadequately defined, and no legally binding treaty exists for managing the region as a whole[1]. This is the reason with economic issues, that several Arctic countries have claims that certain Arctic sectors should belong to their territories. For example Russian has claims, that the underwater terrain between the Lomonosov and Mendeleev ridges (1.2 million square kilometers, 45 % of the Arctic) should be added to the Russian economic zone. In fact this requirement is based on an insufficient scientific and geographical data.

The Arctic natural resources are not confined to fuel, but rich deposits of other resources, like mineral resources should be utilized in the region. Currently almost 100% of platinum metals, barites, apatite concentrate, 90% of nickel and cobalt, 75% of tin, 60% of copper are mined in the Russian North. At the moment North accounts for about 20 % of Russia's national income and 25 % of national exports! The economic potential in the North has raised the issue of the Northern Sea Route (NSR), the use of which until recent years has been quite low, even if Russia opened it to foreign shipping with some limitations in 1991. But also then, when this route is totally ice free, the use requires icebreakers or similar service vessels and navigational support for traffic. The expected and wanted development will not happen without the improvements in services and facilities, or without the use of new technology, new roads and infrastructure in coastal areas.

In order to achieve these goals, Russia has updated existing legal and regulatory framework. In 2008, Russian Security Council formulated a key document of Russia's Arctic policy: "On the Principles of State Policy of the Russian Federation in the Arctic for the period 2020 and beyond". The adoption of the document has further highlighted the country's increased interest in the region and the main goals, main challenges and strategic priorities. Second essential document is: "The Russian national security strategy to 2020 (approved 2009). This document lays out threats and challenges within a broadly defined concept of security under chapters defined as 'National defense', 'State security and civil protection', 'Improvement of living standards', 'Economic growth', 'Research, technologies and education', 'Healthcare', 'Culture', 'Ecology', and 'Strategic stability and partnership on equal terms'.

Probably the most important document, approved finally in 2012 after long discussions, is: "Development strategy of the Arctic zone the Russian Federation and ensuring the national security for the period 2020 and beyond". This document is based to tasks of the national Arctic policy and security strategy mentioned before and it is the main mechanisms and roadmap for implementing official Russian state policy in the Arctic. It highlights the importance of science and research, and the question is above all the intellectual presence, the concentration of scientific knowledge, the high-tech service, the adequate degree of knowledge-intensive research vessels, ice forecasting and resolution satellite images from the Arctic. Russia's goal seems to be that any developing scenario of new megaprojects should go with the active mobilization of the Russian scientific and technical potential, protecting of course the interests of Russia.

In addition to these documents, there are conceptions and several programs that directly or indirectly deal with the Arctic regions. Worth mentioning are: "The concept of long-term socio-economic development of the Russian Federation for the period up to 2020" (approved 2008), that emphasizes the importance of housing, transport and the mining sector. "The Strategy of social and economic development of the North-West Federal District until 2020" (approved 2011) and "The Strategy of social and economic development of Siberia until 2020" (approved 2010) were formulated on the basis of those before mentioned common approaches to the Arctic development. There are also other regional documents, such as: "Strategy for Socio-Economic Development of the Murmansk region by 2020 and up to 2025" (approved 2011) and sectoral strategies, for example: "Energy strategy of Russia for the period up to 2030" (approved 2009). We can ask, how the Russia's official Arctic policy responds the realism in these areas. For example the construction of Stockman field, one of the world's largest natural gas fields, located in Barents Sea, is mentioned in every Arctic development documents, however has moved forward into the future.

The main goals of implementation these documents and Russian Arctic strategy are to create a new economy of the Arctic Zone and to give rise of the socio-economic development in those regions. This seems to mean measures to expand the resource base, which is capable to fulfilling Russia's needs for hydrocarbon resources, aqueous biological resources, and other forms of strategic raw material. Also the military security, defense and safekeeping as well as environmental security are in the center of Russian Arctic policy. The new economy of Arctic requires the development of logistics sectors, information technologies, and communications and the creation of modern scientific and geoinformational fundamentals for administration of these regions. And the economy of arctic needs well-functioning systems of life support and industrial activity under the difficult environmental and climatic conditions. in addition for the better use of Northern Sea Route need's to create a reliable system for providing navigational, hydro-meteorological and information services, as well as emergency prediction and warning systems, including through the use of the GLONASS global satellite navigation system and multi-purpose space systems.

The implementation priorities of Arctic Strategy, Russia has own specific timeframes, instruments and financing, like the use of the federal and regional budgets, the extra-budgetary sources of funding, including through the involvement of private capital, active participation in projects of international organizations and interest rate subsidies on loans to commercial banks. The Russian government plans to invest directly more than EUR 30 million and indirectly government and private investments can hit as much as EUR 225 billion or more in the Arctic territories by 2020. For instance starting exploitation of Stockman deposit requires at least EUR 8 billion and Murmansk transport hub about EUR 3 billion.

Russia needs undoubtedly bilateral and multilateral cooperation with other Arctic countries, Western companies and organizations, including the Arctic Council and the Barents Euro-Arctic Region. Russia needs Western technology and foreign investments to all before mentioned sectors. Russia's Arctic strategy opens also possibilities for Finnish companies and organizations. This requires, that the Finnish companies bring out their own possibilities, their offering and Arctic know-how more visibly, because they have innovations suitable for cold climatic conditions across any sector of the economy, infrastructure and society.

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[1] According to the 1982 UN Convention on the Law of the Sea, the subarctic countries in the region own exclusive economic zones (up to 200 miles in width) and the continental shelf (up to 350 miles), within which they have the sovereign right to develop mineral resources.

Russia's new Arctic strategy identifies vulnerabilities but targets modernization

By Katri Pynnöniemi

Arctic ice is melting in accelerating pace. This is a fact that everyone taking stock of Artic politics is ready to admit. Consensus also prevails over the general characteristics of this change. The increase of average annual air temperature leads to shortening of the period of uninterrupted snow cover, ice melting, degradation of permafrost, rising sea levels etc. But when it comes to assessment and prioritization of the negative and positive consequences, the initial consensus is lost. It is replaced with deep-seated division over meaning of these changes for particular countries or for the region as a whole.

The majority of those interested of the Arctic, see in the region potential for economic growth, be it in the form of extraction of mineral resources, opening of the northern sea route, or as in Finland, renewing and maintaining the high-technology edge of the Finnish maritime industry. On the other hand, environmental activists, but not only them, have problematized the very basis of these expectations by arguing that the Arctic is at the frontline of climate catastrophe, and therefore, scarce human and financial resources should be directed to actions that simultaneously allow societies to mitigate and adapt to new level of risks. However, often these two opposite points of departure range through the national debates and, in a sense, overshadow differences between particular national strategies on the Arctic development.

The updated version of the Russian Arctic strategy published in February 2013, stands out from this general debate for its unequivocal prioritization of modernization as the basis for Russia's Arctic policy. Consequently, the Strategy provides a basis for "dialogue of modernization" between Russia and its western partners. At the same time, the Strategy does not recognize the climate change as a policy framework, and thus, engagement of Russia to debates on sustainable development in the Arctic will be difficult task. The document does, however, acknowledge set of risks and vulnerabilities, framed in relation to the "social-economic development".

The single most important vulnerability is the poor resilience of the communities living in the Arctic. Regional economies and societies are to the most part isolated from the Russian mainland and regional connections are poor or completely absent. The regeneration of the existing public infrastructure has reached a critical stage. Population living in the North does acquire subventions and higher salaries but is also confronted by the lack of clean drinking water, poor housing, and expensive food. For example, in the Yamal region where Russia's main gas production sites are located, 60 percent of the population centers are not connected to the Russian gas distribution network. This means that main part of their energy consumption is distributed by the "Northern Supply System", that is both inefficient and ecologically unsustainable.

The new Arctic Strategy calls for the facilitation of the use of local energy sources, including renewable energy. This is not, however, a consistent policy line, for the Strategy also foresees the development of floating nuclear power plants as a solution to regional energy needs. The same can be said about the critical infrastructure protection in general. The Strategy lists the priorities in the sphere of sustainable development and environmental security, including an objective to mitigate the risks from man-made disasters. Importance of international cooperation in this sphere cannot be underestimated. The fire of the nuclear submarine Yekaterinburg (K-84) in December 2011, with full complement of torpedoes and nuclear missiles on board, is reminder of the risks of nuclear buildup in the Arctic.

However, the main challenge for Russia in the Arctic, as it is formulated in the Strategy and in other policy-documents, is the growing competition for Arctic resources. Therefore, it is argued in the Strategy, Russia must strengthen both its military and administrative capacity in the North. The tasks include the re-construction of the emergency-rescue services, border-guarding posts and the strengthening of the Northern Fleet. In addition, the Northern Sea Route administration has been re-established under one single agency with headquarters in Moscow. The agency will manage the development of this route, and most importantly, will channel the revenues created by this "national thoroughfare" to the federal authorities.

The consolidation of the state capacity to govern the development of the Russian North is undermined by many unresolved questions. The strengthening of the Northern Fleet will be expensive project and at the moment at least, Russian shipyards do not have capacity to implement the ambitious plans. The actual scale of Russia's Arctic zone, that is, the regions having the status 'Arctic', is not yet defined. Neither does the Arctic have its own target-program, thus the main policy-planning instrument at the federal level is missing, and finally, financing of the objectives set in the strategy remains an open question. The repeated references in the domestic debate to 'militarization of Arctic' may legitimize re-direction of domestic resources to Arctic development, but this alone does not make the state more capable to implement these tasks. On the contrary, the debate in-itself generates confusion among Russia's partners and thus, undermines efforts to cooperate in the Arctic region.

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Resource exploitation in the Arctic: incorrect diagnoses, misinterpretations and wrong solutions – how to avoid these?

By Timo Koivurova

In the last year's Polar Law Symposium in Rovaniemi, the former premiere of Canada's Yukon Tony Penikett argued that the most important – and difficult - thing in his policy career was to find out what really is the problem in a given matter – not what was presented to him as a problem. Penikett's observation seems to apply very well to the discussion over what indeed is the problem relating to exploitation of non-renewables (hydrocarbons, minerals) in the Arctic. We seem to be under the influence of various kinds of stories and tales over what is problematic in their extraction.

One such story-line started to form when the Russian submarines planted the country's flag underneath the seabed of the North Pole in August 2007. Media and partly also the research community asserted that now the international scramble for resources had started. According to this story-line, climate change melts the Arctic Ocean (AO) sea ice, revealing the vast hydrocarbon riches. This then triggers a power competition between the AO coastal states as to who gets to occupy most of the sea-bed. Even if all this sounds logical, it is very far from reality. All the AO coastal states, including Russia, have engaged in extensive research over where the outermost boundaries of their continental shelves lie on the basis of law of the sea and law of the sea convention.

But surely there is some kind of scramble for resources in the Arctic, at least the companies are scrambling to tap into those hydrocarbon riches. Arctic, according to this line of thinking, is similar to the Wild West, where the risk-takers are awarded and where no rules neither sheriffs are to secure the order. Even the prestigious Foreign Affairs published couple of articles that compared the Arctic to the Wild West. The reality, again, seems very different. There are plenty of legal rules in the Arctic, perhaps even too much. Most of the Arctic (and in particular most of the estimated hydrocarbon deposits) is under the sovereignty and maritime jurisdiction of the Arctic states. Their national rules regulate how natural resources can be prospected and exploited. Enormous amount of international rules – from those that protect the environment or human rights to advance the opening of trade borders – are applicable in the Arctic, both within the national jurisdiction and outside it. On top of all this, the region's predominant inter-governmental forum the Arctic Council has gotten stronger by the day. It has even sponsored the making of two international agreements between the eight Arctic states, one on search and rescue (now in force) and the other on oil spill preparedness and response (likely to be signed in next ministerial meeting this May).

If there is no Wild West type scramble for resources between states or companies, what then is the real problem. The plentiful non-renewables of the Arctic are clearly within the radar of the global market-forces and the campaigns by environmental organizations to prohibit oil exploration and exploitation in the Arctic waters have not found support among decision-makers. In fact, all the Arctic states (also the Greenlandic Inuit who possess a large self-governing status) have already – or are about to – open their land and sea areas to mining and hydrocarbon exploitation. Even if this prospecting and exploitation is clearly within the scope of rules – as argued above – this does not mean that the rules – in and of themselves – would somehow miraculously make sure that these industries operate in a responsible manner. The real problem is that it is difficult to make sure that all these rules are really put in practice in the Arctic, due to lack of resources (personnel, equipment), long distances, etc. in the region. It is important to confront this problem head on, given that it is the vulnerable Arctic ecosystems, indigenous and other local peoples that will suffer if companies do not behave responsibly.

Legal rules alone can do only so much as regards how companies operate in such remote regions as the Arctic: we need companies themselves to comply, since it is many times very difficult to try to monitor and enforce legal standards in the Arctic. Therefore, it is of much importance that corporate social responsibility (CSR) standards are being developed in various constellations for the Arctic resource exploitation. The good side about companies devising their own standards is that these can complement legal rules.

CSR standards are followed by the companies because of reputational reasons. These can also change the way the company views how it is best to do business. By having the company to internalize CSR standards may well lead them to better respect the local societies and the surrounding environment. In some cases, CSR standards may even exceed the standards required by legal systems and have their own supervision mechanisms, together with environmental NGO's acting as watchdogs for the companies to really live up to these standards.

Yet, CSR standards alone are not enough. Legal systems are needed, given that law carries such strong symbolic power in many places of the Arctic and it can also be physically enforced. Law also provides the possibility to change the rules of the game for those without much power and resources – local peoples or environmental NGO's can appeal environmentally and socially harmful decisions. The combination of legal and CSR standards seem to possess ingredients to at least minimize the harmful impacts from non-renewable resource extraction in the Arctic, and in this sense encourage more sustainable development.

It seems clear – and frustrating at times – that the Arctic is such a fascinating place for stories and narratives. Yet, when we need to make decisions over whether or not resource exploitation should take place in the Arctic, we should confront the pragmatic realities of this very complex and multifaceted region. We should peel the onion until we know the real problem, before we can start fixing it. We should also ponder the various solutions before proceeding with one. The opposition to hydrocarbon extraction in the Arctic due to climate change, environmental vulnerability of the region, and limited infrastructures, may be expected to become more vocal in the future and needs to be taken seriously, both by the companies and Arctic governments. However, we should also admit that extractive industries are powerful players in the region, and are there to stay. The real problem as regards non-renewable resource exploitation is that even if we have enough legal rules, these rules are difficult to make a living reality in remote Arctic regions. We need to have CSR standards and legal rules to work together so that we at least have better chances of having companies to respect the ecosystem boundaries and local societies in the region.

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Socio-economic development of the Murmansk region – trends and prospects

By Vladimir Didyk and Larissa Riabova

The Murmansk region (*oblast*' in Russian) is one of the most industrially developed territories of the Russian Arctic zone. The *oblast*' was founded as a separate administrative unit in 1938. Almost the whole region's territory is situated above the Arctic Circle, on the Kola Peninsula, bordered by Finland and Norway. Total area of the region is 144,900 sq km and accounts for 0.85% of the territory of Russia. Its population is 787.9 th. people (by the beginning of 2012) or 0.55% of the country's population. About 40% of the region's population lives in the city of Murmansk, the region's capital, which is the largest city of the entire Arctic with population of 305 th. people.

The importance of the region for the Russian Federation is determined by two main factors: its geographical location with deepwater ice-free harbours and extremely rich natural resources. The region is known in the world due to the Navy bases, civil fleet of the Murmansk Shipping Company, the only in the world nuclear-powered ice-breaking fleet, the fishing industry, intensive export activities of industrial corporations – large producers of non-ferrous metals and apatite concentrate (Didyk 2008: 29; Didyk & Riabova 2010).

The Murmansk region's economy is based on extraction and industrial refinement of natural resources, especially minerals and fish. The initial stage of intensive industrial development during 1930s (Stalin period) was driven often by compulsory methods of state power. More than 250 th. people were moved to the Kola Peninsula, most of them forcibly, in the 1930s (Riabova 2012: 35-36). This led to the rapid growth of population: from 27 th. people in 1929 to 318 th. in 1940 (Luzin et al. 1994). The main industries of the region were rapidly developing during 1950-80s due to state centralised investments; development in these sectors was aimed at meeting the country's demand for raw materials and semi-processed goods. For instance, in 1960 real (in constant prices) volume of industrial output grew as compared to 1940, almost 5 times, in 1970 – 10 times, in 1980 – 14.4 and in 1990 – 19.9 times (Murmanskstat 2008: 68).

The period of the 1990s was characterised by deep socio-economic and political transformations. Dramatic changes of all sides of public life were connected, first of all, to the transition from the centrally planned Soviet economy to the market oriented economic system in Russia as a whole, and in the Murmansk region in particular. The transformation process still takes place, and is characterized by a wide variety of trends and regional specificities.

The specific features of the Murmansk region's economy have strongly influenced the character of socio-economic changes the region went through, and the outcomes for the region often differ from the country's average results. A detailed analysis of the transformational socio-economic processes and trends in the Murmansk region was carried out by the authors in 2001-2011 within the Russian-Finnish research project "Economic Monitoring of North-West Russia" in collaboration with the Centre for Markets in Transition (CEMAT) of the Helsinki School of Economics[1].

Mainly on the basis of the project results a book was published (Didyk & Riabova 2012). In the book we revealed the main trends of economic and social development of the Murmansk region for the last two decades. In the economic sphere they are as follows. First, it is a quite long period of decrease (1992-1998) and restorative growth of industrial output (2000-2010). Despite the similar trends were observed in Russia as a whole[2], the specificity of the Murmansk region was that rates of both decrease and subsequent growth were noticeably slower than the Russian average. The latter is explained by the strong resource (raw materials) orientation of the regional economy. The second trend is lowering diversification level of the economy, being a negative tendency, especially with the prevalence of use of non-renewable natural resources by the key industries taken into account. The third trend in the economic sphere of the region is uneven and chronically relatively low level of capital investments compared to the real needs. It is a negative tendency as well, taking into account ageing of the existing fixed capital almost in all branches of the regional economy and the urgent necessity of technological modernization of the region's enterprises to maintain their competitiveness. Besides, there is a need for "green field" investment to diversify the economy of the region.

In the social sphere of the Murmansk region, three major trends are defined for the twenty-year period. First, it is the decline, throughout the whole period, in the region's position regarding the living standards of its population, both in relation to the beginning of the 1990s and to the national average. The 1990s featured a sharp drop in the living standards of the regional population that in Soviet times used to be very well-off in comparison with non-northern ones. In the 2000s, real per capita incomes grew slower than the average for the RF. Today real per capita incomes in the Murmansk region make only 60% of the 1991 level, while in Russia on the average they exceeded it by almost 40%. Paradoxically, such unsatisfactory dynamics of living standards in the region do not correspond to its input into the country's economy – the Murmansk *oblast*' is one of the leaders in the Russian Federation by gross regional product per capita. Such situation is typical for the majority of the regions of the Russian North and its Arctic zone, and only four regions could be considered as exceptions –Yamalo-Nenetskiy, Chukotskiy, Khanty-Mansi autonomous *okrugs* and the Sakhalin region (Riabova 2012: 46-47). This means that residents of the Murmansk region experience a high degree of spatial socio-economic injustice, reflected, first of all, in inadequate compensations to the people working and living in the extreme conditions of the Far North. The reason for such situation is lack of proper budgetary, regional and tax policies of the federal authorities which negatively influences many regions of the Russian Federation, including those in the North and in the Arctic zone. This state of affairs has a negative impact on the state of human capital of the Murmansk region which is a key factor in regional development as a major source of innovation and competitive advantage. Urgent measures aimed at improving the living standards of the population in the Murmansk region, as well as in many other regions in the North and in the Arctic zone of the Russian Federation, are required.

The second important trend in the social sphere of the region is the continued relatively high unemployment which despite a significant decline in the 2000s, exceeds the national average. An explosive growth of unemployment in the region occurred in the 1990s. In the early 2000s, due to the measures undertaken at the federal, regional and local levels, unemployment in the region significantly decreased. However, over the whole period

[1] Now CEMAT is research unit of the University of Aalto. All bi-annual monitoring reports were published on the web site http://cemat.aalto.fi/en/electronic/economicmonitoring/.

[2] The fall of industrial output in the Murmansk region in the mid of the 1990s was about 40% compared to 1990, whereas in Russia as a whole it was more than 50%. Since 1999 up to 2011 in the Murmansk region cumulative growth of industrial output in constant prices made 15%. In Russia as a whole in the same period the indicator made 86%. However, by 2011 neither Russia, nor Murmansk region didn't reach the volume of real industrial output of 1990 level.

unemployment rates were exceeding the national average, as well as the natural unemployment rate. This to a large extent is explained by the resource-oriented and low-diversified economy of the region. In 2011 the level of general unemployment in the region made 8.8% (about 45 th. people) against the national average of 6.6%. To maintain the positive trends in the reduction of unemployment and to achieve its levels below the national average (what we believe should be pursued in the northern and Arctic regions of the RF), additional measures at all levels of power consolidated with efforts of business community and population itself are needed.

The third, highly significant social trend in the Murmansk region is improvement of demographic situation as compared to the beginning of the 1990s. During the period of 1992-2000 population in the region decreased by 247 th. people, or by 21%. Out-migration made the main input in such negative developments (net migration then made 174.8 th. people). Since the early 2000s demographic situation in the region began to noticeably improve. In 2012 the region managed to overcome the depopulation process. However, the problems of high mortality and low birth rates and lower than the national average life expectancy still exist.

One of the most important demographic indicators and a reliable measure of quality of life in the region – life expectancy at birth – lags behind the Russian average (68.9 years against 69.8 in 2011) almost for the whole twenty-year period, while until 1993 the situation was the opposite. It points to systemic failure in achieving at least average national level of life quality in the region, and signals the need for improving social policy in the region, as well as in other northern and Arctic regions of the Russian Federation.

Taking into account the fact that by all the key trends in the social sphere the Murmansk region lags behind the national recovery tendencies, we have to conclude that the social costs of market reforms for residents of the Murmansk region, as well as for most of the northern and Arctic regions of RF, turned to be higher than for Russia as a whole.

As to the future prospects of the region's development, an official view of the matter is reflected in the "Strategy of socio-economic development of the Murmansk region to 2020 and for the period up to the year of 2025"[3]. The last version of the document was approved by the regional government in December, 2011. In the Strategy four scenarios of future development of the region were described. All the four scenarios anticipated realization of the Shtokman project – development of one of the largest in the world off-shore gas field in the Barents Sea – no later than 2020. It was expected that the final investment decision on the Shtokman project would be taken by 1st July, 2012.

However, quite recently expectations of the region future development changed substantially. The investment decision on the Shtokman project was again postponed for indefinite time. Since the project supposed huge investments (more than $40 billion, including $17 billion on the territory of the Murmansk region) and various spin-off effects, today it is clear that such delaying the project realization notably worsens the prospects of the region's socio-economic development, which were expected according to the Strategy.

Therefore, other projects and directions of development that the Strategy includes – such as development of the Murmansk transport hub, a set of investment projects in the mining and energy industries (including alternative energy sources), fishery and tourist clusters, small and medium-sized businesses – become of primary importance for the future of the region. It is obvious that development efforts should be based on the proactive socio-economic policy of the regional government supported by business community and the region's population, under condition of proper policy of the federal level towards the North and the Arctic of the Russian Federation.

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[3] The text of the document (in Russian) is presented on the web site: http://minec.gov-murman.ru/content/strat_plan/sub02/sub01/.

The Russian North going global

By Vesa Rautio

My on-going research project deals with foreign direct investments (FDI) to and from Russian. As part of the project I have studied the socio-economic development of Murmansk Oblast.

The region played important role in rebuilding the country after World War II. Since the region is rich in natural resources it was rapidly populated and industrialised after the war to provide raw materials for the needs of domestic industry. As a consequence of this post-war regional development policy, set up by the Soviet planners, northern regions faced vast and serious problems when the Soviet Union collapsed. Murmansk, like most of the regions in the Russian North, had limited tools for adaptation to the new era in the beginning of the 1990s.

Despite of the tremendous growth of the Russian economy since the collapse of rouble 1998, the growth has not led to increased socio-economic well-being in the Federation's peripheral regions. For instance, the regions of the Russian North are still struggling with numerous structural problems without solid regional policy measures provided by the state to cope with the challenges.

Murmansk Oblast can be seen as a product of the Soviet era. More than 90 per cent of the region's population is urban, and a good part of the urban settlement network was built to support the mining and metallurgical activities that met the needs of the Soviet Union. Moreover, one aspect of the Soviet system was the appreciation of the urban settlement as compared to rural, which was seen to represent backwardness and vulgarity. Therefore, for instance in Murmansk Oblast even fishing and reindeer communities are highly urbanised, which is a clear dissimilarity compared to region's neighbouring countries Finland and Norway. Moreover, the region has always been important military area for Russia, with a number of military bases situated primarily in the north along the Barents Sea cost.

In the early 1990s, it became obvious that the economic system in the north, which was created during the Soviet era was neither economically nor environmentally sustainable. At the beginning of the 1990s the regions of the Russian North suddenly had to operate under rules of the market economy without having any experience of it or the economic capacity to cope in global markets.

Murmansk Oblast is even today highly depended on its mining sector. The main mining company in the region is Norilsk Nickel, which is a leading global nickel producer with 18 per cent and palladium producer with almost 50 per cent of the world market share in 2011. During the last ten years Norilsk Nickel company has invested heavily abroad, but it has not modernised its domestic operations in Murmansk and Siberia. Norilsk Nickel's serious environment problems have been an important impetus to Finnish and Norwegian initiatives to assist in the modernisation of company's subsidiaries in Murmansk Oblast. However, the lack of Russian financial contribution prevents highly needed investments.

Another major problem for globalisation process of Norilsk Nickel is outdated human resource policy, which has caused problems in the company's subsidiaries in Africa and Finland. According to a Western mining executive the company's human resource policy has not undergone any major changes since 1970s. These challenges were confirmed in a survey and expert interviews conducted among staff of Harjavalta Nickel plant, which was acquired by Norilsk Nickel in 2007. Based on survey results, the difference in working environment between a traditional Russian company and a Western-based one is enormous. According to Russian deputy CEO at Harjavalta, Yuri Filatov, the communication in the Finnish company among management and workers is open and informal, and notably more democratic than in a Russian company, which he described as operating according to a military logic.

Like a selected few other Russian companies, Norilsk Nickel has taken on some of the governance trappings of a global company: a significant free float of shares, audited reports, foreign board directors. But it is still very much a Russian company dominated by oligarchs, in this case squabbling between themselves and engaging in eyebrow raising share dealings. Given that it is hard to see Norilsk Nickel becoming a true global company in the foreseeable future.

Globalization of the Russian North is strongly linked with use of natural resources. Murmansk region is highly dependent on natural resources and companies operating in the resource sector. However, this does not mean that the future prospects of Murmansk and Magadan Oblasts are completely dependent on world market prices of raw materials or strategies of the companies operating in the regions. The Post-Soviet Era has shown that local inhabitants in the Russian North have tight socio-economic ties to their place of residence in spite of harsh climate, high living costs, environmental problems and pressures to out-migrate set by business and public sectors. Most of the local inhabitants interviewed for the study represent a generation, which were born, or have lived for several decades, in the regions. Therefore, they are not as willing to move to other parts of the country as public sector officials expected at the beginning of the 1990s.

Murmansk Oblast has greatly benefitted from the success of Norilsk Nickel in a form of thousands of well-paid jobs, taxes and other payments by the company. The company has managed to avoid open conflicts with its labour force and with public sector officials due to personal contacts with representatives of the regional administration and the Government of Russian Federation. However, these relations are highly tight to individual level, which means that changes in the state or regional administrations can have a direct impact on this co-operation.

International links in Murmansk Oblast are mainly formed by major raw material companies through export of their production and import of technology. For instance, cross-border co-operation with Norway and Finland is still quite undeveloped in the level of small and medium size companies (SMEs). Increased cross-border activities would lower the living costs for inhabitants and provide wider markets for SMEs as well. Murmansk Oblast has clearly unused potential in resource sector as well as in merchandise and service sectors. Utilization of this potential would create new possibilities for long-term sustainable regional development, but it requires willingness, commitment and co-operation by all three actors: inhabitants, administration and business sector.

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The Norwegian Barents Sea adventure

By Morten Anker

The Norwegian part of the Barents Sea seems to be on the threshold of becoming the next big oil and gas province in Norway. Norwegian authorities have a clear preference for the Barents Sea, companies are exploring for oil and gas more actively than ever, and at least two discoveries will be developed within a few years. In addition, the sea border treaty between Norway and Russia from 2011 opens up a new promising area. However, the area needs a transport solution for its gas resources. With a gas pipeline the area may prosper, but without a pipeline interest may fade away.

2013 will likely see the highest exploration activity ever in the Norwegian part of the Barents Sea. The state-controlled company Statoil has announced an extensive exploration program in 2013 and 2014.[1] In addition, several other companies are drilling in the area. The big interest has its roots in exploration success of the two last years. It started with Statoil's discovery of the Skrugard oil deposit, called a "break-through for frontier exploration in the Barents Sea" by the company's exploration director.[2] More discoveries followed and company interest was big when the Norwegian government offered 72 new Barents Sea licenses in its 22nd licensing round. 36 companies applied for licenses, including some companies that have never had activity on the Norwegian continental shelf.[3]

The Norwegian petroleum directorate (NPD) is eager to have more acreage opened for petroleum activity in Norway, and immediately after the border agreement between Russia and Norway was signed begun seismic exploration in the Norwegian part of the previously disputed area. In February this year, after two summers of seismic exploration, the NPD published its resource estimates for that area. The new estimates show significant potential and increased the total undiscovered resource potential of the Norwegian shelf by 15 per cent.

Things are also happening with discoveries already made. Italian ENI has started developing the Goliat oil field north of Hammerfest and plans to start producing in 2014. Statoil has already announced its plans to develop the above mentioned Skrugard oil discovery with its sister discovery Havis. That development will probably begin in 2014.

However, there are some major challenges that may put a lid on the optimism in Northern Norway and among the companies currently active in the area.

The first major challenge is the transportation issue. With oil transportation is no big challenge. It is quite easy to transport on ship to the big ports of Rotterdam and similar. Gas on the other hand requires either pipelines all the way to the market or expensive liquefaction (LNG) before it can be brought to the market. The Barents Sea currently has only one transport solution in place and that is the LNG plant for the Snøhvit field – the world's only Arctic offshore gas field in production. However, the plant does not have room for new gas in many years. With current reserves and production pace, the LNG plant will be fully occupied with gas from Snøhvit until the 2040s. Without another transportation solution potentially commercial discoveries may be left undeveloped. Plans to build another plant next-to the existing one was shelved last year. A pipeline has been much discussed in the Norwegian media lately. The advantage of a pipeline is that it could have significant capacity for gas, thus making development possible for even moderately sized discoveries. A discovery like the Norvarg gas discovery made by Total and partners in 2011 would stand a good chance of commercial success. And even though the area is far from the closest market in Europe the new pipeline would only have to be constructed half-way and connect with the existing pipeline infrastructure in the Norwegian Sea. And existing pipelines will have capacity as current gas production inevitably will start its decline in the 2020s. The problem is who should pay for such a pipeline. Normally in Norway the owner of a gas discovery will pay for pipeline to existing infrastructure. In the Barents Sea the challenge is to keep interest among companies before enough discoveries are made. And to get companies to pay for capacity up-front would be very difficult. The Government has stated that it will not pay, but there might be a chance that it needs to get involved one way or another for a pipeline to become a reality.[4]

The second major challenge is the market outlook. The two discoveries currently under development or planned for development are oil discoveries. With today's oil price outlook it seems quite easy to make a medium-sized oil discovery profitable. Not necessarily so with gas. The American shale gas "revolution" has put the gas market upside-down and there is big uncertainty about the future developments of that market. For gas from Norway the European market is the closest. Currently, prices have stayed quite high, but with more LNG coming in from the Middle East – and possibly even the USA, and more renewable energy sources coming online a downward pressure on the price may be a result. The gigantic Stockman gas discovery in the Russian Barents Sea has been postponed indefinitely among other things due to market uncertainty.[5] If that field has uncertain commercial prospects what then with fields only a fraction of the size? Obviously some of the trouble with Stockman may also be related to Russian rules and regulations and challenges of partner alignment, but it is still is an indication of some of the challenges related to gas as opposed to oil.

A third potential challenge is that the area borders to Russia. In the new estimates of oil and gas resources in the area bordering up to Russia the NPD states that there is a possibility that petroleum deposits cross the border between Norway and Russia.[6] In that case, it will be necessary with a special unitization agreement between the two countries outlining how such deposits should be developed. None of the two parties may develop such a deposit without an agreement with the other party.[7] As the Norwegian side seems more eager to develop the area than the Russian side, and the Norwegian side at the same time is increasing its competence and experience with Arctic offshore oil and gas while Russia seems to walk slowly, there is a certain chance that the Russian side may put a break on possible developments of border-crossing resources.

Given that the right actions are taken, the Norwegian Barents Sea may become the new oil and gas province that the Norwegian industry is hoping for. Activity on the Norwegian side may even spur activity on the Russian side through transfer of competence, and possibly also offering a pipeline for Russian gas sometime in the future.

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The Barents Sea – successful fisheries management

By Geir Hønneland

People tend to think that the world's fisheries are in crisis: rogue states are plundering the world oceans, even 'civilized' states fight over marine resources – and fishers are notorious cheaters, focused on their own short-term gain and not on the long-term common good. As an expert on the Barents Sea fisheries, where Norway and Russia have jointly been in charge since the mid-1970, I hear such views all the time when I lecture and give comments to the press. There has been jurisdictional disagreement between the two coastal states, and spectacular arrests of fishing vessels occur from time to time – as when the Russian trawler *Elektron* kidnapped two Norwegian Coast Guard inspectors in 2005 – so a widespread image has emerged: that newly-rich Russian fishers do as they please and that the valuable Barents Sea fish stocks are close to extinction.

The truth is rather different: stocks are in good shape, institutional collaboration between the two coastal states is conducted in a constructive atmosphere, and most fishers comply with most regulations most of the time. This may well be the case also in other ocean areas where governments and fishers alike have received an unfairly bad reputation. At least in international fisheries circles, the Barents Sea is now recognized as one of the most successfully managed large-scale fisheries in the world. In my *Making Fishery Agreements Work* (Edward Elgar, 2012), I attempt to pinpoint some of the reasons for this success.

The book seeks to subsume theories of individual and state compliance under the concept of post-agreement bargaining. I pose two general questions: why do people obey the law, and why do states abide by their international commitments? In the literature, there are 'formal' models of compliance that largely presuppose unitary, rationally calculating actors driven by self-interest, with a concomitant social logic: a crime being committed, a common-pool resource destroyed, an international treaty concluded and subsequently complied with (or not). Empirically, these models are used to study how self-interest, deterrence and power play out in real-world situations. 'Enriched' models of compliance, by contrast, assume that actor motivations are more mixed and social dynamics less stylized and predictable. Here research efforts have focused on how norms, legitimacy and institutional organization affect compliance. The theory of post-agreement bargaining narrows in on how states promote the compliance of other states through inter-state communication after a treaty has been concluded.

In *Making Fishery Agreements Work*, I show how Norway did not stop negotiating each time a new agreement was reached with Russia on a specific regulatory measure, but rather viewed bargaining as a continuous aspect of living under the agreement. Annual quotas were set by the two countries, but not adhered to by the Russians. Norway then took steps to document total Russian catches and introduce new reporting and control routines in order to halt the illegal fishing. When the Russians branded low quota recommendations from the International Council for the Exploration of the Sea as Western attempts to harm the Russian fishing industry, Norway first proposed a compromise in the form of a three-year quota, then a harvest control rule that bound the parties to precautionary reference points while also giving the fishing industry greater predictability. Gradually, compromise has emerged on most technical regulatory issues, such as minimum mesh size and minimal allowable length of fish, and new measures have been introduced jointly by the parties: satellite tracking of all fishing vessels, and obligatory use of selection grid in trawls. On the fishing grounds, Norwegian inspectors have used widespread communication with the Russian fishing fleet – in Russian! – when jurisdictional disagreements have prevented the use of coercive action.

The Joint Norwegian–Russian Fisheries Commission is the main institutional body for fisheries management in the Barents Sea is. Bargaining might be expected to take place between the parties 'over the table' – at plenary sessions of the Joint Commission. In practice, I found two other main tracks of Norwegian negotiation efforts: from bargaining at lower levels to approval by the Commission; and bargaining by the two heads of delegation, with decisions subsequently anchored in the respective delegations. The Norwegians often saw the need to create ownership to the proposed measures on the Russian side. This was done by meticulous and persistent arguments (no short cuts), and by taking things in several rounds, from lower levels to the Commission itself. And the Norwegians had nothing against letting the Russian delegation leader credit his own side for the new regulatory inventions.

Why did Russia comply with its international obligation to conduct fisheries management according to the precautionary approach? I maintain that the reason was *not* because this was in Russia's declared interest, presumably not even its *perceived* interest. Quite the contrary, Russia followed suit *more or less unwillingly*, with Norway at the helm. Transnational seafaring norms and good-neighbourly relations may have tuned the negotiators in on a pro-compromise wavelength, but I find institutional factors best suited to explain Russia's compliance. In the Barents Sea fisheries management, Russia gradually spun itself into an institutional web of increasingly more elaborate decision-making procedures, with Norway taking the leading role after the end of the Cold War. In part, the established formal and informal standard operating procedures led to decisions that the Russians would soon criticize – but they stuck to them. Moreover, there was in the Joint Commission a drive towards compromise that might to some extent have overshadowed strictly defined national interests, or at least have led the parties to interpret such interests as positively as they could, weighing them up against the possibility of reaching agreement.

In the end, Russian negotiators were also satisfied with the result. At the time of writing, Barents Sea fish stocks are at an all-time high, and the Russians highlight the collaboration with Norway to the west as an example for emulation in their fishery relations with states in the Far East. The lessons learned include institution, communication – and time.

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Arctic marine transport driven by natural resource development

By Lawson W. Brigham

An important component of the Arctic Council's Arctic Marine Shipping Assessment (AMSA) released in 2009 was a scenarios creation effort to look at the future of Arctic marine navigation to 2020 and 2050. One key challenge was to identify the main uncertainties that would shape the future of Arctic marine operations and illustrate for the Arctic states, Arctic indigenous peoples' organizations, and many stakeholders the complexity and global connections of what is happening in the maritime Arctic. The AMSA scenarios team identified 120 factors or driving forces that may influence future levels of marine activity. Among the factors considered most influential were: global oil prices; new natural resource discoveries; legal stability and overall governance of Arctic marine use; occurrence of a major Arctic marine disaster; global trade dynamics and world trade patterns; limited windows and seasonality for Arctic marine operations (economic implications); climate change severity (more disruptive sooner); transit fees; global agreements on construction rules and standards; the safety of other global maritime routes; and, the entry of non-Arctic flag state ships operating in the maritime Arctic.

In the AMSA scenarios process two primary factors were selected to frame, as axes of uncertainty, the scenarios matrix used to develop four plausible futures of Arctic marine navigation. Degree of plausibility, being at the right threshold among the myriad of external factors, and relevance to Arctic maritime affairs, were the key criteria which led to the selection of the two major factors and uncertainties: resources and trade (demand for Arctic natural resources relating to the uncertainty of global commodities markets and market developments) and, governance of Arctic marine activity (the degree of stability of rules and standards for marine use both within the Arctic and internationally). Implied by governance is the need for a stable, efficient operating system of legal and regulatory structures. It is critical to note that Arctic sea ice retreat and climate change are fully considered in these scenarios. Understood is that the extraordinary retreat of Arctic sea ice provides for improved marine access and highly plausible, longer seasons of navigation. A prime example of this situation is along the Eurasian coast and the increasing use of Russia's Northern Sea Route (NSR). And, the sea ice retreat is assumed to continue based on the findings of the Arctic Council's Arctic Climate Impact Assessment, recent observations, and the sea ice simulations of a cadre of Global Climate Models. However, for future Arctic marine operations and levels of marine traffic, supported by the work of AMSA, Arctic natural resource developments driven by global economic drivers (global commodities prices) are considered paramount factors.

How are these plausible futures playing out in the 'new' maritime Arctic? Two key mining complexes above the Arctic Circle illustrate the linkages of Arctic shipping of resources to global markets. The Red Dog mine in northwest Alaska on the Chukchi Sea is the largest zinc mine and producer of zinc concentrate in the world. Operating since 1989, large bulk carriers sail into U.S. Arctic waters in summer, ice-free conditions and load zinc ore from barges sailing from a small port facility at the coastal community of Kivilina. The Red Dog operation is globally connected to markets (smelters) in British Columbia, Canada and East Asia. Winter operations would require substantial polar class bulk carriers to effectively operate in the U.S. maritime Arctic, and this option to extend the navigation season has not yet been implemented.

In the Russian Arctic the Siberian complex at Norilsk is the largest mining company in Russia (also a significant taxpayer in the Russian Federation) and is the largest producer of nickel (18% in the world) and palladium (41%); it is among the world's top four producers of platinum and one of the largest copper producers. Key to linking Norilsk Nickel to domestic and international markets is a modern Arctic marine transport system using a fleet of five, advanced icebreaking carriers. Since 1979 year-round marine navigation has been maintained to Dudinka, a port on the Yenisey River that services Norilsk with a rail connection. Today's shuttle system of independently operated icebreaking carriers (these icebreaking commercial ships generally require no icebreaker escort) take nickel plates west to Murmansk and eventual distribution to global markets. During recent summer navigation seasons, experimental voyages by Norilsk ships have carried natural resources from the Kola Peninsula to China. The Norilsk's Arctic ship *Monchegorsk* carried metals to China in September through October 2012 and became the first cargo ship to sail the entire NSR without icebreaker assistance; returning from Shanghai to Dudinka, the ship carried consumer goods, equipment and technical supplies for the Russian Arctic. This historic voyage opened the possibility that appropriate ice class polar ships would be allowed to sail the length of the NSR independently during future summer navigation seasons.

Hydrocarbon developments in offshore Arctic Norway, the Russian Arctic, Greenland and the United States (off Alaska) have stimulated increased Arctic marine operations, both tanker transits on the NSR and in the Barents Sea, and fleets of support ships operating during exploratory drilling. Liquefied natural gas (LNG) has been shipped out of Arctic Norway from Hammerfest to global markets; the gas has been piped ashore from the seabed complex Snohvit, and additional Norwegian exploration is underway in the Barents Sea. During the 2010 and 2011 summer seasons Cairn Energy from Scotland supported drill ships and a fleet of offshore support vessels in lease areas off the west coast of Greenland. In late summer 2012 Shell conducted preliminary operations in leased areas off northwest Alaska in the Chukchi and Beaufort seas; a fleet of two drill ships and some 16 major support vessels, including ice management icebreakers, operated in the U.S. maritime Arctic. In the eastern Barents Sea of the Russian Arctic, two shuttle tanker systems are operating year-round with the carriage of oil to the port of Murmansk for storage and distribution. A new two-ship icebreaking tanker fleet is to operate from the Prirazlomnoye offshore production platform in the Pechora Sea, when production begins in 2013. And also in the Pechora Sea, a three-ship operation services the offshore terminal at Varandey with an annual delivery of 12 million tons to Murmansk. Both shuttle systems are designed to operate without icebreaker escort during the winter season, and both fleets can carry oil east along the NSR during the summer navigation season to markets in Asia.

Perhaps the most visible and developing link of Arctic natural resources to Pacific markets has been the renewal of

maritime operations along Russia's Northern Sea Route. The focus of recent, experimental and operational voyages has been on tankers and bulk carriers sailing east and along the NSR from ports in the Russian Arctic and northern Europe during summer months (with minimal ice coverage) to markets in China and southeast Asia. Some tankers have also sailed west along the NSR (an example was the carriage of jet fuel from Korea to Finland in August 2012). Several key operations illustrate these new global connections: during August 2011 a supertanker, *Vladimir Tkhonov*, with 120,000 tons of gas concentrate crossed the NSR (with icebreaker escort along the entire NSR) from Murmansk to Bangkok; the bulk carrier *Sanco Odessey* (Liberian flag) with 66,000 tons of iron ore sailed from Murmansk to Beilum, China on the NSR in September 2011; and, during November 2012 the LNG ice class carrier *Ob River* transported 66,342 tons of LNG from Hammerfest, Norway to Tobata, Japan. During the 2012 summer season 46 vessels sailed the NSR and total cargo transported was approximately 1.26 million tons (71% petroleum products). Six ship voyages carried iron ore and coal with the Danish firm Nordic Bulk Carriers being particularly active in using shorter summer NSR links to Asian markets. To place this level of NSR traffic in historical context, during the Soviet era in 1987 the use of the NSR peaked with 6.7 million tons of cargo carried with 331 vessels making 1306 voyages. Thus, the operational aspects of the NSR have been fully developed in past decades, but most of these voyages were internal and the entire NSR operation was not focused on international trade links beyond the USSR. Shippers today along the NSR are focused on the transport of natural resources out of the Russian Arctic and from northern Europe in a 3 to 4-month summer navigation season with some expectations this operational season could extended to 6 months. It remains to be seen whether regular container ship operations (on trans-Arctic voyages) can make viable and economically sustainable use of the NSR during a short navigation season.

Future natural resource developments in the Canadian Arctic and Greenland will also be supported by Arctic marine transport systems. On Baffin Island is located one of the largest high grade iron ore deposits in the world. The Mary River mine project has been designed to develop this iron ore and link it year-round using a bulk carrier shuttle system to European ports and steel mills. However, in January 2013 the operator, Baffinland Iron Mines Corporation, revised plans for the project deferring the construction of a railway and port because of the global financial climate and slowing commodities demand. The company will annually produce 3.5 million tons vice the 18 million tons each year envisioned in the earlier mine plan. Bulk carriers will transport this resource from the Canadian Arctic to global markets likely in Europe. For Greenland, a cursory look at a recent map of exclusive licences for hydrocarbons and minerals from the Bureau of Minerals and Petroleum highlights the potential offshore and onshore natural resource wealth of this emerging state. In 2011 there were 142 hard minerals licences granted and applied for, including a broad range of exploration projects for rare-earth minerals, iron, zinc, gold, and rubies and sapphires. Many of these projects when moving to production phases will require ports, maritime infrastructure and ships to move future cargoes to global markets.

Highly plausible are projected increases in tankers and bulk carriers sailing in Arctic waters. These increases will be driven primarily by the demands of global commodities markets, and if one takes a longer-term, strategic view, by scarcer natural resources on the planet. Uncertainties and key influences must be considered: the building of oil or gas pipelines across Eurasia (from Russia to China) as transport competitors to Arctic shipping; the response of international gas markets to higher natural gas production in the U.S., and if the Arctic can be an economically-viable region for future gas development; the practical operational challenges of ice class polar ships and open water vessels in Arctic regions with diminished sea ice conditions, especially once a mandatory Polar Code is adopted by the International Maritime Organization; and, the plausibility of the transport of fresh water by bulk carriers from the Arctic (Alaska, Canada, the Russian Arctic and Greenland) to more southern and increasingly warmer regions. In summary, globalization of the Arctic through natural resource development is upon us, and the use of efficient and safe Arctic marine transport will link the Arctic ever more closely to the rest of the globe through the 21st century and beyond.

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Finland's world class Arctic marine technology know-how

By Yrjö Myllylä and Jon McEwan

Arctic marine technology is driven by resource extraction

The Arctic marine technology is first and foremost a question of utilization of natural resources: gas and oil, minerals and timber. It is also necessary for food consumption – Arctic fishing stocks for harvesting and a few new international trade routes: the Northeast Passage also known as the Northern Sea Route and the Northwest Passages to world markets. Natural resources belong to the core interests of industrialized nations growing demand for basic commodities e.g. lead, zinc, copper, iron, nickel, palladium, and platinum to name a few in addition to energy resources. From this perspective, Finland must re-evaluate its own economic and development strategies.

The strongest clusters and products in highest demand of Finnish Arctic marine technology are the environmental protection technology, meteorology and weather forecasting, including essential controls and monitoring systems for ice going vessels. There is strong demand of these products and services and as measured by employment and profit. Rapid growth is forecasted in Arctic marine technology products in the coming decades with climate change opening up the Arctic.

The fastest areas of potential growth, as compared to the previous levels of business in terms of employment and profit, is in the research and drilling operations, offshore construction, and safety and rescue operations. Ship building traditionally is the strongest sector providing short-term and vital cash flow in the maritime cluster. The construction of new ice going vessels is supported by the transport and logistics systems with Finnish know-how and over 50 years of ice data developed the last hundred years out of necessity of shipping over ice packed waters in the Baltic and Arctic.

Post Cold-War shifts Russian interests to North promoting Northeast Passage

Strong prospective trends may increase the demand for Arctic marine technology. Numerous experts were interviewed using the Delphi method, revealed the main external trends affecting Uusimaa or the Helsinki area and the rest of Finland's Arctic marine technology development are the growth opportunities of the emerging role of the North and technological innovations (progress) needed for sustainability. By interviewing panels of experts, the main external trends affecting the Uusimaa region and rest of Finland's arctic marine technology development are the growth of new role of the north and technological progress. Russia's North or the Arctic North is at the fore, due to growing demand for northern natural resources, especially in the growing demand for arctic minerals and oil and gas exploration, as well as in an increase in the political will for the benefit of the Northeast Passage. A key element of the North demand growth is also Russia's economic interests shifted to the North as a result of the dissolution of the Soviet Union and the end of the Cold War. The technological development, in turn, involves for instance the cost and nature-friendly transport, energy and environmental technology and information technology development.

The strengthening of cooperation in the Baltic Sea region is also an important trend. If Finland wants to benefit from the opportunities in the Arctic, the Finnish technology industry must develop closer cooperation with Russia. Yamal and Stokman gas fields need liquefaction facilities, mobile sea stations, storage and transportation vessels, service vessels and Arctic nuclear powered icebreakers. Finnish know-how is best demonstrated by innovative oil spill clean up products that have the potential to cluster with other actors in the Baltic Sea region. In addition, modernization of the Russian Navy, a fleet of roughly 2000 ships, will create new opportunities. On the other hand, if Finland wants to benefit from the opportunities in the Arctic, the Finnish technology industry has to have closer cooperation with Germany, a leader in many areas of technology.

The roots of cruise ship know-how are in the Arctic environment

Cruise ship skills can also look through "Arctic spectacles" and can also meet the demand for Arctic tourism in Polar class vessels including the design of research vessels like the *Auroura Boreali* that may accommodate 120 people, with half being researchers and others. In recent decades, shipbuilding know-how was promoted heavily, enhancing Finland's role as an expert in the construction of cruise ships. Cruise ship and ferry expertise is rooted in one feature of the Arctic environment, in other words in long distances and especially in Finland, for example Silja Line's and Boren's orders for cruise ships built in Finnish shipyards. In particular, the ship traffic between Finland Sweden has created the need for this particular type of know-how from the 1960s.

Know-how has been scaled, so that Finland manages 20 percent of the cruise ship market, and has manufactured the world's largest cruise ships. In the ferry markets Finland dominates the field with 40 per cent. The field and manufacturing are competitive by themselves what is basically supported by domestic supply networks located nearby. In addition, competitiveness is supported by the Finnish strong project management know-how, whereby the work (the projects are) is done in a reliable and timely manner.

Finland experienced a decline in orders after the global financial crisis. The major role of state aid and selected line of action by authorities have eroded the Finnish position especially in the cruise ship markets. However, the demand of Arctic and ice-breaking know-how is increasing. Knowledge is critical to the Arctic super powers and they are willing to cooperate with the Finns. After all, Finland has manufactured 60 percent of the world's icebreakers. Willingness to co-operation is manifested in a new Artech Helsinki Shipyard dock in Helsinki in 2010, where already the third ice-breaking vessel is being manufactured, and the fourth order to come from the Russian Ministry of Transport just before Christmas.

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This article is based on a joint project of maritime industry with Uusimaa ELY center of, which is foresighting the Arctic marine technology opportunities for Uusimaa SMEs by 2030. For more information, visit the project www.amtuusimaa.net.

Business prospects for the Finnish maritime industry in the Arctic

By Eini Laaksonen

Although the emerging business opportunities in the Arctic have aroused a lot of public discussion in the Finnish media, it seems that not many concrete actions have taken place in terms of engaging in the developments in the High North. Finnish companies remain rather absent in the Arctic regions of both Norway and Russia, where there would, at least it seems, be great demand for Finnish knowhow and workforce.

However, when taking a look at the actual business opportunities in the Murmansk region, for instance, not much has materialized, at least for the time being (Laaksonen 2012). The Shtokman field project had set the hopes high for the local people and authorities as the huge project was expected to attract lots of workers, investments and other activity to the region. However, as in 2012 the project consortium concluded that the project is not economically viable in the current economic situation – with major uncertainties concerning future prices and production of energy – the materialization of the long-awaited business opportunities might take longer than expected. Nevertheless, even without Shtokman project, the extraction of various natural resources continues in the Barents Sea region, which increases the need for new logistical solutions and supporting infrastructure. The melting of the Arctic opens up new possibilities for using the North-East Passage, and this route might in some decades' time well develop into a new transport route to Asia. Keeping in mind these developments, there is definitely room for Finnish expertise in the Barents Sea region – not only in Russia, but also in Norway.

From the perspective of Finnish companies, maritime industry is definitely one of the most interesting sectors for which there is increasing demand in the Arctic. According to the ambitious program approved by the Russian Government, Russia is to quintuple its shipbuilding output by 2030 through substantial state funding and by establishing new economic zones for constructing vessels (BOF 2012). This boom will most certainly provide subcontracting opportunities for Finnish expertise. In fact, successful cooperation already takes place for instance in the Arctech Helsinki Shipyard, which operates under the joint ownership of the Russian United Shipbuilding Corporation (USC) and STX Finland. In fact, the high level of Finnish shipbuilding expertise originates from the war payments to the Soviet Union after the Second World War, which forced the Finnish maritime industry through a rapid industrialization process. Although Finnish shipyards have recently suffered from poor profitability and changes in ownership, the expertise remains at top-level and the competitive advantage lies in high specialization, investments in R&D, excellent quality, and reliable delivery times. However, offshore ice management segment, including icebreakers and the related services, is one of the most interesting development areas in the Finnish maritime cluster. Simultaneously, the ability to design and build innovative multipurpose vessels is of demand as such ships can be used in various functions all year round.

As an example of Finnish productivity, Arctech Helsinki Shipyard finished the Arctic offshore vessel Vitus Behring four months ahead of time. The ship was ordered together with its sister ship by Russia's largest shipping company Sovcomflot, and they are to serve the oil and gas production platform of Exxon Neftegas Limited in the Russian Far East. Arctech Helsinki Shipyard is simultaneously working on another order from Russia, to build a multipurpose icebreaker together with Yantar Shipyard JSC in Kaliningrad. The project uses the icebreaking and oil destruction solutions developed by Aker Arctic Technology Oy, a Finnish company which has a unique ice model test laboratory in Helsinki and which is currently involved also in designing several Arctic icebreakers, for instance to China and Canada.

In addition to the expertise in designing and building various ice-going vessels, the offshore sector is of increasing interest to the Finnish maritime industry. Offshore sector refers to businesses that support the search and production of oil and gas from the sea bottom and the production of wind power, wave power and solar power offshore (SOT 2012). Possibilities for offshore oil and gas production in the Arctic areas of Russia, the US, and Canada are under active exploration. Simultaneously offshore industry is increasingly investing in offshore sea wind, wave and solar power production plants, particularly in Germany, Denmark and Great Britain, thus concerning not only Arctic areas. In Finland the industry network comprises technology companies which provide offshore industry with special know-how in propulsion, mechanical engineering, lifting, electrics, and measuring technology. Traditional maritime industry shipyards also increasingly serve the offshore industry which is replacing the production deficit caused by the lack of large cruiser orders. Several Finnish companies are global leaders in their own niche markets, such as ABB with propulsion solutions, Technip with the Spar platforms, KONE with the lifting solutions, and Napa with ship design software.

As stated also in the recent report by the Maritime Industry 2020 competitiveness working group (initiated by the Finnish Ministry of Employment and the Economy), the Finnish maritime industry has every possibility to become the world leader in the Arctic maritime expertise (TEM 2013). In fact, the Arctic might appear to be the key competitive advantage of the sector in the future (SmartComp 2012). However, such an advantage should not be taken for granted – continuous investments in R&D and innovation activities are required in order to keep one step ahead of the ambitious competitors, not only in Europe, but for instance in South Korea and China as well. In addition, stronger clusters and increased cooperation are needed among the relatively small Finnish companies, also between competitors. Namely, international buyers increasingly prefer buying larger product packages or solutions than Finnish SMEs with their current supplier networks can offer, and thus dynamic and proactive cooperation is a necessity in the future to maintain the flow of orders and, as a result, to maintain and develop the cumulated expertise. To develop our state-of-the-art knowhow, we need national as well as international networks.

Although it eventually is the companies that have to be active in the face of Arctic business opportunities, the role of state support should not be forgotten. Guaranteeing the education of the needed workforce, developing the financing instruments for R&D and investments, developing the logistical linkages to the High North, and supporting the internationalisation of Finnish SMEs, are of crucial importance. Moreover, particularly in the Russian markets, the high profile support of politicians as door openers is in

some cases essential for the success of Finnish companies in getting their share of the forthcoming project orders.

Finland is currently updating its Strategy for the Arctic Region, and hopes are high for the state to present now concrete and far-reaching measures on how the Finnish business community could better engage in the developments taking place in the High North. International networks, both within companies and the public sector, are needed so that the Finnish maritime cluster can make most of the business opportunities emerging in the future.

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Opportunities for local development in a nationally contested Arctic – when Nordic communities engage with Asian economies

By Adam Grydehøj

The Arctic region's emerging accessibility to trade and industry, largely as a result of climate change, has enhanced interest among the Arctic states in exploiting new trade routes and natural resources (fossil fuels, fisheries, precious metals, etc.). It is tempting to view these developments either in terms of regional cooperation or zero-sum competition between states, yet the reality is more nuanced. Regional intergovernmental bodies such as the Arctic Council and the Barents Euro-Arctic Council are not merely forums for mutually beneficial decision making but are also platforms for declaring unique national interests and for limiting the opportunities of states that are not members of 'the Arctic club'— or in the case of the 2008 Ilulissat Declaration, the 'Arctic Ocean club'. Similarly, attempts to outmanoeuvre allies by entering into special strategic relationships with non-Arctic states has the potential to result in a safer, more secure world in which benefits from natural resources are more justly distributed.

Even this, however, is an oversimplification, for the lack of a regional body with statutory authority means that states – engaging in international relations either independently or as part of intergovernmental forums – are not the sole arbiters of Arctic policy. Subnational jurisdictions (communities, towns, municipalities, etc.) are increasingly shaping the future of the Arctic by engaging with state and private actors from outside the Arctic region, with or without the encouragement of the national governments to which they belong.

National versus local powers

When discussing the governing capacities of subnational jurisdictions, it is important to differentiate between *de jure* distributions of competencies between governments at the national and subnational levels and *de facto* competencies acquired through tradition and practice. Although foreign relations are generally considered the exclusive *de jure* competency of sovereign states, which possess diplomatic legitimacy in the international arena, most subnational jurisdictions have the ability to engage directly with foreign state and private actors. In the Arctic context, the government of Greenland is, for example, making considerable political investments in engaging with the Chinese state and Chinese businesses even though Greenland – as a specially empowered subnational jurisdiction within the Kingdom of Denmark – lacks the *de jure* competency to unilaterally carry out foreign relations. The Greenlandic government's encouragement of Chinese industry, with at best ambiguous support from the government of Denmark, does not merely represent an attempt to bolster the Greenlandic economy; it is also an attempt to establish greater economic and political independence from Denmark. Greenland is a special case inasmuch as the present situation is part of a long process toward greater autonomy. However, it is not just independence-minded subnational jurisdictions that can benefit from the globalisation of the Arctic: Local communities of all kinds desire stronger economies.

Local economic development may be in the national interest inasmuch as the locality is a constituent of the state, yet national and local interests do not always coincide. For instance, in Norway, towns, cities, and counties may wish to become involved in international Arctic trade and industry in a way that is unconducive to the Norwegian government's efforts to make Tromsø a regional hub for industry and diplomacy via investment in such projects as Grøtsund Industrial Park and the Arctic Council's permanent secreteriat. Similarly, the difficulty that the Zhongkun Group, a Chinese corporation, has faced in its attempts to invest in northeast Iceland suggests conflicts between a local desire for development and national geopolitical concerns.

Opportunities for local communities

Nevertheless, competition for resources among the Arctic states has opened up space for local governments to get involved. National attempts to attract, prevent, or manage trade, investment, and industry from non-Arctic states (epecially Asian states like China, Japan, South Korea, and Singapore) in order to further national interest have relatively ignored the importance of locality. The *de facto* and non-exclusive of competencies held by subnational authorities often permit them to forge relationships with foreign state and private actors without interference from national governments. A municipal authority that wishes to welcome more foreign shipping vessels to its harbour can largely do so without the support of its national government, and barring national legal prohibitions (such as those that seem to have scuppered the Zhongkun Group's property development plans in Iceland), there is nothing to prevent a subnational jurisdiction from encouraging foreign direct investment.

An illustrative example is the town of Longyearbyen in Svalbard, an Arctic archipelago governed by Norway but with a complex jurisdictional status that allows foreign nationals to settle and undertake economic activity. Although it is in Norway's strategic interest to keep Svalbard as centrally controlled as possible, the local government in Longyearbyen is reaching out to foreign actors in order to politically and economically empower the local community— and there is little the Norwegian government can do to prevent this.

Not all development is positive, and there can be no absolute privileging of local versus national interest or *vice versa*. There is a need though to recognise that opportunities for local development are increasing as well as that local pursuit of international trade can run into obstacles in the contested Arctic region.

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Japanese-Russian business on a brink – how to go with Gazprom?

By Masahiro Tokunaga

At the 2012 APEC Summit Japan's then Prime Minister Yoshihiko Noda and Russian President Vladimir Putin signed an agreement on building a liquefied natural gas (LNG) plant in Vladivostok. Japan's major trading firms are cooperating with the Russian gas giant Gazprom to start production within a few years. Japanese government expects most of the LNG produced at the plant to be exported to Japan. According to Vitaly Markelov, deputy chairman of Gazprom's management committee and a member of Gazprom's board of directors interviewed by a Japanese press, Japan would purchase up to 65% of the total LNG production in Vladivostok until 2020.

Japan is buying more LNG at much higher price than the rest of the world to supply fuel to power stations after the Fukushima disaster triggered overall shutdowns of nuclear reactors. The Japanese economy recorded its first trade deficit since 1980 in 2011, which was tied to slowing global market growth and a historical appreciation of the currency at the time (factors leading to a drop in export) as well as rising energy imports as a result of substitution of natural gas for nuclear power. Latest figures of national trade performance show a largest monthly trade deficit at the beginning of this year mainly due to ballooning imports of oil products and LNG. Japan is thus desperately in need of cheaper energy sources to rebuild itself as a powerful trading nation in the world economy. One solution for the issue is to share the benefit of shale gas revolution with the United States: both countries look set for reaching an agreement on the supply of American natural gas to its Asian allies. Another and longer-term solution would be diversification of energy suppliers with a gradual reduction in dependence on oil and gas in the Middle East that accounts for around 85% of the total value of Japan's energy imports. Against this background, Russia is becoming a much more important energy supplier for Japan.

When viewed from Russia, there is no doubt that Japan will be a perfect trade partner having a possibility of becoming a saviour for the Russian energy sector. The European Union is seeking non-Russian energy sources; European shale gas is expected to be available in the near future (firstly in Poland); negotiations on sales of Russian natural gas to China are in a stalemate; there are another LNG suppliers in the Asia-Pacific basin (Indonesia and Australia, among others); and unlike 1990s Russia has no hope of exporting energy products to the North American continent. By eliminating the impossible, energy exports to Japan along with joint ventures of resource exploitation are the biggest profit generators for the Russian energy sector in the foreseeable future. In fact, both countries have a half-century history of mutually beneficial cooperation on the resource development in Siberia and the Far East region and the Sakhalin oil and gas project will be a success story of the collaborative relationship in the energy field.

At the same time, when viewed from Japan, the Sakhalin project posed a grave challenge not only to the business community but also to the entire society. Gazprom acquired a 50%-plus-one-share stake in the Sakhalin-2 project, to which top Japanese companies Mitsui and Mitsubishi had been deeply committed for a long time, after the operator consortium of foreign investors was accused of breaking local environmental laws. As a result, two Japanese investors' stakes were reduced from 45% to 22.5% in total in exchange for cash compensation. Although the deal itself was not bad as some experts recognized, Gazprom was portrayed as the villain in the media and became a symbol of Russian-style bad manners at business. Most of us still believe the Russian government alleged that foreign investors had infringed environmental laws in an attempt to transfer the established business interests of the Sakhalin-2 project to Gazprom.

A few years later, however, a top executive of Mitsui surprised us by professing that Mitsui supported the idea of changes in the composition of Sakhalin-2 operator in favour of allowing Gazprom to hold the majority stakes. When the President Putin came back to the Kremlin, the CEO of Mitsui welcomed his re-election and manifested his willingness to cooperate with Moscow on various business projects. I do not think they just gave lip service. Actually, a dozen of Japanese business persons I met in Russia more or less supported Putin's Russia. Why does the Japanese business society prefer such an authoritarian (at least less democratic compared to most major countries), corruption-stained (Mitsui's staff members were arrested over bribery allegations involving public works contracts for a Russian support project), and state-capitalism style regime (though Putin himself refuses to term Russia like this)? Probably, the words of the above Mitsui's executive drop a hint: "if Russia takes the initiative on the Sakhalin project, it becomes free from political interference. In fact, after Gazprom bought stake in Sakhalin-2, we are able to handle political and economic tasks more smoothly than before. Russia is a country like this." (cited and translated from a Japanese business journal, *Weekly Diamond*, 15 November 2010)

We know foreign investors in emerging markets favour a political stability, because it often equivalents to lower business risk than otherwise. Furthermore, in the case of Gazprom, this quasi-state company is able to reduce the so-called transaction costs as suggested by the above remarks. A Japanese business person who I interviewed in Russia was keen to make a deal with Gazprom, and between Japanese enterprises and Gazprom including its affiliated companies business projects have been expanding in the recent years as exemplified in the opening sentence of this essay. In my view, Japanese-Russian business is in the next stage where Japan needs to strategically think about how to go with Gazprom. Probably in the coming years, we can hardly do business with Russia without taking this Russian gas giant into account like any major European country. A forecast said around 20% of the total imported LNG in Japan will come from Russia and both countries decided to resume an undersea gas pipeline construction project from Sakhalin to the Tokyo metropolitan area (approximately 1400km in total length) in a decade. We may face a gas war as some political analysts warn. Or unexpectedly do well with such an outsider. Remember that Japan also was reckoned as a big outsider in the world business community and criticized as having eccentric business customs and manners. I think we will have the answer to this question before too long.

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The migration of people in the Arctic

By Timothy Heleniak

The migration of people has been central to the making and unmaking of Arctic settlements since the first humans crossed the Bering land bridge following the last glacial maximum. Until the mid-19th century, the population of the Arctic consisted primarily of 300,000 indigenous peoples living traditional lifestyles based on fishing, sea mammal harvesting, and hunting. But with improved transportation, exploration, and exploitation of the Arctic, waves of outsiders migrated to the region. Increasingly large settlements were constructed in the Arctic, especially in the Soviet Arctic, which first used forced labor and later wage increments to populate the region. Later, the Cold War brought military personnel and others to the region. The Arctic is poised for another dramatic shift in population with climate change and increased demand for the region's natural resources.

According to the Arctic Human Development Report (AHDR), the Arctic consists of the U.S. state of Alaska; the Canadian territories of Yukon, Northwest Territories, and Nunavut, northern Quebec and Labrador, Greenland, Iceland, and the Faroe Islands, the counties of northern Norway, Sweden, and Finland, and in Russia, the Murmansk oblast, the Nenets Okrug, Vorkuta city in the Komi Republic, Taymyr Okrug, the Yamal-Nenets Okrug, the cities of Norilsk and Igarka, the northern regions of Yakutia, and the Chukotka Okrug.

The main drivers of migration in the Arctic are economic growth, climate change, and the role of the state. Income differences between regions drive migration across the world but more so in the Arctic because the small size of regional economies. The availability of natural resources dictate regional income levels. Climate change can make some Arctic regions more accessible while rendering others nearly uninhabitable because of reduced sea ice destroying coastal communities or thawing permafrost ruining the infrastructure of inland settlements. The state plays a role in attempting to influence the spatial distribution of the population everywhere but more so in the Arctic, especially vis-à-vis indigenous peoples who have been forcibly moved, consolidated into unfamiliar urban settlements, and had their children placed into boarding schools.

According to the AHDR, the current population is just over 4 million and has been at roughly that level for the past several decades, though there have been significant differences among Arctic regions in terms of those which are losing or gaining large numbers of people from migration. The centrally-planned economy of the Soviet Union pursued a development policy towards its Arctic and northern periphery regions based on the construction of large permanent settlements, a massive and expensive logistical supply effort to provide food, fuel, and other basics to these settlements, and heavily-subsidized transport to Arctic settlements. The breakup of the Soviet Union and the institution of a market economy in Russia have made this development policy unsustainable. One effect was rather significant population losses due to out-migration. Over the past two decades, the regions of Arctic Russia have had population declines of one-quarter or more from out-migration. At the extreme was Chukotka, in the far northeast where three-quarters of the population voted with their feet and moved away from the region. This exodus from the Russian Arctic slowed during the first decade of the twenty-first century when the population only declined by nine percent. This was due to a significant population increase from migration in Yamal-Nenets, the gas region in West Siberia that is fueling much of Russia's current economic growth. Elsewhere in the Russian Arctic, the steep population declines from out-migration continued.

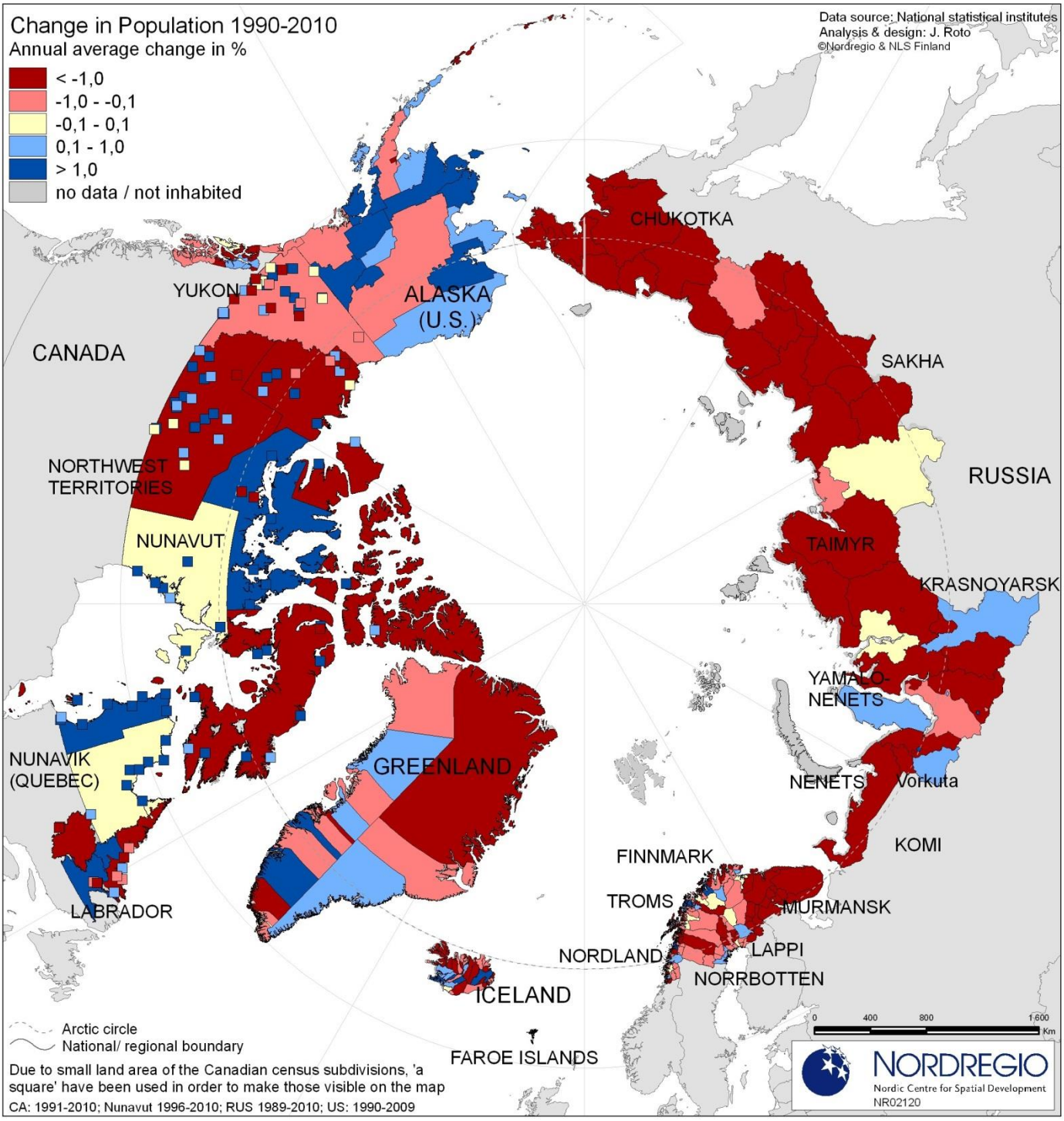
The populations of most Arctic regions are quite transient with larger portions have been born outside the Arctic and having migrated from elsewhere. When economic conditions deteriorate, as they did in the Russian Arctic after Communism, it is these people with ties elsewhere who left in the largest numbers leaving behind an older and immobile population. Northern Finland and Sweden had population declines of about five percent over the first decade of the twenty-first century. The populations of Arctic Norway, Greenland, and the Faroe Islands remained roughly the same or had moderate increases. Since 2000, the global population has continued its rapid increase growing by thirteen percent. The populations of Alaska, the Canadian Arctic, and Iceland grew faster than the world average because of high rates of in-migration due to resource extraction projects.

Two simultaneous migration trends seen across most Arctic regions are population losses from migration to the southern portions of these countries combined with gains from international migration. For instance over the past several decades, the northern regions of Fennoscandia and Russia have had net out-migration to the southern or more central portions of these countries. To compensate for this loss of labor, most Arctic regions are experiencing large inflows of labor from abroad. Northern Russia are the regions with highest shares of registered foreign workers in the country, with large numbers of workers from Central Asia. Thais are the largest group of foreign citizens in Greenland and Svalbard and among the top seven in Norway, Iceland, the Faroe Islands. There are also large populations of workers from Poland and other recent EU accession countries working on large new industrial projects in Norway, Iceland, and Greenland. There are large Thai populations working in the service sector in Alaska and large Philippino populations in northern Canada.

The global population recently passed a milestone, where over half of the world's population now resides in urban areas. The Arctic passed this mark long ago because of the structure of Arctic economies based on resource extraction and transportation which tend to take place in urban settlements. A trend seen across almost all Arctic regions is a tendency of migration up the urban hierarchy into larger urban settlements. The bright lights of the big city are a powerful pull because of better employment, educational, and lifestyle opportunities than in smaller settlements. All Arctic regions except those in Russia have had urban population growth over the past two decades.

Standard population projection methodologies don't work very well in the Arctic because of the small population sizes which are subject to booms and busts based on natural resource extraction. In the future, the population of the Arctic will likely be somewhat larger than it is currently because of a number of current or potential resource-extraction projects which could draw large numbers to the region and climate change could allow some regions to become more accessible. The trend of increasing shares residing in urban areas in the Arctic will undoubtedly continue.

Figure 1. Population change in Arctic settlements, 1990-2010.



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Government subsidies and the internal market – another evolutionary step for Europe's State aid policy

By Joaquín Almunia

A short history of State aid policy

Five years after the Schuman declaration of May 9, 1950, the six members of the European Coal and Steel Community started to discuss in earnest the creation of a common market. They set up the Spaak committee – named after its chairman, the then foreign minister of Belgium – which ended its work nine months later. Alongside the provisions that would keep the future internal market free from anti-competitive business practices, the report devoted a section to "financial assistance granted by the states", stating that it must not favour individual enterprises or types of production. The rationale was that government subsidies could distort competition and undermine the integrity of the Single Market just as much as cartels and monopolistic positions of private enterprises.

This historical reference speaks to the political and institutional acumen of the early architects of the European Union, who would soon give to an independent authority – the European Commission – the power to control certain forms of support granted by national authorities to private companies. The so-called State aid articles – numbers 107 and 108 in the Lisbon Treaty – have not changed since the Treaty of Rome. These provisions have no equivalent anywhere else in the world. For almost six decades, their implementation has underpinned Europe's economic and social integration.

However, if the principles have remained unchanged, the State aid legal framework has been updated regularly. The European Commission's control over government subsidies has adapted to the growth of the public sector in Europe over the years. In addition – as the EU enlarged from the original six to soon 28 Member States – the system has grown in complexity, especially because the levels of government – and hence of aid-granting authorities – are structured differently in different countries. Finally, since 2008 a special State aid regime has successfully ensured that the massive support extended by governments to banks in distress would not threaten the integrity of the Single Market.

A modernisation strategy for State aid

As a matter of course, State aid policy has had to respond to the new conditions determined by the crisis well beyond the banking industry. In this juncture, most EU governments need to consolidate their budgets. As a result, it is difficult for them to take spending decisions. At the same time, growing numbers of Europeans hit by the recession turn to national and EU authorities for immediate support. The obvious way out of this conundrum is growth. EU countries must meet the people's expectations for realistic strategies to generate growth and jobs in the future. Spending and tax policies are among the levers that governments have to create the conditions for a sustained and sustainable period of expansion. To help government authorities cope with this situation, I have launched a complete overhaul of State aid policy – the State aid modernisation strategy.

The main goal of the reform is to help national governments do more with less; that is, to make more efficient use of increasingly scarce resources. The reform will promote well-designed aid that fixes market failures and pursues common European objectives, such as promoting innovation, green technologies, and the development of human capital. The reform will also promote the incentive effect of public aid, which should not replace but complement private investment. Subsidising activities that would have been carried out anyway does not serve the common interest and, in any event, has become unaffordable. Another form of wasteful expenditure the new regime will discourage are the subsidies to unviable companies which, in some cases, can that keep them on life support for a very long time. In addition, the new regime will respond to the growing disparities in the fiscal capacities of different EU countries; a fact that can fragment the internal market. Finally, the modernisation of State aid rules is an excellent opportunity to use information technology to introduce more transparency into the system. State aid policy is ultimately about the use of taxpayers' money and the people have a right to know who is receiving aid, how much and why.

To conclude, the reform process will renew the EU State aid regime across the board over the next months. In December 2012 the European Commission adopted the first new-generation Guidelines devoted to the broadband sector. If everything goes according to plan, the rest of the reform package will be adopted in 2014. The State aid modernisation strategy is a prime example of how EU policy-making can respond to fast-changing conditions. As Europe's governments strive to improve their fiscal positions, our reform can help them lead Europe out of this crisis and address the dreadful implications it has for Europe's citizens.

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Finland will meet the renewable targets with forest energy

By Jari Koskinen

The European Union adopted targets for energy production from renewable energy sources (RES) in 2009. Ambitious targets were set for reducing greenhouse gas (GHG) emissions and promoting the use of renewable energies. Further underlying objectives include energy security, reducing import dependence for energy, and improving the competitiveness of the European economies. To reach these targets each EU Member State follows a promotion strategy of its own and uses different instruments for increasing the share of RES.

Finland has taken the renewable energy targets very seriously. The Renewable Energy Directive (2009/28/EC) sets mandatory national RES targets for each Member State. The target set for Finland is a 38% share of renewable energy in the final energy consumption by 2020. This is one of the highest in the EU.

The EU targets have influenced the Finnish energy policy in the past few years. We have updated the National Energy and Climate Strategy, which determines the energy policy outlines to be followed. Support mechanisms have also been updated. Changes have been made also to the taxation of fossil energy sources. Taxes on oil products, coal and peat should encourage the use of renewable sources. Among the criteria for the taxation is the carbon content of the fuels.

The most recent National Energy and Climate Strategy was approved by the Government in March 2013. The headline target for 2020 is that 38% of the energy consumption in Finland would be covered by renewable energies. One of the concrete actions to achieve this is to increase the use of forest chips for producing electricity and heat to 25 TWh by 2020. The Finnish Government wishes to significantly reduce the use of coal by 2025, mainly to be substituted by forest biomass. The production of biofuels and bioliquids in Finland is also expected to be mainly based on forest biomass or waste feedstocks. The share of domestic synthetic biogas is to be increased to 10% of the consumption of natural gas. The strategy also highlights the importance of energy self-sufficiency and development of domestic energy technology.

What is important now is to identify and create good national conditions for the growing use of renewable energy sources. Certain aid schemes have been updated in order to increase the use of bioenergy. One aim is to raise the competitiveness of bioenergy to a level at which the required growth can be achieved. New feed-in tariffs were launched in 2011 to support the use of forest chips in electricity production, and wind power. In certain respects, however, this has been a rocky road. Some of the envisaged aid schemes have not been realised as originally planned, or the aid payments have not led to the kind of investments they were aimed for. One major challenge has been the current economic situation, meaning that all over Europe we have been forced to reassess the use of Government budget funds for different purposes. The uncertainty and changes to plans have been problematic for the energy sector and investments. One crucial target is to create long-term and well predictable support schemes so that the state could provide the necessary guarantees to allow long-term planning by investors.

Already today the renewable energy sources provide one fourth of the total energy consumed in Finland and account for more than one fourth of the power generation. The most important renewable sources of energy in our country are bioenergy (wood-based fuels in particular), hydropower, wind power, geothermal energy and solar energy.

When we talk about increasing the use of renewable energy, the focus in Finland is on forest biomass, obviously due to our abundant forest resources. By-products and residues from wood processing industries (black liquor, bark and sawdust) have for decades been important sources of energy. Their supply naturally depends on the production volumes of wood processing industry, which is why no exact target for increasing their use can be set. Thus the main targets for increasing the use of wood-based fuels in energy production have been set for forest chips, i.e. logging residues and small-diameter wood.

In Finland the use of forest chips has increased rapidly. Last year a total of 8.3 million cubic metres forest chips were used, which was again a new record. Of this 7.6 million cubic metres (about 15 TWh) was burned in heat and power plants and the rest was burned in private homes. If we look at the situation just one decade ago, the use of forest chips has increased nine-fold since 2000. In spite of this quite dramatic growth, the aim is to almost double the use of forest chips from the present to 25 TWh in heat and power plants by 2020. In practice the raw material of forest chips is comprised of branches and tree crowns from felling sites or small-diameter trees from young stand tending or first thinning operations. The efforts to increase their volumes also involve certain challenges. The amount of logging residue depends on the volume of final cuttings which, in turn depend on the roundwood markets and the activity of forest owners. In the same way, the amount of small-diameter wood coming to the market depends on the amount of forest management work that is being done. In terms of exploiting our forest resources there are no obstacles to increased energy use: in the past few years only about a half of the annual increment of Finnish forests (more than 100 million cubic metres a year) has been harvested.

Besides the practical challenges described above, certain new obstacles to using forest energy have been raised. Certain parties have called to question whether biomass and especially wood biomass is at all more environmentally-friendly than fossil fuels. The strongest criticism has been directed to tree plantations in the southern hemisphere and use of whole logs for energy. What has also been questioned is the whole concept of sustainability of the northern forest management. One key issue raised is carbon debt which may be created if e.g logging residues are collected for energy. It is most valuable to talk about these issues and to make sure that our energy targets truly contribute to climate change mitigation. What is unfortunate, however, is that these discussions cause uncertainty in the field and, at worst, may slow down investments.

Finland has also been active and tried to convince the European Commission that, if it intends to introduce sustainability criteria for solid biomass for energy production, the criteria must not cause any new barriers for developing the markets for sustainably produced biomass. As regards logging residues and other forest biomass it is necessary to avoid the creation of a separate scheme and sustainability criteria for one particular end use of wood. Forest biomass which ends up in energy production should not be subject to criteria differing from those for timber or pulpwood.

For reaching the EU targets over the next seven years a lot of work needs to be done. The Commission published just recently, in March 2013, a progress report on how the Member States have advanced in promoting renewable energy sources. The Commission points out that the growth in the use of RES has been slower than was hoped for, and the trajectory shows that even greater efforts by particular Member States will be necessary in the years to come. Personally I am prepared to make every effort to make sure that, in spite of the great challenges we still have, Finland and the whole EU will reach the target and, through this, make an important contribution to climate change mitigation.

Jari Koskinen

Minister of Agriculture and Forestry

Finland

NATO and the Baltic Sea Region – an Estonian perspective

By Urmas Paet

It is no secret that the world around us is changing quickly. We have to face and overcome new challenges almost daily. Security is no exception. Therefore, NATO and its partners have to be prepared to face emerging threats. The defence of NATO and its partners in the 21st century depends not just on the existence of regular military forces, but also on our preparedness to flexibly address new threats.

There are many things that the Alliance and its partners have to consider. For instance, it is essential to address cyber security and develop NATO's ability to deal with cyber threats. Everything that we do in cyberspace has consequences in the "real world" too. In a way, the widespread use of different ICT and e-solutions makes us vulnerable. One particular step that we have taken to address this issue was the creation of NATO's Collective Cyber Defence Centre of Excellence in Tallinn. Its objectives are to elaborate new strategies to combat cyber threats and to provide training.

Another challenge is the declining of defence spending in NATO member and partner states. This is particularly problematic as, at the same time, certain other countries are actually increasing their defence expenditure. Decreasing defence spending is unsustainable. It can lead to new and even deeper crises. NATO agreed the 2% defence spending criterion in order to ensure the Alliance's relevance. Europe cannot afford to become a so-called security consumer. This is why Estonia spends 2% of its GDP on defence already for the second year in a row.

Then there are also NATO missions. Foremost among them is Afghanistan. Despite being challenging, the mission helps make our countries safer. The Afghanistan mission is the first one to have grown out of an Article V response. It has confirmed that NATO plays a vital role in guaranteeing international security, and that the Allies are capable of co-operation necessary for a large scale out of area operation. I believe all this is valuable experience in the face of potential 21st century challenges.

But if we talk about the Baltic Sea region in particular, then Estonia would like to see the Nordic-Baltic region as integrated and unified as possible. Security plays a very important part here. It is important to assure NATO's stronger presence and visibility in the Baltic Sea region. This would increase stability.

The decision at NATO's Chicago summit last year regarding Baltic air policing was a very positive one. The whole region benefits from Estonia, Latvia and Lithuania being better protected. And the participation of the Nordic countries in regular air policing exercises in the Baltic region is certainly a step towards the kind of security co-operation that we need.

Organising regular, large scale live format exercises similarly fosters co-operation. "Steadfast Jazz 2013" will provide significant added value militarily as well as politically in raising NATO's profile in north-eastern Europe. This enables the Allies to test interoperability, to practice contingency plans, to make sure that NATO is ready for the worst case scenarios, and it also gives the opportunity to better involve the Alliance's partners.

Finland and Sweden are the NATO's closest partners. They offer an outstanding contribution to the Alliance and help increase security in our region. The Alliance should involve partners like Finland and Sweden in a wider range of NATO activities, training programs and exercises. This includes high-intensity conflict scenarios. On the other hand, we could think about the greater integration of Estonia, Latvia and Lithuania in Nordic Defence Cooperation (NORDEFCO) initiatives.

Nordic-Baltic defence co-operation also encourages EU-NATO co-operation. For instance, the Nordic Battlegroup helps increase interoperability between NATO Allies and EU members in the north. The Battlegroup concept in general is promising, despite the fact that we know there are politically difficult issues involved here.

Another thing that I would like to highlight is NATO-Russia relations. This significantly affects our region. Estonia supports mutual efforts to enhance reciprocal transparency with regard to military exercises, security doctrines and defence reform. But we have also seen the build-up of advanced offensive weaponry near NATO's borders. This is evident in Kaliningrad, but also in the Pskov and Leningrad oblasts. Militarising these areas is counter-productive to the partnership we hope both NATO and Russia wish to maintain and develop.

So in conclusion, as security challenges remain and as the world around us continues to change, we undoubtedly have many tasks ahead. But as some have even said that Sweden and Finland already are de facto members of NATO, we definitely have a very strong foundation for extending and increasing our co-operation. Of course NATO membership is a choice to be made by Finland and Sweden themselves, but Estonia would like to see the Nordic-Baltic region as integrated and unified as possible. That is why I am convinced that the path of co-operation is the right one to follow if our ultimate goal is to increase stability and security in our region.

Urmas Paet

Minister of Foreign Affairs

Estonia

Ukraine – in search of success in the modern world

By Viktor Mayko

It is my pleasure to address share with the readers of "Baltic Rim Economies" Ukraine's goals and priorities in the field of foreign economic relations as well as the prospects of Ukraine-Finland economic cooperation.

As an export-oriented country with the share of export in its GDP amounting to over 50%, Ukraine is keen to diversify its trade and economic relations by developing mutually beneficial cooperation both with the traditional partners and with new economic drivers of the modern world such as China, India, Brazil, Persian Gulf states along with other countries of Asia, Africa, and Latin America. We have a belief that such an approach will help Ukraine to strengthen its role as a proactive and reliable partner, open to the plentiful options of cooperation offered by the present-day world.

European integration, especially in the context of signing this year an ambitious and innovative Association Agreement with the EU, remains Ukraine's strategic priority. It is a cornerstone of systemic (and for the most part, painful) internal reforms aimed at achieving EU norms and standards in all spheres of life.

The Association Agreement is just a few steps away. It will lead to profound changes of the paradigm of our relations with the EU: from partnership and cooperation to political association and economic integration. We proceed from the understanding that the finalization of all technical formalities will open the way for signing of the Association Agreement by the end of this year. We consider the Association Agreement as a comprehensive tool of modernization and key instrument for moving the reform process further, particularly through gradual legislative approximation to the EU laws and regulations. Ukraine hopes to benefit from the establishment of the so called deep and comprehensive Free Trade Area (DCFTA) envisaged by this Agreement, by obtaining for its goods and services an unprecedented access to the world's largest market and by receiving additional impetus to further economic development through increasing flows of direct foreign investments in the real sector of the Ukrainian economy.

At the same time, we believe that our EU integration is an asset to the both sides. First, European Ukraine means more European security and stability. Secondly, European Ukraine means a secure energy supply and better communications. Thirdly, European Ukraine means a wider EU market, enormous in its potential and capabilities: as a country with the population of 46 million, Ukraine with an advanced industry and a fertile agriculture has to become a promising target for foreign investors, especially from the EU.

DCFTA is of crucial importance for the Ukrainian and EU businesses and consumers. It will not only lead to the opening of a common market but will also facilitate introducing European standards in business and investment environment in Ukraine. Thus, we are working on the idea of launching DCFTA before the whole Agreement is ratified by all EU Members States.

In this regard, it's worth saying that the European aspirations of Ukraine do not prevent us from developing mutually beneficial trade and economic relations with the Customs Union of the Russian Federation, Belarus and Kazakhstan, which is our largest economic partner with the yearly trade turnover exceeding 60 billion US dollars. Thus, Ukraine has to elaborate an effective framework to strengthen economic relations with the Customs Union. We are considering all options for establishing an effective mechanism of cooperation with the Customs Union, which should be based on our national legislation and be fully compatible with our course towards European integration.

Ukraine is keen to intensify bilateral trade and economic relations with Finland. Despite a substantial decrease in 2009 caused by the world economic crises, the trade turnover between our countries continues to grow from year to year.

The 6th meeting of the bilateral Trade and Economic Commission last December in Helsinki proved our joint interest and willingness to further develop our economic ties. We have good prospects for intensifying cooperation in construction, agriculture, fish industry, transport, telecommunications and other.

Ukraine considers Finland as a country with a rapid advancement and unique expertise in the field of high technology and innovations. Finnish solutions in different sectors such as environmental protection, energy efficiency, R&D could be very valuable for us. Collaboration between Ukrainian research institutes, universities and companies and Finnish research units is therefore important in order to keep abreast of recent developments in a number of fields. Several Ukrainian-Finnish scientific research projects are already under way, involving such sectors as geology, environment, forestry, and energy.

Our priority is to enhance direct investments from Finland. We believe that current amount of Finnish investments in Ukraine that barely exceeds 72 million US dollars, does not correspond to the existing potential, especially in comparison with the impressive Finnish capital flow to Russia.

More than 70 Finnish companies are successfully working in Ukraine nowadays in the field of processing industry, machine-building, metallurgy, pulp and paper industry. We encourage Finnish companies to start and expand their business in Ukraine, taking into account huge opportunities for foreign investments in our country.

Ukraine is trying to do its utmost to improve the business and investment environment, particularly by reducing administrative barriers and bureaucracy, introducing tax stimulus for investors. The Ukrainian authorities make every effort to assist Finnish investors in resolving their problems, in particular regarding VAT refund. We hope that the automatic system of VAT reimbursement has met the expectations of Finnish companies.

Ukraine might become one of the key countries for the Finnish business in Eastern Europe. The overall advantages of cooperation clearly outweigh the drawbacks. Ukraine is undergoing intensive modernization and is not lacking in some risks as an economic partner, but such risks are believed to be relatively limited. Ukraine's pursuit of improved energy efficiency and the use of renewable energy sources together with the development of energy and transport infrastructure, logistics systems create additional opportunities for Finnish investors. We are open for cooperation and are ready to start joint projects in these areas offering relevant support both at state and municipal levels.

I invite Finnish business to Ukraine for a serious, mutually beneficial and interesting work.

Viktor Mayko

Deputy Minister

Ministry for Foreign Affairs

Ukraine

The role of nuclear energy in European sustainable energy mix

By Romana Jordan

Energy is one of basic commodities of modern life. As it is based in engineering science, one would expect related debates to be highly technical. However, public debates on nuclear energy are amongst the most passionate of all. In fact, the predominance of emotional arguments can lead to political decisions which are not necessarily best for the people. If we based our decisions on the science of sustainable development, nuclear energy would play a fair part in our energy strategies. At present, the reach of our policy documents at the European Union level merely declares that individual Member States can freely choose their energy mixes and that nuclear energy can be an integral part.

Sustainable development of the EU until 2050

In order to understand our 2050 goals, it is important to first look at the EU's short term goal for 2020. By then, we have to achieve emissions reduction of 20%. The greenhouse gasses emitted by the energy sector make it the biggest air polluter and therefore it has to take on the biggest burden for reaching the set goal. Currently, the European energy policy is mainly focused on more efficient use of energy and achieving a higher share of renewable energy sources (RES) in our energy mix. Our legally binding goals for 2020 are to reach 20% share of RES and achieve 20% energy savings.

Long-term strategies of European climate-energy policies are no different. The European leaders have set the path towards achieving greenhouse gas emissions reductions of 80% by 2050 implying a practically emission-free energy. However, instead of focusing on enormous societal and technical changes that this goal requires, the current political debates remain focused around the same issues: more RES and more efficient use of energy.

An overarching objective of European energy policy, defined some years ago, is a holistic one: ensuring secure, competitive and environmentally friendly energy for Europe. The flexibility and dynamics that a high share of RES brings has therefore to be borne in mind when creating an adequate energy policy. A proper legislative environment needs to be created in order to allow for a creation of highly developed and interconnected infrastructure as well as adequate backup power generation. Personally I do not agree with those futuristic projections that an energy system based solely on small energy producers can be achieved in the next decades. On the contrary, I believe that in the mid-term, we will still require big power plants to provide us with secure baseload energy needed for stable electricity systems. Nuclear power plants are such kind of plants. They are reliable and they do not emit greenhouse gasses. Nuclear power can in addition remain competitive compared to other energy sources, even when we take into account costs of radioactive waste disposal and decommissioning.

Why are we then so afraid of questioning the future of nuclear energy?

Controversies around nuclear energy

The public image of nuclear power plants can be seen as those forest castles wrapped in the fog of mystery. Therefore there are a number of reasons for public distrust of nuclear power.

Firstly, a power plant surrounded by a fence where only the top of the reactor containment can be seen, naturally stirs unease and fear for the unknown. This is understandable as we tend not to trust things that we neither know nor understand. Indeed, a lot of knowledge is required in order to fully comprehend the functioning of a nuclear power plant. Holding a PhD in nuclear engineering myself, I can further state that there is never enough knowledge about nuclear energy as this is an extremely complex field which is constantly developing. In order to understand nuclear power plants, we need to know concepts from natural sciences, engineering as well as human and social sciences.

Secondly, radiation cannot be seen and therefore we are even more afraid of it. People tend to ignore that this very same nuclear radiation plays a crucial role of modern medicine.

Finally, while weighing the pros and cons of nuclear energy, experience plays an important role. Due to the big size of the nuclear power plants they are rather scarce. This prevents ordinary people from having a lot of experience with them. It is not surprising that those people who live in vicinity of nuclear power plants are in principle more supportive of nuclear energy.

The complexity of nuclear energy calls for a high level of safety. The core elements for achieving this are excellent technologies and human resources. In addition, the use of nuclear power should only be in democratic environments with a high level of safety culture, where only the experts are responsible for operation of the plants. Naturally, national legislation in line with guidelines and recommendations of the International Atomic Energy Agency is also important as well as its implementation ensured by experts of independent supervisory authorities. Policies are the cornerstone to ensure that nuclear power plants operate safely and securely. For this reason, the lack of serious mentions of nuclear power in EU strategic documents is a real concern. Current scenarios of the European Commission show that by 2050 nuclear power is expected to represent around 15% of primary energy in EU's energy mix. Similarly, Barack Obama, the President of the USA did not at all mention nuclear energy in his State of the Union address of 2013. This was regardless of the fact that nuclear energy represents around 20% of the USA's energy mix.

The future of nuclear energy

Based on our goals for achieving a sustainable energy mix, I believe that nuclear energy will remain an important energy source in the EU.

At the present time I see no alternative source to nuclear. Coal is unacceptable due to high and dangerous emissions and a higher share of gas will increase EU's import dependency. In the long-term, I can imagine a society dependent only on renewable energy sources. But we cannot pretend that this could be a mid-term solution. The share of RES can progressively grow as we develop more stable networks, better regulation and invest in new infrastructures.

Nuclear energy is currently faced with many challenges. By explaining scientific arguments we should increase public acceptance of nuclear energy. We should ensure safe disposal of nuclear waste and strong independent supervisory authorities that closely monitor operators and owners of all nuclear power plants. In this respect, the results of European Nuclear Stress Tests and analyses after the Fukushima accident can offer an invaluable basis for further development of European policy framework. Some regulatory bodies, in particularly in smaller EU Member States, can be faced with a lack of finances and human resources. This could call for a reflexion on a possible transfer of certain nuclear safety assurance competences from national to the European level.

As world population grows and we are struggling for space on our planet, let us not forget that only a cup of nuclear fuel suffices for total energy supply of an entire family for a whole year.

Romana Jordan

Slovenian Member

European Parliament

The Baltic Sea: stable and safe – for now

By Sampo Terho

Security in the Baltic Sea region is only as stable as the area's countries are at any given moment - and the potential security risks are diverse. I present here a few examples and countries which in my opinion illustrate the overall situation.

Sweden

Sweden has a tendency to cut its military forces. From 2014, there will only be a volunteer army where the soldiers are paid for their service. The size of this new volunteer army will be reduced to just 50,000. In comparison, we Finns have a conscript army, and even with a diminished reserve, we will have 250,000 service personnel.

As Sweden is reducing its manpower in the military, it will invest in security-related technology. It is also a major player in arms export when compared to Finland. The former exports 17 times more arms than the latter. Regardless of Sweden's neutrality, it has traditionally engaged in close cooperation with the United States. This is not, however, enough to secure the country's defence. The Swedish Commander, Sverken Göranson, has publicly estimated that if Sweden suffered a military attack, it could fight only for one week without help from other countries or alliances. This is why it is not surprising that discussion continues around the potential NATO membership of Sweden which – just like Finland – has not yet joined the organisation.

If Sweden and Finland or even one of the two were to join the NATO, it could polarise the Baltic Sea region as this would bring NATO nearer to Russia which views the organisation with suspicion. Finnish or Swedish membership could provoke Russia to perform a show of force. In practise this would mean pretentious field exercises in the Baltic Sea region.

Finland cooperates in the military field with Sweden and other Nordic countries. This cooperation is to some extent political, and some of it is "pure" military cooperation.

Estonia

It seems likely that the extent of military armament around the Baltic States as well as in Poland and in the Kalingrad region will increase in near future. Even if the security situation is stable in the Baltic region at the moment, the issue of the size of armament as well as that of air surveillance will keep the area in high level security-related discussions.

Another aspect that may potentially lead to security threats in the Baltic States, is the question of minority rights and their status. It was only in 2007 when the longstanding stability in Estonia came under threat from the problem of the Soviet World War II memorial in Tallinn, the so-called Bronze Soldier. The Estonian government removed the Bronze Soldier from the centre of Tallinn. The statue has been historically significant for Russians living in Estonia and Russia considered the removal of the Bronze Soldier as an insult to Russians.

Agreement on border questions between Estonia and Russia has taken a step forward as the Prime Ministers of the two countries held a negotiation in early April 2013. Estonia is the only EU Member State without a border agreement with Russia. The meeting was the first one over the border question for several years. Russia has not ratified the draft border agreement between the parties because in 2005 the Estonian Parliament attached to the contract some historical aspects which were not acceptable to Russia. Russia has a strong incentive for successful negotiations as it wishes to have a visa waiver program with the EU.

Russia

Russia continues to carry out a thorough reform of its military forces. This obviously requires adequate financial resources which are secured by a boost in economic growth. Investing in military forces is still high in the country's priorities for public spending, and in some discussions, the rhetoric in doing so has also strengthened.

If Russia wishes to continue increasing its military expenditure, it will need positive forecast for its economy. Nearly half of Russia's budget comes from energy production and taxes imposed on exports. This means that the size of budget varies greatly from one year to another as the price of oil changes constantly at the global level. At the moment, the size of the Russian budget is not stable as it grows too fast in relation to income.

Relations between Finland and Russia continue to raise interest also outside the region. Finland is highly dependent on Russian energy sources. Environmental risks in the area still include those related to Russian nuclear plants and the consequences of potential accidents would not be limited to inside the country's borders. The organised crime in the region cannot be completely left out from the discussion of the area's security either. Finland will be highly affected by the increasing number of Russian sea transports, construction of ports and new pipelines which are built in order to diminish the Russian dependence on transition countries. The traffic on the Baltic Sea will increase substantially when Russia is growing its export via the port of Primorski.

In conclusion, the situation in the Baltic Sea region is currently stable, but for example the risk for an environmental disaster is possible, and as the Bronze Soldier incident proved, individual disagreements between the different countries in the region are also still possible.

Full scale strategic warfare seems unlikely in the near future but the possibility of that can never be ruled out completely.

Sampo Terho

Member

European Parliament

Rail Baltica and Baltic-Adriatic Growth corridor influence to the regional cohesion policy

By Vilja Savisaar-Toomast

The future of the transport sector and especially its infrastructure for the next financial perspective and until the 2030 will be based on two main networks - core network and comprehensive network. Baltic-Adriatic Growth corridor is part of the core network and it will connect the Adriatic and the Baltic Sea. Main idea of this corridor is to build-up and fully implement the rail connections along the route. These railway connections will connect a great number of capitals and ports in many different member states.

To evaluate the influence of the Rail Baltica to the regional cohesion policies we have to consider the idea behind the core network and its purpose.
The core network will connect:

- 83 main European ports with rail and road links
- 37 key airports with rail connections into major cities
- 15,000 km of railway line upgraded to high speed
- 35 cross border projects to reduce bottlenecks

Rail Baltica
Since today Baltic region is basically cut off from the rest of Europe by rail. There is a rail connection between the three Baltic States and between the Lithuania and Poland but in reality this rarely can be called as an efficient railway connection. Furthermore there are currently no regular lines between the three Baltic States and there is no possibility for passenger to get on the train in Tallinn and drive to Warsaw or the rest of Western Europe. As a solution for this we have great hopes for the Rail Baltica project.

Rail Baltica Growth Corridor which is one part of the Baltic-Adriatic corridor aims to improve the competitiveness and accessibility of Baltic cities and regions by increasing their interaction and collaboration.

Rail Baltica Growth Corridor creates a cooperation platform that observes the needs of transport sector and its customers in line with green growth corridor principles.
Rail Baltica Growth Corridor brings benefits for

- City and regional authorities
- Transport service providers
- Logistics centres
- Intermodal terminals
- Public transport authorities
- Universities and research centres
- Transport users - passenger and cargo

When considering the Rail Baltica corridor we have to make difference between the three stages of Rail Baltica project.

I and II stage of Rail Baltica project cover the existing rail network – the goal of the first two stages is to upgrade the existing network to max speed of 160 km/h. The main difference is that this network is Russian gauge and it already connects many regions, cities and towns in Baltic States.

The III stage of the Rail Baltica project includes building up a new high-speed European gauge railway connecting Helsinki, Tallinn, Riga, Kaunas, Warsaw and also some towns on the way.

This greats a very good opportunity for member states to connect the European gauge high-speed network with local Russian gauge network.

Regional cohesion policy
Estonian railway network in 60s and 70s of the last century was very well covering the all country. Then the railway had a great importance in regional cohesion policy and played an important part of the transportation of goods and people.

Unfortunately the Estonian railway network today connects only few towns and regions. There are many reasons, why the importance of railway has diminished. Also I cannot say that Estonian state has put much effort and funds into railway in past 20 years. But it seems that it is changing now, the state and the public rediscover the importance of railways and there are already some initiatives from the towns and municipalities to reopen some connections. Considering the future this is very important that there is a well-connected and well-functioning local network in order to make the Rail Baltica work with full efficiency and capacity.

As planned at the moment Rail Baltica will have three main stations in Estonia. It will connect Tallinn Central Station, Tallinn Airport and Pärnu town. Those three stops are with great importance but we need to go further locally. People need to get to those stations and I personally support the idea that the local network has to offer very good connection and cooperation with the new high-speed line.

For the cargo the new line connects or gives possibilities to connect ports in and near Tallinn. Related to cargo the existing local network is not used very much for local goods. At the moment the main amount of freight comes from Russia to our ports and is shipped away or vice-versa. At the same time we can see daily hundreds of trucks driving along the Via Baltica from Helsinki, Tallinn to Warsaw, which very well shows that there is a need and possibility for faster and cleaner transport of goods on railways on the same route.

I hope that thanks to the Rail Baltica the Estonian railway network will look like mixture between the past and the future – including high-speed line to Europe and has a good well-functioning and well-connected local network.

European projects like Rail Baltica does not only bring European value but can bring lots of benefits to the Member States affected and to their regional policy.

Vilja Savisaar-Toomast

Member

Committee on Transport and Tourism

European Parliament

In a sea of challenges

By Nils Torvalds

You don't actually have to do anything more than look at the metropolitan areas around the Baltic; by all standards, it's a shallow sea with a lot of people living at its shores. From St Petersburg at the Neva to Riga at the Daugava to Vilnius at the confluence of the Vilnia and Neris rivers to Warsaw at the Vistula to Copenhagen in the southwest and further to Stockholm and Helsinki (almost) in the North, you have – all together – 85 million people living by and with the Baltic Sea.

I have lived all my life by the shores of the Baltic and I started to navigate it – in a small rowboat – and fish in it at about the age of six. For a very long time, "it" was just there and I didn't think of it as anything changeable. Or if I perceived any changes, they were cyclical. In August every year, you would find the jellyfish there and the next spring, when the ice melted away, you wouldn't find even a trace of them. But in August they would appear again as a sign of everything going its normal way.

In the beginning of the 50s we fished and found it fun. Sometimes we would get "cat fish", meaning fish we didn't think were fit for human consumption. Those fish we carried to Zaida, who kept a small store. She had a lot of cats and we could get a couple of lollipops in return. We had started to exploit the Baltic Sea.

I cannot pinpoint the moment when I started to realize that something was changing – and not changing in a cyclical way. I'm afraid it was rather late. In the 80s I was the co-owner of a sailing boat with very strict rules about who could and had to sail at which time of the summer.

In early June the water is fantastically clear. And cold. Tacking against the wind is an adventure requiring a lot of woollen underwear, but sailing into a natural harbour in the evenings, you enjoy the safety of seeing five meters of crystal clear water. You see every stone and rock.

But in late July the story is very different. The water gets murkier and in part that is related to the cyclical process. But a part is not. Anyone who has sailed in the Finnish archipelago knows that now on windless days, the surface of the sea is covered with a carpet of blue-green algae. In the very early stages of this process of blooming algae we probably thought that the green stuff was just the annual pine blooming leaving its usual thin carpet of pollen on the surface.

We were wrong.

I also noticed that a change in the catch when fishing. A regular day's catch in my childhood was mainly European perch. If we were very lucky, we might get a Northern pike. Much later my favourite catch would be flounder. In the last ten years I haven't got a single flounder.

Now we know that something is going on in our Baltic Sea, but in all likelihood we don't see the whole process and as human beings we have a tendency to opt for easy and simple explanations.

The first challenge is salinity. We all know that the Baltic is *brackish*. But the word brackish doesn't actually tell us anything. Water can be brackish in hundreds of different degrees and every degree has a certain impact on flora and fauna.

We began to understand a part of it during some years in the 80s. Cod fishing at that time was a free-for-all. In any other form of fishing with a hook you need bait – either a worm or a small fish. But cod you could get with just a big hook. People bragged of getting 20 or 50 cods in one hour. (That's the real problem with amateur fishermen: they – we – easily get greedy and pull up more than we are able to use properly.)

Then the cod vanished. Grudgingly, we came to realize that the cod was dependent on the amount of salinity in the water. So we started to wait for the saline pulse from the North Sea. Old people in the archipelago said that when the cod comes, the war comes. And roughly speaking we had had wars every 20 years. So, we just had to wait and the salt water would come.

But no, it wasn't that easy. The salinity of the Baltic is of course not just defined by the pulse of higher-saline water through Oresund and the Danish straits. It's also defined by the more than 250 rivers flowing into the basin.

Statistically speaking, the saline pulse should come in December or January, and the reason for that is apparent. During those months the northern rivers are likely be frozen and therefore the inflow of fresh water at its lowest. But if we get more rain and warmer winters, the fresh water inflow in the Baltic will be greater and "the outward pressure" in the Oresund and the Danish straits bigger.

We most probably see this change already and one piece of evidence is the flounder. It doesn't like its water too brackish, so it goes south. And it's not the only species. The blue mussel also depends on higher salinity, which in turn has further implications: the eider feeds on the blue mussel.

We have fairly complicated food chains in our sea, and these food chains get even more complicated by the simple fact that fresh and salt water doesn't mix easily. That leads to very different results in different parts of the basin. What we might now experience as a challenge in the Finnish archipelago isn't – yet – a challenge along the Polish or German coast.

When we add to this that we also face an immense challenge in seabed areas in the Baltic that are already dead. Even if we succeed in making agriculture more sustainable, we still know that more intense rain showers and/or torrential rains are likely to occur. That will overload the rivers with more oxygen-consuming material, which again will make life more complicated for the fish. As a probable indication of that I now get more freshwater fish or "near-to-coast fish" in the outer archipelago.

In the Fisheries Committee of the European Parliament we are trying to find solutions to a well-known problem: in an unregulated commons everybody is trying to get as much as possible. In this sense we are experiencing what Garrett Harding described in "Nature" in 1968: the tragedy of the commons. But Elinor Ostrom's take on the same problem provides a more optimistic look: if we are able to establish functional rules, we are also able to salvage the commons.

The political problem seems to be that we easily define a problem only from our own point of view. How our neighbours define it is – by default – the wrong way.

One example of this undefined – and therefore unregulated – common interest is the salmon. This "king of all fishes" in the Baltic is heavily regulated for professional fishermen, but for *innocent* amateur fishermen, probably fishing the same amount of salmon (as the quota is given in pieces of fish, not in tons), there is practically no regulation.

That is not a sustainable solution. The Baltic is our sea. Due to the relative shallowness of it, it is immensely vulnerable. At the same time we have probably disturbed all the natural habitats in one way or another. We have done it by racing all over it with bigger and noisier boats, by building summer cottages on any and all islands, by liquidating other forms of employment in the coastal area and thereby forcing small villages to subsist mainly on tourism. That has created new conflicts between tourism and fishing, where tourism has opened up privately-owned fishing waters.

And yet – we still don't see our common interests.

Nils Torvalds

Member

European Parliament

Security policy in the north

By Tom Packalén

Geopolitics naturally affects Finnish security policy. Finland is situated in the middle of Scandinavian countries, Russia, and the Baltic States. The Northern Baltic Sea Region states have plenty of defence policy solutions. Finland's northern and southern neighbours, Norway and the Baltic states, belong to the NATO. Russia is one of the great powers of the world on its own, whereas Finland and Sweden rely on neutrality and their own defence.

History affects Finnish security policy, too. Finland became independent in 1917 after being part of both Sweden and Russia. Finland was able to retain its independence during the Second World War, despite two wars against the Soviet Union. These wars had a huge impact on Finnish thinking. Due to non-existent or minor help from other countries, Finland has relied on its own defence.

The world has changed in many ways after the Second World War. However, people do not change, which is usually forgotten when people interpret history. Nowadays it is a trend to talk about Wide Security instead of simply talking about peace and war. Wide security includes a range of threats from terrorism, weapons of mass destruction and diseases to global warming. There is a rationale to use the concept, but it clearly makes it more difficult for people to understand the entity.

Carl von Clausewitz famously pointed out that "war is a continuation of state policy by other means". The concept of security can be divided to hard and soft security. Hard security includes the military threat and the ways to prevent it. Moreover, the new ways to fight wars, such as the fashionable cyber security, are a part of military threat. However, the same regularities still apply to warfare. One cannot conquer a country with cyber warfare; it is still done by soldiers. Therefore, we must understand the basic nature of war and see trends of warfare as part of bigger picture.

The threat of war consists of ability and will. Currently, Finland has excellent relations to its neighbouring countries. There is no visible military threat to Finland. Nevertheless, we still have to prepare for possible threats because armament and conditioning for the weapons systems take a long time to be operative. It is hard to predict the future. Who would have predicted five years earlier the fall of the Soviet Union, the breaking of the Berlin wall, the 9/11 attacks or the beginning of the Arab Spring?

Furthermore, it is hard to predict the future of Russia. Russia is a military superpower in Eurasia and the only one of our neighbouring countries that has the ability to attack our territory. This fact has to be taken into account in the consideration of Finnish defence policy. Russia has a reserve of twenty million man and massive armed forces. Conceiving of worst-case scenarios is a common form of strategic planning to prepare for and minimize contingencies that could result in different problems. There is no assumption from the part of Finland that Russia has a will or a reason to attack Finland. It is of high priority for Finland to maintain and further develop our good relations with Russia.

Military pressure on Finland is unlikely but not impossible. Russia's dependency on energy exports

can lead to problems for the Russian economy if the price of energy decreases significantly. This could also put a strain on the domestic affairs and affect the development of democracy. On the whole, development of both Russia and the European Union in the medium and long term is uncertain.

The future of Finland must be put into a broader perspective. Finland has been able to maintain very effective armed forces and a large and motivated reserve despite its small defence budget. Operative forces that use very modern weaponry are combined with more passive but decentralized regional and local troops. The new fighting doctrine that the land forces have introduced responds well to the challenges the modern warfare and the rise of firepower present in the battlefield. Adaptable system also enables the effectiveness with a limited budget. Moreover, there has traditionally been a strong will to defend Finland and, according to recent studies, this will still prevails.

In the end, Finland can only rely on its own defence, which must be maintained properly. It is desirable that we could increase the amount of cooperation, and we already have cooperation with international players. But what should be the next step? The Common Foreign and Security Policy of the European Union hardly is a sustainable solution. The EU is merely a paper tiger and not a military force that Finland could rely on.

Partners in cooperation should be searched from the Nordic countries where we already have the Nordic Defence Cooperation (NORDEFCO). Cooperation could even be developed in to a defence alliance e.g. with neutral Sweden. Finland and Sweden could supplement each other's weaknesses with their own strengths, which would result in a credible defence alliance.

After all, it must be remembered that the best guarantee for peace for Finland are good foreign relations and a credible military defence.

Tom Packalén

Member of Parliament

Finland

Tuition fees in Finland for foreign students outside of EU/EEA -area

By Arto Satonen

Tuition fees have been under a lot of discussion in Finland lately. On the background there is my bill about collecting tuition fees from students that come to study in Finland outside the EU / EEA -area. At the moment there are no tuition fees in Finland, so anyone can come here to study and take the advantage of our free education system. The Finnish tax payers cover the costs. There are 200 MPs in Finland and 117 of them signed my bill. I collected signatures with my colleagues Jukka Kärnä (Social Democrat), Ari Torniainen (Centre Party) and Reijo Tossavainen (The Finns).

Main content of the bill is to allow Finnish universities to sell their education to solvent foreign students. There are lots of this kind of students in the developing countries of Asia, for example in China, India, Russia and other CIS countries. Globally education is already a huge business. For example, in Great Britain there were over 400 000 international students in 2011-2012 even though all of them had to pay tuition fees. Globally there were about 2.1 million students studying abroad in 2000 and in 2009 there were already 3.7 million students studying abroad. In Scandinavia Sweden and Denmark have changed their system lately and are now colleting tuition fees from foreign students and are developing a new export from education. In Denmark this reformation was carried out in 2006. Immediately after this the amount of students decreased, but at the moment Denmark has already nearly reached the 2006 level. The Finnish education system has a good reputation thanks to good success in the PISA researches, and therefore Finland has a great potential in education business.

At the moment there is an experiment on tuition fees going on in Finland, but this experiment is very limited. For example, the polytechnics are only allowed to sell degrees of higher education, which are really uncommon degrees in Finland. The influence of this experiment is marginal, because it's not even possible for the polytechnics to sell their main product, the basic degree. In addition, most of the universities don't even take part in this experiment, so the education for a foreign student is either free or chargeable depending on which university and degree the student has applied for. In this kind of situation it's really difficult to sell the education and therefore the experiment was doomed already before it even started. At the moment the most attractive universities in Finland don't even market themselves outside Finland, because the budget-based funding doesn't allow them to increase their number of students. The average cost of an academic year is around 8000 euros.

It's not possible to collect tuition fees from students coming from the EU / EEA -area, because the tuition fees have to be same for everyone inside that area – including the Finnish students. There has been no discussion on collecting tuition fees from Finnish students as it's clear that no would support this idea. Also in the future the free education for Finnish students is an important issue for my party, the National Coalition Party. Our goal is to give every Finn an opportunity to educate himself as well as possible. But it would be possible to collect tuition fees from students who come outside the EU / EEA -area. To ensure that there wouldn't occur radical changes in the number of university students, the suitable level for tuition fees should be set experimentally by slowly raising the fees closer and closer towards the actual cost of the education.

It would be fair to let those foreign students who decide to stay in Finland and work here after their graduation to deduct their tuition fees in taxation. Finland needs foreign students and foreign employees, but we simply can't afford to educate academic workforce for other countries for free. However, at the moment huge amount of the foreign students move abroad after finishing their free studies in Finland. This is not fair for the Finnish tax payers as it seems that the benefit from the free education goes to other countries. Therefore it is reasonable to offer free education only for those people who decide to stay in Finland also after their graduation. The easiest way to actualize this is to give tax deduction for those who stay and work in Finland.

However, some people couldn't afford paying the tuition fees even though they had the right to deduct the fees in taxation later. For example, we could use the development aid to pay for the education of the students coming from the developing countries. It would also be rational to found a fund which would award talented but disadvantaged people by scholarships. It's important to get talented students and with all kinds of backgrounds.

MPs from six out of eight parties in the parliament have signed the bill. In the preliminary debate most of the MPs supported the bill, but it got criticism from the MPs of the Green and the Left Alliance. The most distinctive arguments for the criticism were the calculations, which claimed that the present situation is almost profitable if you also count in the rents, food and other expenses that the students have to pay. Obviously the ones making these calculations didn't realize that the students would still pay these expenses in addition with the tuition fees. Many student unions have also criticized the bill, but luckily some also support this idea. Especially those who have seen this experiment work in practice, like Lappeenranta University of Technology, have supported the bill. In addition, one MP called me a racist because of the bill. However, I don't think that someone who says that Finnish tax payers shouldn't provide free education for a Chinese student who will work his whole career in Canada, or the other way round, is a racist. The next step is that the bill will go to the Committee for Education and Culture for a hearing and hopefully after that it will be taken to the Ministry of Education to be modified to an actual law.

Arto Satonen

Member of Parliament, Vice-Chairman

National Coalition Party's Parliamentary Group

Finland

Baltic Sea region at the heart of Poland's and Finland's foreign policy

By Janusz Niesyto and Jari Vilén

Nordic, Baltic and Visegrad foreign ministers met at the beginning of this year in February at the one of the oldest and most historical Baltic sea cities in Gdansk. This meeting was described by the host Polish Foreign Minister Radosław Sikorski as the beginning of a new process. It was also a clear and present evidence of Poland's new interest in Baltic Sea Region.

Poland in recent decades made substantial efforts to move first from Eastern towards Central Europe and now more to the North. In the EU´s internal dynamics of recent years the Baltic Sea region gained a special position – being the most competitive, effective and politically stable area of the European Union. This should be an incentive for countries to work even more closely together. Finns and Poles have decided to establish a more in-depth and structured cooperation. A special Join Communique defining the context of closer cooperation was adopted by Prime Ministers of Poland and Finland **Donald Tusk** and **Jyrki Katainen** in December 2011. Relations between Helsinki and Warsaw have never been better.

The European Union's Baltic Sea Strategy (EUSBSR) which started a few years ago was a success for all of those who wanted the Union to pay more attention to this unique area within the EU. Co-operation in the Baltic Sea region can already be seen as a model for other regions. Germany, Poland and all other EU countries in the region represent one-third of the entire EU population and almost one-third of its GDP and trade. Countries in the region are already seriously interdependent in their economies which can be seen especially in the trade and investment flows. Intra-regional trade in the Baltic Sea is 30-50% of the regions countries' foreign trade. In the current crisis and the political turmoil in the EU Baltic Sea region represents a rear predictability, political stability, effective governance, and economic growth in the Union.

For Finnish exports about 40% and for imports about 45% are related to the Baltic Sea economic area and for Finland's foreign trade about 80% is done via the Baltic Sea. For Poland the Baltic Sea area means 38,5 % of exports and 40 % of imports. The Baltic Sea region has almost become an internal EU sea, where the cooperation with Russia plays a special role. The existence of the Baltic Sea economic development is therefore especially important to us Finns and Poles. The Polish economy has continued to grow throughout the current financial crisis in the last two decades and Poland has been the most positive example in the whole EU. Not forgetting that also in the Baltic countries the EU economy will grow faster than in the other EU countries. New positive sign of common confidence is Latvia´s willingness to join the euro by January 1st, 2014. Also Poland has clearly stated its willingness to adopt the common European currency.

The Baltic Sea region has all the potential to grow as a reference and cooperation model. Success in this requires effort and commitment from all Baltic Member States, as well from Russia. For Finns and Poles, one part of the Baltic Sea cooperation is particularly concrete and visible. Finland grants each year more than 1.2 million visas to Russian citizens and Russians are expected to make more than three million trips to Finland, as well as to leave Finland with more than billion in tourism revenues. Russia's commitment to this co-operation is essential and necessary. Poland introduced a small border traffic for the Kaliningrad district, thereby facilitating people to people contacts.

What we need for our Baltic Sea region is even more co-operations, better communication at all levels and strong leadership for joint projects. Similarly, the importance of a common cultural and value identity should not be overlooked. More understanding encourages shared innovation, entrepreneurship and creating economic growth, prosperity and stability.

Janusz Niesyto

Ambassador of Poland in Finland

Jari Vilén

Ambassador of Finland in Poland

Greifswald and its international activities within the Baltic Sea Region

By Arthur König

"While steeped in tradition, the Hanseatic City of Greifswald is also a modern university town within the Baltic Sea Region, and as such resolutely oriented towards the future. The city's particular geographic location has resulted in close and diverse cooperation with Scandinavia, the Baltic States and the neighbouring country, Poland." – This excerpt from the City of Greifswald Mission Statement highlights the importance of international ties within the Baltic Sea Region for the city's development.

Due to its geographical position, Greifswald has been fostering close contacts with other Baltic Sea countries for centuries. Greifswald was able to develop into a powerful trading town within the Hanseatic League, and the gabled houses in the historic old town are a reminder of the city's heyday. Today, Greifswald is an active member of the modern-day Hanseatic League, the New Hansa. In addition, the city makes use of other cross-border networks, such as *the Union of the Baltic Cities* or *the European Route of Brick Gothic* in order to maintain and develop international cooperation. Greifswald has been influenced not only by its Hanseatic past and present, but also by a period of Swedish rule. For over 180 years, Swedish kings determined the city's fate as well as that of the whole of Western Pomerania. During this time, Greifswald was the seat of the chief judicial and ecclesiastical authorities. The Swedish rulers also invested a lot of effort in developing the University of Greifswald, which was to become the first Swedish university ever. The University has always been heavily influenced by foreign lecturers and students, who have also lent an international flair to the city itself. Research into the Baltic Sea area has long been a priority at the alma mater. The Greifswald Institute for Nordic Studies, the first of its kind, was founded in 1918. The binational degree course is the only Master's degree programme in Baltic Studies in Germany, was launched in the winter semester 2008/9. The two-year programme is set up in cooperation with the University of Vilnius in Lithuania. Greifswald has a long tradition of forming partnerships with universities from the Baltic Sea Region. In the 1980s, it established partnerships with the University of Eastern Finland (1981), the University of Lund in Sweden (1985), the University of Szczecin in Poland (1985) as well as with Denmark's second largest university, the University of Aarhus (1988). In 1992, the University renewed its partnership agreements with the universities of Tartu, Riga, Vilnius and Klaipeda. The choice of language study courses offered at the University of Greifswald is a reflection of its close ties with its Baltic Sea neighbours.

In addition, the University heads a number of international research projects in the Baltic Sea Region. To name but a few, in 2009 the German Research Foundation established the International Research Training Group 'Baltic Borderlands – Shifting Boundaries of Mind and Culture in the Borderlands of the Baltic Sea Region', a cooperation between the Universities of Greifswald, Lund and Tartu. The initiative aims to qualify approximately 20 doctoral and 5 postdoctoral researchers and will run until 2014.

Furthermore, the Institute for Geography and Geology is a lead partner in the EU-financed INTERREG IIIb project, 'AGORA 2.0 – Heritage Tourism for increased BSR identity'. The project aims to find ways to improve the common identity of the Baltic Sea Region by developing its natural and cultural heritage. The project comprises 25 partners from 9 countries bordering the Baltic Sea.

One of the most important networks for cooperation in the fields of life and health sciences is ScanBalt BioRegion. The organisation currently comprises 67 members from the EU Baltic Sea Region, Northwestern Russia, Norway and the Netherlands. The members represent more than 60 universities, over 1,200 Life Science and Biotech companies, including nearly 700 research organisations.

A number of town-twinning agreements are the direct result of the University's close contacts with other Baltic Sea nations. Six of Greifswald's seven twin towns can be found along the Baltic Coast. The city's oldest twinning agreement, with the Finnish town of Kotka, dates back to 1959. In 1990, the twinning agreement with Lund in Sweden came to an end, but it was via Lund that the contact with the city of Hamar in Eastern Norway was established and later formalized by a twinning agreement in 1997. In addition, Greifswald also has close ties with Poland. Friendly relations with the small town of Goleniow have been maintained since 1986, culminating in a twinning agreement in 2006. Greifswald's most recent twinning agreement with the harbour town of Szczecin was signed in 2010. All three cities share a common regional identity within the Euroregion Pomerania. Greifswald also maintains friendly relations with Tartu in Estonia, its partner in the cross-border climate protection project 'TwinTownClimate'.

The above examples demonstrate the close ties between the city of Greifswald and the Baltic Sea Region. The development of the region will foster better living and working conditions within the whole area, which is important to all cities. Greifswald is fully aware of the importance of promoting close collaboration with and within the Baltic Sea Region and puts a lot of effort into setting up and maintaining networks and continuously develops new project ideas.

Arthur König

Dr., Mayor

City of Greifswald

Germany

Security in the Baltic Sea region

By Sverker Göranson

During the years of the Cold War, the Baltic Sea region served as an armed frontline between the eastern and western blocs. Today, the situation is quite different. The area is considered an area of increased cooperation and shared political as well as military partnerships. It is also an area of stability and security. In order to maintain and further develop this positive momentum, we must constantly work on continued integration in all fields, cooperation and frequent dialogue between all partners involved, outside as well as in the region.

The Swedish Armed Forces have two distinct and important contributions in further stabilizing the Baltic Sea region. We are engaged in military cooperation with the countries in the region in a multitude of different areas ranging from high level visits to common exercises and training. But we also maintain a military capability to be able to refrain from using military means for conflict resolution, if the security situation should worsen.

In a compact environment as the Baltic Sea, trust and predictability between the partners involved both outside and in the region are fundamental in building security. Increasing energy transports along with the Nord Stream pipeline are examples of the ever developing trade flows in the Baltic Sea, which is one of the busiest waterways in the world. In a broader perspective, these flows can integrate the region. But we should also be aware of the potential environmental risks with increased trade in the Baltic Sea, risks that concern us all in the region.

Closer integration and cooperation in the Baltic Sea region will become even more important in the future, since challenges in a globalized world very often are transnational. An increased cooperation and engagement between all partners in the region, Russia included, is therefore imperative.

Russia is currently improving, transforming and modernizing its military capabilities. Such major transformation is difficult to achieve, and plans often have to be adjusted. Indeed the Russian Armed Forces share many similar challenges as other countries. However, the modernization reform program is very ambitious and will, if successful, alter the current military posture in our region. An increased Russian military capacity and interest in the Baltic Sea region will require creativity and mutual understanding within the security partnerships between all nations in the Baltic Sea region, Russia included. Therefore, various arms control regimes and confidence building measures are still vital in the region.

Given the overall positive security development during the last 20 years in the Baltic Sea region, the cooperation between the Nordic countries and the Baltic countries has evolved. The Nordic-Baltic cooperation is a natural development as we share a common sea, geographical vicinity and values.

The Nordic countries have a long tradition of cooperation in several areas. We share a unique kinship based on a common linguistic and cultural foundation. With a long history of cooperation between our countries, we have a relationship built on mutual trust and respect. But it is crucial to nurture and continuously develop and deepen our cooperation. In order to take further steps in our integration, each country must be ready to compromise and dare to challenge traditional national identity markers.

Even though the Nordic countries have chosen different forms of security policy arrangements, we have successfully worked together in creating a more peaceful world, both in our vicinity and far away as in the Balkans and Afghanistan. Experiences from the Nordic defence cooperation, the NORDEFCO, will also matter in future projects to come. The NORDEFCO cooperation today stands as one model for the development of Pooling and Sharing inside the EU as well as for NATO and Smart Defence. The current partnership between the Nordic countries cannot be seen separately from the cooperation within the EU or NATO. It is complementary and specifically designed for our region.

The Nordic countries also conduct different forms of common exercises and training. Since some years, the Air Forces from Finland, Norway and Sweden conduct Cross Border Training (CBT) in the northern parts of our countries. And last year, an agreement was signed between Sweden and Denmark concerning CBT in the south.

There are also potentially interesting areas of bilateral cooperation in flexible formats within the Baltic Sea region. I.e. the current Swedish-Finnish amphibious cooperation has the potential to also include a maritime command with sea surveillance (SUCBAS), sea traffic control as well as Pooling and Sharing. The role model for this thinking is the Belgian-Dutch common naval command.

Luckily, the Baltic Sea is no longer a military buffer zone. Today it serves as a link to trade and integration. People to people contacts are the foundation for mutual understanding and trust, which is imperative for a continued regional integration.

Partnership like the NORDEFCO and the Nordic-Baltic cooperation are examples of partnerships that have the potential to deepen the security dialogue within the region. It is in our common interest that the Baltic Sea remains a sea for peace, trade, integration and economic growth. But if we want to obtain a real inclusive regional security dialogue, we also need to engage Russia more. Security in the region must include all countries around the Baltic Sea.

Sverker Göranson

General, Supreme Commander

Swedish Armed Forces

Sweden

The Baltic Sea countries are fore-runners in cooperation in coast guard functions

By Jaakko Kaukanen

All authorities are looking for savings and trying cope to with a continuous line of budget cuts. The Finnish Border Guard is no exception in these times of recession. To perform the tasks that society expects with fewer resources is a delicate and difficult task. One of the key ways of doing more with less is cross-border cooperation.

On the European level, cooperation between coast guard agencies is taking its first baby steps and is looking to find solutions suitable for all. The European Coast Guard Functions Forum (ECGFF) was created just a few years ago but is proceeding fast on educational issues, for example. The forum has also pin-pointed the tasks that are commonly regarded as functions of the coast guard.

The Finnish Border Guard is one of the few agencies in the whole of Europe that is capable of performing all coast guard functions in their sea area. The Hellenic Coast Guard is another example of a single agency coast guard. In most European countries the tasks have been divided between two or more agencies that perfom these functions at sea.

Goal for Coast Guard Functions

The European Coast Guard Functions Forum (ECGFF) has identified several tasks that can be considered core coast guard responsibilities. These activities include for example search and rescue, maritime border control and maritime surveillance, maritime safety and security, fisheries control, maritime customs activities and law enforcement.

The objective of the Coast Guard Functions Forum is certainly not the creation of a single European coast guard nor is it an attempt to influence member countries´ organisational issues. The target is simply to promote best practices and find cost efficiency through cooperation.

On a European level the cooperation also requires agencies to cooperate with Members states. The ECGFF has brought together the key maritime-related agencies, such as the EMSA (European Maritime Safety Agency), Frontex (European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union) and the EFCA (European Fisheries Control Agency).

By bringing the EU´s agencies to the same table, the ECGFF will also engender cooperation between these different sectors. This kind of cooperation has been called for many times in speeches but has not been put into action so well. Hopefully the Commission will take note of this progress when preparing the EU´s Maritime Security Strategy this year.

Sixteen years and still going strong

The Baltic Sea countries have shown the way in terms of inter-authority cooperation for almost two decades. The Baltic Sea Region Border Control Cooperation (BSRBCC) has established a cooperation forum for operational matters, with 24/7 contact points in all the countries around the Baltic Sea. It also has a secure information-sharing system called Coastnet, which can be used to pass information from one country to another quickly and safely.

In 2013, the Finnish Border Guard holds the presidency for the organisation. The events will take place mainly during the summer season and can be described as very operational. Here are just a few examples: a seminar for divers, an international on-scene coordinator course, a seminar for aviation experts and a boarding team seminar.

How to see over the horizon

Where are the savings and cost efficiencies that should come through improved cooperation between authorities? The truth is that the beneficiaries could be other than the coast guard and maritime authorities. Through improved surveillance of the sea area and the ability to pin-point unlawful actors like vessels that are discharging dirty bilge water or that that are contravening the fishing regulations, the biggest beneficiary from the cooperation is clearly the environment. Other agencies are the winners when one considers the sharing of know-how. Sharing best practices and especially lessons learned can be worth a lot financially when mistakes can be avoided rather than repeated.

From the citizen's point of view, when ships and mariners sail from one country to another, the standard of care they receive should be roughly the same no matter whose waters they are in. Of course the point is to let the 99% go and focus on the 1% who do not want to play by the same rules as the rest of us. Finding the criminals on the job requires lots of intelligence work and surveillance capacity, which no single country has. This has been one of the basic factors behind the Baltic Sea Region Border Control Cooperation (BSRBCC). This year, sea-related operations are underway which will be carefully planned and executed after common intelligence work with BSTF (Baltic Sea Task Force on organized crime).

At a different level, in the EU, the Common Information Sharing Environment project (CISE), proposed by the EU´s Integrated Maritime Policy, aims to develop situational awareness of all activities at sea. The Finnish Border Guard is leading ten EU countries in a cooperation project that aims to bring together the EU's operational actors from various sea basins (Mediterranean Sea and Black Sea for example) to jointly contribute to the development of CISE. We hope that we can put the experience gained at the Baltic Sea area to benefit even larger sea environments.

To conclude, to do more with less is certainly possible when not all the available resources are being put to efficient use. My aim was to show this with a few examples from the Baltic Sea area and by describing the ongoing process at the European level as well. The beneficiaries from cross-border cooperation are often not the actors them-selves, but one should remember that in the long run, we all benefit from cleaner and safer seas, which is much too difficult to quantify and impossible to put a price on.

Jaakko Kaukanen

Chief of the Finnish Border Guard

Lieutenant General

Finland

Operational energy security in NATO context – looking to the future

By Arunas Molis and Florinda Giacomelli

In recent decades energy security has proven to be one of the priority interests of states and therefore subject to international relations. This is a direct effect of the post-Cold War panorama, in which economic capacity and the possession of great sources of raw materials has affected the definition of a new geopolitical equilibrium. The growing prominence of the energy factor in international relations may be comprised under four big issues: climate change, security of supplies, energy efficiency and environmental protection. The security dimension of energy supply and distribution has gained relevance in international debate due to most states' overdependence on external energy suppliers which are frequently plagued by political instability. Other reasons are armed attacks to energy storages and distribution systems carried out by pirates or terrorist groups, the number of which has increased during recent years. Ultimately, technological progress has developed new tools and solutions beneficial to armed forces such as portable solar chargers for electronic devices, electrical engine transport, more efficient power conversion systems, etc. These dynamics have proven the transversal nature that energy has across a variety sectors, including industry, economy and defense. It is for these reasons that the NATO Alliance has recently initiated a multilevel debate about the military aspects of energy security.

History

NATO touched on the energy security topic for the first time during the Riga Summit of 2006, but the real debate began at the Bucharest Summit in 2008 with direct references to protecting critical energy infrastructure and military energy efficiency. The debate continued at the 2010 Lisbon Summit when the NATO New Strategic Concept "Active engagement, Modern Defense" was adopted. This document clearly states the relevance of energy security as a critical topic for the Alliance, not only because energy supply has risen as a potential security issue for NATO planning and operations but also because the Alliance itself has to develop its capacities and policies to be able to face an evolving security environment.

The Chicago Summit (May 2012) could be considered as the turning point towards a practical approach to the topic: "we will work towards significantly improving the energy efficiency of our military forces; develop our competence in supporting the protection of critical energy infrastructure; and further develop our outreach activities in consultation with partners, on a case-by-case basis". The Final Declaration also supported the establishment of a NATO Energy Security Centre of Excellence (NATO ENSEC COE) in Lithuania in order to contribute to NATO's efforts in this area.

Main principles

There are many international organizations working in the field of energy security, so it is crucial to avoid overlapping the work done by NATO and other actors and institutions. The goal in this field is instead to add value to the existing debate. In fact, because of its transatlantic nature, its intelligence sharing platforms and its efficient communication network, NATO could harmonize efforts in energy security between member states and increase mutual and beneficial cooperation.

Avoiding duplication is also fundamental because there are already a number of bodies within NATO dealing with energy security; first and foremost the Energy Security Section within the Emerging Security Challenges Division established in August 2010, the NATO Allied Commander Transformation (ACT) and NATO HQ are responsible for education programs, training and exercises in this area.

Today NATO is facing a dual challenge trying to live up to its ambitions while trying to steer the global debate towards a more sustainable energy future. A practical approach to the topic is therefore necessary – one that will feature education and training projects because, above all else, energy security has to be constructed through cultural and behavioral change, especially in the military context where the topic is quite new.

NATO energy security centre of excellence

The key actor in this regard is the NATO ENSEC COE, a multi-national, joint military and civilian-supported organization sponsored by six Nations: Estonia, France, Italy, Latvia, Lithuania and Turkey.

The ambition of the Centre is to establish itself as a leader group of study on the topic of operational energy security and military energy efficiency. Thanks to its international dimension and to the cross-cutting nature of energy security, the Centre will work to identify solutions for energy security issues such as energy efficiency in the field of operations, smart defense, energy supply reliability and critical energy infrastructure protection, among others. These are challenging targets that will be pursued through cooperation within NATO and with the main international organizations that deal with energy security, other NATO COEs, universities, think tanks and research centers. The Centre's upcoming activities confirm its international nature and agenda: end of May in Baku – "Cooperative approach to energy security: view from NATO and beyond" Conference; end of October in Washington DC – "2013 Target Energy Conference"; and planned for 2014 – the advanced research workshop and industry exhibition "IESMA 2014".

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Baltic security – a word of caution

By Claes Levinsson

Russia is in the process of launching its biggest rearmament effort since Soviet times. Annual statistics show that Russia between 2011 and 2012 has increased its military spending by 16 %, and last year's investments equalled to 4.4 % of its gross domestic product. The Russian rearmament has importance to all EU and NATO member countries, but with a particular strategic focal point in the Kaliningrad oblast. An area with a unique geographic status as an exclave nestled between two NATO members and considered to be of great strategic importance for Russia. Kaliningrad is significant because it is a possible area for confrontation since it entails not only a military dimension but also other potential security problems related to visa regimes, customs agreements, environment, cross-border smuggling and trafficking.

Although the Baltic Sea region is nowadays considered to be a relatively low-tension area, a Russian rearmament could fuel old habits of suspicion and possibly create new lines of divisions. The region is a prioritized area in Moscow's military planning and is being reinforced as part of the modernization of the Russian armed forces. The decision by NATO a few years back to deploy missile interceptors and radars in Romania and Poland provoked a fierce reaction from Moscow, which in turn threatened to deploy Iskander tactical missiles in the Kaliningrad region as a response to the United States' missile shield plans. In November 2011 a Voronezh-DM early warning missile defence radar station was put into use and in April 2012 the air defence was equipped with S-400 *Triumf* air-defence missile systems. This year NATO extended its Baltic air-policing mission to 2018. Moreover, five Ivan Gren-class landing craft ships are currently being built in the Yantar shipyard in Kaliningrad, each of them able to carry up to 13 main battle tanks or 60 armoured personnel carriers and 300 marines. Kaliningrad also has storage facilities for tactical nuclear weapons.

The rearmament of the Russian military, and subsequently its western flank, is not only due to modernizing outdated material, but also an effort to deter NATO. Clearly, the recent enlargement of NATO has created security for the members of the alliance, but it has certainly not created a mutual relationship between NATO members and Russia, where the latter agrees upon and fully participates in the current security architecture of the region. Even if the Vienna Document and the Open Skies Treaty is in force, the all-important CFE Treaty - which regulates conventional armed forces in Europe and sometimes referred to as a "cornerstone of European security" - is not. This makes the current Russian rearmament and the possible response from NATO of particular importance for the Baltic Sea region and the NATO borderlands. Above all because any further build-up of offensive military capacities near the alliance's border runs the risk to decrease an already fragile trust and create more uncertainty between NATO and Russia. It would therefore be naïve to *a priori* rule out possible rapid changes that could have drastic consequences for the security environment.

The matter of uncertainty goes to the very heart of the central question in Baltic region security; the guarantee of safety and ultimately how to know, who and what to trust. It is related to basic concepts of human psychology and can even be described as "existential" conditions of human relations. It is not an occasional or transient phenomenon but something that is part of our everyday life and of very existence. If threatened, both people and states will take necessary measures. Those measures are usually defensive but can occasionally also be offensive in nature. It is sometimes enough to exercise caution and just wait for the threat to dissipate, but it is perhaps more common that some kind of preventive action has been taken that enables a more active approach to this kind of threat. On a regional level, where formal structures of defence and security arrangements exists, this kind of preparation and proactive stance to security might be seen threatening to the other side and provoke a reaction that might transform a perceived danger to an overt threat.

This kind of strategic by-products is usually described as a security dilemma. The development of military strength, postures and all other activities taken by one side to strengthen his own security, can be seen as a threat by the other side who in his turn takes measures to increase his own security. The security gains on both sides are therefore illusory; security has been decreased rather than increased. The security dilemma is telling us that security can be a game of negative-feedback; the less secure a state feels, the less his adversary will feel as well. Reversely, it is also a game of positive-feedback; the more security a state feels, the more secure his adversary will feel, because it won't have to do anything that could provoke a reaction from the other side. This security dilemma is what fuelled the nuclear arms race during the Cold War and, indeed, much of today's many contemporary conflicts.

Consequently, what is needed is not more military hardware in the Baltic region, but an active stance by all parties to deepen and broaden existing regional multilateral arrangements to support and strengthen channels for dialogue and engagement, and again to fully implement the CFE Treaty for the purpose of further increasing security through a mutual consent to regulate size and introduce inspection regimes to facilitate transparency on military capabilities and technical composition. It is high time to once and for all agree upon a viable Baltic security architecture for the 21st century.

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The Baltic Sea Region – strategies, projects and cooperation

By Slava Khodko

One territory, common management, two strategies

There are a number of grounds defining the Baltic Sea region as a single territory. We are united by common history, common environment and common infrastructure. The Baltic Sea, on the shores of which we live, unites borders of the coastal states. We should recognize that there is a great interdependence among the inhabitants of the territory.

This interdependence has become a trigger for the appearance of wide range of programmes and organizations, as well as related projects for the development of the region. And we can find some signs that these programs and organizations often duplicate the functions and capacities of each other. So the approach to the management of the region is clearly uncoordinated.

We see the apparent lack of the common view of all the actors that are affected by the problems of the region. For example, we can talk about the existence of at least two strategic documents, the planning of which addresses the Baltic Sea region – the Strategy of social and economic development of the North-West Federal District until 2020 and the European Union Strategy for the Baltic Sea region. The coordination of strategies, the formation of a common view on strategic development of the region are required. Such view could let regard the region as a single substance from the marketing point of view. Only this approach would let consider the territory of macroregion as a product which will form the basis for the promotion programme in the region. Such programmes could become a positive instrument to improve the competitiveness of the Baltic Sea region. We have examples of such work - a project ONE BSR is very significant here.

Taking into account the experience and the urgent need for understanding of the processes, ANO "North-West Development and Investment Promotion Agency" in cooperation with the Center for cross-border and interregional cooperation of HSE, St. Petersburg branch, conducted a study and organized a series of events on searching for common ground between the Strategy of social and economic development of the North-West Federal District until 2020 and the European Union Strategy for the Baltic Sea region, and between their action plans. For this purpose the Agency and the Center actively cooperate with the Council of the Baltic Sea states and with the Baltic Development Forum. Special focus was on creation of the platform for the continuity of the successive presidencies of Germany, Russia and Finland in the Council of the Baltic Sea states.

From the joint strategies to joint projects: 5 steps.

The work being done gives grounds to say: now it is time for the transition from coordination of the strategies to coordination of action plans, and, furthermore, to joint projects. 5 steps could be proposed as an action programme:

1. Completion of the work on the coordination of the strategies.
2. Study on the coordination of action plans to the strategies.
3. Creation of sectoral programmes in the priority fields of cooperation, such as environment, energy, transport and tourism etc.
4. Selection of priority projects for joint implementation.
5. Formation of additional content for the Partnership for Modernisation between Russia and the European Union, giving him a special Baltic dimension. The main method of implementation of the process is a creation of conditions for the transfer of technologies related to investments. Thus, creation of innovation centers will be the basis for the industrial development and therefore for the wide application of the principles of public-private partnerships during the realization of these particular projects.

Pilot phase of the process has been already begun under the support of the Secretariat of the Council of the Baltic Sea states. Today, there are pilot projects in the field of agro-industries in the stage of development. They were developed in the framework of implementation of programmes in the Baltic Sea states. At the moment the conditions for their implementation in central Russia are being created.

The activity in the area of shipbuilding, environment, ITC, energy and resource management, etc. could be developed in the same way.

Conclusion

Still the continuity of the presidencies of Germany, Russia and Finland in the Council of the Baltic Sea states is the most important. Aware of this fact, the Center of cross-border and inter-regional cooperation of the HSE, St. Petersburg branch and the “Centrum Balticum” Foundation have sent to the Minister for European Affairs and Foreign Trade of the Republic of Finland Alexander Stubb and the Deputy Prime Minister of the Russian Federation, Dmitry Kozak a joint letter, which justify the need for such continuation, and the readiness to make practical work on the deepening of coordination of strategies and their action plans is expressed.

We see improving of coordination role of the Council of the Baltic Sea states as one of the decisive conditions for the formation of opportunities for coordination and cooperation in all areas.

Baltic Development Forum Summit and the Congress “Baltic Week” which will be held in March 2014 in St. Petersburg could be those sites where discussion on cooperation and strategic approach would have special public importance.

Current information is presented on the web-page of the Centre of the Northern Dimension Development www.nddc.ru.

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Opportunities for Finland – the Arctic and Russia

By Kai Paananen

Finland has a neighboring country with a growing – despite of the recent less positive news – economy. The Russian economy grew last year some 3.5 per cent, and the target for 2013 is 3.7 per cent.

The Russian state budget is linked with the Urals oil price (97 US$ per barrel). The entire Russian economy and society is significantly dependent on the export earnings of oil and gas. The price of fossil fuels – also affected by shale gas prospects particularly in the United States – is a key source in analyzing Russian developments.

Finland has a remarkable potential in Russian markets.

Russians consider us Finns as reliable partners. This – supported by the common border and railway network – constitutes the almost one and only real competitive edge compared to our contender countries.

In particular, off-shore projects offer huge potential in our offering for Russian markets and partners. 2/3 of the gigantic oil and gas reserves in Russia are located in off-shore areas, and most of these in the Arctic region.

In order to commence production in these oil, gas and LNG fields, Russia needs harbors, gas-drilling platforms and vessels, support vessels equipped with significant ice-breaking abilities, strong ice-breakers, and major LNG vessels. Finnish sea and Arctic technology industries may substantially benefit on these needs, but this requires competitiveness and Finnish holdings in the key technology and production companies. Clearly the most important competence center is Aker Arctic.

I was personally privileged to have an opportunity to safeguard the existence of the present Arctech Helsinki Shipyard in 2010. A key condition for today's joint venture was the order of an advanced multipurpose ice-breaker for the Russian Gulf of Finland operations. The order was negotiated by the largest shipping company in Russia Sovcomflot (SCF), Russian Harbor Administration Rosmorport, STX and SET Group.

During the times of today's news flows, it is interesting to note that many serious Russian actors were openly expressing opinion that they would prefer this Arctic ship building knowledge to be based on solely Russian-Finnish cooperation rather than three party cooperation. These opinions were justified by the long term experience of the Finnish-Russian cooperation, and the knowledge and needs of the both parties.

Possible Finnish-Russian ice-breaking cooperation in the Gulf of Finland may open opportunities for new Finnish-based icebreakers. The possible operational cooperation was most recently discussed at the joint meeting of the Finnish-Russian Economic Commission in late March 2013 in Turku.

It is evident that that the emphasis and business focus in shipbuilding is moving to the Far East. This development can also be seen in the Russian shipbuilding industry. This means that the position of the Finnish world-class expertise in shipbuilding and, in particular, Arctic technologies is not at all self-evidently safeguarded in the future. We must work hard in order to play a key role in the Arctic shipyard businesses.

Ways to enhance Finnish–Russian Arctic cooperation are many. An important step would include establishing a bilateral Sea Technology Innovation Program. From Finland this platform should be participated by Finnish Innovation Fund (SITRA), research institutes of the sector, and various companies in the sea technology businesses. Supported by public institutions and through networking, also SMEs may have their important role in sea technologies and Arctic projects.

The Northern Sea Route (NSR) offers a huge potential also – and particularly – for Finland.

Last year, 46 ships passed the route. The fastest journey took only for 7.8 days. Sea transport professionals estimate that NSR may save at least 30 per cent of the costs of the traditional Suez route.

The gradual opening of the NSR opens numerous opportunities for Finland. The traffic needs advanced technologies in terms of ships, ice-breaking, and harbor, communications and rescue infrastructure. In addition, NSR will bring Finland closer to the center of global logistics. Finally, after thousands of years, Finland will be able to come out of the periphery!

To utilize these thrilling opportunities, Finns must openly explore various options and start hardy actions in promoting the new route and especially the Finnish role in its logistics. A key project is to construct a railway from Rovaniemi to Norway's Kirkenäs ("Polar Sea Railway").

In Finland, we have so far promoted the Polar Sea Railway all too modestly. Good work is done by Lapland, they have planned the railway in many practical ways. Good attitude is presented by Norway, their Minister of Transport and Communication Marit Arnstad supported the project in Kirkenäs in February 2012. The railway is also widely supported by foreign specialists of logistics, and even by Chinese. Here we may easily see the common interests of the globe's North-East nations.

Now here in Finland, we should formulate a national stand on the Polar Sea Railway; how to plan it, to finance it, to construct it; what would be the schedule; who would participate as partners?

The Polar Sea Railway would cost – naturally, depending on the implementation – some 2.5–3.5 billion €. The construction could be started in early 2020s, and the first train would depart before 2030. By this, the Northern Sea Route will be one of the key sea routes in the world and would work as a bridge between European and Asian markets.

But the question remains will Finland take this challenge, serve as a key logistical platform from and to the route?

Kai Paananen

CEO

SET Group Oy

Finland

The Arctic shipbuilding market – a real opportunity or a distant dream?

By Esko Mustamäki

From the history of navigation, we know a number of great pioneers, who explored our globe centuries ago. Our interest toward exploring the Polar Regions was initially driven by the need to find a Northern route from Europe to Asia. The concepts of looking for the Northwest Passage and the Northeast Passage, today better known as the Northern Sea Route, are both about 500 years old.

But Arctic navigation is much older than that. Mankind has travelled by sea since prehistoric times. Tribes, who had migrated to the Northern parts of the globe, used their boats whenever the ice conditions in the water systems allowed. Over time they developed their boats to cope better with the ice conditions they encountered. This was the beginning of Arctic shipbuilding.

Today the drivers for Arctic shipbuilding are both growing transportation needs in the Arctic areas as well as the exploitation of natural resources in those areas. The exception to this is the market related to the Antarctic. In this area, the vessels need to perform two tasks, to supply the research stations and to make oceanographic research.

The Arctic is an area of high oil and gas resource potential. A remarkable part of the remaining global oil and gas resources has long been thought to exist in the high North. This area includes the United States, Canada, Greenland, Iceland, Norway and Russia. All these countries have vast natural resources in form of oil, gas or minerals in the Arctic region. The known Arctic oil and gas resources are vast, but over half of the sedimentary basins are completely undrilled. Thus the Arctic region is the last major frontier for conventional oil and gas exploration.

The known Arctic oil and gas resources are over 400 billion barrels in total if measured in oil equivalent. Some 20 % is oil; the rest is gas and gas condensate. Compared to the worldwide resources, the Arctic resources correspond to 30 % with regard to gas and 13 % with regard to oil. Calculated in oil equivalent, the Arctic resources correspond to 22 % of worldwide resources. About half of these resources are found on Russian territory, one fourth in Alaska and rest is divided between the other countries. When these resources are exploited in a large scale, a large number of vessels of different types are needed.

A lot of drilling is required in the Arctic, both for exploration as well as for production. Each drilling party may require 10 vessels to support the drilling unit. The vessels needed are different types of supply vessels, ice management vessels, oil spill response vessels, accommodation vessels etc. All this is, of course, very much depends on prevailing conditions. In the production phase, some support vessels and ice management vessels are probably needed. Additionally, a fleet of oil or gas carriers is needed. The number of these depends, first of all, on the production volume and secondly on the transport distance. Each production facility may need 10 to 20 carriers if the transport distance is long. In case of gas it usually is, as the gas is transported to a terminal close to the customer.

The total need of vessels also depends on the schedule. How the exploitation of the Arctic oil and gas resources is growing and who his buying the produced oil and gas? In any case, we are talking about hundreds of vessels during the next 20 years.

To the Arctic shipbuilding market, we may include some Sub-Arctic regions with need for ice-going tonnage. These regions are Baltic Sea region, Sea of Azov, Caspian Sea, Sea of Okhotsk, Sea of Japan and Bohai Sea. As the ice conditions in these areas are not as severe as in the Arctic market, the amount of required special tonnage is smaller than that required by the Arctic areas.

The Arctic market related to transportation needs, other than oil and gas, is easier to predict as the transportation need is existing and well predictable. The need for vessels is thus caused by growth in traffic and replacement needs. The number of vessels required is, however, not great.

The risks are completely different in case of the market related to oil, gas and minerals. In these cases a very large investment is needed to start the exploitation. In most cases the vessel investment is a marginal investment and only done after the final investment decision concerning the production is in place. And these multi-billion dollar investments depend on the development of the global economy, oil and gas price development, or metal price development (in case of minerals). For a ship owner or a shipyard it is therefore extremely difficult to predict the schedule for a specific project.

The Shtokman gas field in Russian Barents Sea is an example of how demanding these projects may be. The field was identified in 1981 from offshore geophysical surveys performed by research vessel Professor Shtokman, according to whom the field was named. Geological studies of the field were launched and in 1988 the first exploration well was drilled. The result of the well testing was ready the same year. More than 2.4 trillion cubic meters of commercial-grade, free gas was added to the State reserves balance. About 30 years later a joint venture company Shtokman Development AG was formed to develop this gas field, ranking number 10 in the World. In August last year, we could read that the development of the vast Shtokman gas field will be put on hold, as the project was not feasible at current costs. For many years this field has been considered one of the most interesting fields from the point of view of Arctic shipbuilding. Today, it is again a prospect far in the future.

Luckily many other projects continue. Delays are common, but the projects are going ahead. There are several active projects today, and many more are expected to start within the next couple of years.

But is the Arctic shipbuilding market a real opportunity or a just a distant dream? Based on today's expectations regarding the future global energy consumption my answer is yes, the Arctic shipbuilding market is a real opportunity. But I believe some fields may not be started as soon as expected. I believe the growth rate in Arctic oil and gas will be lower than previously expected.

Esko Mustamäki

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The Nordic Countries on the top of the world in snow-how*

By Kari Liuhto

Only a few years ago, the Arctic was not known for much more than simply being in the opposite end of Antarctica. But due to the melting of the ice cap, the Arctic agenda today consists of a number of issues that each carries such importance that countries thousands miles away have a close interest in the area. One of the items often mentioned are the possible navigation opportunities that open up the Northern Sea Routes, NSR when the ice melts. … Another important agenda point is the role of the Defense force. … Exploration of oil and gas resources is also a sensitive issue. … Also, the exploitation of minerals in the Arctic, especially rare earths, is followed closely around the world. … There is a lot of hype in the media about the Arctic." (Holm, 2013, 1).

From the media hype to the Arctic realism

Media hype 1: the Northeast Passage will become a major maritime transport route between Europe and Asia: when compared with the Suez Channel the distance between Europe and Asia via Northern Sea Route (NSR) is 25-40% shorter depending on a point of departure and arrival (Lloyd's, 2012; Holm, 2013). The distance between Hamburg and Shanghai, for instance, is over 5000 km shorter via the NSR than through the Suez Channel. A shorter distance may save fuel and a couple of weeks in transporting goods between Europe and Asia, and as time is money (100,000€ per day for a shipping company), the NSR is becoming an attractive transportation route (Hahl, 2013). In addition to the transportation between Europe and Asia, natural resource exploitation in the Russian Arctic may significantly increase the maritime traffic in the NSR (Brigham, 2013).

Before falling into the media hype, one needs to remember that the NSR is at the moment economically navigable only half a year due to thick ice. Secondly, there is a lack of large ice-going ships and tankers. Thirdly, thick ice puts an extra pressure on ships and piloting vessels/icebreakers[1] assisting them and reduces the travel speed, which eats the benefits offered by a shorter distance (Lasserre, 2011). Moreover, there are no service centers in the Arctic region in a case of emergency with a ship or its personnel. Therefore, it does not come as a surprise that less than 100 ships sailed through the NSR last year, whereas the corresponding figure for the Suez Channel was more than 20,000 vessels (Holm, 2013).

It is possible that the global warming opens the NSR and thus, enables transportation throughout the year. Secondly, one cannot completely exclude the political instability in the Suez Channel or in the Strait of Bab-el-Mandeb, which would automatically increase the role of the NSR in the trade-related transportation between Europe and Asia. At the moment, the North Asian countries, China, Japan and South Korea, cover close to 20% of the EU's foreign trade turnover (European Commission, 2013), and this share obviously grows significantly in the future. "*China is expecting to reroute 5-15% of Chinese ship transports, mostly container traffic, by 2020 to Northern Sea Route*" (Hahl, 2013, 3).

Media hype 2: the Arctic region will become the leading oil and gas producing region of the world: a US geological survey indicates that the Arctic region holds 30% of the world's undiscovered gas reserves and 13% of the undiscovered oil deposits (European Commission, 2012). Despite the fact that the region possesses a significant share of the globe's hydrocarbon reserves, one should remember that the Arctic resources are expensive to be exploited, and as long as unconventional gas and shale oil keep the energy prices at the relatively low (tolerable) level, oil rush to the Middle-East of the High North, the Arctic, will not materialize, though the role of the Arctic region will inevitably grow in the global gas production when the globe's second largest gas producer, Russia, is forced to move her gas production there.

Media hype 3: the Arctic region will become a cradle for an international military conflict: despite the fact that 3 countries with the largest military budget in the world, namely the USA, China and Russia, have shown a growing interest towards the Arctic (Blank 2012; IISS, 2012; Jakobson and Peng, 2012), I do not recognize sufficient forces which would ignite an international military conflict in the region in the foreseeable future (see Voronkov, 2011; Yarovoy, 2011; Holm, 2013). Here one needs to remember that "*most of the Arctic (and in particular most of the estimated hydrocarbon deposits) is under the sovereignty and maritime jurisdiction of the Arctic States*" (Koivurova, 2013, 7). I do not believe that Arctic fishing would create an international military conflict, though it has from time to time caused some disputes between the countries, such as Norway and Russia (Hønneland, 2013). Despite the fact that Russia aims at extending its Arctic territory by claiming that the undersea Lomonosov Ridge is an extension of Russia's continental shelf (Petters, 2013), it is everything but certain that the claim, to be submitted to the UN by the end of 2013, will be accepted. Even if the claim would be accepted, it hardly would cause an international conflict.

I assume that the NSR will increase its position in the global transportation but does not challenge the leading position of the Suez Channel in the Europe-Asia trade, unless there will be a force majeure (e.g. a nuclear explosion) preventing the shipping through the Suez Channel or the Strait of Bab-el-Mandeb. Secondly, the share of the Arctic oil production will remain marginal in the global scale decades to come, as the Arctic production is not competitive due to higher drilling costs. On the other hand, Russia is forced to move a significant part of her gas production to the Arctic, since its traditional gas fields in Western Siberia are depleting within the following 3 decades. A half of the country's energy consumption is met with natural gas, and there cannot be seen a major change in Russia's energy consumption by 2030 (Ministry of Energy of RF, 2010). As Russia represents close to a 20%-share in the global gas production, the stake of the Arctic region increases in the forthcoming decades. Thirdly, I do not believe that an international military confrontation would start in the Arctic region due to its natural resources or new territorial claims.

Ambassador Hannu Halinen (2013, 2) intelligently phrases as follows: "*All in all, in the Arctic there is no hype, but there are no easy wins, and no gold rush, either*."

From Nordic snow-how to the Arctic business

Due to their geographical location on the top of the world, the Nordic countries possess many advantages which make them natural born leaders in the Arctic business. The Nordic

[1] Myllylä and McEwan anticipate that "*the demand of Arctic and ice-breaking know-how is increasing. Knowledge is critical to the Arctic super powers and they are willing to cooperate with the Finns. After all, Finland has manufactured 60 percent of the world's icebreakers*" (Myllylä and McEwan, 2013, 15).

people have during the course of thousands of years been "genetically engineered" to survive in harsh environmental conditions; cold temperatures, snow and ice, and long dark polar night lasting for several months. Moreover, our ancestors have used to live in isolation, which has developed our skills to survive without outside help. Some consider that the harsh environmental conditions have favored punctual, systematic and anticipatory behavior of our forefathers, which still can be seen in the Nordic business culture of today.

The Arctic construction experience, Arctic wind power mills, cold-resistant devices and voice interfaces for communication, cloud services, e-solutions and virtual platforms are required in order to get remote assistance in harsh weather conditions or simply to spend free time with online games, in the Arctic (Poljatschenko, 2013).

Despite the fact that the Nordic people have built-in Arctic experience, even our snow-how has to be adapted to the Arctic requirements, since there is a major difference between surviving a couple of weeks in temperatures below -40 °C and living in such conditions for several months.

An easy and relatively inexpensive way to transfer Finnish snow-how to Russia's Arctic would be to construct a railway connection (around 70 km) from Salla to the St. Petersburg-Murmansk rail road with € 80 million (Myllylä, 2010; Kaleva, 2013)[2], and thereafter, to lease a section of the Murmansk Port for a Finnish port operator. This exercise would open an Arctic foreign trade outlet for Finland, and in turn, it would aid transferring the Finnish snow-how to the use of the Murmansk region.

From Santa Claus to Saint collaboration

The Arctic gifts are not generated by Santa Claus but by intensive international collaboration, since egoistic national interest-seeking competition will lead to a lose-lose situation, as none of the countries in the world possesses required resources, skills and experience enabling it to exploit the Arctic opportunities alone.

I wish to conclude by stating that ice is nice, since I am convinced that countries aiming at exploiting the Arctic opportunities need Nordic snow-how in order to do it in an economically and environmentally feasible way.

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[2] The Finnish authorities seem rather reluctant to develop this connection (YLE, 2012).

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Shipping in the Baltic Sea – stormy waters ahead?

By Carsten Ørts Hansen

As a response to the environmental challenges the Baltic Sea is facing, the International Maritime Organisation (IMO) has established the area as an Emission Control Area (ECA). Since 1 July 2010 the fuel sulphur content has to be below 1%, and further be reduced below 0.1% from 1 January 2015.

Regulation is not new to the shipping sector. Ever since Captain Plimsoll started his campaign against the "coffin ships" in the 1870s a series of international and regional regulation has affected the competitive condition for the sector. Also it is well known that new regulation constrains maneuverability but also often meet fierce resistance from those who have done well under the old conditions.

What might be new is that strict regulation does not have to be a competitive disadvantage for all shipowners. High standards may even be in favor of some ships or fleets, because it is easier for them to comply than for competitors. Hence, an industry or group of companies may occasionally even lobby for higher levels of regulation for the simple reason that it will increase their competitiveness.

For all shipping in the Baltic Sea the current relevant question is who will be earning or burning after 2015? The answer depends on the technical choices made by shipowners and not at least the specifics in the regulation.

There are three choices for shipowners who wish to continue sailing in ECA from 2015: Switch to marine gas oil (MGO), install an exhaust gas scrubber, or switch to liquefied natural gas (LNG) as fuel. A study made by Det Norske Veritas concludes that the LNG fuel solution is the most cost efficient solution in a 20 year perspective and new ships should run on LNG. However, the age of the ships operating in the Baltic Sea is fairly evenly distributed from new to about 40 years old, and it therefore takes about ten years to replace 25% of the fleet. In fact a large number of shipowners therefore only have the choice between MGO or a scrubber to secure that their vessels or fleets can sail in the Baltic Sea from 2015.

This particular choice depends on the age of the vessel and how long time it spends in the ECA zones. The younger a ship is, and the bigger the amount of time it will spend in the ECA zones, the more financially sound a scrubber installation becomes. For newer vessels, installing a scrubber would therefore enable them to compete at a relatively lower cost than the older vessels, who are not candidates to a scrubber installation due to inability of repayment of the investment before the end of their commercial life. A recent study made by BIMCO shows that a ship that operates in the ECA zone 33 % of the time, has to have 10 years of commercial life left to reach a positive net present values of its scrubber investment.

Older vessels are forced to use the expensive MGO resulting in substantial higher operating cost. As a consequence a potential large number of older competing ships will to be pressed on their earnings or ultimately be pressed out of the market from 2015. This will off course be in favor of newer ships and create turbulent condition for older ships that might be forced to leave that market. In that case better prices could also be charge by the remaining ships in the Baltic Sea.

To prevent a radical change in the competitive landscape critical voices of the regulation have argued for a transitional period in which these older ships are exempt from the requirements. However, at the same time other points to the fact that the design of the requirements has been known since 2008 and that it would turn already installed scrubbers into extra costs and not investments. The same voices argue for the importance of properly enforcement since there is an incentive for cheating, thus gaining competitive advantages. Another example on how regulation is a complex arena of interests is the recent discussion in the IMO subcommittee Bulk Liquids and Gases (BLG) concerning the exact pH value for discharged scrubber water. Here one member state had sent in a survey of the pH value in discharged scrubber water which had been carried out in cooperation with an independent consulting company. A fixing of the pH value of discharged scrubber water is decisive for the scrubber suppliers' production of scrubber systems and thereby for the shipowners' choice of system. However some other member states opposed the pH value recommended by the survey and the discussions stranded. This leaves ship owners who already have decided to invest in scrubbers in trouble assessing whether they should choose open or closed scrubbers or use MGO as alternative fuel to meet the requirements.

The specific details in new regulation therefore determinate the investments in these new technologies. For vessels or fleets not able to comply with future legislative requirements there will be a severe impact on profitability but also significantly impact the residual value of fleets and the value of any security taken over vessels.

So regulation is not an innocent activity and ECA zones are not only about cleaner environment. It is also an example of how the focus and work of creating competiveness advantages can shift from the ship to onshore activities in a complex arena of national interests, technology, calculations and practitioners from the industry. Because transnational regulation made by e.g. EU and IMO affects the competiveness of ships and fleets it is important for shipowners to know, manage and influence the development of new regulation. Such an understand could be established through research activity that are critical of the univocal nature of most mainstream shipping regulatory literature but also works inter-disciplinary since the issues involved are various and demand inter-disciplinary treatment from technical, economic and political domains. CBS Maritime is an interdisciplinary platform and we hereby invite practitioners and researchers to participate in this investigation.

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Green co-operation in the eastern Gulf of Finland

By Olli-Pekka Brunila and Anni Anttila

Almost 15% of the world's maritime transportation is carried out in the Baltic Sea. In 2010, approximately 809 Million tonnes of cargo were handled in the ports of the Baltic Sea. The market share of the traffic volume in the ports of the eastern Gulf of Finland (HaminaKotka, Vyborg, Vysotsk, Primorsk, St. Petersburg, Ust-Luga) covered approx. 21% of the total traffic tonnes in the Baltic Sea in 2010.

The Baltic Sea is one the busiest and most polluted seas in the world. The condition of the Baltic Sea has been studied for many years. Its oxygen level has increased slightly, but the situation is still quite bad. There are no benthic animals in the Baltic Proper, and large areas of the seabed are either suffering or dead. The condition of coastal waters in the Gulf of Finland has improved in outer archipelago areas since 2006. There have unfortunately been some nitrogen and phosphorus leakages, but the overall situation has not changed much in the past few years. The most common challenges of the Baltic Sea countries deal with increasing the oxygen level and reducing eutrophication, nutrients, sulphur, CO2, GHG and pollution from agriculture and transportation.

Port and maritime legislation in the EU

The EU has a lot of different regulations that influence the European ports and their management. All port related EU legislation does not however affect the environment. Especially in Finland all ports have strict environmental regulations. Ports have to follow national environmental policies, environmental management systems, environmental permits, Environmental Impact Assessment (EIA), and of course the EU legislation. Many Finnish ports have various independent environmental projects that are meant for boosting the environmental status of the ports and for protecting the surrounding environment.

The EU has directives for habitats, fauna and biodiversity. There are also different regulations and directives for emissions, noise, soil, waste and air quality, and pollution from ships. Especially the so called "Sulphur Directive" has created contradictory feelings in Finland. Some experts say that the "Sulphur Directive" may cause unemployment, whereas some experts think that the directive can create new opportunities and new business possibilities. Perhaps the truth is somewhere in between? At the moment Russia has not consented to the IMO regulations of sulphur emissions, which might cause increased land base transportation from Finland to Europe via Russia. It has also been discussed that the industry investments in Finland will affect other countries and they will therefore also distort the competition in the European market. At the moment the maritime industries have to adapt to the "Sulphur directive", IMO regulations, and other new legislations, and move on to future challenges.

Ecologically friendly port

The Russian port legislation is not on the same level as it is in Finland and in the EU. The need for environmental regulations and instructions for sustainable development is acknowledged. One key element in the competition between the Baltic Sea ports now and in the future will be their environmental status and their capability to response to the challenges of sustainable development. According to the EU Strategy for the Baltic Sea Region, the co-operation between the Baltic Sea countries should be improved in order to develop the environmental protection. Another aim is to engage the Russian partners in the matters of e.g. environmental protection, water quality and innovations. In this project two ports in the eastern Gulf of Finland, Ust-Luga and HaminaKotka, have taken up the challenge in the form of a collaborative project called the "Ecologically Friendly Port". The main focus of the project is to increase environmental awareness. The competition between these two ports is forgotten, and the mutual goal is to protect the Baltic Sea with the help of cross border co-operation.

The citizens and different stakeholders in Finland have the opportunity to influence public affairs concerning for example port construction. The citizens of Ust-Luga in Russia are concerned about the environmental impacts of the construction of a new port and town. The concept of "Port in a city" is not familiar to the residents. In Finland many ports are in or close to the cities and the environmental effects on the citizens are taken into account. Also the hydrometeorological, biological and anthropogenic effects on the Ust-Luga Bay and its coasts will be studied. Tools for protecting and monitoring the environment are: Environmental Strategy for Sustainable Development, and Eco-Monitoring Centre.

To continue the cross border co-operation and the fruitful environmental protection activities in order to save the common Baltic Sea would be the best possible outcome. This article is based on the project "Ecologically Friendly Port" (EFP). For more information on this project, please visit http://ecoport.rshu.ru/index_eng.html.

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Baltic maritime transport on rough sea

By Juha Kalli

There are only two years left until 2015 when the regulations on the marine fuels will limit the sulphur content to 0.1 percent in the Baltic Sea, the North Sea and the English Channel. In 2011, more than 7500 ships visited the Baltic Sea, and the number is increasing. However, in 2015 the fuel costs will face dramatic increase due to new regulations. Ships need to change from Heavy Fuel Oil (HFO) to much more expensive middle distillates (Marine Gas Oil, MGO). According to the studies of Centre for Maritime Studies, the additional fuel costs will be around 400 million euros per year for shipping to and from Finland. The costs will be much higher if the price difference between the two fuel qualities grow in the future. For example, in summer 2008 the price difference was around 480 euros per ton which would mean additional costs of nearly 1 billion euros for Finland in a year.

We need to keep in mind that the estimated additional costs are direct costs, and the indirect costs are often neglected in the studies. Effect of huge increase in demand of MGO (up to 15 million tons) in 2015 may lead to higher prices of diesel fuels also on land, increased reloading and feedering, modal shift, economic losses in specific sea ports, loss of industries, negative effects on employment etc. Indirect effects will most probably be unequally distributed among the industries and communities and therefore should be studied in more detail.

HELCOM countries have decided that they will send an application to International Maritime Organization (IMO) to designate the Baltic Sea as NOx emission control area (NECA). It is, however, still unclear when the application will actually be sent. This would mean that when visiting the Baltic Sea ships built after 2016 need to be Tier III compliant. Tier III is a standard NOx emission limit for new marine engines when sailing inside the NECA. To reach demanded NOx reduction of Tier III, a ship need to use special technology or alternative fuel i.e. catalytic converter or liquefied natural gas (LNG). It is estimated that the Baltic NECA alone would increase the transport costs by 5 percent.

There have been years of debate in the IMO about the measures to abate carbon dioxide (CO2) emissions of shipping. Certain methods have already been developed and approved (i.e. energy efficiency design index) but it is interesting to see how the market based measures (MBMs) will be adopted or whether they will not be used. It will also be interesting to study what kind of effects these measures will actually have on the emissions and on the maritime traffic. The effects may not be straightforward or easy to forecast. We may face surprises in the future, some of positive nature and some negative.

All these actions to reduce emissions of shipping are well justified. SOx and NOx contribute to the air quality and have harmful health effects. In addition, they have unwanted effects on environment as an example the eutrophication of the Baltic Sea. CO2 is a greenhouse gas affecting the global warming and climate change. Maritime transport and industry in the Baltic countries, due to the regional differences in legislation, is under heavy pressure to survive in the changing operational environment. The risk for the industry is that increased transport costs cannot be added to the price of the produced commodities. Instead the additional cost of transport is taken from their profit.

Shipping companies have been relatively silent about their future plans. However, there are some indications about the different strategies how the changing operational environment will be confronted. Surveys on Finnish shipping companies revealed that there are at present two basic strategies: 1. tighten the belt, be passive and watch what happens and 2. be aggressive, find new possibilities and make investments for the future. Implementation of the passive strategies can be seen as delayed investments in low emission technologies but there are several examples with determined investments and proactive future plans.

However, applying the current environmental legislation is not always enough, and more proactive companies might find competitive advantage. Tightening of regulations also boosts innovations. At present, the industry in Finland is frantically searching solutions to survive the risk presented by maritime transport. LNG powered ships may be one of the solutions arising as a winner. It is a long term solution because of high capital costs and therefore feasible only in new-build ships, but it would comply with both sulphur and NOx regulations. Use of LNG would also decrease CO2 emissions making it comparatively proactive environmental technology for shipping industry. The debate is hot around the proposed locations and building of LNG terminals. Price of LNG is very competitive and its joint use with land industry could enable profitable terminal operations.

I predict that the Baltic shipping will change in the future. There will be more specialized ships designed for SECA (and NECA) operations. These low speed vessels will utilize environmental technology, gradually taking bigger and bigger share of the transport markets. This will also put pressure on the seaports at the area. To guarantee unchanged lead-time in the supply chain, more flexibility and efficiency in port operations are needed.

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Baltic Sea Region Programme 2007-2013

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The WTO Academic Programme and Saint-Petersburg State University

By Marc Auboin

Since the creation of the WTO, and even before, the institution has been working in partnership with the academic world in a variety of ways. However, the intensification of global trade links and the creation of a global trade institution have increased the demand for higher education on trade and trade-related policies issues. In the run-up to the Doha Ministerial Meeting (2001), the international community agreed to increase its financial support to increase the supply of knowledge, technical assistance and teaching of existing agreements of the World Trade Organization, notably to developing and emerging countries. This effort could not be possible without the involvement of the academic community, for example in WTO regional trade policy courses. In 2009, the creation of the WTO Academic Program brought the concept one step further. The aim was to broaden WTO involvement with universities across the whole range of activities typically completed by higher education institutions, be it research, teaching or curriculum development. But this is not only about the WTO itself. It is about fostering the links between universities which are part of the programme and create a network of universities able and fit to produce and disseminate knowledge on international trade. After a stringent selection process, the World Economy Institute of Saint Petersburg's State University (SPU) has been awarded one of the 15 chairs, despite strong competition in this area of the World. The Chair holder, Professor Sergei Sutyrin, and his team, have gone a long way in fulfilling the objectives of the program – at an important time for Russia, namely its accession to the WTO.

1. Objectives and mid-terms results of the WTO Chair Programme

The main objectives of the Programme are to (1) build lasting relationships with institutions from developing and developed countries by granting financial support to selected institutions, over a period of four years (2) support trade-related teaching by providing WTO support for the development and delivery on courses on trade policy (3) foster additional research in trade-related matters and foster co-operation between Chairs through joint-research, academic exchanges, shared lecturing arrangements, etc, (4) encourage and extend outreach and communications, for example through Chair holders organizing public activities aimed at disseminating research and promoting discussion on international trade and trade co-operation.

An Advisory Board oversees the Program, composed of the WTO Secretariat, academic partners, beneficiary institutions, and donors. The Advisory Board reports to the WTO Committee on Trade and Development. Among the fourteen universities or academic institutions which had been awarded a Chair, are, inter alia, the University Gadjah Mada (Indonesia), the University of the West Indies; Shangai's Institute of Foreign Trade (China); Argentina's Facultad Latino Americana de Ciencias Sociales (FLASCO), and, as indicated above, the World Economy Institute of SPU. The full list of participating Universities can be found on the WTO website (www.wto.org).

At the mid-term review held in Geneva on 25 June 2012, the Director-General of the WTO hailed the progress made on fulfilling the above-mentioned objectives. For example, he mentioned that the 15 chairs had produced in two years more than 100 pieces of research, including books, working papers, articles, case comments and databases. Also, the Chairs had enhanced the didactic function of universities by steering the public debate on trade policy issues in a variety of ways. One good example is to be found in SPU's experience.

2. The contribution of SPU to these objectives

There could not be a better period for Serguei Sutyrin's team to contribute to public opinion's awareness on trade policy matters than the recent period, which has seen the Russian Federation to join the WTO. The demand for information, clarification on the broad and smaller stakes of Russia's accession by the media, the public and policy-makers has been intense (more than 50 interviews and media participation for 2012 alone) - the World Economy Institute has been able to provide the full scale of its expertise during this period. It had patiently built the foundations for it, developing considerable experience and knowledge on WTO matters over the years. Its knowledge platform includes a flagship higher education (Masters) program on international trade, extensive written material (including books of case studies), numerous pieces of research, and even a regular radio program on international trade. In the first two years of the Chairs program, the World Economy Institute was able to step up its trade policy work and outreach, in particular the backdrop of Russia's accession to the WTO. In 2012 alone, with WTO financial support, the World Economy Institute has increased its output: three books and 50 research papers have been produced, 10 international conferences attended and one major international conference on international economics organized at SPU. In doing so, it has benefited from WTO staff support, including on research results, lectures to students, and curriculum development.

There is no doubt that the World Economy Institute has strengthened its role as a reference point in Russia on international trade matters during this period. In addition, it has been very active at integrating the network of other WTO Chairs, resulting in intense academic exchanges. All in all, the WTO Chair program appears to be a win-win proposition for both the country of origin of the university, the Chair, and the WTO itself. It eventually complements other partnerships that each university is able to develop – leading to more exchange of knowledge and more informed policy debates on the stakes involved in the expansion of international trade and globalization.

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Russia in the World Trade Organisation – improving the chances of success

By Fredrik Erixon

Russia's entry into the World Trade Organisation in August last year has been nothing but smooth. There have been flare-ups with other members, and it seems safe to say that in the next 12 months there will be several new Russia-related cases opened up at the WTO's Dispute Settlement Body in Geneva. Russia has also shown it is not a member that has joined in order to constructively help new negotiations to move forward. In fact, tensions related to Russia's role has in some parts run so high as to question its membership in the premier world trade body.

None of this is surprising. The dominant view in the Russian political elite is critical of free trade and international rules that discipline attempts by governments to rig the trading rules in favour of its domestic firms. In the past decade, there has been no appetite at all in Kremlin to view its accession to the WTO as a platform for larger economic reforms to spur competitiveness and economic growth. There was never any serious perceptions that Russia's accession would be similar to China's – an opportunity, seized by the political leadership in Beijing, to push ahead with root-and-branch economic reforms, going far beyond the immediate membership conditions of the WTO.

Yet none of this is to suggest that Russia or the world would be better off by having Russia outside the WTO club. Russia will benefit from its accession. Admittedly, its exports will not get much of a boost because they are dominated by the hydrocarbons and minerals (representing more than two thirds of total exports) and they are already traded at zero or very low tariffs. But Russia will benefit from lower prices of imported consumer and industrial goods, and, hopefully, from an increase in foreign direct investment (FDI). Its ossified service sector will also channel significant gains. The World Bank recently estimated that WTO accession will lift Russia's GDP by 3 percent in the medium term and as much as 11 percent in the long run.

Yet one should be careful not to exaggerate the benefits of Russia's accession. There are two sources of doubt. First, for a WTO accession to yield significant economic results – for Russia and its trading partners – it requires comprehensive economic and institutional reforms outside the scope of trade policy. The vector for gains from trade is often the degree of competition in markets. Clearly, Russia has a deficient structure of economic and commercial policy, leading to far too little competition between domestic as well as foreign companies. Its position in the World Bank's Doing Business Index, for example, puts the country in the company of slow-reformers or non-reformers rather than the growing, outward-looking and reform-friendly emerging markets. Russia is a BRICs country in name only. The programme for economic modernisation has yet to deliver sweeping economic and institutional reforms. This may change, but nothing suggest that the fractioned political leadership in today's Russia plans necessary reforms.

Second, Russia is likely to fail in implementing the full set of obligations that come with membership and it is not a wild guess that Russia will neglect to respect politically sensitive rulings against it by the WTO's dispute-settlement body. As the WTO itself cannot enforce rulings, the system requires that countries respect the authority of the dispute-settlement body. This risk of Russian disobedience is underlined by Russia's recent history of flaunting international agreements and, as in the case of the Energy Charter Treaty, withdrawing from agreements.

Such behaviour is corrosive for the dispute-settlement system. And, again unlike China, an appetite to boost merchandise export to other countries is not going to be a disciplining factor. Fear of loosing market access will mot really work in the case of Russia as its exports do not stand to increase much by WTO accession. The fear that Russian insubordination will unravel the entire dispute-settlement system is, however, hyperbole. Other countries, including big emerging markets, have a great interest in respecting the rules and rulings because the benefit from them. But it points to a need for other countries to devise strategies in order to make the most of Russia's accession.

As Russia's biggest trading partner, the European Union has stronger interests than others to take leadership on Russia's post-accession process. A first step is to establish a special mechanism to monitor Russia's implementation of WTO agreements. The WTO secretariat, and forums for diplomatic exchange in the WTO, offers similar services. But these processes are slow and cannot be part of a rapid-response operation. Furthermore, they are not accessible for those firms that will be hurt.

The EU should also start to move on the issue of a post-accession EU-Russia agreement. It has been discussed many times before – but always been kicked into the future as WTO accession has been a critical condition for the EU to go for a formal agreement. The EU also has an interest in starting negotiations soon with Russia over a Bilateral Investment Treaty (BIT). Importantly, it is also in Russia's interest to deepen its integration with the European market – both in trade and investment. Its interest in better investment protection has grown and some of its export products face market access problems that WTO accession will not address. These talks should begin as soon as Russia joins the WTO. They may not be strong enough reasons for Russia to honour its implementation targets, but they would increase the opportunity cost for Russia to misbehave.

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Does Russian accession to the WTO matter for the competitiveness of domestic companies?*

By Sergey F. Sutyrin and Olga Y. Trofimenko

On the 16th of December the 8th WTO Ministerial conference unanimously made a decision to accept Russia as a member of the organization. After a ratification of related agreements followed by a notification to the WTO, in August, 22nd, 2012 Russia became the 156th member of this international body.

It is hardly possible to give a definite answer to the question of how the accession to the World Trade Organization would affect the competitiveness of Russian business entities. Firstly, this comes from the fact that any forecasts describe possible ways of development with some degree of probability. Second, the WTO membership can have both negative and positive impact on the level of competitive power. Which of the two trends prevails – will be clear for some time past.

The main threats that could lead to the reduction of domestic business entities competitive abilities is related to the fact that as a result of trade liberalization some goods and services might become cheaper. Foreign producers should be able to attract more Russian consumers than before. Indeed, price reduction on imported goods and services can occur not only through the decline of duties as such, but also because of the other components of liberalization. Thus, the maximum amount of customs fees was reduced by 3.3 times.

Assessing the risks of competitiveness reduction of concrete Russian companies as a result of trade liberalization, it is necessary to consider the fact that Russian negotiators managed to introduce various tracings of liberalization in trade in goods (pace, size and type of duties). The length of the transition period for different products varies. The final bound rates were imposed to approximately one third of the tariff lines on the day of the accession. Market access for some products will be liberalized by gradual moves in several years. It is assumed that domestic companies will properly use additional time by focusing on the modernization of production, and improvement of product quality.

Second, even a rather significant reduction of import duties does not guarantee the price lowering, or it may not be so significant. In particular, the reduction of duties might be used by intermediate participants of supply chain as a means of increasing their profits.

Finally, talking about a possible competitiveness decline of Russian business entities it is important to pay attention to the fact that under the new conditions the rules of subsidizing will be tougher. This is true with regard to all types of subsidies provided both by the federal and regional authorities.

At the same time certain elements of the WTO legal system can contribute to the competitiveness of Russian producers. First of all, such consequences might appear from lower prices generated by already mentioned liberalization of tariff and non-tariff measures. Many Russian industrial companies depend heavily on imported components and equipment. It is worth to mention that about half of the commercial import to Russian Federation comes from machinery, equipment and vehicles.

Second, one can expect some positive changes in the priorities system of national economic entities, which evaluate various options to improve their competitiveness. The company either undertakes various steps (introduction of new technological solutions, staff skills improvement, organizational development, etc.), the implementation of which is able to improve its market positions or relies on all kind of state support (import duties, subsidies, technical barriers, licensing, etc.). As a result of the accession, the relative utility of intra-company measures to improve competitiveness increases, and for the rationally acting economic entity such strategy might become preferable.

Third, being a member of the WTO, Russia must not only adhere itself to rather strict set of international rules. Russian companies, on their side, have the right to demand from foreign partners comparable discipline with regard to their products. If necessary, the country might use the existing dispute settlement mechanism.

Fourth, in the medium term, some positive outcomes might appear from the fact that, as a result of accession negotiations, Russia reserved the right not to participate in the Agreement on Government Procurement for at least four years.

Fifth, according to the majority of experts, one of the positive results of the Russia's the WTO accession could be an increase in foreign direct investment (FDI). This might happen due to the general improvement of business and institutional environment in Russia in general, and an investment climate in particular. It might also result from the boost in the degree of transparency and predictability, as well as from the country's obligations regarding the liberalization of trade in services. Additional commitments taken by Russian Federation in the field of intellectual property rights (IPRs) protection also matters. Concerns about vulnerability of the IPRs in Russia were mentioned in numerous surveys of foreign investors, as one of the major constraint for investment flows into Russia. All in all it is known that FDI have the potential to generate a wide range of both direct and indirect positive effects. In particular, they might lead to competitiveness growth not only for individual companies directly involved in the investment process, but also for entire industries, and even for clusters of national economy.

In order to sum up, it should be noted once again that the high degree of uncertainty about the possible impact of Russia's accession to the WTO on the competitiveness level of Russian businesses is still remaining. This uncertainty is related, on the one hand, to the fact that it is extremely difficult (if possible) to separate clearly the effects of accession itself from the entire package of other factors that affect the capacity to compete. The final result will, for example, reflect fluctuations in the exchange rate, which can both dampen and strengthen the impact of trade policy liberalization.

On the other hand, even if we assume the possibility of an isolated study of the accession effect, it would be still very difficult to predict exactly the nature of domestic producers' reaction on new economic condition. In a way the accession to the WTO could be compared to the purchasing of expensive equipment (which was bought by the most of the other market players). If you know how to use it, it would increase the competitiveness of your products. If you are not able to operate the equipment properly, you will neither cover the costs and nor avoid losses.

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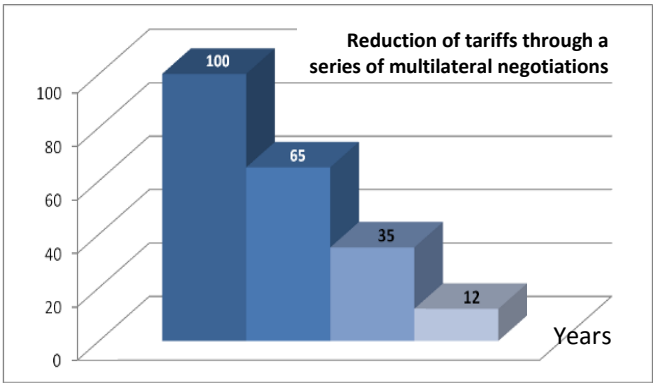
**The paper was prepared within the WTO Chairs project at St. Petersburg State University.*

Evolution of regulatory measures – from tariff to non-tariff

By Vladimir Salamatov

Trade remedies became the primary tool of international trade regulation after the World War II. Reduction of import duty rates or 'tariff protection' was indicated as subject matter for the first rounds of multilateral trade negotiations in the process of General Agreement on Tariffs and Trade elaboration which was signed in Geneva in 1947 (hereinafter - GATT 47)..

Figure 1 Reduction of Tariff Protection Level during GATT



GATT 47 reproduced Chapter IV of the Havana Charter, the Charter of International Trade Organization (hereinafter - ITO) titled *Trade Policy*.

Discussions on establishment of ITO were held on the basis of United Nations from 1946 to 1948. Fifty nations had signed the Charter of the Organization but eventually the ITO project was not implemented. The reason of the failure was US refusal to ratify the document. 23 nations agreed to accept a part of ITO idea in the form of transformed Havana Charter - GATT 47: Australia, Belgium, Brazil, Burma, Canada, Ceylon, Chile, China, Cuba, USA, France, India, Lebanon, Luxembourg, Norway, New Zealand, Pakistan, the Netherlands, South Rhodesia, United Kingdom, Syria, Czechoslovakia, and the Union of South Africa.

As shown in the Table 1, the first five rounds of multilateral negotiations within GATT concentrated on reduction of tariffs to lower the international trade barriers. During the GATT 47 (prior to the WTO establishment) tariff protection level was reduced by 88% in total.

Table 1 The stages of multilateral trade negotiations

Time period	Negotiation round	Agenda of negotiations	Participating countries
1947	Geneva Conference 1947	Tariff reduction	23
1949	Annecy Conference	-«-	13
1950	Torquay Conference	-«-	38
1956	Geneva Conference 1956	-«-	26
1960-1961	Dillon Round	-«-	26
1964-1967	Kennedy Round	Tariff reductions and development of Anti-dumping code	62
1973-1979	Tokyo Round	Reduction of tariffs and development of a number of agreements and codes	102
1986-1994	**Uruguay Round**	**Reduction of tariff barriers, development of agreements on non-tariff barriers, improvement of GATT system, trade of services, and establishment of the WTO.**	**125**

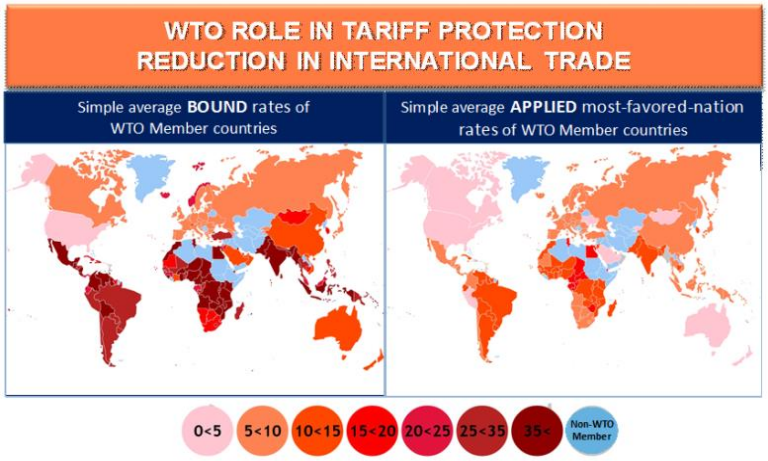
The fundamental principles of GATT 47 underlay the negotiations and tariff protection reduction: Most Favored Nation principle (hereinafter - MFN) and the binding of tariffs.

While analyzing tariff protection data of any WTO member-country it should be clearly identified which values to be taken into account: final binding level or actually applied tariff. Figure 2 shows WTO data on binding level and applied rates of import customs duties in WTO member-countries.

These 'tariff maps' developed on the basis of the WTO Secretariat data clearly illustrate the practice of tariff regulation by the WTO member-countries: average applied tariff is lower than average binding level. WTO member-countries set up rates within the range from 0% to binding level.

Protection level for agricultural products is presented separately on Figure 3 for benchmarking purposes. Tariff protection level for agricultural goods is traditionally higher than the simple average level (almost for all WTO members).

Figure 2 Comparison of bound and applied rates of import customs duties of WTO member-countries



Tariff maps reveal that the average level of tariffs applied range from 0 to 10% for North American and Eurasian countries and 10-15% for the majority of South American and African states. If we proceed from simple average indicators and introduce the element of foreign trade turnover structure, i.e. begin to analyze the average weighted tariff, its level turns out to be even lower. The explanation is that the bulk of trade is carried out by developed countries which tariff protection level ranges from 0 to 5%, and because the tariff protection for raw goods is set at the minimal level in the majority of countries. Hence the role of tariff protection as a regulating tool in international trade is continuously reducing.

Despite the fact that many WTO founding countries, e.g. India, retain rather high binding levels for certain goods, efficiency of regulating impact of this instrument declined considerably.

Benchmarking table of average applied rates of import duties and average binding levels for import tariffs in trade in agricultural and food commodities is presented below (Table 2).

Table 2 Comparison of applied and binding rates for agricultural products of certain countries

TARIFFS FOR AGRICULTURAL AND FOOD PRODUCTS:
average applied and bounded rates (%)

Country	MFN Applied Duty rates					Final bounded rates
	2000*	2008	2009	2010	2011	
Australia	1,1	1,4	1,2	1,2	1,2	3,5
New Zealand	1,7	1,5	1,5	1,4	1,4	6
USA	4,9	4,7	4,7	7,2	5,0	4,9
Russia	**9,9**	**14,2**	**13,2**	**13,5**	**14,3**	**10,8**
Ukraine	н/д	13,0	9,7	9,8	9,5	11,0
Argentina	15,0	10,3	10,3	10,3	10,4	32,4
Brazil	15,6	10,2	10,2	13,7	10,3	35,4
China	15,9	15,6	15,6	15,6	15,6	15,7
India	47,4	32,2	31,8	31,8	н/д	113,1
South Africa	5,8	9,3	8,9	9,0	9,1	39,2

Source: WTO
**Figures of New Zealand, Russia, and China date back to 2001.*

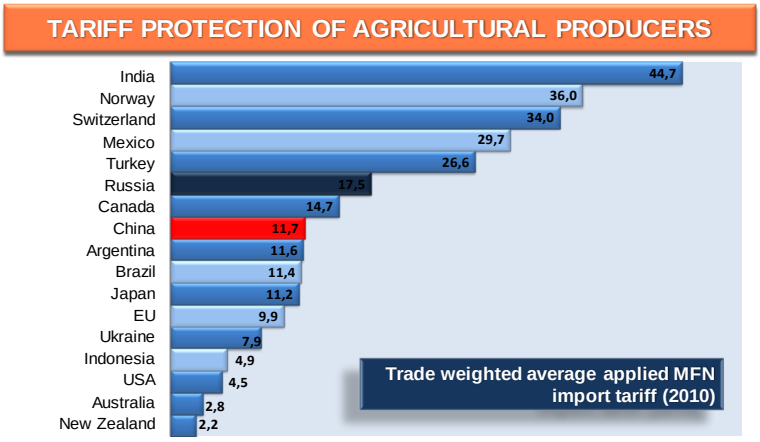
Average binding level for agricultural products agreed by Russia as a result of the WTO accession negotiations falls within the group of the most liberal tariffs. At the same time, it holds position close to the upper limit in this group.

Special attention should be paid to early mentioned high binding level in India. Despite the fact that actually applied average tariffs are nearly 4 times lower than the binding level, the legal opportunity for existence of such increase of tariff protection clearly reflects the reason for necessity of the Russia's accession in WTO. As a founding member, India, took part in all rounds of negotiations and had an opportunity to defend its interests for each commodity item since establishment of GATT / WTO. The average protection level of 155 member-nations was considerably lower at the time of Russia's accession than the initial level. This definitely diminished opportunities for the negotiating team to preserve maximally possible tariff protection level.

More objective analysis of negotiations' outcomes and tariff protection level needs to take into consideration the structure of goods import to customs territory of the Customs Union and weighted average figures of tariff barriers.

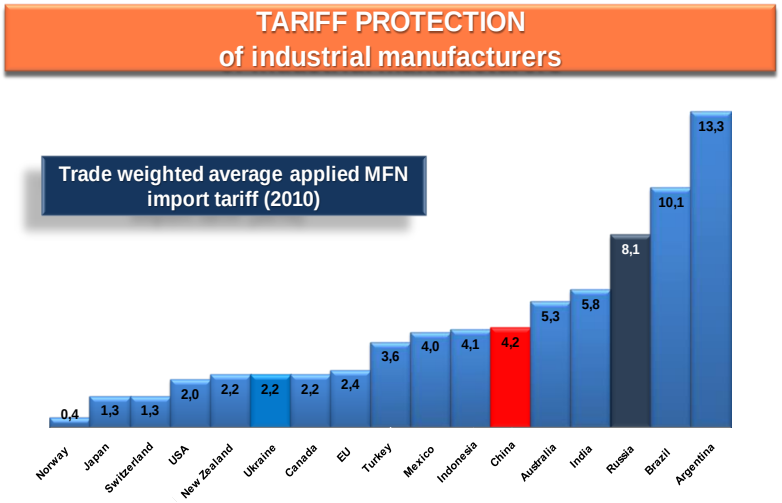
Following the logic applied in the paper, the diagram below reflects weighted average import tariff for agricultural products (Figure 3):

Figure 3 Difference in weighted average level of tariff protection for agricultural products of different countries



As shown in the diagram if the average binding level for agricultural goods totals ca. 10%, then the weighted average applicable protection level reaches 17.5% (based on 2010 import data).

Figure 4 Difference in weighted average level of tariff protection for industrial commodities of certain nations



For industrial goods (Figure 4) the situation differs more significantly. Weighted average indicator of tariff protection for industrial goods amounts 8.1% (based on 2010 import data). It confirms the overall conclusion for simple average applied tariffs. Protection of agricultural goods, just as in the majority of WTO member countries, is twice higher than the protection level for industrial ones.

It should be noted that weighted average tariff for agricultural commodities in India is also the highest in the given example. At the same time, it is 2.3% lower than in Russia and 7.5% lower than in Argentina in terms of industrial goods.

At the same time, presented diagrams demonstrating tariff protection levels are relative as they account only one-year supply structure. Building the diagrams on the basis of 2012 trade statistics and / or for several years in future will clarify presented data and the conclusions drawn.

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Educational integration for sustainable economic development

By Ihar Hancharonak and Tatyana Prannik

The assumption that the new economic order accompanied by the so-called technological revolution requires to a certain degree new approaches in public administration seems to work well. The mentioned above technological revolutions affect not only production of material valuables but also such seemingly inviolable processes as, for example, the Weberian model of public administration [1]. In most cases those revolutions inflict dynamic changes on our existence patterns. The age of ICT and e-government presents ample testimonies of this interconnection.

Human capital is the major factor of the present-day economic growth and the top agenda of social-economic policies. However, it would not be sufficient to simply admit the fact to make a breakthrough in this sphere's development. Deeply reaching transformations in the education area in line with the current (post-industrial) challenges are wanted. Among such are personalized and life-long services that would be supported by internationalization and dramatically new technological solutions.

With no innovative international training programmes for the modern generation of executives it is not deemed possible to create favourable environment that would promote development of innovative economy and business technologies as well as generate new ideas and foster cooperation in the innovations sphere to achieve a synergetic effect in elaboration and implementation of new technologies.

The present article claims the necessity of diversifying educational programmes in public administration. The authors focus on the innovative practice-oriented MA programme that accumulated the advanced international experience (outcomes of the Baltic Sea Region Programme "EGOPRISE" and a two-year's span of cooperation with the Korea Institute of Public Administration) and competence-driven approach [2, 3] used in the process of the educational programme's elaboration.

In the Baltic Sea Region a similar programme has been developed only in Örebro University (Sweden). The course presents the students with the knowledge and skills of ICT use in public administrations. The University of Mannheim (Germany) has introduced an elective programme "E-government: Methods, Technologies and Processes" in the MA diploma study courses "Information Systems" and "Business Administration". The programme's schedule includes featured classes in legal foundations of e-government and the potentials of ICT solutions for public management.

Among the EU counterpart e-government programmes the following could be mentioned: the master programme in the University of Trento (Italy) and executive short course in Maastricht School of Management (the Netherlands) as well as the study courses in Modul University Vienna and Danube University Krems (Austria).

Independent master degree programmes in e-government are available in Russia and Ukraine. The National Academy of Public Administration, Office of the President of Ukraine, launched in 2010 and has been teaching a study course in e-government. Highly qualified personnel for the e-government sector has been trained since 2011 at eGovernment Center of Saint-Petersburg National Research University of Information Technologies, Mechanics and Optics. The Center offers an MA study course "Governmental Information Systems Management" and implements a distance learning programme "E-government and Innovation Governance Technology". Moscow Metropolitan Governance University trains public managers in the programme "E-government and Information Society" for their further work in information and analytical departments, public bodies and state organizations engaged in development of informational environment.

A new MA programme "E-government" that accumulated advanced European and global experience has been recently launched in Belarus stirring a lot of interest among the CIS-group countries and members of the Eastern Partnership.

There is still considerable lack of knowledge, managerial skills and competencies in application and development of e-services for citizens, businesses and, as a matter of fact, for the system of public administration itself. E-government experts should become called-for at all levels of public administration. The authors are convinced that the newly appearing international practice-oriented MA executive programmes will create a pool of highly skilled professionals and secure the states' efficient functioning; foster development of integration processes; promote mutually beneficial cooperation in trade and economy, investment and innovation areas; and eventually support the evolvement and sustainable development of competitive regions, the Baltic Sea Region being undeniably one of them.

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Chinese vector of Eurasian integration

By Sergey Kizima

In January 2012, Barack Obama announced the Pentagon's new military strategy, which is scheduled to shift focus from the Atlantic region to the Asia-Pacific region. It cannot be regarded otherwise than as an attempt to curb the growing influence of China in the strategically important area for the USA.

The growing contradictions of the United States and China form a favorable background for the development of good relations between future Eurasian Economic Union (EEU) and China. Aggressive behavior of the United States to China increases geopolitical importance of EEU for Chinese side. The chances of a favorable long-term scenario of development of relations increases due to the successful geo-strategic position of the emerging EEU. It is a kind of continental rear for China, which will "fight" with the U.S. on its maritime borders. Any geopolitical doctrine tells us about how important it is to have a calm and protected rear when dealing with a dangerous opponent on the front. The stability and prosperity of the EEU becoming China's most important factor in the success of the struggle for world domination.

An important factor in the location of the future EEU for the serious interest of China is its access through Belarus, Kaliningrad region and the border with Finland to the European Union. One of China's most important strategic objectives is to convince the elite of the European Union is that they don't need to support the U.S. in the coming geopolitical struggle. And it was done well by China in recent years. Remarkable progress has been made in relations with the countries of the EU, for which the ability to export their goods at the rapidly growing Chinese market is vital to overcome the economic and financial issues related to regional European crisis. Several EU countries agreed on strategic partnership with China since 2008, and the number of investment projects from the part of Chinese business is permanently increasing. As an example we can consider the relations between China and Germany, the most important country in the EU policy-making. Germany over the past decades has exported to China 16,000 forms of technology ($ 50 billion amount), accounting for 38% of total imports of technology to China from the EU, and China in 2011 became the largest investor in Germany by number of investment projects, surpassing the United States.

No less important is the fact that the European Union became one of the most important trade partners of China, and the availability of unrestricted communications for trade through the territory of the future EEU is a potential strategic advantage for China. At the moment, the overwhelming volume of China's trade with the EU is coming by sea routes that the U.S. can easily block at any time. The geopolitical position of the future EEU promises to add new routes for EU-Chinese trade as a result of global warming, which will create opportunities for use of the Northern Sea Route (NSR). The supply of goods to Europe from North-East Asia by the NSR will be shorter in comparison with the currently used route and that will become good reason for the convergence of interests of the future EEU and China, and the intensification of cooperation between them will become even more serious. The US cannot block the EU-Chinese trade at the shores of China and Russia without a declaration of war and warfare. Both described above potential routes for China's trade with the European Union (through the land territory of the future EEU and the NSR) are free of restrictions from the side of the US.

Equal importance to the strategic security of China has also resource potential of the emerging EEU. Of particular importance are the energy resources. It can be expected that in the next ten years, China's dependence on imported oil (in case of maintaining of high rates of economic growth that is likely to happen) could increase to 400 million tons a year. Delivery of the huge amounts of oil from the Persian Gulf, Venezuela and Africa depends on the ability to defend the long maritime communications, what Beijing is currently not able to fulfill. With an increase in tensions with the US and in the risk of getting energy resources from traditional sources, China can expect a sharp increase in imports of energy resources of the future EEU. In addition to oil, the natural gas is also increasing importance as an environmentally friendly source of energy, which is important for China because of the ambitious plans for the solution of environmental problems. Important for imports is also coal.

The task of policy makers in the future EEU is the maximization of the bonuses of China's increasing dependence on good relations in this area. It is necessary to create a modern economy with important innovation and investment. The capacity and experience of the development of China's economy in these areas at the moment are far ahead of the level of Russia, Kazakhstan and Belarus. Hundreds of the world's largest corporations in China have opened their scientific and technological centers. In addition, China itself currently has its own leading transnational corporations (TNC). The positive dynamics of the number of TNCs in China is celebrated in the annual ranking of Fortune Global 500 - the list of the 500 largest transnational corporations (TNCs) of the world by profit. If we compare 2005 data with the data of 2012, instead of 16 TNCs from China has now 73 most profitable companies in the world out of 500.

China is rapidly becoming a country with an increasing concentration of capital and new technologies. Attract Chinese investment, especially connected with high technology industry, is the most important task of the leaders of the Eurasian integration. It is expected that in the next decade China will invest in other countries from 1 to 2 trillion dollars and states of the Eurasian integration sphere should get their share. At the same time, it is expected that China will not particularly encourage the movement of high-tech industries from China into the territory of the future EEU. China has clearly defined task – multiply high-tech production on its own territory, which is the best way to quickly increase GDP per capita and to build a modern economy. China is ready to move from its territory outdated or low-profits factories, what is already happening in its cooperation with the countries of Southeast Asia. To avoid such a scenario, it is necessary to implement the program of Chinese high-tech investment, based on achievement of particularly warm political relations. In such a case, we can expect that the Chinese government will make concessions to facilitate the creation of innovative knowledge-based economy in the emerging EEU. Serious progress in this direction has been achieved by Belarusian leadership. In Belarus recently started big project to assemble Chinese cars (up to 180 thousand per year) which will serve for the

modernization of Belarusian enterprises producing auto details.

Important role in the development of innovative economy, with the assistance of Chinese investment could play technological and industrial parks on the territory of the future EEU. Russia already has a similar experience, Belarus has also entered into an agreement to open one of the largest industrial parks in Europe (80 square km). Potential investment expected – $ 30 billion, the potential number of new jobs is up to 600 thousand, or approximately 13% of the working force.

Of particular interest in co-operation with China for EEU is the development of modern technologies of alternative energy. China in 2010-2012 became the leader in terms of money spent in this sector, and it has necessary technologies to share.

It can be summarized that the relationship with China is key to the successful implementation of the project of the Eurasian integration. The use of the troubles in China's relations with the United States to strengthen political relations and profitable investment, logistics and technological cooperation can give a serious impetus to the Eurasian integration and provide stimulus for growth of the economies of the member countries. Obviously there are risks associated with the increasing pressure of growing economy of China, including corruption factor. At the same time, the benefits of increased cooperation with clearly outweigh the possible risks.

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Environmental economics for sustainable development

By Olga S. Shimova

At the June 2012 "RIO+20" Earth Summit, the world leaders confirmed their adherence to the concept of sustainable development of civilization, the conference key theme being the issue of transition to the "green" economy in the context of sustainable development and poverty eradication. According to the UNEP definition, "green" is the economy that leads to increasing people's well-being and strengthening social justice, with simultaneous decreasing the risks of environment's degradation. It is environmental economics that has a critical role in the implementation of this concept.

The historiography of environmental economics within the system of economics-related sciences is just a few decades old. However, the beginning of studying relationships between economics and environment goes back to a much earlier period. It was T. Maltus who at the turn of the 18th and 19th centuries for the first time substantiated the limits of human civilization growth due to the nature factor. The formation of the national environmental economics as a branch of economics started back in the 1960-s. Already in the 1970s, an academic discipline under this name started to be taught in a number of the country's universities, which testified the recognition of it major theoretical and applied importance.

The fundamental research in the field of environmental economics was a response to time requirement regarding the development of methodology and scholarly-methodological provision of environmentally sustainable economy's regulation. Three stages are identified in the development of the national environmental economics research over the last decades. They have different goals and objectives in accordance with the practical needs: 1) the former USSR central planned economy (1960-1980); 2) the USSR's last five years (the so-called "perestroika") economic reforms; 3) modern transition to market economy. The first two stages were characterized by the creation of theory and first experience in practical application of natural resources' economic estimates, attempts of developing conceptual approaches to the assessment of the environment's assimilation potential for scientific substantiation of payment for its pollution, research of the economic damage caused by the environment pollution and identifying the environment saving activity's economic effectiveness, development of theoretical grounds for establishing environmental management's availability at a price, and so on.

The period of transformational market reforms in sovereign Belarus is putting forward new objectives for environmental economics related, in the first place, to ensuring progress in the field of sustainable development.

In the early 1990-s, sustainable development was recognized as a model of Belarus's future society, which became an impulse for working out and adopting by the Republic of Belarus, one of the first countries in the world, the national sustainable development strategies (NSSD): for the period until 2010 (NSSD – 1997) and for the period until 2020 (NSSD– 2004). The results of accomplishing the NSSD tasks over the last years testify an absolute positive value of the above documents. The practical implementation of the tasks found there enabled to stop the production decline and contributed to stabilizing the situation in the home market. In addition, it led to the positive dynamics of major macroeconomic indicators and the environment recovery.

The amount of scholarly knowledge accumulated so far makes it possible for environmental economics to contribute to ensuring an environmental component of sustainable development due to the fact that in condition of forming market relations the economic instruments are becoming a priority in regulating environment-oriented activities.

The improvement, over the recent years, of indicators in the sphere of environmental management in Belarus to a great extent is related to the introduction in the early 1990-s of payment for nature resources and environment pollution. The analysis of the current system of environmental management available at a price shows that its functioning has contributed to the country's nature preservation activities becoming more intensive. However, the revision of originally low payment rates for a long time was lagging behind the inflation rate, which led to the decrease of funds receipt both for extraction of natural resources by local budgets and for environment pollution by the budgetary environment protection agencies. On the other hand, it did not duly stimulate the nature conservation activities of the economic entities. This requires improving the methodological approaches to the identification of ecological payments due to the economic transformation over the recent time.

In their turn, the changes in ecological taxation should be followed by reforming the tax system, as the nature capital being the major factor of the economy's development is not performing its critical function in the state tax policy.

Apparently, it is now time to start exploring the market mechanisms of regulating the quality of environment by means of establishing a market of pollution rights, which could become an alternative to the ecological taxation with all its drawbacks. The current system of licensing environmental management in Belarus has created certain prerequisites for it. Testing market mechanisms of ecological regulation in the home market is very relevant for Belarus due to its being a party of the Kyoto Protocol, which will make it, sooner or later, take part in the international market of carbon quotas trading.

The above tasks are just a few among the most relevant directions of research and practical activities in the field of environmental economics.

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Small and medium enterprises in Belarus – status and problems

By Eduard Simchanka

In Belarus SME sector emerged in the early 90-s of the last century. In 1993 it included about 10 thousand enterprises, mainly in form of LLC in construction, industry and trade, as well as cooperatives and farms with 213 thousand employed. By the beginning of 2012 the total number of employed reached almost 800 thousand people. Taking into account changes in criteria for SME classification, the average rate of growth in terms of employment is about 6% per year.

At present SME sector includes *micro organizations* up to 15 person, *small organizations* with staff 16 to 100 persons, *medium-sized* business entities 101 to 250 persons and *individual entrepreneurs* which are doing business as natural persons. The above classification introduced in 2010 by the Law «On the support to small and medium-sized business». Historically this was preceded by adoption of the laws on entrepreneurship (1991) and state support of small business (1996). In 1991 the concept of entrepreneurship was elaborate, and its forms were determined - private and collective, natural person or legal entity, with or without hired labor. In 1996 the criterion of small business based on staff number was introduced - 25 to 100 persons depending on industry.

According to the latest official data in SMEs were occupied 31.5% of employed in the economy (micro - 7.1%, small and medium by 9,6%, individual entrepreneurs - without family members and hired persons - 5.1%). At the beginning of 2012 there were approximately 80,000 SMEs, of which more than 65,000 micro, about 12,000 small and 2600 medium-sized with an average number 5, 38 and 165 people respectively. The number of individual entrepreneurs was about 220 thousand.

Each of the mentioned groups of SMEs has its own peculiarities. Most of the *micro and small enterprises* distributed between trade and services (more than 40% of total), industry (15.5%), business services (12.3%), construction (9.3%) and transport (9.2%). These enterprises is concentrated in the Minsk and Minsk region (more than half, and mainly in the capital), which is approximately one and a half times higher than the corresponding gross regional product. (On contrary, number of medium-sized businesses and individual entrepreneurs for the others five regions correspond to their level of economic activity.) Micro and small enterprises is also characterized by wide - more than doubled compared with the average for the economy - use of external multiple job holders and civil law contractors. Finally, specific only for micro-enterprises feature is low official salary, which is about two-thirds of the country average and which cannot be explained by differences in branch structure.

Among *medium-sized enterprises* the largest number is accounted for of agriculture (29.1% of total), industry (22.6%) and construction (15.7%). About a third of medium-sized enterprises are state owned compared with the absolute dominance of private ownership in other parts of the SME sector.

Individual entrepreneurs have certain benefits at registration and doing business, the possibility of using simplified taxation system. Their activities concentrated mainly in trade (54.2%), provision of transport and other services (13.9%), construction (12.7%). There is a tendency to limit individual entrepreneurs in attracting hired workers and relatives.

The SME sector (without individual entrepreneurs) generates 22.9% of GDP, with 5.4% of micro-enterprises and 10.3% of small - and medium-sized 7.2% (2011). In general, the productivity of the sector is slightly lower the average for the economy. The exclusion is a group of small businesses where performance above average.

Low growth of SMEs (at the background of their complete absence before transition) and their weak performance (according to the generally accepted indicators) is due to several factors. One of them is the inherited structure of socialist economy. Because of inconsistent policies of structural reforms and privatization, the effect of this factor is largely retained.

If we consider transition period, one can distinguish between influence of *social, economic and business* environment. The *social environment* is characterized by the absolute dominance of the state. For SMEs it manifests itself in limited access to resources, in requirements to fulfill so called forecast indicators, in the mentality of state institutions. First of all it concerns financing, leasing, raw material prices, obtaining licenses, attitude of local, judicial and supervisory authorities.

The *economic environment* is characterized by persistent adverse impact of macroeconomic instability, high taxes and interest rates, economic shocks, changes in economic policy priorities.

The main problems of *business environment* are the lack of the state support and relatively low capacity for self-regulation. For example, the government program for SMSs support for 2013 - 2015 provides annual funding about USD 13m. Regarding self-regulation one can take into account the fact of low proportion of SMEs belonging to business associations.

Unfavorable environment are largely supported by existing power and control institutions and significantly limits SMSs development, hinder greater transparency, efficiency and competitiveness of the sector.

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Status and prospects for development of rail transport in Belarus

By Elena Dadzerkina and Maria Usik

Transport of the Republic of Belarus, is integrated into the international transport system and plays a major role in the performance of the most important sectors of the economic needs of the state - the need to move the product. An important part of the transport system of the Republic of Belarus is a rail. It accounts for about 70% of freight and 40% of passenger traffic. Thus, to improve the efficiency of the economy is necessary to ensure the improvement and modernization of railway transportation.

The main purpose of this paper is to determine the role and importance of rail transport in improve the effectiveness of the economy of the Republic of Belarus with a small analysis of the Belarusian Railways as well as examination of the problems and prospects of the development of rail transport in Belarus.

In the conditions of increasing globalization processes and the involvement of countries in global economy, expanding the scope of railway in the world, the growth of investment in rail infrastructure of Belarus, that is situated in the heart of the Europe at the crossroads of transport corridors linking major economic regions of the Eurasian continent, the challenge of rail infrastructure and service delivery, which conform to international standards.

At this stage of socio-economic development of the Republic of Belarus the activity in the field of rail transport is aimed at upgrading infrastructure in order to realize the advantages of rail transport, the creation of effective, safe and cost-effective transportation to ensure stable indexes of development of not only industry but also country in general.

The understanding of the need to strengthen the mutually beneficial cooperation between the railways, transport organizations, private businesses and society, the creation of conditions in the Republic of Belarus for the investment flows in the rail sector (not only domestic but also foreign, including private), are the most important things for sustainable economic development of rail transport.

Rail transport in Belarus is almost completely under the control of the public association "Belarusian railway", which although is a commercial organization, performs the role that is assigned to it by the country - provide the needs of the state, businesses and individuals in rail transportation, and services. At the same time, the performance of the rail can't be done without support of the state, a special role of which is expressed in participation and financing projects of development and modernization of the rail infrastructure.

The rail plays an important role in economic life of the country. The share of rail transport accounts for about 76% of all freight carried in the country and more than 44% of passenger traffic. It is the most effective, reliable and widespread type of transport, besides it has the necessary infrastructure, which has sufficient reserve and carrying capacity.

The rail transport as a leading element of the transport system of Belarus and plays a dominant role in the future of the economy of the country that can be defined by: need to export goods of mass shipment such as petroleum products, fertilizers, chemicals, building materials, timber; need to import a large amount of resources of critical import; the significant share of currency earnings into the country and tax filling of its budget.

The transportation of goods in transit, which are possible due to its strategic geographical location, is essential for rail complex of Belarus.

The rail transport in Belarus is represented by public association "Belarusian railways" [2, p. 9]. The main objectives of the Belarusian railways is to provide needs of the state, businesses and individuals in rail transportation, work and services rendered by the Belarusian railways, as well as profit. The main indicators of financial-economic activity of the Belarusian Railways for 2009 - 2011 years are presented in Table 1.

In the last decade there has been a tendency of growth of freight turnover. In order to implement the decisions taken in the framework of the Common economic space from 01.01.2013 Belarusian railways unified the rail tariffs. After unification the delivery of goods by rail over a distance of over 200 km becomes profitable. [3, p.2]

Passenger traffic in 2012 grew up to almost one-third of the total passenger traffic of the country. In 2012 the Belarusian Railways have transported 100,5 mln. passengers (on 13% more than in 2011) [3, p. 1].

The results of 2012 shows that the proportion of the Belarusian railways in 2012 in total freight turnover of transport system of the Republic of Belarus (without pipeline) was 71,1%, and in the country's GDP - about 2%.

The positive dynamics of economic and financial indicators, conduction of balanced transport policy aimed at the development and modernization of railway infrastructure for solution not only transport, but also the economic challenges, says that in the Republic of Belarus for the time of its existence the railway transport played a key role in the integration processes of the country and had an effect on the strengthening of the social sphere, contributed to the economic development of the country. Today, it defines its special strategic importance.

The directions of the development of railway transport

It is clear that in the circumstances of increased competition, favorable geographical position of the Belarusian Railways and its potential alone can't provide sustainable financial and economic situation in the market of logistics services. Therefore it is outlined the main priorities for action in areas, such as: improvement of the legal framework; renovation and modernization of the rail infrastructure; conducting of flexible balanced tariff policy; optimization of existing and establishment of new transport and logistics schemes for delivery of foreign goods; establishment of transport and logistics network; implementation of modern informational technologies; increased international cooperation.

The main advantage of the geographical location of Belarus is that through its territory pass the shortest transcontinental routes, so our railway links its prospects, especially with the development of its transit potential to attract more traffic.

To this goals the main areas of development and modernization of rail infrastructure are: the development of rail infrastructure in the framework of international transport corridors in the country; output from economic circulation an inefficient production facilities; gradual electrification of the rail; modernization of the signaling systems and communication; creation of a single data network; development of technical base of repair of locomotives and carriages; introduction of non-destructive testing and diagnosis of key details of vehicles and other technical devices of rail transport; a system of automatic vehicle identification [4].

The purpose of the Belarusian Railways is to make the industry more competitive, modern and responsive to needs of time.

An important direction in the development of passenger traffic, forming a positive image of the Belarusian Railways is upgrading the station infrastructure. The development of the railway station Minsk-Passazhirsky is directly associated with the development of urban lines in Minsk. In order to increase the capacity of the station and provide a high frequency of trains

urban lines will require the development of plant openings and organization of additional receiving-way by moving techpark.

To sum up we can say that the Belarusian railway is fully performed all tasks that is formed by the government. However, the lack of the necessary financing resources for large-scale implementation of all projects which are planned for modernization and construction of railway infrastructure, is restraining the growth in this area. Despite some difficulties in the implementation of its activities, a Belarusian railway is a symbol of reliability, constant movement and striving for development.

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Belarus

Table 1 The main indicators of financial-economic activity of the Belarusian Railways for 2009 – 2011

Indicator	Unit of measurement	2009	2010	2011	2011 to 2010
Income from transportation	mln. rub.	4 543 992	5 351 974	10 488 981	196,0
Income from other activities	mln. rub	537 437	652 731	1 175 491	180,1
Total income from operating activities	mln. rub	5 081 429	6 004 705	11 664 472	194,3
Spending on transportation	mln. rub	3 352 278	4 331 651	7 009 216	161,8
Spending on other activities	mln. rub	423 041	512 064	864 295	168,8
Total operating expenses	mln. rub	3 775 319	4 843 715	7 873 511	162,6
Profit from transportation	mln. rub	1 014 973	833 817	3 242 381	388,9
Profit from other activities	mln. rub	42 133	48 892	145 151	296,9
Profit from sale of operating activities	mln. rub	1 057 106	882 709	3 387 532	383,8
Profit from operating income and expenses	mln. rub	35 731	20 840	105 423	505,9
Loss from non-operating income and expenses	mln. rub	- 227 399	- 312 352	- 905 301	289,8
Net profit for the period	mln. rub	533 200	313 430	1 778 209	567,3
Profitability on the transportation	mln. rub	30,3	19,2	46,3	27,0
Profitability of other activities	mln. rub	10,0	9,5	16,8	7,2
Profitability of sales of goods (works, services) by operating activities	mln. rub	28,0	18,2	43,0	24,8
The average number of major operations	mln. rub	77 073	77 803	78 215	100,5
The average monthly salary in the core business	mln. rub	1 255,6	1 637	2 368	144,7
Investment resources	mln. rub	920 481	1 234 368		
Own funds for investment	mln. rub	813 948	728 177		

Source: own study based on [1,2].

This table shows the increased level of profit and cargo, passenger transportation.

Russian startup tour – bringing international experience to Russian regions

By Daria Lipatova, Pekka Viljakainen, Evgenia Mayer and Sergey Blintsov

The latest prognosis shows a warning tendency of 40% decrease in Russian economy growth in all sectors this year. This data is extremely relevant in context of implementing the national modernization strategy. One of its key features is the mechanism of development agencies presented by both profit and non-profit state-funded organizations aimed at filling market gaps in different spheres of national socio-economic development.

Contemporary development agencies present the second wave of such structures created in mid-2000s. Aiming at building national innovation ecosystem, they function in the top priority areas of national economy modernization stated in the Critical Technologies List approved by the President of Russia: security and fight with terrorism; live systems (biotechnology, medical technology and equipment); industry of nanosystems and materials; information and communication systems; green technologies; transport, aviation and cosmic systems; energy and energy saving.

The major development agencies of Russia having a strong international approach are the Russian Venture Company (RVC), Rusnano and Skolkovo Foundation among others. Having different range of tools and services supporting subjects of innovation ecosystem, these agencies are destined to bridge the gaps in their fields. In pursue of unification of their efforts the Agreement on Innovation Projects Financing between 10 agencies was established in 2010. Though sometimes criticized for the bulky structure, the value of a case of unprecedented innovation ecosystem actors coordination should not be underestimated.

The illustration of the development agencies cooperation in action is the Russian Startup Tour (RST) organized by Skolkovo Foundation, RVC and Federal Agency on Youth Development (Rosmolodezh). In 2 months 15 development agencies and partners with the support from the Government of Russia have visited 16 Russian cities from Vladivostok to Kaliningrad gathering 3000 people of entrepreneurial community in regions together and communicating them existing tools and services for fostering innovative ideas into successful businesses.

Not only Russia faces the need to support the entrepreneurial community. Following the RST leader and main organizer, Mr. Pekka A. Viljakainen, Advisor to President of Skolkovo Foundation, it took Finland to face the economic crisis of 2008 and fall of multinational Finland-based Nokia to set up typically new culture of startups in few years raised into 25 thousand people Startup Sauna entrepreneurial community symbolized by super successful Angry Birds and Supercell. Now it is Russia's turn to face the challenge of creating hundreds of thousands of new technology based innovative companies united by entrepreneurial spirit.

"The early stage governmental funding is crucial for the innovative company as the money at the banks is expensive and not easily accessible. We invited all the stakeholders to join us in communicating existing early stage financial instruments for startups", – Mr. Viljakainen tells the practical idea behind the tour. – "In Russia there are surprisingly many mechanisms available to broaden business. However the "smart money", when investors contribute to the leadership and quality of the company, is still underdeveloped", – He continues. – "Considering public financial instruments aimed to cover early stage funding, the target is to increase private funds and private money with the growth of expansion phase".

Educating young entrepreneurs existing mechanism to finance their business ideas is a natural part of involving them into the business culture of the new type. According to RST co-organizer, Ms. Evgenia Mayer, Head of Partner Department of RVC, development of self-sustainable innovation ecosystem players is needed to form entrepreneurial culture.

"Support of partner projects aimed at developing high-tech entrepreneurship in Russia is one of the strategic areas in our work. Russian Startup Tour marries professionalism of our partners with unique regional expertise to help existing and accelerate new high-tech companies", – comments Ms. Mayer. "Apparently, the experience of the project confirms us in success of join efforts of both development agencies and their partners".

Overall the results of RST show evident regional interest to the topic of building innovative business not only on the level of supporting organizations, but in the very eyes of the representatives new "Digital Cowboys" generation participating in the project.

"We have been working for 4 years now to create a sustainable youth community of innovators", – states Mr. Sergey Blintsov, Head of Zvorykinsky Project. "Developing the series of events and educational trainings gave its results – today we count more than 10 thousand innovative teams with 50 success stories and total 1 billion rubles investments attracted. Convinced, our effort bringing both Russian and international expertise to the regions have sown right seeds", – concludes Mr. Blintsov.

Having the size of the country as Russia, to boost the transition from oil-based industrial to knowledge and technology-based postindustrial economy, such organizations as development agencies with the concrete examples of the joint cooperation projects aimed at innovation ecosystem development are needed for a long time. Overall, it does not matter what the brand is – the existing services resulting in concrete success stories are the key.

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Russia

The TRIPADA concept – a road map for concretely turning Russian innovations to local and global benefits!

By Ilkka Linnakko and Tomas Rosin

There is a clear need, on the world markets, for innovations that could boost the industry to be more efficient. Also the globalization put a lot of pressures on the industry to be more efficient, since the competition is on a steady grow. The environmental aspects become more and more important as well, which forces the industry to count their emissions as a cost. These facts are a big booster for industrial Business to Business (B2B) innovations.

Russia has invested a lot in the research of natural sciences. Hence, it is obvious that this scientific research includes a huge number of potential innovations that are just waiting for commercialization. However, the reality has shown that only a tiny fraction of this potential is commercially utilized.

It is a known fact there is a big lack of people, in Russia, who have the skills and the experience to manage technology companies commercializing innovations onto the global markets. However, in Finland, Sweden, Denmark and Germany there are people skilled in the art of entrepreneurship and management of technology companies to penetrate global markets. The Baltic Sea region would, hence, benefit a lot by bringing the innovations and experienced management together to concretely boost the economy of the Baltic Sea region.

The company TRIDARA International Oy has created an innovative model on how to bring the Russian innovators and skilled managers under the same roof. This model is called TRIDARA concept. The TRIDARA concept works as follows:

When TRIDARA International identifies a promising technology it carries out a due diligence on the technology and if everything matches up to the criteria, the TRIDARA team will type up a business plan and attract for venture capital to form a Joint Venture Company (JVC). The headquarters of the JVC will be located within the EU (e.g. Baltic Sea region) and the IPR of the technology will be placed into the JVC. The shareholders of the JVC will be the original owners of the technology (innovators), TRIDARA International (through so called sweat equity) and possible investor(s). The main strategy of the JVC is to wrap the technology into a feasible product portfolio, with strong patents, that brings the best benefits to the customers. The aim is to, take such measures that the marketing and sales commences as fast as possible to get the JVC on a growth curve. This since the main objective is to sell the JVC to an international player (e.g. big industrial entity, which can also be Russian) within six (6) years after startup. To achieve this ambitious goal, the product portfolio needs to gain a positive reputation among the customers as well as the organization of the JVC needs to be efficient and well organized. It should be noticed that the globalization, boosts such tech companies to be developed to become international companies from the very early startup. This means, in practice, that the organization of a JVC will be geographically spread which also will lead to that the Russian innovators can stay in Russia and continue their work but on the pay rolls of the JVC and they will also, as a bonus, gain a lot of international experience during this period. Russia benefits concretely from the TRIDARA concept by getting more know how in global commercializing, internationally recognized products, gets such know how that there is a shortage of in Russia, gets investments and jobs.

The philosophy behind the TRIDARA Concept is to commercialize Russian B2B industrial innovations, on business basis, with strong entrepreneurship as one of the main guide lines. The earning logic is to make an exit from the JVC's, that is, to sell out the shares. One prerequisite to attract buyers is that the JVC's are transparent and totally free from so called hidden problems, evidently, popping up in a thorough Due Diligence. It should be stressed that TRIDARA International is not a fund or consultancy company but a business accelerator with an own tailor made concept.

TRIDARA aims only to create 2-3 JVC's per year, which is a very small number in relation to the vast amount of potential innovations made in Russia annually.

TRIDARA International have for nearly one year now been looking for an investment in to startup the full scale activities. However, both the private and public investors in Finland has been very cautious, probably, due to the reasons that the operational model of TRIDARA International is innovative and novel and the Russia is still too unknown, and, hence, raises fears. The TRIDARA team anticipated that the Venture Capital in Finland would be very interesting in TRIDARA International since the government of Finland have stated the concrete aim to create 200,000 new jobs in the private sector. Hence, the lack of interest in the opportunity to create new jobs in Finland, based on innovations from a neighboring country, is a great mystery to the TRIDARA team.

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Early stage growth financing is needed in the growing Life Sciences sector

By Tero Piispanen

Biotechnology is on its way to become a major source of employment and welfare in the Baltic Sea area.

As traditional labor intensive work shifts to lower cost countries, the demand for innovation and high technology related workplaces becomes more and more important to the society. Northern Europe and the Baltic Sea region are famous for their effective public healthcare systems. However, the innovations in the healthcare area have not yet led into the formation of many new companies and workplaces in health related industries. Even though some sort of seed financing exists, the lack of adequate early phase risk financing for startup companies has been nominated as the biggest reason why new companies are not established.

In a survey sponsored by the Finnish HealthBIO program, the lack of a local lead investor was the biggest reason why foreign Venture Capitalists have not invested in Finnish life science companies. This is probably true in other countries in the Baltic Sea area as well, since according to the European Venture Capital Association EVCA, only 0.6% of European venture capital was invested in the Baltic and Central Eastern European countries in 2011. Thus the know-how of the researchers is not turned into growing businesses in the area.

Biotechnology starts showing economic impact

Estonia has almost 60 companies operating in the biotechnology sector, with 30 of them being R&D focused biotech companies. Total turnover of the sector in 2009 was approximately 25.7 million EUR, while the R&D biotech companies came up to 17.6 million EUR with their export value making 8.9 million EUR. The average annual growth rate of the R&D biotech companies from 2004 to 2008 was 28.3%. The majority of the companies are active in red biotechnology, in the provision of services.

Denmark has the third-largest commercial drug development pipeline in Europe in absolute numbers. Investment in Danish biotechnology has reached more than 3.8 billion EUR — it is the second largest in Europe. With an export share of more than 90% of total production, Denmark is among Europe's largest exporters of medical technology products per capita.

Also Finland has lately had positive news in the life sciences sector. Earlier this year, chemical industry was responsible for more than 25% of the country's export volume, becoming for the first time bigger than forest industry. Within chemical industry, the export of drugs grew by 30%. And there is more to come: three new drugs of Finnish origin got their marketing approval at the start of 2013. Bayer's Skyla for birth control (developed and manufactured in Finland) and Hormos Medical's Ophena for post-menopausal symptoms got marketing approval in the USA, and BioTie Therapies / Lundbeck's Selincro got marketing approval in the EU. On top of that, Finnish diagnostic companies are growing steadily reaching about 640 billion USD in end user sales, which corresponds to about 1.3% of the world market. The total export of Finnish health technology companies grew by 22.8% last year, representing the second biggest share of high technology export after telecommunication.

Yet, in Finland there are no dedicated life science seed or startup funds, which could boost the growth of the sector and attract also foreign capital as syndicates. Finnish biotech industry representatives have initiated a public discussion in order to get the government investing again in biotech funds after almost totally abandoning them in the mid 2000's.

Interestingly, the same kind of debate has been going on in Sweden, where Swedenbio has accused the government for not promoting the life sciences sector enough. The government has replied that life sciences are a high-priority field and that it has decided to invest more in research. But what about financing early growth in companies?

Financing gaps exist – new Baltic Sea Life Sciences Fund could be the bridge

In a profiling analysis of investors conducted by ScanBalt's Bridge BSR project it became clear that a financing gap exists in particular in the financing of startups as the first financing for industrial proof of concept.

One way to tackle the early stage financing problem could be to establish a Baltic Sea Life Sciences fund, which would raise its funds from governments in the ScanBaltic area. The fund should have a focus in startups, promote cross border innovation and act as a partner for local seed financiers and typical growth financiers. It could become an effective tool for creating sustainable and highly competitive companies and workplaces for the participating countries.

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Technology transfer between East and West and Russia's economic modernisation

By Sari Autio-Sarasmo

The Cold War era froze the concept 'East-West' to signify the division between the United States-led West and the Soviet Union-led East. This is a worthwhile starting point for the analysis of technology transfer between East and West, from the point of view of the Soviet/Russian economic modernisation aims from the Cold War era up to the present day. Traditionally in the Cold War studies, technology transfers between East and West have been seen solely as a one-way transfer of commodities from the technologically developed West to the backward Socialist bloc. These transfers were rather limited because of the juxtaposition and division caused by the East-West conflict and the impenetrable Iron Curtain. This, however, was not the case and not only the knowledge of the East-West transfers, but also the whole picture of the Cold War has changed significantly. According to the new Cold War studies that are focusing on multileveled (intermediate and micro levels) East-West interaction, transfers trough the Iron Curtain proved to be active, bidirectional and based on mutual benefits.

The East-West technology transfers were elevated to a new level in the 1950s, when the Soviet Union, during the leadership of Nikita Khrushchev, adopted the western model of economic modernisation. The new model was based on the transformation of extensive economic growth into an intensive one with the help of technological progress (automation). The realization of the new model demanded technology transfers from the West in order to boost domestic innovation and production of automation technology. For the transfer of foreign technology and expertise, an effective system was constructed: The State Committee of Science and Technology (GKNT) became the main organisation for transfers and the scientific-technical cooperation (STC) acted as the main system to acquire needed technology and expertise from abroad. The Soviet STC was an official and approved way to overcome Cold War restrictions such as the US-led high technology embargo (CoCom). Through the organisations GKNT and STC, the Soviet Union knitted the network of the bilateral agreements of cooperation with the Western partners.

Finland and West Germany were the most important technological partners for the Soviet Union in Western Europe. The very first agreement was signed in 1955 between the Soviet Union and Finland. Soon after, the Soviet Union launched its cooperation with West Germany. Both states became important mediators of Western technology to the Soviet Union during the Cold War and after. Since 1957, one of the major partners for the Soviet Union in Finland was Nokia. During the 1970s and 1980s, the STC had transformed into a high technology trade, including e.g. robotics and automated phone exchanges. West Germany conducted active technology trade with the Soviet Union since 1958. In 1971, the cooperation culminated in the STC agreement between GKNT and Siemens, which started a very active computer technology trade from West Germany to the Soviet Union. Finland, West Germany and the Soviet Union all benefited from transfer and trade, but the cooperation was especially beneficial from the economic point of view for Nokia and Siemens.

After two decades of détente, the Cold War froze below zero in 1980, after the Soviet invasion to Afghanistan. In spite of the growing tension in macro level politics and the tightening embargo, technology transfers through STC continued as normal. The East-West interaction during the Cold War created the process of demand and supply that was determined by the push- and pull-factors on both sides of the Iron Curtain. Since the process was bidirectional - although the commodities and technologies were transferred mainly from the West to the East - it created a new kind of interdependence also between the two blocs. The East-West interaction prepared the ground for wider change – namely the end of the Cold War and the collapse of the Soviet bloc.

The East-West technology transfer is interestingly connected to the contemporary Russia. Former president Dmitriy Medvedev launched a new modernisation plan for Russia in 2009. The plan aimed to boost domestic innovations and high technology production in Russia with the help of foreign technology and expertise. The plan, continuing during Putin's second leadership, is surprisingly similar to the one adopted by Khrushchev 50 years ago. The Soviet Union did not modernise as planned, and it is interesting to see whether the new attempt is more successful. The heart of the Russian modernisation project, the Skolkovo innovation centre, accommodates several foreign and domestic research and development units, a technological university and a cluster of foreign high-technology enterprises. The new hub is expected to boost Russian innovation and high-tech production to a new level in the fields of IT, space technology, nuclear technology, energy efficiency and biomedicine. Several western high technology corporations are involved in the 'forming of the ecosystem of Skolkovo innovation centre' including tried and true partners from the Cold War era: Nokia and Siemens. The participation of US-based corporations such as IBM, Intel or Microsoft in Skolkovo would not have been possible during the Cold War, but what is strikingly similar to the previous attempt to modernise is the way Russia is going to pay for the foreign technology and expertise - with raw materials and energy.

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Cross-border innovation strategies – Russian-Finnish experience

By Nikolay M. Megevich and Simon J. Chernyak

In order to ensure competitiveness and dynamic development Russian state requires a constant search for new economic growth resources and quality of life.

It defines the objective necessity for states and regions economic transition to the innovative path of development. Currently, cogency use of innovation as a basis for achieving of strategic competitive advantage does not require any proof. International cooperation for Russia is a promising form of innovation activity in Russia. The process of innovation development of the territory, as it is known, requires three key steps:

- Analysis of area's innovation potential
- Development of innovative development strategy;
- Implementation and development of area's innovative potential with the help of the strategy as a tool of regional development.

This scheme is formally similar in the border areas, but requires more complex calculations and management skills, as these actions relate to economic and social sub-systems of several states.

The hypothesis proposed by the authors, based on the fact that the innovative potential of the border, notably, as regards potentially depressed regions, is not initially smaller than in the interior country areas, furthermore, having metropolitan status. There are no less Possibilities of "total innovation" in the border areas. However, there are few of classical mechanisms of innovative development in the border regions (especially at the municipal level). In most municipalities the practice of innovative development based on local resources – personal and enterprise investments.

In these conditions, the formation of an innovation strategy needs impartial review of mechanisms and management tools of territorial development and searching of non-typical features. From our point of view, the choice of competitive model of municipal economy in border areas cannot be done without taking into account the innovative potential of neighboring cross-border area. It should be noted that the use of cross-border cooperation as a mechanism for innovation development can be effective only when self-innovation potential is activated.

Taking into consideration the issue of innovation in the border areas, we should recognize specifics of the object. Firstly, there is a different structure of socioeconomic potential of the area. Typically, a set of development options including Innovation is much smaller. This is explained by the key characteristic of the territory - a frontier.

The specifics of socio-economic development in the border areas create certain prerequisites for identifying the principles of border areas innovation development, as follows:

- The principle of interregional interaction with a combination of national and cross-border development;
- The principle of innovation development effectiveness, as regards parts and the whole cross-border region;
- The principle of linking short-term and long-term goals;
- The principle of participation on different levels: state, regional and municipal;
- The principle of intersectoral collaboration;

Initial data for the formation of cross-border innovation system can be based on:

- Macroeconomic forecast of neighboring states and the border areas socio-economic development;
- Analysis of legal backing in innovation sphere;
- Research of direct and indirect state regulation forms of the innovation sphere;
- Research of the status and trends of development of scientific, technological and industrial capacity of countries and their border areas, an analysis of the status and forecast of domestic commodity and labor markets.

In case of successful implementation of unified (cross-border) approaches to innovation development in border areas begins diffusion of innovation. Cross-border diffusion of innovation - innovation diffusion processes in socio-economic, scientific and technical activities. The possibility of effective diffusion of innovations on the Russian-Finnish border determined by the gradient of differences in the levels of socio-economic and political development of the neighboring countries and regions, as well as the mobility of social, economic, technological and other innovations, their ability to overcome the barrier function of the border. In the next step begins the formation of joint innovation strategies. Currently, the Russian-Finnish border significantly associated with the transport and logistics sector. Here is two states (many municipalities) considered as a resource center, key and at the same time specific factor for the formation of cross-border innovation strategy, and no one of them has a monopoly on decision-making.

The main purpose of cross-border innovation system formation is an attraction of innovations from the territory of neighboring State or joint production of innovations in order to create social and economic conditions for the growth of living standards. The development of innovative cross-border strategies between Russia and Finland characterized by large-scale government support. The significant element here was - XIII session of the Finnish-Russian Intergovernmental Commission for Economic Cooperation which took place on March 27, 2013 in Turku. The session discussed topical issues of Russian-Finnish trade and economic cooperation of which approximately half is related to cross-border cooperation. Over 20 joint projects in the field of modernization of national economies were signed within the Programme of Action of the Russian-Finnish economic cooperation. The main feature of this stage in Russian-Finnish cooperation is the fact that an important step for a "technical" support of cross-border innovation strategies was done.

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Russian innovative ambitions as positive factor for country image in Nordic

By Arkady Ryabichenko

The dangerous Russian bear

Traditionally attitude towards Russia has been negative in Nordic countries. Its main reason is historical ethno-stereotype of the "Russian Bear" as a big, slow and very dangerous animal at times. The Nordic countries usually come out with critics of the Russian regime (Though Finland has historically friendly and good relations with Russia). They blame Russian government on the human rights disturbance (Magnitsky and Khodorkovsky cases) and militarization (Georgian–Ossetian conflict participation and Iskander-M tactical ballistic missiles placing in Kaliningrad Region).

However, the Nordic governments often lead to confrontation with Russia. The most dramatic example is Norwegian expansion to Russian near-border sea zone with overstated ransoms and Russian trawler ships occupation attempts. Denmark and Sweden criticize Russian policy. If these countries were friendlier to Russia, many conflicts could be prevented. Russian-Finnish "children scandals" with Salonen, Rantala and Putkonen families indicated the problems in relation between Russia and Finland. Another reason for the deterioration of the Russian-Finnish relationships is weaponization of Finland.

"Nordic round trip" of the Russian politicians

The situation changed after the Russian president Dmitry Medvedev stated in his program article of 2009 where he emphasizes Russia's choice of innovation development. The national innovation system progress was impossible without cooperation with Nordic countries as "innovate leaders" of the European Union.

The so-called "Nordic round trip" 2010-2011 of President Medvedev and Prime-minister Vladimir Putin was dedicated to establishing innovative links with Sweden, Norway, Denmark and Finland. (Maximal number of meets Putin has with Finland's representatives). Maximum number of the meetings V. Putin had with the representatives of Finland. Potentially this "round-trip" had the aim to improve Russia's perception in North Europe.

After the "Nordic round trip" the degree of anti-Russian rhetoric decreased. President Medvedev who shook Oslo residents' hands scored to the publicists better than president of the USA Barak Obama who earlier had come to the Norwegian capital under the protection of his snipers. The Norwegian prime-minister Jens Stoltenberg said: - Relations between Norway and Russia never had been so good as nowadays.

The pragmatic elite

The main argument which pragmatic Nordic elite representatives supported was an opportunity to enter Russian innovative development sectors.

A lot of positive articles about Russian innovative sector were published in Nordic mass media. Often authors were well-qualified experts. For example, Mats Hellstrom, the former minister of trade, wrote about Russia's achievements in IT in the "Dagens Industri". He marked that there are also innovations in other sectors of Russian economy. One of the leading Swedish experts on Russia Klas Erikson wrote about strong Russia's position in the natural sciences. It is quite understandable that pragmatic interest in business expansion into the Russian market became the main idea of these publications. Frude Mellemvik, the Rector of the Norwegian Business-school at Bodo Regional University, wrote in "Nordlys" that Russian modernization program would open up new opportunities for the Norwegian companies.

Good news for Nordic business was that Russia was ready to use wide range of innovations. And other residents of the North European countries realized that the Russians liked innovations as they did. The "Nordic round-trip" of the Russian leaders changed the perception of Russia in these countries in fact.

Therefore, one of the important effects that Russian state politicians brought about in the sphere of innovation and cooperation with Nordic countries is positive change of Russia's image in the North Europe. The perception of Russia in Sweden, Norway, Denmark and Finland improved and this is the noticeable achievement of Russian foreign policy.

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Is the price of Russian natural gas inflated for the Baltic Rim?

By Vlad Ivanenko

Four countries of the eastern Baltic rim – Finland, Estonia, Latvia, and Lithuania – depend on a single supplier for their consumption of natural gas – Russia. Given that Russia maintains export monopoly on natural gas, the question arises: does this country overcharge the Baltic customers?[1]

The bill paid by the region is significant: it spent $ 3,818 million on gas import in 2012.[2] Aside from the sheer amount of money at stake, suspicions of non-market pricing have firmed since 2009 when EU observers noticed a persistent spread between the long-term contract prices on Russian natural gas and spot prices on gas set at the European hubs. The suspicions grew to such a degree that the European Commission for Competition decided to open formal proceedings against Gazprom in September 4, 2012. But does a sufficient amount of evidence exist to substantiate the claim of overpricing?

The Commission suspects Gazprom using three anti-competitive practices in Central and Eastern Europe:

(a) Hindering the free flow of gas across Member States;
(b) Preventing the diversification of supply of gas and
(c) Imposing unfair prices on its customers by linking the price of gas to oil prices.[3]

To prove the claims, one should know confidential pricing formula used by Gazprom. Unfortunately, it requires the authority of the Commission to get access to private documents; however, one contract – that Gazprom concluded with Ukraine in 2009 – was leaked to the Ukrainian media (and led eventually to the conviction of Yulia Tymoshenko, the Prime Minister of Ukraine at the time.) Assuming that Gazprom is consistent in its practices, the Ukrainian contract sheds light on its pricing rules.

This 10-year contract has the following conditions. It obliges the buyer to accept a minimal annual volume of natural gas at the take-or-pay basis. The contract specifies minimal calorific value of the product with its price being an average of prices on two alternative types of fuel – gasoil and low sulfur residual fuel oil (mazout) – delivered to Italy. Finally, the seller prohibits the re-export of natural gas.

Using the referenced prices and calorific values for three fuels, one can show that Ukraine receives natural gas at the price set 23 percent below the price of alternative fuels by their thermal equivalence. Such a discount is inconsistent with the behavior of a monopolist collecting the monopoly rent ruling out an anti-trust probe.

The long duration of the contract and, especially, the take-or-pay clause do discourage the buyers to seek alternative energy suppliers as it will not reduce their expenses. Similarly, the re-exporting ban alludes to market segmentation, which is in concord with monopolistic pricing. The Commission is justified to open proceedings on these two counts and, yet, Gazprom is unlikely to be indicted.

The problem is that these clauses are standard in the dated, but still respectable, Groningen type of natural gas contract. Developed in the Netherlands in 1960s with the objective to capture foreign markets for Dutch natural gas, the contract sets its price permanently below the price of competing fuels (coal, heating oil, or electricity) to make their consumption uneconomic.

The European energy markets of that time were regionally fragmented compelling the offeror of Groningen contract to adapt prices to regional energy patterns. This approach assured the market capture but created a multitude of prices leading to arbitrage opportunities for some buyers. To preclude buyers' profiteering, the no-resale clause was introduced. As soon as the EU levels energy consumption patterns within the Union, the no-resale clause will stop serving Gazprom interests and will be dropped.

If the Commission fails to find fault in Gazprom practices, can the Baltic countries expect a reduction of their energy bill? A short answer is 'no' as the price of Russian natural gas will remain high as long as the price of fuels, to which it is pegged – crude oil and its derivatives, stays high. But a roundabout way is available. The region considers building liquefied natural gas (LNG) regasification terminals and linking gas networks through inter-connectors, which will allow alternative suppliers to enter the market. However, the cheapest option is not obvious because the success of this approach depends on global factors staying beyond the region's control. Three of them are important.

A rapid increase in unconventional gas production (shale gas) in North America shocked global natural gas markets in 2009; however, its key effect is psychological. The EU expects that Europe may start shale gas production in near future but the continent's quest for shale gas, particularly in Poland, has been, so far, a sobering experience. Will it succeed in the end?

The decoupling of crude oil and natural gas prices in North America created a spread between (higher) contract and (lower) spot prices. EU gas importers believe that the inclusion of spot prices in the Groningen formula will lower the price they pay. But what if the spread is driven by onetime diversion of formerly U.S.-bound contracted LNG cargoes towards Europe?

Finally, observers note that the EU has imported more of thermal coal in last years. Coal is a substitute for natural gas but it is more intensive on greenhouse gas emissions. Does growing coal consumption imply the EU softening stance on climate change?

Answering these new questions require a lengthier analysis than this note permits.

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The opinions expressed here represent the personal views of the author and not those of his employer.

[1] See the Russian Federal Law # 117-FZ "On Export of Natural Gas" dated July 18, 2005
[2] See UN trade database COMTRADE
[3] See the antitrust case "Upstream gas supplies in Central and Eastern Europe", number 39816

Energy development in South-East Europe and the Baltic Sea region – similar problems, similar prospects

By Venelin Tsachevsky

Despite the fact that South East Europe (SEE) and the Baltic Sea region are geographically remote and follow specific paths of development, both are confronted with similar problems and challenges in the energy sector. The majority of the 21 countries located in the designated regions are relatively poor in mineral energy resources and that understandably necessitates significant imports of raw materials, particularly oil and natural gas. More than half of them are entirely dependent on gas supplies coming mainly (in the case of Poland, Greece, Germany, Turkey et al.) and solely (with respect to Finland, Estonia, Lithuania, Latvia, Bulgaria, Republic of Macedonia et al.) from Russia. The exception are Denmark, Sweden and, to a lesser extent, Romania and Croatia.

This is basically the key reason for the high degree of energy import dependence of SEE and the Baltic Sea region. At the start of the current decade it stood at 60% for SEE and around 55% for the Baltic Sea region. In comparison, in 2011 the same indicator for the EU showed an average of some 54%, a figure also considered to be high. The differences between the countries in the two regions are rather noticeable. In the Baltic Sea region this indicator ranges from 81.8% in Lithuania to 11.7% in neighbouring Estonia, while Denmark is "in clover" as the only state, including within the EU, which is energy independent. With respect to SEE, the most dependent countries are Greece and Turkey (69%), with Romania being at the other end of the scale (22%).

Reducing energy dependence is one of the priority goals of the energy policy pursued by the two regions. It is contingent on what the respective policy guidelines will deliver, as outlined in the adopted long-term energy strategies which in some countries cover the period up to the middle of the century. They are increasing and diversifying the production of the country's own energy resources; energy market restructuring according to the market principles; increasing energy sector efficiency in conformity with the environmental requirements; increasing the share of the renewable energy sources (RES) in the energy balance; broadening the energy cooperation within the region and with the other European countries, especially countries in EU, on the basis of the common energy principles, regulations and longstanding aims, including the participation of joint regional and all-European infrastructure projects.

Most of the countries in SEE and the Baltic Sea region have achieved progress in implementing their goals. Over the last years there has been a trend toward lowering the energy import dependence across both regions but the chief reason for that was the slump in the domestic consumption resulting from the economic recession that came about in 2008. The share of RES in the energy balance went up motivated by the target set in the EU energy strategy for a 20% chunk of RES in the gross energy use by 2020. The performance is better in SEE where at the beginning of the present decade the percentage of RES in the gross inland energy consumption was 12.5%, while in the Baltic Sea region it was a bit smaller. Yet, both regions exhibited considerably higher results compared to the average level in the EU (8.7%). However, the gaps between the countries in this respect are sizeable and vary between 8.5% (Serbia) and 39.5% (Albania) when looking at SEE and between 8.2% (Germany, Poland) and 34.5% (Lithuania). The restructuring of the energy balance has also evolved by reducing the share of solid fuels, mainly coal, and shifting to RES, oil and natural gas. The process proved somewhat tougher for those countries which rely extensively on the use of their own reserves, most notably coal: Poland, Germany, Serbia, Bulgaria, Kosovo et al. One of the critical factors conducive to that transformation is the implementation of the agreements on cutting greenhouse gas emissions.

Special attention needs to be paid to the place of nuclear energy development in the energy policy of the two regions. The overall number of the nuclear reactor in operation is 28, all located in just 6 countries. In the Baltic Sea region there are 23 reactors in 3 countries - Sweden (10), Germany (9) and Finland (4), in SEE the reactors are only 5 – Bulgaria (2), Romania (2) and Slovenia (1). In terms of regional significance, nuclear energy plays a far more crucial role in the Baltic region accounting for around 15% in the total inland production of primary energy, which is twice as high as that in SEE. The future expansion of nuclear energy use looks uncertain in both regions. In a total of 7 countries – Poland, Finland, Russia (Kaliningrad region), Lithuania, Turkey, Bulgaria and Romania – have been announced plans for the construction of 15 new nuclear power facilities. At the same time, due to the grave repercussions of the 2011 Fukushima nuclear disaster the public resistance to the construction of new NPP have stiffened. At the referendum held in Lithuania in the autumn of 2012 the majority of voters rejected the NPP that was being planned. In March 2013 the Bulgarian government cancelled the construction of a second NPP, in this case on financial grounds. In Germany all nuclear power facilities are to be decommissioned by 2022. The implications of such an action, however, might stall the overcoming of the existing energy deficit in both regions.

The pivotal issue in the energy field for the greater number of countries is how to provide the necessary domestic and especially foreign investments. What will foster the process is a more favourable environment created as a result of the recovered financial stability and overcome economic stagnation in Europe which, unfortunately, seems unlikely to happen by the middle of the decade. The regional energy cooperation, regarded as underdeveloped especially in SEE, should be given a boost. To this end the EU will render significant support through the Baltic Sea Region Energy Cooperation, EU Black Sea Synergy, the Energy Community, etc. An incentive for the energy sector will be the realization of more pan-European energy infrastructure projects. The completion of North Stream that benefits a number of countries in the Baltic Sea region has been followed by the start of the South Stream construction, soon to be caught up by Nabucco. The last two are crucial for the energy security and diversification in SEE but are expected to be brought into operation no earlier than the second half of the current decade. Against this backdrop the energy policy goals of most of the states look too ambitious and therefore quite hard to attain.

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On the perspectives of building nuclear power plant in Lithuania

By Gennady Kretinin

During the post-soviet period ɪuclear power branch of all the Baltic region's republics was represented by the Ignalina Nuclear Power Plant (NPP), situated in the north-east of Lithuania.

It was a powerful source of cheap energy, to a wide extent suiting the demand of the south-east Baltic States economy and population. However under the EU requisition, Vilnius was obliged to shut down the plant on the 31st of December, and then to start its decommissioning.

The idea of building a new NPP was forming while the date of closing the Ignalina plant was coming. Ultimately it was decided to build the Visaginas NPP and to launch it in 2015-2016. Considering the fact that Lithuania was unlikely to carry out this project on its own, it was decided to establish a syndicate comprising Lithuania itself and its nearest neighbours (Poland, Latvia and Estonia), as well as to find a foreign investor. The main Lithuanian principle was not to use Russian assistance while implementing the project.

In 2010-2011 the troubles began. At first Poland refused to take part in the project: the share of the capacities was unacceptable. Moreover Warsaw evolved the building of two its own nuclear plants in the region near the Baltic Sea. Then, unexpectedly the main investor – South Korean company – withdrew from participation in the project.

Japanese company GE Hitachi Nuclear Energy became the new investor, with its technology of building notorious Fucusima-1. All Vilnius efforts couldn't create positive image to the Japanese investor among population and in surrounding countries. In Latvia and Estonia not only objections – why do we need this? – but suggestions to make its own nuclear projects appeared. No one was expressing unconditional consent. The date of possible implementation of the Visaginas project was moved to 2020-2022.

A serious damage to the image of the Lithuanian project was made by the Russian idea of building a NPP on the territory of the Kaliningrad region of the Russian Federation. Lithuanian energy industry authorities could explain objectively neither to politicians of the Republic nor to the population, the advantages of their project and disadvantages of the two times more powerful and raising in shorter time period (2016-2018) Russian project.

Obstruction of the Baltic nuclear power plant could form mistrust of Lithuanian society to the Russian project for some time, which however didn't influence the construction at all.

Meanwhile protest moods against building its own NPP, especially by the company with a huge failure in its construction practice, started growing in Lithuania. As a result, there was a necessity to conduct referendum on the building the Visaginas nuclear plant.

The neighbours' opinions were brought out on the eve of the referendum. Particularly, on the 8th of October 2012 Estonian Prime Minister A. Ansip during the meeting with Lithuanian journalists in Tallinn, formally didn't mind against taking part in the Lithuanian project, but under the condition of positive results of the referendum.

According to the «Vilniaus diena», the Latvian government stated "if the Visaginas project is profitable for Latvia, there won't be any obstacles to take part in this project. But if Lithuanians say "no" to the Visaginas project, the money, which are planned to use for this project, Latvia may use to built the LNG (liquefied natural gas) plant". Considering that the construction of LNG plant has become a stumbling block between Lithuania and Latvia, this situation will impact on the nuclear project in Visaginas.

Ambiguous relation to the construction of the Visaginas NPP was also seen in the political sphere of Lithuania. Thus, conservatives were strong supporters of the construction, and social democrats who won the elections were standing for taking into consideration the demands of people in the referendum.

The referendum took place on the 14th of October 2012 and the population expressed its negative relation to the nuclear project. For some time the Lithuanian state leadership was taking a break, not commenting the results of the referendum. The position was explainable: there was the formation of the government. Then among the leadership of the country statements started to appear, that the decision of the population during the referendum was of advisory nature, that it was necessary to evaluate the developing situation, that it was possible to hold another referendum. The president and the head of the government paid several visits to neighbours, where they tried to clarify the moods of Riga and Tallinn in terms of the future Visaginas NPP.

In all appearances, this high-level visits weren't successful that much. Anyway Vilnius will come to a decision. Likely, this decision will be positive, because the President D. Grybauskaitė is definitely in favour of the construction. However Lithuanian daily Balsas.lt (28th of January – 3d of February) quotes the President: "the construction of the Visaginas NPP will be delayed over 10-15 years". Therefore, the terms of commissioning of the nuclear plant with one reactor are shifted to 2023-2028.

Lithuanian observers think that the decision of the problem with the beginning of the Visaginas NPP construction will be postponed till the second half of the 2013. In particularly, how does the Japanese investor treat this delay? What will be decided about the financial part of the project? Every delay will lead to the obsolescence of the Ignalina NPP infrastructure, one of the Vilnius`s best card to build a new NPP in Lithuania in particular, not in any other country of the Baltic region. Irreparably declines the qualification of the experts in the nuclear field worked in Lithuania. After all in the Lithuania`s neighbourhood there are two more NPP project (in Belarus and in the Kaliningrad region) on the stage of the construction. How competitive will be the Visaginas energy even if the Lithuanian project is successful?

One thing is sure. In the nearest future Lithuania has to decommission the old NPP and build a new one. Will the Lithuanian economy be able to bear this charge? The question is rhetorical. To count on support of the EU in building a new nuclear object while it comes short of means to close the old one has no chance to success. Likely, it will be necessary to change something in the external policy to find other resources. Probably in the east.

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Supply diversification and allocation of bargaining power in the EU-Russia gas relationship

By Elena Paltseva

For a number of years, Russia has been the primary supplier of natural gas to the EU. Russian gas constitutes roughly a quarter of European gas consumption, with 19 of the EU Member States importing gas from Russia. Among these states, the average share of Russian gas in gas consumption in 2011 exceeded 60%, ranging from 1.6% (Belgium) to nearly 100% (Czech Republic, Estonia, Finland, Latvia, Lithuania and Slovakia). This dependency on Russian gas has long been among the main issues of the European debate on the external energy security. The concerns about the EU-Russia gas relationship were further strengthened in mid-to-late 2000s due to "gas wars" between Russia and the transit countries of Ukraine and Belarus that threatened the continuity of Russian gas supply to the EU.

A commonly suggested solution for the EU is to diversify its gas imports. The standard argument behind this proposal is that it would lower the EU's dependency on Russian gas (and, thus, its exposure to the risks associated with Russian gas imports). However, it is important to remember that the dependency is mutual: more than 60% of Russian gas imports are flowing to the EU. A shift in the EU gas import portfolio away from Russian imports would then impact the allocation of bargaining power in the EU-Russia gas deal. This may diminish the effect of diversification on the security of EU gas supply.

More specifically, the bargaining power may be seen as the best outside option available to the other party in case of disagreement. That is, were the Russian gas supplies to the EU disrupted, how easy would it be for the EU to get an access to an alternative source of gas? The answer to this question would determine the relative bargaining power of Russia. Similarly, Russia's ability to recover the profits by reallocating gas to other consumers would determine the EU's "buyer power".

From this perspective, it is easy to see that there are two conflicting effects of diversification on the allocation of bargaining power. Naturally, the diversification would weaken Russia's market power, thereby improving the bargaining position of the EU. However, a less obvious effect is that a decline in the EU imports of Russian gas due to diversification would make these imports less important for Russia. This would lower the EU's buyer power and worsen its gas deal terms. While the ultimate effect is unclear, this argument suggests that the decisions to diversify gas supply sources should also be evaluated from the perspective of the buyer power loss.

Further, in presence of diversification options with different fungibility, such as pipeline gas vs. LNG, the EU is likely to be better off by choosing more fungible alternatives. A (stylized) mechanism is that, in the latter case, the EU may invest into the *possibility* of diversification rather than the diversification per se. In other words, instead of a cut in Russian gas imports, the EU may choose to improve its outside option by e.g. investing in infrastructure to buy and transport LNG (so that it is possible to purchase LNG from alternative providers in case of a disagreement with Russia). Thereby, the EU would simultaneously achieve two goals: by not cutting down Russian gas imports, it would sustain its buyer power; at the same time, by facilitating better substitutability for Russian gas in case of a (hypothetical) supply disruption, it would weaken Russia's bargaining position, thereby shifting the balance of power in the gas deal toward the EU.

For example, the EU's continued support for the Nabucco project (now Nabucco West, as Nabucco is no longer considered commercially viable) has been widely attributed to the concern that Russia would further increase its leverage over Europe by supplying gas through the competing South Stream project. In light of the argument above, the EU may be less worried about the Russian expansion to the South-European gas market. The EU may even benefit from this expansion, as long as it develops a sufficiently strong outside option through an improved access to the LNG market. In fact, given that the current capacity of the EU's LNG terminals is underutilized, this may also be a cheaper option than backing the construction of Nabucco West.

One important reservation for the suggested argument to work is that it requires a sufficient degree of coordination between the EU Member States. On one hand, "one voice" common energy policy approach have been increasingly important for the EU's political agenda. For example, the September 2011 European Commission proposal explicitly suggests "to exercise the combined weight of the EU in external energy relations". Also, recent EU gas market developments, such as the integration and unbundling of internal markets seems to be conductive to the coordination of the Member States' effort. On the other hand, the possibility for coordination may be undermined by the tensions brought by the Eurozone crisis.

To sum up, the EU-Russia gas relation is characterized by mutual dependency. As a result, gas import diversification may improve or undermine the EU's bargaining position in its gas deals with Russia. That is, while gas supply diversification is certainly a valuable strategy to improve the security of the EU gas supply, its effect on the allocation of bargaining power in the EU-Russia gas relationship needs to be taken into account in the common energy policy design.

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This article is based on a joint project with Chloé Le Coq (SITE, Stockholm School of Economics). I am grateful for our discussions on this topic.

On interactions between energy markets

By Vladimir Feygin

There are still some disagreements regarding whether energy markets are already fully integrated; most opinion differences are for such regional markets as gas markets. The main point for those who are skeptical is that prices on these markets are not fully correlated as they should be in theory, with price differentials to be equal to marginal transportation costs.

That's true but it is highly probable that major deficiencies in this regard as between East Asia gas markets and EU gas market will be significantly lessen in coming years – we already see more LNG cargos moving from the Middle East (mostly Qatar) to Asia than to Europe (which incentives price increase at the EU trading platforms) and first attempts to organize gas trading in East Asia (which directly or indirectly will force some downturn pricing trend at those markets).

Though prices are not perfectly correlated (and I doubt they will correlate in the foreseeable future) but price relations between markets are becoming very intense. In many cases these are price/volume relations. We marked this above regarding Asia and EU gas markets. We've seen an influence of low USA gas prices to EU gas prices indirectly – through reallocation of the US coal from US power sector to EU power stations,

We can foresee potential appearance of a number of such correlations and influences especially where flexible markets easily reacting to supply/demand balance are involved.

As we know overproduction of the shale gas in the USA had led to a sharp fall in gas prices which made most of the dry gas extraction nonprofitable. As a result producers shifted their efforts to wet gas production because byproducts (NGLs) were priced mostly on oil linkage and therefore were much higher than for dry gas. NGLs are very important in North America for petrochemical production as they are more efficient feedstock than naphtha traditionally widely used in Europe. But soon after the above shift NGLs (and first of all – ethane) became overproduced as well comparing to available chemical capacities. So their prices moved down – and this resulted in less drilling activity for total gas production Now we see an increase of dry gas prices – up to 4$/Mln.BTU from 2$/Mln.BTU.

It is yet unclear what reverse impact it will have on the rate of gas utilization in the USA power sector.

On the other hand, most part of NGLs (i.e. LPG and gas condensate) is well transportable and so we can foresee that an excessive volume of these products may start moving from the USA to Europe or other destinations seeking for higher prices. This may lead to dump in US gas prices etc.

These quick and sharp price tendencies' changes are not helping for sustainable energy business because gas and gas components as well as their substitutes are a part of technological and products chains and any transformation of these chains may be substantiated only if they are used for significant time interval when economic correlations are maintained in a similar way.

We know that in the US low gas prices and an excess of NGLs produced have already became a driver for significant shift in industry behavior based on use of cheap hydrocarbons as a feedstock. We do not expect that current rise in gas prices will damage this process but an uncertainty is obvious.

Another very popular subject is a future appearance of USA/Canada gas at export markets. Basic calculations show that, because of costs for liquefaction, transportation, regasification etc. this gas will be available at EU and/or Asia markets at prices not very much different from let say 10-11$/Mln. BTU. In such a case a critical issue is again market capacity as if these volumes will be absorbed by the growing markets (and – globally gas markets capacity will definitely grow) then US gas export may mostly assist a process of "equilisation" of regional gas prices but not destroying markets.

Looking more broadly we can foresee that increasing NGLs production and lowering prices for NGLs may influence global oil pricing in the downturn direction. The oil production will be more and more linked with use of oil in the transportation sector and less in petrochemicals – so its future will depend on shifts in this sector where gas – jointly with electricity – will be again a competitor to oil products. Petrochemicals will be more directly linked to NGLs use.

This is in good correlation to current vision that global oil production will barely increase – while global liquids production will grow on behalf of NGLs. But NGLs volumes may be less manageable than currently oil production is and therefore prices for NGLs may more easily go down.

So we may expect a sort of global process of interdependence between sectorial and regional use of corresponding hydrocarbons (both basic ones and as process products) in volumes and prices. The danger is a potential uncertainty in this process which may damage investments.

We can expect that new forms of influencing these processes from regulatory side will be used in order to avoid these negative impacts. Some sort of such signals we already watch in the US which let WTI price to be kept for so long and so much below Brent index though in perfect markets it is difficult to substantiate this difference.

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Russian roulette with gas

By Pekka Hakanen

Times they are changing in North America and you can feel the blow even in the Baltic Sea. The shale gas revolution will soon make the United States independent from import energy. This megatrend has also a major impact in world politics.

Naturally the shale gas revolution has a massive effect to the energy market. The fall in energy prices will affect us all. It is a tremendous challenge to all new form of energy production, but it means pressure to traditional fossil energy production as well. For example, shale gas production can be much cheaper than oil and gas you can get from the Arctic area. Russia has already frozen the vast Shtokman gas field project in the Barents Sea.

The European Union has a very ambitious goal to be a pioneer in green energy. The EU wants to be the light house, which shows the rest of the world a way to energy paradise, where there is no pollution and no shortage of energy. Unfortunately, the world is not perfect you need a lot of fossil energy for the transition time.

The second question is money. It is stupid to think, that Europeans can pay higher energy prices than their competitors.

Energy is not the only reason why Europe has lost its competitiveness. We are older, work less than the Asians and the Americans and our economy has lost its dynamics.

In this situation Russia and Germany have a common interest. Russia has big energy cellars and Europe need fossil fuels to their power stations, which will work as backup power to wind and solar energy.

Only a few years ago Russia planned to export liquefied natural gas to America. Now LNG prices have collapsed in America. The gas stream has changed directions and in the future USA can export LNG to the rest of the world.

In addition, there is a lot of shale gas in Europe too. In Europe, we must very soon answer the question: Have we enough wealth not to use this energy cellar.

If shale gas press energy prices permanently down, it means big difficulties to green energy. Europe and especially Germany has invested enormous amounts of money to wind and solar power.

Of course, everybody wants to use clean energy, but how much for example are new economic powers, like China and

India, willing to pay for it. This is also a key question for companies, which are working in the green energy sector.

Almost all sorts of industries are dependent of energy prices. If energy is more expensive in Europe than in competitive countries, it means a bad headache to politicians. We can see lots of companies leaving the old continent and the rates of unemployment to increase.

The gas pipe between Russia and Western Europe was a political success story in the cold war era. But the times they are changing. There are many economic challenges in both ends of the pipe. The EU needs reasonable priced energy and Russia needs any rouble it can get from energy exports.

Russia does not see any changes in the energy market. Officially, there is no such thing as a shale gas revolution. The rulers of the country live like Tsar Nicolas II before the October revolution.

A tiny creek of the world's energy stream goes up to Gulf of Finland. The Baltic countries and Finland are planning to build a new LNG terminal together somewhere in the northern part of the Baltic Sea.

This project is only a small drop in the enormous ocean of the energy market, but it can be a big step to the European energy policy.

If you can build a new LNG terminal, which is independent from Russia and Gazprom, it will open the door to free competition. The main question is what Russia will do if this LNG terminal comes true?

Russia is still a military superpower and it can do a lot of harm and inconvenience to its small neighbours. But does these kind of actions benefit Russia itself?

Perhaps, Russia wants to play with higher stakes in this game than the others. In the last hand the question is will Russia be inside or outside the free world market. To Russians, future it is a fatal decision. The isolation means that the Russian energy sector, and in fact, the whole Russian economy is not competitive in the future.

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The Baltic Sea Region – the positive steps towards ensuring energy security

By Simonas Klimanskis

The Baltic region is one of the most developing regions in the Europe and has a vision to become one of the most prosperous, innovative and competitive in the world. And energy is one of key preconditions for both the region's development and implementation of its an ambitious vision. Unfortunately, there are several countries which face energy security issues related to a reliable supply of energy sources, a limited access to energy sources from alternative supply and the lack of competitiveness that have a threat to sustainable economic development especially given the depletion of traditional energy resources and the fact that rising consumer's demand should be satisfied by sufficient supply.

These countries are Poland, Finland, Lithuania, Latvia and Estonia. Despite that the first two countries in electricity sector have still sufficient generating capacities and functioning markets, in gas sector Finland, in contrast to Poland, is totally dependent on Russian gas. On the other hand, Poland has a diversified gas supply – about 90 % of its gas import comes from Russia. The country, therefore, is constructing its own liquefied natural gas (LNG) terminal and plans to produce shale gas to further diversify its gas supply and increase competitiveness. Meanwhile Finland is in a worse position as it still considers about such a terminal.

Concerning the Baltic States, these are the most vulnerable in terms of energy security and they were identified as an "isolated energy island". These are countries which are not integrated into the EU energy market, in terms of both electricity and gas sector. For that purpose, in 2009, the European Commission developed the Baltic Energy Market Interconnection Plan (BEMIP), which posits as its goal full integration of the Baltic States into the Western energy market as well as strengthening interconnections with the neighboring EU member states. There are provided several projects like the construction of electricity interconnections "NordBalt", "LitPol link" and "EstLink 2", gas pipelines "Amber" and "Balticconnerctor" and a regional LNG terminal which would supply gas to the Baltic States and Finland. The aim to eliminate an "isolated energy island" should be achieved by 2015.

Electricity interconnections are under construction and gas pipelines – still under discussion. Concerning the regional LNG terminal which would receive financial support from the EU, the European Commission is published a study which suggests that such a terminal could be built in Estonia or Finland by 2030.

But Lithuania is not waiting this and already is constructing its own LNG terminal, together with the implementation of the third EU energy package, and it will be built by 2014. There are three reasons of why Lithuania is so hurrying: 1) the county totally dependent on Russian gas; 2) it pays the highest price for natural gas in Europe – USD 483 per 1000 m3 – which is imposed based not only economic, but also on political reasons, and gas imported though the terminal is cheaper by 30 %; 2) the country is a major gas consumer to its population size (about 3 bcm per year) due to the closure of Ignalina NPP and the fact that there are the biggest manufacturer of fertilizer in the Baltics "Achema" which uses natural gas as a raw material. Moreover, Lithuania plans to explore and produce shale gas in order to diversify its gas supply. This all will *make conditions for full control over flows of gas and competition, because it allows to choose a gas supplier offering the lowest price*.

However, one question comes up: should all the Baltic States and Finland participate in the construction of their LNG terminal or develop their own ones as they plan to build them by 2015–2016. Before answering to this question, it should be noted that the date until the regional LNG is to be built does not combine with the date until an "isolated energy island" is to be eliminated. This means that Latvia, Estonia and Finland would remain dependent on single gas supplier for 17 years ahead. But the best way would be to evaluate risk and cost of such a dependency in each scenario and take decisions on LNG terminals. By the way, such terminals could be located at every 50–100 km.

Concerning electricity sector, there are positive steps: in June 2012, the Nord Pool Spot biding area has been launched, and when Nord Pool Spot biding area is to be launched in Latvia by 2013 and NordBalt with EstLink 2 is to be in place, Lithuania will take all advantages of trading electricity in a large market of the Nordic Countries. Moreover, it seems that Lithuania would continue the implementation of the project for the construction of the regional NPP in Visaginas, but currently the country is waiting for decisions by Latvia and Estonia on a real participating in this project. The new NPP would ensure security of electricity supply, increase competitiveness and allow full synchronization with the Continental European Network.

In conclusion, countries of the Baltic Sea region still remain different in terms of energy security. The most serious issues prevail in the Baltic States, but provided energy projects and their implementation show that these issues are solving step by step thus creating *the common EU energy market*. Of course, there are also unanswered questions on the participation of the Baltic States and Finland in the implementation of either the regional LNG project or their own ones. But answers are likely to be known soon.

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Energy in Baltics – the last phase of Eurointegration

By Romas Švedas

It seems to be a paradox, but Baltic States are not yet EU Member States in energy sector. Eurointegration process of Estonia, Latvia and Lithuania has started in mid nineties by concluding Free Trade and Association agreements with the EU. Full EU membership in addition to free trade in goods granted free movement of services, people and working force. It seems that three Baltic States became fully pledged participants of the Common EU Internal Market, however, a serious element is still missing – energy. In energy sector three Baltics are called "EU island", having a very tiny footbridge from Estonia to Finland (Estlink I). Energy systems (electricity and gas) are integrated into ex-Soviet Union system, supply of primary energy sources is strongly dominated by Russia, especially in Lithuania.

Baltic Energy Market Interconnection Plan (BEMIP) is a regional initiative of all Baltic Sea states but, basically, it is devoted for Estonia, Latvia and Lithuania: to establish better interconnections with EU energy networks, to make them part of the EU energy market and thus to get them out of the "EU energy island". The plan is good, what is left – implementation. So let's have a look at the progress achieved.

Construction of electricity interconnections are advancing well, though delay with development of New Nuclear Project brought Lithuania into a "nuclear war", both, internally and externally. Progress on second Estonian-Finish (Estlink II), Lithuanian-Swedish (NordBalt), Lithuanian-Polish (LitPolLink) electricity interconnections is indeed considerable – all the projects have to be commissioned roughly by the end of 2015. Estonia and Lithuania are already participants of Nordic power market (Nord Pool Spot) and Latvia is going to join it without delay. As soon as power interconnections will be completed three Baltics will make an integral part of common Nordic power market with real and transparent competition.

A new nuclear power plant "Visagino atominė elektrinė" (VAE) project is also a part of BEMIP plan. VAE should secure a sustainable electricity supply and ensure energy security of the whole region. The new regional nuclear power plant should play final and decisive role in making three Baltics independent from ex-Soviet Union system.

Geopolitical interests of Russian Federation in the Baltic region are very strong. Russian authorities are thoroughly following and analyzing situation in the region and surely understand perfectly well that in electricity sector the Baltic States are getting out of their control. In order to secure its interest, we should admit, that Russia took a very smart decision – to built a nuclear power plant in Kaliningrad region. Big power generation capacities on the West side of the Baltics have to push three Baltic sisters backwards to the East and will not allow them to leave ex-Soviet Union system. For Kaliningrad needs future power generation capacities are too excessive, there are no external interconnections except of tiny one with Lithuania, commercial model of the project is not clear, therefore this project can be treated as an economic investment for geopolitical purposes. Let's start building nuclear plant and later we will see… maybe Lithuanian politicians will start having doubts about their own project, or maybe regional partners will disagree – such could be thinking of Russian decision makers. And again, we have to admit, that they are defending their geopolitical interest quite well. In Lithuania, in autumn of 2012, a consultative referendum on the new nuclear power plant took place and the outcome was negative. So nowadays Lithuanian political temperature on the issue of the new nuclear power plant is very high. The Government is looking for the way out of referendum deadlock and is in the process of considerations on the future of the project. To my mind, there are only two scenarios of future developments:

a) three Baltic States together with strong strategic investor Hitachi are going to build a regional nuclear power plant and thus will ensure security of energy supply;
b) in case three Baltic States will not built the new nuclear power plant they will be for another half century dependant on Russia and so will endanger their strategic plan to be synchronously interconnected with power system of Continental Europe.

In gas sector Russian Federation is trying to avoid precedent and is taking preventive measures. Unlike the electricity sector the situation in natural gas sector of the Baltics is quite different – here the progress towards an open market is much more modest. As a result of privatization the process all three Baltic States got into total dominance of Gasprom and to get out of such situation is not an easy task. Lithuanian Government is planning the following measures:

a) implementation of transmition system ownership unbundling provision;
b) construction of LNG terminal;
c) construction of gas interconnection with Poland;
d) exploration and extraction of shale gas;
e) exploration to establish underground storage of natural gas;
f) fast introduction of bio fuel in heating sector.

Gasprom understands that even a small part of these measures will lead to the end of its dominant position. But the most dangerous scenario for Gasprom is that reforms in Lithuania will be taken as precedent and will be followed by Estonia, Latvia and other ex-Soviet Union countries. Therefore Gasprom has decided to take active preventive measures. Recently several meetings with Lithuanian authorities took place where Gasprom, alongside with other proposals, has offered 20 percent reduction of gas price – again, an economic investment for the geopolitical purpose. We'll see how strong will be Lithuania and other Baltics to stand this pressure and to complete the last stage – energy stage – of their Eurointegration process.

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Lithuania's energy sector – trends and problems of development

By Mihails Rodins, Aleksandr Gaponenko and Inna Dovladbekova

As to the data of Central Statistical Board of Lithuania, rate of energy production in 2011 fell to 81.3%. This decline occurred after the close of the second block Visaginas nuclear power station in 2010. The decline in production has led to a decrease in production of the energy sector in the total GDP of Lithuania. In 2004 the proportion was 3.96%, in 2009 - 3.44% and in 2011 - only 2.85%. Decline in output was accompanied by a decrease of the energy efficiency.

The situation in the energy sector in Lithuania is largely defined the primary energy import and export of waste energy and products made from hydrocarbons (primarily production Mazeikiai oil refining factory). Products of the energy sector in 2004 amounted to 2.49 billion litas, import 6.35 billion litas and exports 6.35 billion litas. Thus, power consumption is equal to 2.49 billion litas. In 2011 the situation changed dramatically. Energy production in the country amounted to 3.02 billion litas, imports 25.8 billion litas, exports 17.4 billion litas. Energy consumption as a result equal to 11.42 billion litas. The share of imports in the energy reaches the value of 73.5%. That is, we see a sharp increase in the energy dependence of Lithuania on energy imports. In turn, the country's dependence on imports indicates the absence in it of primary energy resources, and the rapid growth of dependence on external supplies of evidence wrongly selected the energy strategy and adverse external conditions. On the negative impact of decisions in the energy sector for the entire economic complex can be judged in terms of the share of imports in the total amount of energy produced in the country's gross domestic product (GDP). In 2004 it amounted to 9.5%, in 2005 14.3%, in 2008 - 17.8%, in 2009 13.5%, in 2010 20.3% in 2011 - 24.6%. That is, in the seven years the dependence of the economy on imports energeresursov Lithuania increased by two and a half times. Also, the increase in prices of energy supplies has led to an increase in energy prices in the domestic market. Thus, according to the CSB of Lithuania, in 2000, energy prices in the domestic market increased by 12%. Before joining the EU in 2004 was a balance of market and energy prices rose by only 1%. Despite the decline in production and a reduction in total energy demand in 2008-2009., prices increased annually by 13%. In 2010, energy has become more expensive by 7% in 2011 to 12% in 2012 to 11%. The fall in oil prices on the world market was not accompanied by a corresponding decrease in energy prices in the domestic market. This occurred because of the monopoly of energy suppliers in the domestic market, the lack of control by the government, as well as increasing tax rates.

A more accurate picture of the Lithuanian energy can make by analyzing the production and consumption of various forms of energy, reduced to a unified natural indicator ktoe (thousand tons of oil equivalent). In 2005, Lithuania was made in the amount of energy 5366 ktoe , of which 50% gave nuclear power, 1% hydropower, 3% of the energy of chemical processes, 24% of electricity and 22% heat. Volumes of production of solar, geothermal, wind and other alternative energy does not reach 1%. In 2011, has been producing only 1841 ktoe of energy, that is, in real terms its production fell by almost three times. Nuclear power while stopped completely, the share of hydro power has increased to 2%, and the proportion of the energy of chemical processes up to 13%. Volumes of production of heat decreased by 8%, but its proportion has risen to 60%. Finally, a two-fold increase in the production of energy from alternative sources, but their proportion has remained extremely small - 2%. In 2011, the republic has already imported energy in the amount of 579 ktoe, or 31.4% of total production. From it became a net exporter to a net importer. On the other hand, if in 2005 the energy consumption in the country is 1,591 ktoe, in 2011, the consumption of energy equal to 1,607 ktoe. As can be seen, the energy consumption in the economy of Lithuania from 2005 to 2011 grew by only 1% in real terms. This is a good result, considering that the country's GDP over the years has grown at constant prices by 11.9%, from 20.9 billion euros to 23.4 billion euros. The growth of energy consumption for the production of the gross domestic product in the country was insignificant. According to Eurostat, in 2000 in the Republic spent 576 kg of oil equivalent per 1000 euro GDP production. In 2009, the cost dropped to 445 kg of oil equivalent per 1000 euro GDP. In 2000, energy efficiency in the economy of Lithuania amounted to 345% of the European average (167 kg of oil equivalent per 1000 euro GDP), in 2009 - 315% (141 kg of oil equivalent per 1000 euro GDP). Three times the gap between the average European level of energy efficiency in Lithuania can call it the largest energy problem.

Overall, the data suggest that the energy sector in Lithuania in recent years has shown a significant drop in production and consumption. The decline in production occurred as a result taken at EU level the decision to close the Visaginas nuclear power plant. Lack of energy at this time is covered by the import.

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Global energy markets – the view from Espoo

By David Dusseault

Keeping tabs at the world from my office in Espoo, I can say that we are in an advantageous position. The world's energy markets continue to experience a period of unprecedented promise, change and challenges for companies all along the whole of the economic value chain.

Flexibility is the key. As a supplier of natural gas to our clients, the task facing Gasum is not only to remain relevant as a provider of energy to the Finnish market, but to become more flexible in terms of how we source our gas, the price at which we sell our product and the form in which the gas ultimately is delivered to our customers.

Five new global trends

In the pursuit of tractability, we are following five major trends which will determine how Gasum will position itself in the Finnish gas market in order to maintain and grow our business for the years to come.

1. Gas import volumes fluctuate

Increasingly, major producing countries are faced with a dilemma in terms of the end market for their gas. Russia, Iran and Saudi Arabia are turning inwards developing domestic markets to utilize cleaner and cheaper natural gas in the energy mix. Conversely, thanks to the shale boom in the US, less expensive gas may be available for export if such a policy is adopted by the current US administration. The issue is simple: the amount of volumes that are available on the open market determines the extent to which Gasum is able to expand its supply portfolio on a more competitive basis.

2. Timely investments in infrastructure

To access available supplies, infrastructure is needed. Building the bridge between supplies and consumers is a crucial step to diversifying access. Construction of new facilities for production and distribution particularly in LNG continues apace. For our part, Gasum is "all-in" in terms of identifying the right investments to bring LNG, biogas and pipeline supplies to our customers.

3. Pricing structures change

Subsequently, increases in the volumes will have an immeasurable influence over how gas will be priced. After the Fukushima accident, we have observed that oil-indexed long term gas contracts are now coming under pressure from alternative pricing models such as those offered on a Henry Hub plus transport from the US to Japanese buyers. The shift in contractual forms is not a question of final price, but that of price formulation: a more accurate estimate of the economic cost for production of natural gas with long term contracts providing the base load pricing and hub based contracts comprising the swing gas in the supply portfolio.

4. Energy portfolios grow more diverse

Occupying the mid-stream in the energy business means that firms need to balance out market risks at the delivery point for supplies and in the consumer markets while striving to improve the competitiveness of natural gas versus other fuels simultaneously. Portfolio creation forms the foundation for competitiveness of natural gas in energy markets.

5. Potential Growth Markets for New Gas

Finally, intensifying competition amongst commodities that were seen as replacement goods has spawned growing opportunities for gas to increase its presence in energy mix. Owing to price discrepancies, particularly with refined oil products in industrial processing, ground transport as well as emissions control legislation in maritime shipping, natural gas has a particularly bright future as a cleaner and more competitive alternative to traditional stocks such as gasoline, heavy fuel oil, and propane.

By diversifying sourcing, pricing mechanisms, and products, companies like Gasum will be able to offer an array of natural gas products for a whole spectrum of consumers tailor made to fit their specific energy needs sustainably, flexibly while at a transparent and competitive price.

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Finland

Energy politics in the Baltic Sea Region – new Russian perspectives?

By Nikolay Dobronravin

The energy politics in the Baltic Sea Region have long revolved around the role played by Russia as a major supplier of oil and natural gas. Russia's energy policy was historically Euro-centric, despite the continuous drift of major hydrocarbon extraction centres towards the Far East and to the Arctic.

The situation changed in last few years for several reasons. Shale gas and oil became a reality, meaning that the USA could rely on its own resources once again. Gas and then oil prices were also driven down by the crisis in Europe, leaving Russia more and more vulnerable. As if it was not enough for the embattled exporter, the third energy package entered into force, meaning more openness and competition in the gas and electricity markets.

The gap in the global oil and gas consumption was welcomed by the Baltic states and Poland, interested in the reduction of their energy dependence on Russia. The European struggle against vertical integration in these markets was also supported, as far as the influence of Russia could be diminished.

Russia's vulnerability and mixed reactions

Russia is famous for its tradition of survival under unfavourable circumstances. As the vulnerability of national energy policy became blatant, mixed reactions were voiced by Russian decision-makers and experts. To summarize these reactions, they have included compliance with the third energy package, search for customer diversification and 'business-as usual' approach.

The last way of confronting the challenge, not so rare in Russia's turbulent history, was until recently advocated by Gazprom, which could rely on its export monopoly. In 2012, the company managed to reach price agreements with its customers in Europe. The basic principles such as long-term contracts and 'take-or-pay' were still in vigour, and no real spot market of natural gas has arisen. Last October, upon completing the construction of the second string of Nord Stream, the CEO of Gasprom Alexey Miller looked positive about the future of the third and fourth strings of the pipeline. He said that the company was planning to sign a memorandum in this matter by the end of January 2013.

The plans of the gas giant have not materialize, but it was not a Gasprom's fault. The growing understanding of impending danger which could greatly affect export revenues has resulted in a new set of plans for Russia's energy policy.

Export diversification: 'Look East' energy policy

The Eastern direction of Russia's energy policy is not something new in itself. In 2012, Russia exported 24 million tons of crude oil to China alone, directly by pipeline and through the port of Kozmino in the Far East. Russian oil was also shipped to Japan, the USA and other countries of the Asia-Pacific region. The whole volume of crude oil exported from Kozmino reached 16.3 million tons last year. LNG from Sakhalin was shipped to Japan, Korea and China; other customers have already included Thailand, Taiwan, India and even Kuwait.

The 'Look East' energy policy was highlighted during the recent visits to Moscow by the leaders of China and Japan. The Chinese direction still seems more promising for Russian oil sector, while various gas projects are of great interest to Japan. Gazprom and China's CNPC signed a memorandum on building a pipeline to be completed by 2018.

All these projects may affect the Baltic Sea Region, if the exports from the Far East turn out to be more profitable for Russia. In 2012, the LNG transport from Norway to Japan via the Northern Sea Route was a sign of future regular gas shipments from the Artic to the Pacific. However, the perspectives may not be so rosy – enter North American shale gas and oil. The shipment of North American LNG to South Korea and Japan is expected to start in 2017.

Even if the oil and LNG exports from Russian Far East continue as planned, one must be too optimistic to argue that gas price negotiations between Russia and China are going to end anytime soon.

Paraphrasing Sir Winston Churchill: 'We are still in Europe, even if not of it'

The European energy market is too important to Russia in spite of all diversification measures. Europe may be bearish to Russia, but both partners still need each other.

In April, Valdimir Putin asked Gasprom to rethink the Yamal-Europe-2 project. All of a sudden, the idea of building an additional pipeline (up to 15 billion cubic metres) through Belarus to Poland, Slovakia and Hungary. The memorandum of understanding was signed with EuRoPol Gaz, the operator of the existing transit pipelines system, owned by Gasprom and Polish PGNiG. Quite expectedly, the memorandum has resulted in a political scandal in Poland, as the project seems to be aimed at reducing gas transit through Ukraine. As said by Aleksey Miller, no binding documents will be signed on the third and fourth strings of Nord Streem before the Yamal-Europe-2 project is assessed by October this year.

At the same time, gas unbundling debate between Lithuania and Russia is going on. It seems that Lithuania is only interested in price reduction while Gasprom would like to postpone the unbundling of gas transmission network in this Baltic country and guarantee gas transit to the Kaliningrad region.

The most important change in Russia's energy policy can take place soon, if the third energy package is complied with. Gasprom is still holding export monopoly, but Novatek and Rosneft are the major energy companies, and their presence in the Baltic Sea Region will be growing, especially if the gas sector becomes more similar to the already unbundled oil and electricity sectors of Russian economy.

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Russia

Gazprom and the development of spot-pricing on the EU gas market

By Jack Sharples

The EU gas market is currently in a state of transition. Due to declining EU gas production, the share of imports in EU gas consumption is predicted to rise from 67 percent in 2011 to 80 percent in 2030. As imports account for a greater share of consumption, the source and pricing of those imports will also become more significant. In 2003, 90 percent of EU gas imports were sourced (almost exclusively by pipeline) from Russia, Norway, and Algeria. Today, that figure is 75 percent, and falling. EU gas imports are increasingly being delivered in the form of liquefied natural gas (LNG) from suppliers such as Qatar, Nigeria, and Trinidad & Tobago. At the same time, the European Commission is actively promoting greater integration between EU Member States and an increase in internal EU gas trading. The combination of supply diversification and internal integration is slowly resulting in the EU gas market becoming a *market* in its true sense, although the process is far from complete. The question for Gazprom is how to adapt to these developments and retain its current market share of 24 percent of total EU gas consumption.

Pipeline gas supplies have traditionally been delivered under long-term contracts (of more than 5-10 years) with gas prices index-linked to oil prices. This system provided predictability for suppliers and consumers, but also reflected a lack of supply and demand pricing signals and a predominance of bilateral relations between supplier and consumer. However, the development of supplier diversification and cross-border integration means that the traditional bilateralism is being superseded by multilateral, market-driven gas trading: Approximately 35-50 percent of wholesale EU gas imports are now traded at spot prices determined by dynamics of supply and demand, rather than at oil-indexed prices.

Yet the EU gas market remains divided: All of the 19 LNG import terminals currently operating in the EU are located in Western Europe, while the main gas trading hubs are located in the UK and the Netherlands, where spot-pricing is most prevalent. By contrast, in Central Europe, South-Eastern Europe, and the Baltic states, where gas is overwhelmingly delivered by pipeline from a single supplier (Gazprom), long-term contracts and oil-indexation remain dominant.

Following their dramatic collapse in 2008, oil prices rebounded sharply in 2009-12. But the relative 'glut' of gas supplies to the EU market due to increased LNG imports, coupled with weak European gas demand, caused spot prices to remain significantly lower than their oil-indexed counterparts. In response to complaints and threats of commercial arbitration from European energy companies, Gazprom granted a series of temporary price discounts during 2010. However, these discounts proved insufficient for Gazprom's European customers. So, during 2011-12, Gazprom reached settlement agreements with 13 European energy companies in disputes over gas prices: Between January and September 2012, Gazprom granted $4.27bn in 'retroactive payments', with a further $4.7bn predicted for 2013. Such payments are essentially refunds, and have been interpreted as a tacit admission from Gazprom that it overcharged for gas supplies between 2010 and 2012. The idea that Gazprom may have abused its dominant market position is also the focus of a European Commission antimonopoly investigation, launched in September 2012.

Despite the granting of discounts and the launch of the European Commission investigation, Gazprom has consistently reiterated its intention to retain oil-indexed gas prices. This is partly due to Gazprom's continued market dominance in Central and Eastern Europe, although even that dominance is beginning to be challenged: Polskie LNG is currently constructing Central Europe's first LNG import terminal in Poland (due for launch in 2014), while negotiations over potential LNG import terminals in Lithuania and Estonia or Finland remain ongoing. The fact that oil-indexed prices remain higher than spot prices gives Gazprom a financial incentive to retain its current pricing model.

The danger is that, as Gazprom's European customers are increasingly able to import cheaper, spot-priced gas from other sources, Gazprom will lose its market share. The second largest supplier of gas to the EU after Gazprom, the Norwegian Statoil, has already recognised this danger: In November 2012 Statoil signed a landmark agreement with the German utility company, Wintershall, to supply pipeline gas under a long-term contract at spot prices, and announced that it would continue to increase the role of spot pricing in its gas export contracts.

It is likely that Gazprom will follow Statoil's example and switch to spot pricing only when the benefit of retaining its market share outweighs the cost of a reduction in its gas export prices caused by the switch to spot pricing. Gazprom's decision-making in this regard will therefore be influenced by spot prices on the EU gas market, which are by no means guaranteed to remain significantly below oil-indexed prices: While the increase in imports of spot-priced LNG is increasing the competitiveness of the internal EU gas market, it will also increasingly expose the EU gas market to the competition from the increasingly LNG-hungry Asia-Pacific region for supplies on the global LNG market.

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Visa-free travel between EU and Russia might be true in the near future

By Juho Rahkonen

Should there be visa-free travel between Russia and the European Union countries? This question touches the whole union and there is still a long path to go before visa-freedom could be reality. Due to Schengen agreement, it is not up to Finland and Russia alone. However, Finland has the EU's longest borderline with Russia, and therefore the issue is particularly important to Finland.

What do ordinary people think about the issue? Taloustutkimus Oy, a leading Finnish market and opinion research company, conducted a survey about visa-freedom last autumn. The question was asked both Finns and Russians (in the Western part of the country, St- Petersburg region), with a representative sample of adult population. The study in Russia was conducted by Taloustutkimus' daughter company Toy Opinion, which is based in St. Petersburg. In the Finnish side of the border the public opinion is divided: 38 per cent of Finns say yes and 49 per cent say no (the rest are undecided). In the Russian side the opinion is clear: as many as 82 per cent of people are in favor and only six per cent are against visa-freedom.

Taking into account the history-based, negative attitudes that many Finns hold towards Russia and Russians, the result is not as negative as one could have expected. Having said that, there is a significant difference in opinions between age groups: of respondents under 25 years, the majority (56 per cent) is in favor of visa-freedom and 24 per cent resist it. In the age group of 50 to 64 years, only 32 per cent are in favor of visa-freedom and as many as 58 per cent are against it. So it is the baby-boomers and younger middle aged Finns who have the most skeptical views on Russia and the issue of visa-freedom. Younger generation is more open to new possibilities and historic austerities do not weigh that heavy on their shoulders.

The theory of generations, developed by Karl Mannheim, suggests that people are strongly influenced by the social and historic environment they are living in. Formed by the experiences they have had in their early and sensitive adulthood (about 17 to 20 years old), new generations become agents of change.

Given that people's values and attitudes are relatively stable and permanent, it can be predicted that new and more open attitudes are slowly but surely becoming more common in Finland. As younger generations with their open-minded worldviews enter the political scene and older, more nationalist opinions decrease, there should be a great value shift in the society during the decades to come. Such a shift does not happen quickly or dramatically, but rather it is a slow, ongoing process. Thus, the theory of generations implicates that in the near future the Finnish public opinion turns favorable about visa-freedom.

At the moment, the political atmosphere in Finland is not the most supportive for international issues. During the last couple of years, Finland has gained questionable reputation for protracting the integration process of the European Union. In autumn 2011, the Finnish government questioned the eligibility of two new EU fellows, Bulgaria and Romania, to join the Schengen agreement. Later Finland corrected her policy.

It hardly comes as a surprise that the reasons for such demands lay first and foremost in the internal politics. The landslide victory of the euro-skeptic Finns Party (formerly the True Finns) in April 2011 parliamentary election made other Finnish parties alert. Fear of the Finns party has forced the old parties shift their policy into a more nationalist and euro-skeptic direction – or at least give such an image to the general public. Recently, nationalist voices have risen in many parts of Europe, fueled with economic dissatisfaction in the era of continuing economic crisis.

It is not only a matter of public opinion whether the visa-free travel would be possible. A lot of co-operation between governments and officials is still needed. In the end of the day, visa-freedom is rather a practical question, not as much ideological as it used to be. However, its positive emotional effects should not be undermined.

Several countries near Europe have opened for visa-free travel in the last few years. For example countries like Ukraine, Moldova, and Georgia no longer require visa from EU citizens. The most recent delighting news came in January this year, as Armenia joined the visa-free destinations for EU citizens.

If so many countries near the Eastern borders of Europe are already visa-free, why not Russia? The Great Narrative of our time is globalization and opening of minds and borders. This development is inevitable and it should carry on despite of economic hardships. If the natural integration process of Europe and its neighbors will turn to increasing isolation and protectionism, we should be worried.

When we look back to history we see this is not the first era of globalization. From 1870's to 1930's the world was getting global at a high pace: there was massive immigration and foreign trade was flourishing. This development stopped because of the Great Depression and World War II. Globalization started again after the oil crisis of the 1970's and at least after the end of Cold War, and in many ways it has been a success story. This positive development should not be disrupted, because human interaction is a key to better life. Visa-freedom between the EU and Russia is a part of this big picture, and I am confident it will be reality within the next ten years.

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In search of new mechanisms for state-business interaction

By Andrei Yakovlev

2008-2009 crisis revealed inefficiency of bureaucratic "power vertical" and absence of feedback mechanisms in public administration in Russia. Recognition of this fact gave way to search of new means of state-business interaction. One of them was Agency for Strategic Initiatives (ASI), which was proposed by Vladimir Putin in summer 2011 after a number of meetings with entrepreneurs. As these meetings showed, there were substantial barriers for realization of business initiatives, and state machinery had no incentives for elimination of these barriers.

The ASI was established by the Russian Government as an autonomous non-commercial organization. Mr. Putin is chairman of ASI supervisory board. Declared official goal of ASI is "creation of prospects for self-realization of young ambitious leaders who are able to lead Russia to the front line in the world". The Agency's mission includes promotion of projects and initiatives put forward by fast-growing medium-sized businesses and social sector leaders; growth in the number of new leaders emerging in medium-sized business and in social sector, and general improvement of business climate. For achievement of these goals substantial funds were provided to the ASI, and Agency could invite to its staff (which amounted to about 150 employees) a number of qualified experts with business experience. For projects follow-up, ASI invited well-known consulting firms, including the Boston Consulting Group.

What has the ASI managed to do in a year and a half? ASI activity was largely connected with the "One-Hundred-Step Program", proclaimed by Mr. Putin in February 2012. The idea was to improve business climate and to raise Russia's position from 120 to 20 points in Doing Business global rating calculated by the World Bank. In the framework of this program, the ASI has launched a "National Business Initiative", and prepared "road maps" for elimination of administrative barriers in getting construction permits, connecting the electricity, customs regulations, and promotion of exports. In summer and autumn of 2012, these "road maps" were approved by the Government and became obligatory to government offices. The ASI, in collaboration with 11 regions, has realized a pilot project "Standard of business climate improvement at regional level" based on the analysis of best practices shown by regional governments in their investors' relations. In September 2012, presidential decree included indicators of this Standard into a system of gubernatorial activities evaluation.

Why could ASI be capable in solution of problems which core public authorities failed to solve earlier? Ministries, including the Ministry of Economic Development, which is responsible for business climate by its mandate, are bound with rules of interagency coordination. According the these rules, any "interagency" issue must be discussed strictly at the levels of department directors or vice ministers, which means that the issue should first be "elevated" to this level in one agency and then lowered as an "order", step-by-step down the hierarchy, to another agency. Apart of great loss of time for paperwork traffic, this coordination regime means that any complex issue, quite objectively, gets split into a multitude of partial issues, and decision making is made not in the order of entire problem solution but rather on the base of departmental interests.

As opposed to ministries, ASI is not built into formal bureaucratic hierarchy, but owing to its access to Mr. Putin, it has a high status in public administration system. For this reason, ASI representatives can go, avoiding bureaucratic subordination, directly to a concrete official, who is responsible for the issue of their interest in the corresponding agency. Since ASI has no administrative power and lacks any regulatory functions, it meets no specific departmental interests and opens possibility to develop and make complex solutions.

At the same time, this particular status of ASI contains potential weakness in its position as a specific "development institution". In the absence of administrative power, ability of ASI to influence activities of agencies is determined solely by its closeness to Mr. Putin. However, other influential agents have direct access to Mr. Putin too. So, ASI (which can achieve its goals only in close collaboration with federal and regional authorities and is funded by the Government) objectively has no desire to "strain relations" with most influential agencies. This puts ASI at risks of gradually becoming "fused" with the existing bureaucratic machine.

Nowadays, apart from implementation of concrete projects, the ASI helps to discover effective officials inside the present public administration, to establish horizontal links between them, and also to disseminate best practices. However, ultimate effects of ASI activities will depend on determinacy of Kremlin to appoint and promote top-level officials according to their efforts to invite investments and to create incentives for economic growth, rather than by the criteria of their political loyalty and personal commitment. Whether this turn will take place in Russian personnel policy, will be clear during the following year.

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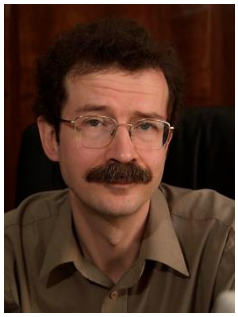

The 2013 Cyprus bailout and the Russian foreign direct investment platform

By Kalman Kalotay

In March 2013, as a new episode of the Great Crisis that started in 2008 and whose end is not yet at sight, Eurozone members and the International Monetary Fund (IMF) offered a €10 billion (about US$13 billion) rescue loan for fellow member Cyprus – representing more than half of its gross domestic product (GDP). Bailout would come with conditions, which will weaken Cyprus' traditional role as an offshore financial centre within the European Union (EU). In the two largest banks of the island on the verge of bankruptcy, only deposits up to €100,000 (US$ 130,000) were to be saved; the rest would disappear of suffer from a huge discount. As a symbolic measure, depositors might be offered shares in the banks concerned, although their real value would be close to nil due to the bad shape of those financial institutions. While these were already heavy blows, capital controls required to stabilize Cyprus in the short and medium term heralded the effective end of the offshore financial centre of the island.

These developments were bad news for Russian investors, which used the island as the most important platform for their trans-shipped and round-tripped foreign direct investment (FDI). Trans-shipment means FDI destined to third countries while round-tripping denotes projects targeting the Russian market proper with a detour in Cyprus. The phenomenon dubbed Cyp-Rus investment was analysed in detail in the context of trans-shipped FDI to other economies in transition by the Pan-European Institute a decade ago. Since then it has grown in size and in terms of targets of trans-shipment, going in reach to developed economies. The Bank of Russia estimated the inward and outward FDI stocks of the country linked to Cyprus to US$129 and 122 billion at the end of 2011 (table 1), respectively (it is not by coincidence that the values of the two are so similar). They represented 28 and 34% of the inward and outward stock of the country. These values were five times higher than Cyprus' GDP. However FDI data reported by the Central Bank of Cyprus were way lower, begging the question where the difference can be registered (such as bank account, real estate, portfolio investment, to mention a few possibilities). Official data on portfolio investment are not only of little help but also contradictory (table 1): Russian statistics show asset growth in crisis years while Cyprus data show divestment. As for bank accounts held by Russians, statistics are missing; estimated vary largely, from €5–10 billion (US$6.5–13 billion, according to the Central Bank of Cyprus) to US$31 billion (Moody's). In either case, their size would indicate large losses for Russian individuals and firms keeping their assets in the wrong banks (the top two: Bank of Cyprus, whose large depositors face a severe discount in their assets, and Laiki Bank whose large deposits are literally wiped out).

While Russian investors could probably not foresee the degree of measures Cyprus would be forced to engage in, the financial crisis had prompted them to think of strategies not putting all eggs into the same basket. The most salient trend in this respect is the rise of other offshore financial centres in Russian inward and outward FDI, especially that of the British Virgin Islands (table 1; and to a lesser degree Bermuda and the Cayman Islands). Flow data show large fluctuations, however. The changing relationship between the two top offshore centres is more noticeable in FDI stocks. By 2011, the ratio between the British Virgin Islands and Cyprus rose to an all time high of 44% in inward FDI stocks and 38% in outward FDI stocks.

The Cyprus bailout package can be expected to accelerate the shift of Russian corporate strategies to new offshore financial centres. It is unlikely that Russian firms would change the long-term patterns of their management style, and come on-shore in Cyprus or elsewhere. However the outward FDI dynamism of the Russian Federation may be affected as the potential write-offs related to Cyprus may reduce the free resources available for expansion abroad. Russian firms can switch activities not only to pure financial centres, but also to more mixed trans-shipment hubs such as Luxembourg. To what degree these changes would affect the size and composition of Russian outward FDI is difficult to forecast at this point of time when data series are available only until the third quarter of 2012.

Although the Russian State is in general not in favour of offshore finance, it may be obliged to defend Russian interests. In the case of Cyprus, it already offered a five-year financial assistance of €2.5 billion (US$3.2 billion) to the country in 2011, which could be extended until 2021 in case of emergency, and may offer case-by-case help to Russian firms that suffer disproportionately from the Eurozone rescue package. However during the depth of the Cyprus crisis it made it clear that it would not engage additional resources and by no means would it replace the EU or the IMF as leading agencies dealing with the macroeconomic woes of the island, nor would it offer any systematic help to the Russian business community engaged in Cyprus.

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The views expressed in this article do not necessarily reflect the opinion of the United Nations.

Table 1. Inward and outward FDI of the Russian Federation by home/host country, 2007–September 2012

(Millions of U.S. dollars)

Home/host country	Year	2007	2008	2009	2010	2011	2012[a]
Inflows							
Total		54'619	75'201	36'336	43'076	55'615	33'080
From EU 27 excluding Cyprus		19'525	21'773	12'199	20'696	27'031	23'660
From British Virgin Islands		3'246	7'341	1'753	2'138	7'196	1'283
From Cyprus	Russian data	10'595	19'555	4'270	12'250	13'569	4'567
	Cypriot data	..	-1'434	197	-611	-120	..
Inward stock							
Total		..	..	378'837	489'256	455'904	..
From EU 27 excluding Cyprus		..	..	111'323	148'686	168'015	..
From British Virgin Islands		..	..	36'599	50'966	56'442	..
From Cyprus	Russian data	..	..	129'930	179'217	128'816	..
	Cypriot data	..	2'587	146	773	785	..
Outflows							
Total		45'897	55'540	43'632	51'886	67'221	37'499
To EU 27 excluding Cyprus		17'992	16'694	11'717	18'003	16'511	8'947
To British Virgin Islands		1'425	3'822	2'305	1'833	4'194	2'646
To Cyprus	Russian data	14'630	8'879	15'391	18'046	22'400	16'110
	Cypriot data	..	466	641	-372	396	..
Outward stock							
Total		..	..	302'188	365'961	361'738	..
To EU 27 excluding Cyprus		..	..	81'093	93'798	110'514	..
To British Virgin Islands		..	..	33'285	38'762	46'137	..
To Cyprus	Russian data	..	..	119'672	153'933	121'596	..
		..	2'206	1'984	1'491	1'905	..
Memorandum items							
Russian portfolio investment flows to Cyprus							
	Cypriot data	..	..	-5'817	-544	-20	-1'060[b]
Russian portfolio investment stock in Cyprus							
	Russian data	368	1'366	1'877	2'840	4'633	..
	Cypriot data	..	443	1'726	1'517	1'509	..
Estimated GDP of Cyprus at current prices		21'769	25'250	23'474	23'000	24'713	22'446

Source: Author's calculations, based on Bank of Russia and Central Bank of Cyprus data.

Note: Data are calculated by the nationality of the immediate investor.
a January-September 2012.
b January-June 2012.

Russian multinational companies and state capitalism

By Wladimir Andreff

The growth of outward foreign direct investment (OFDI) achieved by Russian multinational companies (RMCs) had the fastest speed in the world from 2000 to 2007, faster than Chinese and Indian OFDI. Russia's OFDI recovered after a sharp drop in 2008. Such a success story did not happen without state interference.

During the Yeltsin era, the privatisation programme established big companies in monopoly or oligopoly situation which swiftly transformed into RMCs. Under Putin presidency, the Russian government has shifted its objectives toward strengthening its influence over the whole economy and promoting OFDI, namely in the service of national strategic goals. In the 2000s, the first objective was reached through a rapid expansion of state-owned enterprises (SOEs) and partial re-nationalisation in some industries. Since 2001, state ownership appeared to be on the rise. Public participation in previously privatised Gazprom increased from 38.4% to over 50%, Gazprom acquired privately-owned Sibneft while state-owned Rosneft acquired various assets of the defunct Yukos. State participation in the stock equity of some RMCs increased, and their strategies were increasingly influenced by Russia's foreign policy. In 2007, seven big state corporations (like Rosnano) were launched with CEOs directly appointed by the president of the Russian Federation. The purpose of these new corporations, gathering activities into big industrial trusts under public control in strategic industries, is industrial modernisation. However, they started internationalising and acquiring technological assets abroad while the pressure of the presidential administration on to them accentuated. Their strategies serve both domestic industrial policy and Russia's foreign policy.

When Dmitry Medvedev, a former Gazprom CEO, was elected President of the Russian Federation, and Igor Sechin, a former Rosneft CEO, was appointed Deputy Prime Minister, tight relationships between the government and its state-owned RMCs rose to the surface. The dividing line between the government and multinational business became more blurred than ever since the dawn of transition. However, the relationships between the state and big business are no longer rooted, as during the 1990s, in state capture by private concerns and asset grabbing. The political influence of those oligarchs who emerged in the 1990s clearly weakened after the Yukos case, and the government taking RMCs owned by oligarchs in a firm hand strengthened the dimension of a state capitalism.

A sort of bargaining model took place in the relationships between the state and RMCs in which the latter benefit from subsidies, tax exemptions and various aids from the government but "in exchange" they have to bear without complaining some duties and additional costs such as a price regulation, frequent administrative supervision and a waste of time in communication with the bureaucrats. Both Russian state capitalism and RMCs have reached a kind of maturity in their evolution and adaptation to a globalisation context in crisis. The Russian government trusts and supports RMCs to become powerful actors in the world markets, namely in energy markets. RMCs are described as a form of soft power which has replaced the military power of Russia, in particular throughout the "close abroad" whereas Russian political influence abroad is a push factor of Russian investment expansion for instance in Central Asia. The Russian government helps RMCs in Asia and Africa as well.

Now Russia conducts a policy providing support to companies that invest abroad in strategic industries. Since 2007, the government incited RMCs, whatever privately or state-owned, to export more high tech products and invest abroad. It intends to keep an overall direct and indirect control over industries linked to raw materials and natural resources whose major companies are ranked among the biggest RMCs. The hydrocarbons industry and its RMCs are especially turned into a tool of Russia's international relationships, through controlling the network of oil pipelines and gas pipes, which is also a means for a state control over exports. A part of the manufacturing industry is also considered by the state as strategic (aeronautics, shipbuilding, the automotive industry) and is hardly open to free competition while the government sometimes intervenes in RMCs' decisions. The rest of the manufacturing industry which has swiftly modernised (telecoms, telephone) is more open to competition and here RMCs are much less influenced by the state. In the heat of the financial crisis, in November 2008, Vladimir Putin asked the CEOs of big Russian enterprises to discuss with the state administration of their perspectives and future orientation, industry by industry. Indeed, many RMCs undertook their OFDI for the sake of the national economic interest as it was meant by the highest state authorities. State-owned RMCs were often heavily influenced by - or incited to stick to - major objectives of Russia's foreign policy.

Finally, the government took advantage of the financial crisis to spread its grips over some indebted RMCs to which government assistance came from the state-owned VEB which bailed them out; consequently, state administration placed a representative in the companies' boards who has the right to veto any debt or major asset sale. Taking excuse of the crisis to rescue some RMCs, the government sealed deeper alliances with them, now a typical feature of Russia's state capitalism today.

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Joining the Eurozone – Latvia's destiny?

By Morten Hansen

The title of this article may sound somewhat over the top but there is a ring to it. Latvia has relentlessly been working its way towards the Eurozone and at the time of writing, late April 2013, it seems highly likely that the country will indeed meet the Maastricht criteria and join the Eurozone by 1 January 2014.

A short chronology of Latvia's way towards the Eurozone, why the country wants to join, arguments for and against joining and recommendations for economic policy inside the zone are the aims of this article.

Latvia applied for membership of the European Union on 13 October 1995 and became one of the 'Helsinki Six' in December 1999 when accession negotiations were authorized. On 12-13 December 2002, as part of the Copenhagen Council, the country was invited to join the EU, which was followed by a referendum in Latvia on whether to join on 20 September 2003 in which 67.5% of those who voted chose a yes and on 1 May 2004 Latvia became member of the EU. But from a monetary policy angle it is interesting to notice that already on 21 September 2003, just one day after the referendum on EU membership, Bank of Latvia declared that for the country to fulfil its treaty obligations to adopt the euro 'eventually' the Bank announced that it would repeg the national currency, the lat, to the euro by the end of 2004, thus giving the public over a year to get used to this. The lat had been pegged to the SDR since March 1994 and was duly repegged at the end of 2004 at the then market rate and then parity rate of 0.702804 LVL/EUR. In addition, it was Latvia's goal to join 'as soon as possible'. This first meant 2008 which was made impossible by too high inflation compared to the Maastricht criterion, then 2012 which became impossible due to too big budget deficits and the country being in an EU/IMF programme. And now the goal is 2014.

There are indeed many arguments for Latvia joining the Eurozone. It is a very open economy where trade is highly oriented towards the European Union. It is already a highly euroized country – around 90% of borrowing is already in euros and many deposits are in euros, too – euro adoption will automatically remove this asymmetry. The country has also already demonstrated that it can operate well inside the 'friendly straitjacket' of a fixed exchange rate system, just witness the remarkable (but brutal) labour market flexibility following the financial crisis. And what is the alternative anyway? Bank of Latvia has never used the exchange rate as an active monetary policy instrument, having used it instead for inflation stabilizing purposes. In this sense the euro is 'Latvia's destiny', a natural final outcome of a plan set in motion many years ago. An additional argument deserves to be added, an argument that may be hard for westerners to understand but in Latvia many see the euro as further step in terms of integration into the EU and thus a further step away from Russia. Latvia's Foreign Minister Edgars Rinkēvičs put it very well in the Financial Times 23 April 2013 by stating: "My main message is that Latvia is joining the euro as a geopolitical choice".

And inside the Eurozone the country may finally be able to concentrate on long term development of the economy – during the boom years until 2007 such reforms were largely neglected since the economy was growing anyway while the crisis years of 2008 – 2010 could be characterized with some justification as a series of short-term fire-fighting exercises aiming at stabilizing the economy. Latvia is still the third poorest member state of the EU in terms of GDP per capita. It would indeed be brilliant if, with monetary policy set in Frankfurt and fiscal policy partly determined by the Fiscal Compact, full concentration could be devoted to developing the long term potential of this economy.

I have characterized the Eurozone as a 'friendly straitjacket' but a straitjacket it is so has Latvia learnt from its boom-bust development in order not to see a repeat of this performance?

I mostly think so. The country has adopted a 'Law on Fiscal Responsibility', a local equivalent of the Fiscal Compact which is to ensure that the highly procyclical fiscal policy that exacerbated the boom but also helped to deepen the bust should not be repeated and this is good news indeed but I would like to see something similar, though not as a law, in terms of external competitiveness. Due to an overheated labour market during the boom period, runaway labour costs created high inflation and a sharp deterioration of external competitiveness which was only restored through painful internal devaluation. Such loss of competitiveness must not be allowed to happen again – just witness the immense trouble in Southern Europe following similar losses of competitiveness during similar credit-driven booms. Can that be avoided? Here I might remain a bit sceptical. Latvia has seen notable migration which may rather easily lead to bottlenecks in parts of the labour market and thus increases in labour costs that may harm competitiveness. A more active labour market policy is warranted together with a vigilant eye on competitiveness.

The arguments for joining the Eurozone outweigh the rather few arguments for not joining, however. Latvia should indeed be on its way to its monetary policy destiny, if I may conclude in this rather pompous way.

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From enlargement to enhancement – towards a civil security financial instrument of the Baltic Sea Region?

By Timo Hellenberg

Throughout its turbulent history the Baltic Sea has played a role being that of a bridge and a barrier between Eastern and Western Europe. The Sea has carried evolution and spread destruction while digesting the ever-changing regimes.

The modern risks facing the Baltic Sea countries are more complex and intertwined with the civic society, as before. The most potential risk sources are risks resulting from supply of the energy resources, natural and man-made disasters such as storms, environmental degradation and maritime traffic accidents.

The countries in the Baltic Sea cooperation are producing the *civil security* per se. They are also all *consuming* this security while taking actively part in the growing socio-economic interaction of the region. The financial landscape for civil security cooperation (HELCOM, CBSS, projects) are much smaller in the Baltic countries than in the comparably more affluent countries at the north, west, and south-western rim of the Baltic Sea. So even if the interest to enhance the security of the Baltic Sea area would be similar in all contracting countries, the affluent countries will spend more in years to come.

The European Union Strategy for the Baltic Sea Region (EUSBSR) is one of the latest instruments of the European Union in this field. It was issued in 2009, and there are many common projects in the field of civil security with the CBSS. The Baltic Sea Maritime Functionalities (BSMF) is a Flagship Project of the EUSBSR Priority Area on Maritime Safety and Security. It aims to develop information sharing environment for the maritime domain in the coastal countries of the Baltic Sea Region through connecting existing concepts and streamlining them with already functioning operations of national entities as well as showing good practices. However, again as before, the EUBSR is still not a needed holistic and permanent financial *instrument* but another intergovernmental mechanism.

When considering concrete pooling of a permanent financial mechanism to the Baltic Sea civil security cooperation one needs to acknowledge the growing role of the private sector. It has traditionally had a strong role in shaping and initiating the Baltic Sea security cooperation. One reason is the history which has always changed the existing regimes by leaving the final leverage and responsibility on those people who are directly dependent of the sea and related industries. Today, the private actors are not only initiators of micro level projects (as in 1990s) but also play an essential role in transnational initiatives. The definition of “private” actor is no longer something “to avoid” but to “get involved”.

A positive example of an on-going wider stakeholder cooperation with dimension to Baltic Sea region is the ANVIL Project which aims to map the variety and similarities in Europe´s regional and civil security structures, practices and cultures and investigate how variety affects the safety of Europe´s citizens. The results give policy stakeholders a clear overview over civil security architectures and EU-added value to the debate concerning “not one security fits all”. The ANVIL project is funded by the European Commission within the Seventh Framework Programme (www.anvil-project.net).

So what is to be done in the Baltic Sea Region in order to manage these emerging new risks around civil security and maritime transportations in particular? Rather than losing more time and scarce resources on overlapping national monitoring, training and decision support systems, the Baltic Sea countries should *finally* manage to create one single source financial instrument. This should be done by integrating the existing funding programmes to a holistic funding platform and as such, to boost the permanent system evolution at regional, national and local levels. The starting point would be combining the three essentials - political experience and understanding, pioneering applied and multidimensional research, and most importantly, active participation of the private sector - under the same strategic alliance.

The civil security itself is too valuable resource to be placed with same category with other socio-economic spheres of life. The fact is that with current terms, these civil security projects are initiated on ad hoc basis by private citizens, SMEs and NGOs. The high level declarations and strategies should reflect these initiatives and provide the concrete establishments and financial solutions, rather than following ad hoc tenders agreed at annual summits. Finally, it is easy to be critical and it is even easier to follow the business as usual but for the sake of Baltic Sea citizens and taxpayers, there has to be better progress in the field of civil security cooperation in the years to come.

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Inflation and monetary policy in CIS countries

By Marek Dabrowski

Macroeconomic stability has always been a serious challenge for CIS countries[1]. In the first half of 1990s all of them experienced very high inflation or hyperinflation which originated from monetary and fiscal imbalances accumulated in the period of Gorbachev *perestroika*, messy way of dissolution of the ruble area, populist policies and sometimes also from violent conflicts. After the new national currencies were introduced in 1992-1993 and more effective anti-inflationary policies were launched in mid-1990s, inflation moderated to a low two-digit annual level. However, this progress did not receive sufficient fiscal policy support and most of currencies crashed heavily in the period of financial crisis of 1998-1999.

The economic boom of 2000s allowed returning to macroeconomic stability, this time with stronger fiscal fundamentals and backed by rapidly growing official international reserves. Nevertheless, these better fundamentals proved insufficient to withstand adverse consequences of the global financial crisis of 2008-2009: all countries but oil-rich Azerbaijan experienced depreciations of their currencies again. The entire region entered the period of the increased macroeconomic uncertainty even if most countries recorded growth recovery in 2010-2012 and reduced somewhat their external and internal macroeconomic imbalances.

Inflation although lower than in 1990s, remains on a higher level as compared to other regions (Figure 1). Several CIS countries experienced problems with sustainable disinflation to a single-digit level. This concerned, in first instance, Belarus, the worst performer in the region (Table 1). However, Uzbekistan, Ukraine, Russia, Moldova and, for shorter periods of time, Azerbaijan, Kyrgyzstan and Turkmenistan also recorded two-digit annual inflation rates, sometimes approaching or even exceeding 20%.

This rather disappointing inflation performance has very much to do with the absence of firm political consensus around price stability and imperfect institutional status of many central banks which are neither legally nor operationally independent from executive and legislative branches of government. As result all CIS countries run the so-called hybrid monetary regimes under which authorities try to manage simultaneously exchange rates and interest rates/ money supply. Such regimes are inconsistent in terms of the pursued policy goals (some of which are not related to price stability) and non-transparent for broader public and financial markets. Not surprisingly in time of global or regional financial turbulence they become easy targets of speculative attacks as it happened in 1998-1999 and 2008-2009.

The IMF's advocacy of more flexible exchange rate regimes and inflation targeting (IT) brought limited results so far. Only three smaller countries – Armenia, Georgia and Moldova – managed to increase somewhat flexibility of their exchange rates during the decade of 2000s what was rewarded with improvement of their inflation performance (Table 1). Very recently, Russia follows the same kind of policy change, also with positive result in terms of its lower inflation rate. However, none of the mentioned countries managed to develop IT framework beyond its very initial phase.

The main obstacle on the way to full adoption of the IT strategy is related to the phenomenon called in the economic literature as the 'fear of floating'. Free floating, without any central bank intervention on the forex market, is considered as the risky regime in economies with high dependency on consumer import (which results in high exchange rate pass-through on domestic inflation) and in those with high level of actual dollarization. Both are the cases of the former Soviet Union.

Dollarization can be considered as the legacy of turbulent 1990s and sometimes (Belarus) of more recent devaluation experience (in 2011). In countries which are large labor exporters (Moldova, Armenia, Kyrgyzstan, Tajikistan, Georgia) it also results from high inflow of migrants remittances. In most cases the share of foreign currency deposits in total deposits remains in the range of 40-65%. One should add the widely used dollar cash which is outside these estimates. Russia is the only country where deposit dollarization does not exceed 20%.

As seen from the above analysis the road to full monetary stability and sustainable low inflation in Russia and other CIS economies is still quite long and requires policy effort on many fronts, including more independence of central banks and strengthening their anti-inflationary mission, fiscal stability, financial sector reform and many others. In countries which are evidently delayed in building market economy (Belarus, Uzbekistan and Turkmenistan) more fundamental economic and institutional reforms are badly required.

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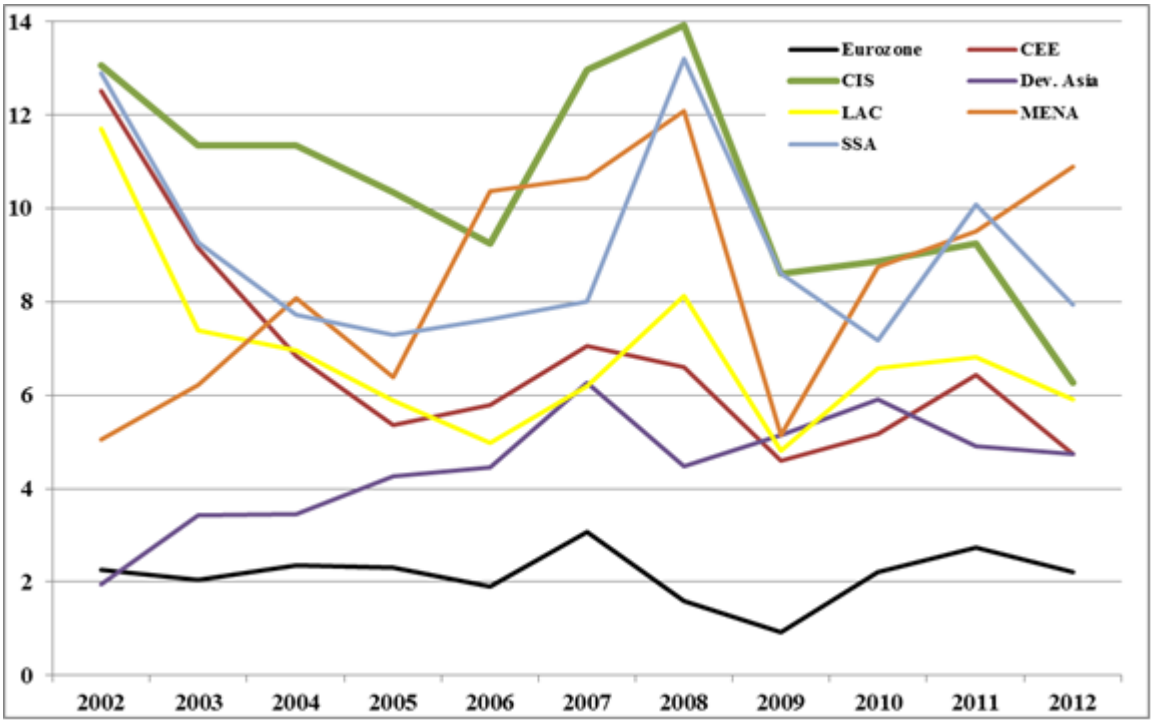
This article is based on a larger study prepared for the Bank of Finland Institute for Economies in Transition (BOFIT).

[1] In this article 'CIS countries' mean twelve former Soviet republics (all but Baltics). Formally, Georgia left the CIS in 2009.

Figure 1 Major regions: end-of-year annual CPI inflation in %, 2002-2012



Source: IMF World Economic Outlook Database, April 2013.

Table 1 End-of-year cumulative CPI inflation, 2011, comparing to 2000 and 2005

Country	2000=100%	Rank	2005=100	Rank
Armenia	166.3	1	143.4	2
Azerbaijan	222.7	4	176.1	7
Belarus	1043.1	12	342.0	12
Georgia	198.2	2	148.9	3
Kazakhstan	241.0	6	173.2	5
Kyrgyzstan	229.9	5	190.4	9
Moldova	257.8	7	162.1	4
Russia	328.7	10	173.5	6
Tajikistan	315.3	9	190.1	8
Turkmenistan	209.7	3	140.5	1
Ukraine	288.7	8	203.9	11
Uzbekistan	407.0	11	200.4	10

Source: IMF World Economic Outlook Database, October 2012, Author's own estimates.

Corruption line in Baltics – the key differences between key countries

By Erkki Laukkanen

Introduction

Corruption has no unambiguous, universally recognised definition. The starting point, however, is always the abuse of a dominant position for private gain; either one's self, or an associated network. The greater part of corruption always remains an undetected, hidden crime (Johnston, 1996; Transparency Finland, 2012.).

Thus, measuring the scale of corruption is a difficult game: in order to grasp the big picture, several different gauges must be used (June, 2008). Even these only tend to reveal the tip of the iceberg, being based on actual detected cases of corruption (Kaufman et al., 2006; Johnston 2007). This issue was detected in Finland's National Integrity System project too (Salminen et al., 2011).

The best-known corruption index is the CPI, Corruption Perception Index, issued by Transparency International for over 20 years. CPI only measures corruption detected in the public sector. The ratings awarded to each country is based on the information obtained by 7 to 12 international institutions, each of which collect their data through their own means: the citizens in any given target country may not have been asked a thing.

Fortunately, Transparency International also collects data directly from citizens, who must know corruption in their own respective countries better than anyone else. This survey goes by the name of GCB, or Global Corruption Barometer. This rather underutilised survey has been conducted since 2003, excluding the year 2008. In a recent article, I have utilized these data to develop a competing index to CPI (Laukkanen, 2013).

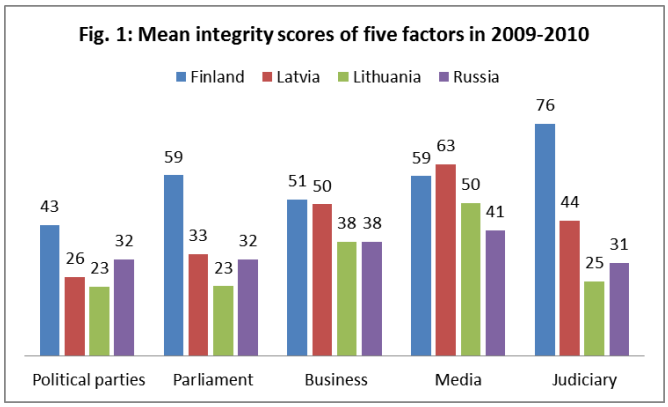
In this article, I focus to Finland, Latvia, Lithuania and Russia.[1] The question is, how do these countries differ regarding detected corruption, i.e. detected by people on these countries. I apply the GCB data to engineer a new integrity index (II) based on the perceptions of the citizens to cover the period from 2004 to 2010. Then I compare the results of II to results of CPI, Corruption Perception Index, and finally I shortly comment the differences.

Integrity Index (II) by its constituents

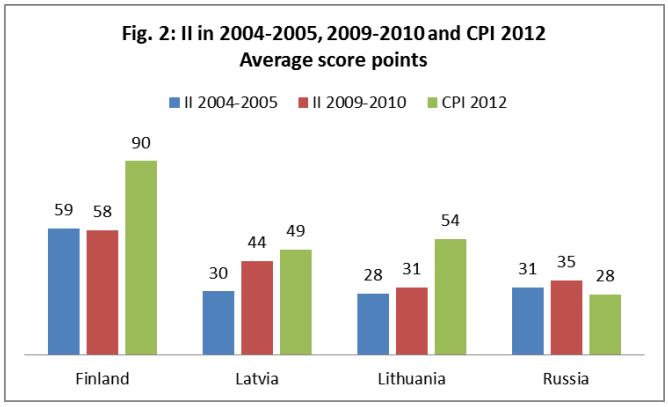
The five contributing factors largely cover both the private and the public sector. These factors are the political parties, the parliament, the business community, the media, and the judiciary. Each factor has been assessed by the respondents on a scale from 1 to 5: not corrupt at all – entirely corrupt. I reversed the numeric scale and expanded it to span from 0 to 100: entirely corrupt – not corrupt at all. Finally, I added the five factors together and divided the sum by five, after which we also had the total index (the Integrity Index or II) ranging from 0 to 100 points.

Working in this manner, the Integrity Index is revertible to its original sources, and the variation in its constituent factors may be evaluated in the same fashion as the variation of the II itself. There is an added bonus: the II becomes comparable with the CPI (Corruption Perception Index) after its update in 2012. It is, therefore, now possible to assess the differences between the CPI and the II deducted here. Core information of the constituent factors and their development may be found in figures 1 – 3. [2]

As seen in Fig. 1, Finland scores best in all constituents of the II. Especially, Finland's judiciary (76 pts.), parliament (59 pts.) and political parties (43 pts.) score much better than those in comparison countries. Regarding business, Latvia (50 pts.) is very close to Finland (51 pts.), and regarding media, Latvia (63 pts.) scores better than Finland (59 pts.). Moreover, Lithuania (50 pts.) is close Finland too. The data shows that since 2004 Finland's premiun vis a vis to other comparison countries has decreased. Besides, the data shows that Latvia has increased its points especially ragarding judiciary, business and media.



In Fig. 2, I show the development of the Integrity Index (II) from 2004-2005 to 2009-2010 and CPI 2012, i.e. Corruption Perception Index 2012. Regarding II, Finland's score points have not changed from the mid 2000s to the end of 2000s. In Lithuania and Russia score points have increased some, i.e. 3 to 4 points. But in Latvia score points have increased a lot, i.e. 14 points. And when it comes to CPI 2012, difference to II is significant in Finland and Lithuania: CPI scores those two countries much better than II does. But in Latvia and Russia, II and CPI produce around the same scorepoints, i.e. the diffenreces in score points is "only" 5 to 7 points. Russia is the only country, where CPI produces less points than II does.



[1] Unfortunately, Estonia was included only in 2004, and even then with a quite small sample. Therefore, I had to drop it off.

[2] Unfortunately, the number of observations for Estonia, Latvia and Lithuania was so small that I had to pool them together to Baltic.

Conclusions

Detected corruption is only the tip of the iceberg, and, therefore, all country comparisons are sensitive to available data and the study set up. In CPI, Corruption Perception Index, country rankings arise from undirect measurements of 7 to 12 international institutions. CPI ranks public sector only. In GCB, Global Corruption Barometer, country rankings arise from direct guestioning from the people. GCB asks about private sector too. Therefore it is not surprising that rankings, as well as scores behind the rankings, between the two measusrements may differ.

In this article I have utilized the latter way of measurement, i.e. asking directly from the people, to find out how corrupted people find Finland, Latvia, Lithuania and Russia regarding political parties, parliament, business community, media, and judiciary. The results suggest that Finland's position regarding all these five constituents, and especially in judiciary and parliament, is far better than in comparison countries. But, during the 2000s, the difference between Finland and comparison countrieshas got smaller, and especially so compared to Latvia. In many respects, these results differ from those produced by CPI.

These results may be tentative, but certainly they justify the question, how do we actually differ from each other? Such a question is not to be answered by means of CPI, since it measures only detected corruption and that only in the public sector. However, both measurements are needed. The truth, however, may be somewhere between the two measurements.

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Bumps ahead

By Lars Johannsen

The restructured and recalibrated civil services in the three Baltic states have performed beyond their wildest dreams. In less than twenty years, they have been transformed from being political tools in an oppressive planned economy to being able to manage market economies in open democratic settings. Moreover, administrations have simultaneously been able to negotiate entry into and implement the policies of the EU and NATO. Perhaps only optimists without any sense of realism would have thought this likely twenty years ago.

Despite the success, much still needs to be done, and as the administrations find their feet, it is important to maintain and build capacity and, by careful reform, weed out corruption and political favoritism.

First, the civil service, that is, both the central and subnational level governments, was somewhat bloated twenty years ago compared to other East Central European countries. This could be expected given the Soviet inheritance, the relative smallness of the countries and the sheer magnitude of the process of Europeanization and marketization. However, given the financial burden of footing reforms has been important. In this regard, Estonia has been the most effective. Although the relative wage bill has increased, excess workforce has been sheeted, on average, retaining a leaner civil service with a better blend of competences.

Second, the administrative development has been driven by necessity. In the accession process the prime ministerial offices and various EU-integration departments proved to be at the cross-roads of power. In a similar vein, the central banks retained much economic expertise and oversight given the need to secure the new currencies and develop the banking sector. However, the financial crisis and the subsequent belt-tightening have moved the ministries of finance to prominence. The present financial crisis is the third or perhaps fourth in the last twenty years, and it is time to take the long view.

The possible lesson is that the small and open economies are and will continue to be vulnerable to economic chocks. All the more, it is important to improve the in-house capacity of economic, financial and administrative advice and stimulate independent research at universities.

Third, there is a need to cut red tape and corruption to strengthen the market and improve the quality of democracy. A 'helping hand' of the East Asian type is not what is needed but a continuous drive to reduce the burden of red tape. For example, the number of procedures required to start a business or simply to have your firm connected to electricity is still higher in all three countries than, say Denmark, with a slight tendency that Lithuania has the most cumbersome procedures of all.

It is not that the administrations risk becoming 'grapping hands', which is a profound description of the politicized administrations in neighboring countries further to the east, as civil servants in all three countries are equipped with the right moral compass. All surveys demonstrate that civil servants are well aware that nepotism and bribery circumvent democracy and break codes of good public administration. Indeed, the majority of civil servants support a stronger stand against corruption, including increased penalties for wrongdoers. However, a moral compass only shows the direction. Even if Estonia's favorable ranking, compared to the two southern states, on corruption perception indexes is taken at face value, the sad case is that corruption, favoritism and illicit networking are a problem for all three administrations.

Reducing red tape will lower the demand for expediency money or grease, but it is not a cure in itself for a problem that penetrates the political life. For example, Latvia's former president, Vike-Freiberga, was very outspoken when she lambasted the members of the parliament for their shadowy affairs in 2007.

The three countries have adopted different policies to combat corruption, and while the jury is out with respect to the *best policy*, the probable answer is that an alliance between investigative journalism, active NGO's and a determined government to increase transparency is needed. Developing an *esprit de corps* of the civil service stressing classical values of *serving* the citizens is much needed in the Baltics as it is increasingly the case in the West following decades of NPM reforms stressing efficiency and effectiveness. Considering the Roman question 'cui bono?', it is, however, difficult to see strong impetus for anything but symbolic reforms. If other issues appear as bumps along the way in the light of the track record of the first twenty years, corruption is the stickiest of all the problems in the administration and in the political life. It is perhaps also the issue with the most serious consequences, as witnessed in the Greek tragedy of the last year.

Finally, administrative reforms have been sponsored by whoever partner is willing to sponsor a project. Thus, 'islands' have been targeted at the mercy of whatever theory or pet project, whether that be NPM, HR, agencification or something else currently in fashion at the partner's end. Eventually, national administrations will amalgamate, bearing their own culture. Until then, expect your meeting with the Baltic administrations to be a very *different experience,* not only between the countries but also within them.

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The chances for reconciliation between Poland and Russia

By Stanisław Bieleń

It is worth looking at the chances for reconciliation in Polish-Russian relations from the perspective of the geopolitical change that took place with the collapse of the bipolar system. Previously a Soviet satellite state, Poland became NATO's biggest and the EU's immediate neighbour of Russia. The Polish-Russian border also acts as a line separating the Western world and the post-Soviet area, which, according to Russia, constitutes its zone of privileged interests. It is a natural "axis" of cooperation between large groupings of countries, but also an "axis" of confrontation and competition for influence, benefits and control. In this sense, Polish-Russian relations are burdened with the implications of the strategic conflict that has existed for centuries between the Western world and Russia. All the problems related to Poland's international security, including energy security, are derived from this historical conflict. In addition, there are disputes over the visions of neighbourhood and the burdens of history, which is understood as an instrument of current policy.

The chances for reconciliation in Polish-Russian relations are determined by a rebuttal of three myths based on false geopolitical codes.

The first myth concerns the wrong assessment of Poland's geopolitical situation. This leads to a belief in a permanent German and Russian threat ("German-Russian condominium") on the part of some elites. True, Poland is not an independent player in the international arena. It is unable to develop any strategy that would free it from the influence of its largest neighbours. Thus, the sooner it chooses to engage in joint ventures with them, the fewer illusions it will have about sovereignty and independence. It is particularly important to stop treating Russia as part of the so-called adversarial area. Neither modern Germany nor Russia is a revisionist and belligerent state. Russia does not exhibit any aggressive, warlike intentions towards Poland. They constitute an abstract, imaginary threat. Reverting to Cold War stereotypes does not lead to solving real problems which are faced by all the states and people of the world.

The second myth is derived from anti-Russian phobias and concerns Ukraine. It is about extricating it from the Russian sphere of influence, which proves to be an impossible task. Not only because of the balance of power between Poland and Russia, but also because of the policy of Ukraine itself. The assumption of the convergence of strategic objectives of Poland and Ukraine, which are supposed to share the anti-Russian policy vector, has turned out to be false. That's because Ukraine is a politically ambivalent country (it has repeatedly declared its commitment to a multi-vector policy) and much suggests that intrigues played out between the Western countries and Russia around it do not bring Poland any benefits. On the contrary, it is exposed to losses, as evidenced by Russian economic moves (an embargo, resource transport routes bypassing Poland). Having no possibility to influence the course of events in the East, Polish political centres stubbornly emphasize the necessity to maintain the Ukrainian buffer effect between Poland and Russia. It is a cultivation of confrontational thinking about "containing" Russia, based on suspicion and distrust. It means these centres are nowhere near reconciliation and normalization with Russia.

The third myth relates to the alliance with America, which is supposedly an antidote to Poland's geopolitical troubles in Central and Eastern Europe. But taking on the role of America's "armed wing" is a mistake. The U.S. strategy toward Russia does not correspond to the interests of a country like Poland. According to scenarios drawn up across the ocean, it may seem that Poland is supposed to act more as a "bolt" against Russia than a catalyst for rapprochement. For what is the purpose of a permanent U.S. military base on Polish territory if not to bolt Russia? The military demonstration of a "durable partnership" with Poland by the United States means that the Polish state is an essential element of U.S. plans for presence in Europe. Thus, understanding the logic of America's imperial expansion, which inevitably collides with similar imperial plans of Russia, only one conclusion can be drawn for Poland: any attempt for its rapprochement with Russia will clash with the functions it has been assigned in the U.S. strategy. The pro-American bias of political elites is a "cornerstone" of Poland's foreign policy, so there is a permanent conflict between affiliations with America and an improvement in relations with Russia. In the long run, Poland's bet on America is doomed to disappointments and failures in the normalization processes with Russia.

Polish political elites are unable to determine their own geostrategic paradigm and put it in the context of a changing U.S. hegemony and the shift to a polycentric world. The awkwardness in explaining Poland's raison d'etat, for example in the context of the revelation that the highest authorities agreed to assist the U.S. secret services in detaining and interrogating terrorists on Polish territory, shows an intellectual weakness of decisions makers. First and foremost, it is unclear what is the price for Polish interests when it comes to supporting the U.S. ally. It was clear to see in the participation in the Iraq war, now it is clear to see in the participation in the Afghan intervention. Polish political elites, both right-wing and left-wing, by constantly expressing concern over a renewed dependence on Russia, uncritically succumb to American geopolitical visions, related to the encirclement and fragmentation of Russia (the so-called Anaconda policy), and this means, for example, that Polish secret services (in particular intelligence) become hostages of foreign geopolitical concepts (CIA prisons in Poland could be only the tip of the iceberg). It's a wonder that Poland fails to see the dependence and a threat to its national values here.

Rebutting these myths is not easy. They can be, however, offset by new strategic concepts, among them the idea of the "Kaliningrad triangle", resembling the "Weimar triangle". Reconciliation and partnership with Germany and Russia require courage and determination of elites, so as not to give in to concerns and warnings, typical for Polish mentality, that a smaller and weaker Poland will once again become a victim of expansion of the two powerful neighbours. Making a case for this idea, it is worth referring to the optimal use of Poland's geographical location along the European continent's most important transport routes. Polish geopoliticians have long suggested taking advantage of these opportunities, for example in the form of building a high-speed rail line Paris-Berlin-Warsaw-Moscow, or an energy bridge Olsztyn-Kaliningrad. Indeed, the Russian Baltic exclave could be used as an important place for reconciliation between the three nations and the launch of a new, common future.

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15 years of support for cities' urban health planning in the Baltic Region

By Johanna Reiman

Urban health remains a timely topic in the ten countries surrounding the Baltic Sea. The establishment of the Baltic Region Healthy Cities Association in 1998 was part of an effort to support cities belonging to the World Health Organization Healthy Cities programme. The Baltic Region Healthy Cities Association, based in Turku, Finland, promotes health conditions in urban areas in the Baltic Region and supports WHO policies, which concentrate on urban health issues. The WHO Healthy Cities movement supports comprehensive and systematic policy and planning for health. It emphasizes participatory governance and the social, economic and environmental determinants of health and seeks to build a local level movement for health promotion. The Baltic Region Healthy Cities Association aims at increasing the awareness of local governments to make health a central factor in the policymaking process of municipalities.

Since 1987 the WHO Healthy Cities programme has promoted crossectoral health and wellbeing work. Health in All Policies underlines the importance of bringing health considerations toward the forefront of strategies and actions of cities. Health can and should be promoted in, e.g., education, urban planning and transport as well as the social and welfare sectors of municipalities. Health promotion is a cost-beneficial activity. Members of the Healthy Cities network can learn from each other and exchange ideas and practices.

The Baltic Region Healthy Cities Association has served as a World Health Organization Collaboration Centre for Healthy Cities and Urban Health in the Baltic Region since 2002. The founders of the Association were the city of Turku, the University of Turku and the Social Insurance Institute of Finland. Åbo Akademi University and the Turku School of Economics (now a part of the University of Turku) soon joined as members. The members lend their expertise to the Association's urban health endeavours.

Supporting Healthy Cities in the ten countries surrounding the Baltic Sea has been the core of the Association's work. At present, cooperation is ongoing, e.g., with Russian, Latvian and Nordic cities and networks. In 2012-2013 the Association has also supported Lithuanian and Estonian networks primarily by lectures at conferences and common training sessions. There are now 25 cities in the Healthy Cities network in the Baltic Sea region. The network is growing and Saint Petersburg and Riga are among the applicant cities. When taking into account municipalities in the national networks there are about 280 of them in the Healthy Cities network in the Baltic Sea region.

In the first years of the Baltic Region Healthy Cities Association, sexual health projects were conducted in Estonia and Russia. Other projects have centered on, e.g., HIV/AIDS, promotion of physical activity and tackling non-communicable diseases. At present the Association is involved in a project of the European Union to combat potential years of lost lives in the Kalininsky District of Saint Petersburg. The Association started its first-ever EU 7th Framework Programme's project in December 2012. IROHLA (Intervention Research On Health Literacy among the Ageing population) focuses on improving health literacy for the ageing population in Europe by improving competencies and empowerment of older adults and providing innovative tools for services. Most of the Association's projects have included actions to combat health inequities which continue to rise in Europe and in the countries around the Baltic Sea. The Association cooperates with health promotion experts from many different countries.

Active communication is an essential part of the Association's work. Regular newsletters are sent and articles are written for both local and international newspapers and journals. Furthermore, the Association's experts are often invited to speak at Baltic Sea countries' national and international conferences and seminars.

The Turku School of Economics, the University of Turku and the Baltic Region Healthy Cities Association organized Well-Being in the Information Society conferences in 2006, 2008, 2010 and 2012. In 1999 the city of Turku and the association hosted a Healthy Cities conference and in 2006 the Annual Business and Technical European Healthy Cities conference in Turku. The 8th WHO Global Conference on Health Promotion will be held in Helsinki on 10. - 14.6.2013 and the Association is involved in its arrangement.

Healthy Cities is a unique concept in which the World Health Organization works directly with cities instead of national governments and ministries. Healthy Cities have remained and continue to develop as a lively ideology. The WHO Healthy Cities programme has created a health-promoting philosophy, leaving the choice of actions to member cities in 30 European countries belonging to the network. Many of the ideas tested in the Healthy Cities network have later been implemented and brought into practice in cities and municipalities and as parts of national legislation. An example of this is the wellbeing report of Finnish municipalities.

We are born with certain genes. However, there are many issues in our preschool, school, work and living places which affect our health. The cities' role is crucial in ensuring that all citizens can live up to their maximum potential. The Healthy Cities programme deals with physical, mental and social wellbeing, giving cities inspiration for cross-sector health promotion.

The difficult economic situation in present-day Europe means that more – not less – emphasis should be put on health promotion. Resilience and empowerment of citizens is one of the key messages of the Health 2020, a European policy framework and strategy accepted by the 53 World Health Organization European member states in 2012. The Baltic Region Healthy Cities Association continues to develop, maintain and strengthen knowledge of health and wellbeing promotion in the cities of the Baltic region.

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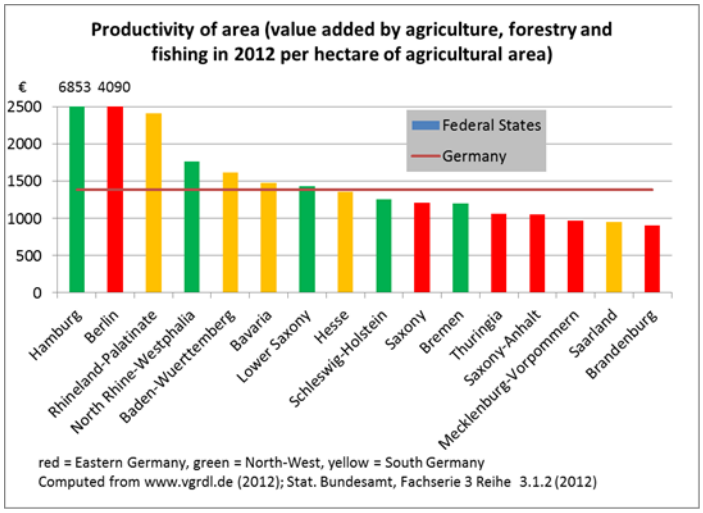
Rural areas of Eastern Germany

By Helmut Klüter

Eastern Germany includes the Federal States of Mecklenburg-Vorpommern, Brandenburg, Berlin, Saxony-Anhalt, Saxony and Thuringia. It is the territory of former GDR which in 1990 was reunified with Western Germany. In Eastern Germany there are living 16 million inhabitants (less than 20 per cent of German population) on 108 thousand square kilometers (30 per cent of German territory). Only 11 of 80 towns of more than 100,000 people are situated in Eastern Germany. Thus, Eastern Germany is less urbanized than Western Germany. On the other hand, one third of all German agricultural area is concentrated in the Eastern Federal States. The average agricultural area in Western Germany is about 46 hectares per unit while in eastern Germany it is more than 230 hectares. That means that agriculture is more industrialised in the East. Soil and technical conditions for agriculture are better in Eastern Germany as more than half of Western German territory is mountain area.

By this Eastern German agriculture is expected to be more productive than Western German. But reality shows the opposite: In 2012 value added by agriculture was 1558 Euro per hectare in Western Germany, but only 1027 Euro in Eastern Germany.

Figure 1 Productivity of area



This is not only the picture of the year 2012 but that of the last two decades. There are several reasons: In Western Germany 86 per cent of the land is owned by small and medium sized family farms. The big agro-industrial firms owning 73 per cent of agricultural area in the East produce mainly cheap mass goods like grain, maize or raps. Most of them are not able to grow expensive fruit, vegetables or flowers because they do not employ enough labor. In the average, in the Eastern Federal state of Mecklenburg-Vorpommern there is working only 1.3 persons on 100 hectare while in North Rhine-Westphalia (Western Germany) there work 4.3 persons. The agriculture of North Rhine Westphalia is mainly based on family labor (69,200 persons) not so much on paid laborers (17,500). In Mecklenburg-Vorpommern there are only 4,500 family persons working in agriculture but 14,900 paid laborers. For a family farmer it makes no sense to leave his family without work. So he tries to intensify production f.e. by gardening or creating income combination with tourism, direct marketing his products, rural craft and others.

The big agro-industrial business is not interested that much in intensification. They mainly live on subsidies from the European union. The owner of a 1,000 hectare enterprise got 344,000 Euro subsidies in 2012. In Germany most of EU subsidy is spent according to area, i.e. 344 Euro per hectare (average). In 2012 the number of enterprises that got more than 300,000 Euro a year was 1,844 units or 0.55 per cent of all agricultural land owners. They got cumulated 988,323,213 Euro, that means 16.96 per cent of all subsidy money. 952,887,238 Euro of this sum were reserved only for Eastern German agro-industrial business. Being supported by so much money, the business needs not to worry about sensitive plants like flowers or vegetables. The subsidy productivity is much lower in Eastern than in Western Germany. In Western German Rhineland-Palatinate 1 Euro subsidy generated more than 8.88 Euro value added by agriculture (2012). In North Rhine Westphalia it generated 4.60 Euro, but in Eastern Germany only 3.03 Euro. The lowest rate of 2.88 was found in East German Mecklenburg-Vorpommern, the Federal State, in which the agro-industrial business gets more financial support than in any other federal state. The enterprises compensate low productivity by low investment. Thus profit is high enough to buy more land and to get more subsidies. Another instrument to suppress family farms is price dumping. The links between agro-business and food industry are rather tight. By this agro-business does not only attack family farms in Eastern but also in Western Germany. Each year about 7,000 family farms – mainly in West Germany – are closed down.

A second factor fostering the development of huge agro-industrial business in Eastern Germany is lack of technical and political control. As the Eastern German Federal States do not have so much population, not so much industry, no large banking and no financing facilities they cannot afford such monitoring and controlling organizations like in Western Germany. In nearly all parts of Western Germany only agricultural professionals are allowed to buy agricultural areas. In Eastern Germany everybody can buy agricultural land. Investment fonds and other non-agricultural enterprises are buying land in great quantities so that the prices for agricultural land are so high that family farmers cannot acquire them. The largest buyer of land is the investment organization KTG Agrar owning more than 27,000 hectares.

The largest seller of agricultural area in Eastern Germany is the Federal privatization agency BVVG. When the agency was founded during the reunification process in 1992 the first target was giving the land back to the private owners that were expropriated during communist GDR period. But soon the Federal Minister of Finance gave the order to sell the land to those who pay the highest prices – i. e. mainly to the former directors of socialist production units, to agro-industrial business and to several investors from Western Germany and the Netherlands.

The effects of this policy on rural areas are destructive. The big agrarian businesses that reduce labor get more public financial support than the rural municipalities. During the last two decades the Federal state of Mecklenburg-Vorpommern has lost 200,000 working places in agriculture. Only 27,000 remained up to 2012. Mass emigration from

rural areas was the consequence. Since reunification several rural regions of East Germany have lost more than 70 per cent of their population.

Though Eastern Germany has better soil and climate conditions for growing plants and cattle the large scale agriculture is not able to supply cities like Berlin or Leipzig with enough food. More than two thirds of ecological clean food has to be imported from Western Germany.

A change in this negative development is only possible if German Federal Government and the EU commission will limit subsidizing agro-industrial structures, i. e. including estates of more than 500 hectares or more than 2000 pigs or mow than 500 cows.

Secondly there must be organized a municipal reform. Each municipality must be able to solve the constitutional tasks of administration. Today in Mecklenburg-Vorpommern only 7 per cent of 784 municipalities are strong enough for this.

Thirdly public planning of rural regions has to stop supporting agro-industrial business. The planning authorities should try to diversify production in rural Eastern Germany – like in Western Germany.

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The Interreg IIIB BSR programme as a tool for developing a unified transport system in the Baltic macroregion

By Ivan Gumeniuk

In the Baltic region, the intensification of regionalisation processes resulted in the successful development of a special form of international activities – transboundary cooperation, which can be defined as an aggregate of bilateral and multilateral connections between authorities, economic entities, NGOs, and the residents of border regions of two or more countries.

An important objective of transboundary cooperation in the Baltic region is the reduction of socioeconomic disparities between individual countries and regions, first of all, between the "old" and "new" EU member states. Transboundary cooperation is beneficial for all parties. Some regions gain access to new markets for their produce and get an opportunity to involve new participants in the area of their economic influence, others get the opportunity to synchronise their socioeconomic development with that of regional leaders and attract foreign investment.

Transboundary cooperation covers all development areas. One of the key elements is the transport system, which is explained by the essential role transport plays in the Baltic region. One can identify three different functions of transport, which justify such close attention to the problems of its development:

1. *The institutional function*. The Baltic region's transport system is both an object of transboundary cooperation and a key tool of network cooperation in the region. Alongside the telecommunications industry, the transport system ensures interaction between all participants of the network cooperation.

2. *The regional function*. For many countries and regions of the Baltic Sea, transport is one of key specialisations making a significant contribution into the GRP and ensuring a sufficient employment rate. For them, the development of transport system is a necessary condition for sustainable socioeconomic development.

3. *The global function*. Within the global transport system, the Baltic macroregion encompasses key transport routes supporting global cargo and passenger traffic between European and Asian countries. In such conditions, the qualitative development of the Baltic region's transport system allows the region to remain competitive in the world arena playing an increasing role in the global cargo traffic. In this case, transport ceases to be an industry of internal competition between countries and transforms into a strategic tool of global positioning of the macroregion.

An important tool for implementing international network projects aimed at enhancing the macroregions transport system is the Interreg IIIB BSR programme initiated and financed by the European Union.

Out of 129 projects implemented within the programme, 28 focused on transport problems (21.8%); 29 out of 134 mln Euros of the total programme budget were allocated to these projects. Transport projects involved the largest number of partners. If, on average, 24.8 partners took part in one project, in case of transport project, the average number of partners reached 27.6.

From the results of transport project implementation, one can conclude that a developed network axis (South Finland – South Sweden – Denmark – North Germany) has formed in the Baltic region; it brings together the most economically developed regions of the macroregion, which participate in all transport projects as principal partners. Their experience was used in the development of transport systems in the other Baltic regions. Another proof is that in only 4 out of 28 transport projects, the principal partner represented one of the "new" EU members (once it was Klaipeda and Gdansk and twice Riga).

The Russian participation in the implementation of transport projects was rather active. Out of 28 projects, 21 involved Russian partners. In the framework of the programme in general, Russian organisations participated in 78 out of 129 projects (approximately 60%), whereas, in case of transport projects, this share is more substantial (75%). Such active involvement of Russian partners suggests that the European countries are perfectly aware of the role the Russian party plays in the formation of the unified transport system in the Baltic region. For Russian region, integration into the unified transport system will help develop a transparent competition mechanism, which will gradually transform into cooperation.

In conclusion, one must emphasise the importance of the Interreg IIIB transport project. It relates not only to the results of the improvement of the Baltic region's transport system, but also to the shared understanding of the need to establish long-term contacts in the field of transport. Such contacts ensure the coordination of development of national transport systems with common interests and promote a strategic understanding of the targets and objectives pursued by the Baltic macroregion – a region that serves as a good example of successful development of network cooperation in the 21st century.

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Promoting business education in the Baltic Sea Region – the case of the Latvian-Russian cooperation

By Anatoly Anishenko and Aigars Rostovskis

Nowadays business education, as a part of the higher education system, is becoming more of a factor, defining economic, socio-cultural and political trends in the Baltic Sea region (BSR).

However, it would be quite difficult to state that the cooperation between Russian and Baltic business schools has resulted in success or has obtained advanced progress. Business education market in these countries is relatively young with a history less than 20 years. Its structural patterns and curricula are mainly oriented towards the US and Western Europe.

Experts believe that Latvia is the most promising Russia's partner in the sphere of business education. First, Latvia has achieved a greater success in this field as compared to other Baltic States. Second, there is a growing 'social demand' because the Latvian-Russian economic relations are booming. Latvia is leading among the Baltic republics in turnover with Russia, which takes the second place in Latvia's foreign trade priorities. Latvia encounters more than 2,600 enterprises registered with Russian equity capital.

It should be noted that the Latvian and Russian business education systems have much in common. For example, they evolved through three similar stages:

1. Post-soviet period, during which education institutions introduced a two-tier system (Bachelors and Masters Degrees).
2. Accreditation period.
3. Introduction of the Bologna Process (BP) principles in full and adjustment to the European educational standards.

There are several factors that could provide interaction between the two educational systems:

- Strong cultural, social, and economic links between Russia and Latvia.
- Both Russia and Latvia have joined the BP that aims at integration and harmonisation of the European higher education system.
- The countries have built similar systems of business education which is based on state universities and private business schools.
- Russia and Latvia have a solid knowledge about each other's higher education systems which have a compatible methodological basis.
- Business education is institutionalized into a competent and relatively independent higher educational sub-system.
- The two countries have a proper international legal framework which is an objective prerequisite for their sustainable interaction in the sphere of business education. The two countries have adopted the EU Road Map of 2005 on the Common Space of Research and Education, Including Cultural Aspects. This allows the two sides to specify the agreement points, in particular to introduce joint or double BBA and MBA degrees and ensure their convergence and mutual recognition.

Russia's cooperation with Latvia (and other Baltic States) in the field of business education develops in two major forms. The first one is an inter-university cooperation. A number of Latvian and Russian universities (mostly from the country's north-western part) have bilateral agreements on academic staff and student mobility as well as on promotion of joint degree programs. From our perspective, joint training programs - especially in such areas as Business Administration, Management, Finance and Credit, Banking, Logistics, Tourism, Information Technology, etc. – should be primary priorities for the bilateral cooperation. Broad prospects for business education development are opened up by new teaching techniques based on information technologies such as distance learning, teleconferences, interactive education modules, simulations and role games, etc. Stable contacts between universities can - in the long term perspective - ensure cumulative development of the Latvian-Russian business projects, as well as a positive trend in political relations.

Cooperation between the entrepreneurial structures (individual companies, chambers of commerce, SME support institutions, training and re-training centres, etc.) is the second form of the Latvian-Russian cooperation in the sphere of business cooperation.

One of the leading business schools in Latvia Turiba University set up cooperation ties with Russian partners in number of fields including the programs in International Tourism and hospitality management, International economics and International business management. Turiba University has strategic partnership agreement with the Nizhny Novgorod region Chamber of Commerce and Industry.

However, despite the existing objective prerequisites, cooperation in the area of business education between Russia and Latvia is limited to specific sectors and individual cases. Whereas European business schools attract the flow of students from China, India, Turkey and other countries, the number of international students in Russian and Latvian similar educational institutions is not large.

To conclude, Russian and Latvian business schools have accumulated certain cooperative experiences. To make a better use of these experiences and further develop business education in the BSR this sector of the higher education system should be given a priority attention both from the governmental and private actors. A sort of a public-private partnership to promote business education in the region is in a high demand. The sub-regional institutions such as the Council of the Baltic Sea States, Baltic Sea States Sub-regional Cooperation, Union of Baltic States, Baltic Development Forum, etc., can be helpful as well.

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New opportunities for Kaliningrad in the development of Russia-EU relations

By Gennady Fedorov

The 1990s saw an animated discussion on the possible role of the Kaliningrad region as a pilot region in Russia-EU relations. In the early 2000s, Kaliningrad scholars put forward the idea of the region acting as a special "development corridor" between the most developed core regions of Russia and the EU neighbours of the region.[1] However, the favourable geographical potential for implementing such function has not been fully untapped. It is explained by certain cooling of the relations between the parties in the 2000s. Moreover, by 2013, the Kaliningrad has achieved certain success in the development of Russia-EU cooperation; the intensity of mutual connections is comparable only to that at the Russian-Finnish border.

The best results have been obtained at the Russian border with Poland, where local border traffic was introduced in the framework of a Russian-Polish agreement signed in summer 2012. It gives the residents of the whole Kaliningrad region an opportunity of multiple visits to the adjacent Polish regions, including Tricity (Gdansk-Gdynia-Sopot), Elbląg, Olsztyn, and the famous tourist centres of Mikołajki and Mrągowo with specially issued documents (cards). The reciprocal tourist flows have increased significantly, although Kaliningraders visit Poland predominantly for shopping purposes and the Polish Russia for cheaper petrol. However, the education, recreational, and business tourism does develop simultaneously; prerequisites for the further development of cross-border cooperation in manufacturing and the social sphere are being created; the relations between people living astride the border are getting warmer.

Despite the assurances of both parties and the need for a similar Russian-Lithuanian agreement, a positive decision has not been reached yet. However, the economic ties between Kaliningrad regional enterprises and those operating in the neighbouring Polish and Lithuanian regions have been developing successfully. In the structure of foreign investment that was made in the Kaliningrad region in 2011, Poland ranks second (following the pseudo-foreign investment from Cypress), Lithuania third. In the mutual trade between the Kaliningrad region and foreign countries, Poland ranks fifth and Lithuania seventh.

Russian accession to the WTO is a factor that can contribute to the development of export orientation of Kaliningrad production. Such change in the orientation of the current import substituting industry based on the customs privileges ensured by the law on the special economic zone in the Kaliningrad region is emphasised in all regional development strategies drawn up in the 2000s.

The current restructuring of regional economy is aimed at a broader use of the internal specific factors of regional development. It will help mitigate the impact of the changes to the law on the special economic zone in the Kaliningrad region to be introduced in 2016 – the abolition of customs preferences determining the prevalence of import-substituting production in the field of manufacturing against the background of a low value of marginal product in the region.

The strategy approved in 2012 does not only stress the development of tourism, the amber cluster, and other industries using the special internal resources of the region. The development of automotive cluster suggests a substantial increase in the added value generated in the region. Special attention is paid to the development of tourism. The construction of the first unit of the Baltic nuclear power plant of a capacity of 1.2 GW is expected to be concluded in 2016, that of the second unit of the same capacity in 2018. The regional government finances the development of equipped industrial platforms that are expected to attract investors. Significant funding for the development of industrial and social infrastructure (including the preparation for the 2018 World Championship football matches) will be received from the federal budget in the framework of a new state programme for the socioeconomic development of the Kaliningrad region adopted in the end of March 2013. Such measures will help create an economy independent of the customs privilege regime of the special economic zone operating since the early 1990s. A need for such actions is determined by the 2016 abolition of privileges stipulated by the 2006 law on the special economic zone.

The development of cooperation with the neighbouring EU countries is suggested by all regional development strategies. The development of international industrial cooperation leads to the formation of new spatial forms of international economic integration. Cooperation is developing in the framework of five Euroregions with the regional participation. The foundation for the tripolar Tricity-Kaliningrad-Klaipeda system is being laid at the moment, as well as that for the Gulf of Finland growth triangle, whose concept was formulated by the Finnish professor Urpo Kivikari. The introduction of local border traffic (visa-free) regime between the Kaliningrad region and the neighbouring Polish regions in mid-2102 will contribute to the development of mutual connections. There is a need for a similar Russian-Lithuanian agreement as a step towards a visa-free regime between Russia and the EU.

The meeting between the President of Russia and the students and professors of the Kaliningrad Immanuel Kant Baltic Federal University on April 1, 2013 in the presidential residence of Novo-Ogaryovo showed that the federal authorities count on the university to contribute to the development of different areas of international cooperation between Russia and the EU. The university is actively involved in the development of connections with Baltic partners, student academic exchange, and research on the problems of international cooperation in the Baltic, including those in the field of education and innovations. The studies emphasise the advantages that can be gained by Russian and the Baltic partners in the course of further development of all areas of cooperation.

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[1] I.e. the modification of regions of the development corridor type identified by J.Friedmann, 1966. See: Klemeshev A.P., Fedorov G. M. From an isolated exclave – to a "development corridor". Alternative development strategies of the Russian exclave on the Baltic Sea (Engl.). Kaliningrad, 2004.

Possible strategies for the Kaliningrad region 2013

By Vladimir Balobaev

The Kaliningrad region is the westernmost point of Russia situated on the Baltic Sea coast between Poland and Lithuania. With Prussian history and retaining some pieces of architecture, the region was connected to continental Russia only through the Lithuanian Soviet Republic, and developed in the same way as many other Soviet cities. But after the USSR collapsed, Kaliningrad became from one side partly open for foreigners, but from the other – disconnected from Russia (Lithuania became an independent state). The exclave was put into very special circumstances – the region, with approximately 90% of the world amber deposits and many resort possibilities, became divided from Russia and had to find its way and strategy for development in the new conditions. The process of seeking an optimal strategy is still ongoing.

The long period after 1991 and before 2004 (when Poland and Lithuania joined the EU) was rather contradictory, with many possibilities accompanied by even more difficulties. Opened to foreigners after more than 40 years, Kaliningrad attracted a lot of tourists from Germany and many infrastructure projects too. With the financing from European funds and programs many projects were realized. Kaliningrad of that period had no chance besides trying to 'catch at a straw', as many straws as possible. As a result of many different processes, a Special Economic Zone law was implemented in 1996, but other attempts to give Kaliningrad a development vector did not succeed.

In modern Kaliningrad we see a very similar situation when authorities do not know what to do exactly and try to cover all possible scenarios. Instead of trying to find the 'chief' scenario, they are still trembling between many variables.

One of possible scenarios proposes to transform the current Special Economic Zone into a Free Trade Zone, where all citizens of Russia will be able to buy goods for personal use at reduced price and bring them back to Russia. It will increase cash flow and mobility, budget payments from taxes, and the possibility to develop two-in-one recreational and shopping tourism in the Kaliningrad region. This scenario seems very productive, but not very likely.

Another unlikely scenario is to make an export-orientated industrial zone with tax privileges for companies in the Kaliningrad region. It could bring new companies from EU countries to settle their production in the region with qualified and quite cheap labor. This scenario is not probable, because it requires many changes at customs, which Russian authorities do not like.

One more popular scenario is Kaliningrad as a 'bridge' between Europe and Russia, but different political actors understand this 'bridge' in their own ways. Some experts speak about tourism, another about building a common marketplace. Both views require a visa-free regime for incoming mobility. Many experts think it is not very difficult to eliminate visas for incomers (i.e. EU citizens), but in that case, authorities need to decide what to do with Kaliningrad citizens, because if it will be only a one-sided decision, social conflicts can occur.

Moscow expert Vladislav Inosemtsev in his article 'Island Kaliningrad' claimed that all these scenarios will find support in Kaliningrad society, but Kaliningrad society is much dissociated and polls show that public opinion about the future of the region has not been formed yet. On one hand people want to live in clean and ecologically-safe region, earning money from recreational and historical tourism, but for many reasons, tourism in Kaliningrad cannot be the only strategy to win.

In 2007 a strategy of regional development for the Kaliningrad region was announced, prepared by regional authorities and experts. This strategy was prepared during George Boos' term and some of these ideas were brought to life (projects for building a new large port in Kaliningrad gulf and yacht haven in Pionersk), but in 2010 the new governor Nikolay Tsukanov was appointed by the president. He started the process of preparing a new regional strategy from the beginning, continuing the endless chain of attempts to find the proper regional strategy. A new 40 million rouble strategy from the McKinley agency, announced in 2012, recommended as usual developing the amber production sector, tourism and IT-technologies.

In April 2013 the Governmental Program for Kaliningrad Region Development until 2020 was signed by prime-minister Dmitry Medvedev. However, this program is only prescriptive and does not give a view on how and in what direction the region will develop in the nearest future.

Regional experts count around 50 different scenarios and plans for Kaliningrad's future which were announced and discussed after 1991. Many of them were rather similar and almost all were about how to modify Kaliningrad's negative sides (isolation, exclavity etc.) into positive (advantageous geographic position, crossroad of cultures) and gain something visible from this. Most of these projects remained on paper. Speaking about strategies, experts agree only on one point – Kaliningrad needs a new program or strategy for regional development, which will be focused on special rules for economic management in the region, special custom and taxation law and integration in the regional economic system.

The year 2013 will show in which direction the region will move in next years, it will show – whether this Governmental Program for the Kaliningrad Region Development until 2020 matters or not, and in general – whether the scenario has been chosen or the search is still ongoing.

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Developing the competitiveness of Finnish maritime cluster

By Merja Kyllönen

Developing competitiveness of maritime cluster in the Baltic Sea area is an extremely topical theme for Finland now. Shipping on the Baltic Sea is currently facing new challenges due to constantly increasing environmental requirements deriving from international and EU law. In addition to this, the focus in economy is shifting towards Asia. In the course of the next couple of decades, Africa and South America are also likely to join the competition for the economic dominance of the world. This will change the global transport flows. At the same time new shipping routes are opening up.

In this rapidly changing operating environment, we must react and take bold strategic decisions in order to find new ways to improve the ability of Finnish maritime cluster to compete in the area of maritime transport.

Finland identified the need for a national maritime strategy last year, and we are currently drafting this strategy as a joint effort of the Government – it has representatives from nearly all Ministries. The Finnish Transport Agency and Transport Safety Agency, for their part, provide a strong contribution to this work through their extensive transport expertise. The importance of maintaining and improving the competitiveness and vitality of Finnish maritime cluster has strongly come up in the drafting process of the Maritime Strategy, and this is also the purpose of this strategy work.

The Maritime Strategy is being drafted in the spirit of the new transport policy. What we aim to do is to achieve increased effectiveness and cost-efficiency. We are ready for change and reform, and eager to discover new ways of doing things.

Strategy work allows us, among others, to discuss possible future trends together and to exchange ideas on whether we see Finland as a forward-looking and highly valued expert in maritime affairs, or as a timid and isolated country fading into the background. I personally believe, that despite the huge challenges that shipping and the industries which rely on it have had to confront lately, we can face the future with confidence. The Finnish government has acknowledged these challenges at its midterm review session in the end of February. For the remaining part of the Government's term of office, steps are to be taken to avoid any increase in costs or regulatory burden on the industry. In addition, the existing regulatory burden will also be reviewed.

As we all know, Finland is very much dependent on shipping. Without maritime transport, we would, among many other things, not have coffee or oranges. Industrial activities and export to major markets would be almost impossible, and there would be very little raw material available to us. This is why the Government underlines how important it is that the conditions for maritime transport are ensured.

In Finland, the world of business and industry is changing radically: our traditional industries are seeking new products and markets; information and electronic engineering industries are struggling for survival; and mining industry is expanding. The service sector is getting stronger, which is reflected in the volume of transported goods.

The global nature of shipping means that the necessary regulatory decisions are made at international forums: in the EU and IMO. Finland participates in this work, and it is clear that the decisions made at these forums are relevant for us, too, as members of the EU and IMO. One important task for Finland is to pursue more systematic exercise of influence and send a common message at international and EU level. It is essential that we speak with a common voice. Our future lines of actions must be based on joint strategic deliberation.

There are also a number of considerations which we need to address at national level. These include the service level of foreign trade transport, and steps to ensure reliable transport around the year. In addition, we have to discuss how to arrange port facilities, pilotage and inland connections to the ports. It is also clear that ensuring smooth and reliable winter navigation is among the key areas that we need to focus our resources on. I have full confidence in our expertise in this regard.

An additional challenge in maritime transport is how to ensure that there is skilled personnel available. The numbers of people applying for maritime jobs have declined globally. The entire shipping branch should make efforts to develop the branch further and to increase its competitiveness as an employer.

A good example of what action has been taken is the tonnage tax reform which came into force approximately a year ago. It seems that the reform is bringing new ships under the Finnish flag. At the same time, it is creating hundreds of new jobs in our country.

In this year's Budget, funding has been allocated to basic waterway maintenance, adaptation to the new sulphur requirements, and procurement of a new ice-breaker. The state has also reserved appropriations for the so-called retrofitting investment aid which is aimed at alleviating the economic impact of the new sulphur requirements.

In addition to collaboration between government bodies, it is also equally important to engage in dialogue and cooperation with the stakeholders. It is our wish that this work is done in a transparent way, sharing ideas and experiences with each other.

Indeed, we have already joined our forces in creating a vision for the future. It seems that in the shipping of the 2020s, it is particularly important to utilise information as part of the transport chain, launch strong Arctic and safety expertise into the market, and keep one step ahead in the development of environmental technology. This will mark out the road to success.

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Maritime industry in the North

By Michael Prehn

Shipbuilding and maritime manufacturing have long been a specialty of the Scandinavian countries. Maritime activity and innovation has historically been high in Europe, particularly in Northern Europe. Modern shipbuilding can with some justification be seen as having begun a hundred years ago with the delivery of the Selandia from the Burmeister & Wain shipyard in Copenhagen in 1912, the first ship propelled by a diesel marine engine. The historical examples of the Vikings and the Hanseatic League are still followed by entrepreneurs in the region. Shipping continuously has a high profile, and the maritime manufacturers in the region are successful, innovative and many.

Until recently, most shipbuilding work was carried out at the shipyards. An increasing trend towards outsourcing and subcontracting of activities to suppliers, accounting up to 70-80% of the value added of the ship, means that, as the shipyards have become more and more a final assembly facility the displacement of the large shipyards to Asia has not meant that the “outfitting” of the ships has similarly been contracted out. The scope for adding value in shipbuilding in Europe is very much in the hands of the component/equipment supplier.

Our region is a coherent maritime area with a long seafaring tradition. The common cultural background and international orientation have led to similar dependence on the global market. Parallel challenges for the maritime manufacturing industries in each of the Nordic counties, arising from many commonalities such as the common location and similar labour markets, have for some time encouraged manufacturers to outsource a proportion of the production to low cost areas. Recently, automation and the need for rapid market adaptation tend to make insourcing back to the area attractive again.

Despite the financial crisis, new businesses in the maritime industry are being created in the area. Against a background of many years of focus on green research and technologies, Nordic businesses have a solid starting point when new environmental requirements are imposed on a large number of vessels. Economic pressure to reduce fuel cost also gives opportunities for manufacturers who have long concentrated on energy efficiency. In some cases replacing the ship will be cost effective, in others redesign or retrofitting of more energy efficient systems will be preferable.

The need for transport is still increasing. There is no doubt that there is a market for more services and better energy optimization. The economic crisis that is limiting consumer spending and public budgets in Europe is not so severe that it reduces the expected continued growth in international trade. Global trade will probably increase by 3.3% in 2013 which means more ship capacity will be necessary. These ships must be economically and environmentally acceptable. Many existing ships are not.

The Scandinavian countries have common positions and interests in environmental protection. In this context international bodies are of great importance to the maritime industry, and regional and international cooperation has proved essential to the businesses in the area.

In the Baltic and North Sea area specific environmental requirements have been introduced because of the special vulnerability of our seas. These rules have been introduced mainly through the International Maritime Organization, often on proposals from the HELCOM countries that play a prominent role in that organization. Many measures which are important to maritime industries in the area have their origin in the EU, where regional cooperation is gaining importance.

In the countries around the Baltic, the maritime manufacturers on land are subject to similar regulations and restrictions and the industries are therefore focused on sustainable and environmentally friendly production. Many of these specific environmental initiatives from land are later introduced in maritime contexts.

Regulations adopted specifically for our area have given rise to concrete innovation. The MARPOL Annex VI fuel sulfur limits adopted to reduce emissions of sulfur (SOx) to 0.1% levels in 2015 mean that shipping must either use cleaner fuel or install equipment to remove sulfur form the exhaust. This technology has been successfully transferred from land to sea and is offered by manufacturers in Scandinavia, allowing ship operators the choice of changing fuel or investing in retrofitting.

The region is also particularly strong in technology adapted for the polar regions and the harsh offshore sector. The Baltic ice classes are universally recognised and many innovations in the North Sea offshore oil and wind sectors are introduced in other parts of the world.

The industry's opportunity for development and marketing of environmentally friendly products follows from the focus on environmental protection, and high safety levels forms the basis for sustainable manufacturing in the maritime industries in the area. By pooling the efforts of the technology providers and legislators ahead of the coming environmental requirements, future developments in regulation could go hand in hand with technological development, thus avoiding outdated and insufficient environmental protection as well as overly optimistic requirements that are technologically infeasible. Synergies can be achieved by jointly building on the existing technological basis in the Nordic countries. This will save resources, protect the people and the environment and allow technological advances to be introduced in a timely manner. It will not only benefit the local environment but will give producers a platform from which environmentally friendly solutions can be supplied also outside the area, thus benefitting other regions, also in the longer term.

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Russian shipbuilding industry – inside the WTO

By Elena G. Efimova

Russian shipbuilding industry has been in the deep crisis for last two decades. Shipyards had a deficit of orders for ships, notably from home customers. It has led to a slowdown in industrial growth, inability of carrying out modernization and upgrading facilities. Inefficient organization of shipbuilding caused the loss of some key technologies; slacken the pace of competitive researches. Depreciation of Russian shipyards' equipment, casting and complex dock facilities are about 70%, 75% and 65% respectively.

Capital and operational costs of Russian shipbuilding companies exceed the same expenditures of shipyards in Japan, Republics of Korea and other leading countries due to geographical and climatic factors. These costs are associated with the necessity to create covered slipways and docks with heating and lighting as well as the seasonality of delivering materials, marine equipment and components. Despite of low labor costs shipbuilding prices increase.

Industrial organization in shipbuilding industry is not complete. A number of negative phenomena affects the timing and cost of construction of ships and vessels such as the unreasonable increasing prices for materials and equipment, failure of delivering terms. The absence of any possibilities of suppliers' choice has a negative impact on the company's commercial indexes. Companies predominantly using the centralized form of procurement occupy the leading position in the industry. Therefore CEO of JSC "United Shipbuilding Corporation" established a Specialized Purchasing Organization (SPO). SPO will guarantee the maximum level of transparency in procurement, competition, minimizing risks, reducing the cost of the final product due to economies of scale.

Some legal acts and government support programs for supporting the competitiveness of the domestic shipbuilding industry were adopted before Russia's entry to WTO. The industry's restructuring scheme "Strategy of shipbuilding industry's development on the period up to 2020 and further prospects" has been developed in 2007. According the strategy JSC "United Shipbuilding Corporation" was established. Russian Government has passed the Federal goal-oriented program "Development of the civil shipping for the period 2009-2016" as the first practical tool for implementing the Strategy in March 2008. In addition, a number of protectionist measures, including cuts in tax and customs duties for Russian shipbuilding companies, were provided by the Federal Law №305 "On Amending Separate Legislative Acts of the Russian Federation for the implementation of the state support's measures for shipbuilding and navigation" adopted in November 2011.

Despite the legal state support in pre-accession period the home shipbuilding industry falls behind world standards. First of all, an implementation of innovative technologies has to be provided. It is impossible without large investments in research and development projects. The total investments in R & D departments of public enterprises and private business in the United States, Germany, Japan, Republic of Korea, are more than a few times the Russian investment in similar projects. Nevertheless federal programs are the single way for funding innovative technologies in shipbuilding industry.

Russia's accession to WTO doesn't guarantee an industrial growth. WTO's rules significantly limit supporting the domestic shipbuilding and shipping. In some cases the support's measures can be classified by WTO as unauthorized subsidy. Organization for Economic Co-operation and Development (OECD) developed uniform lending standards for vessels producers. Thus, the loan covers 80% of the contract price. A shipbuilder pays back 8% per annum for 10 years. State support covering 9% of cost construction is allowed by WTO. However, the most countries don't follow the rule under the pressure of the international competition. US government's loans cover 87% of vessel production costs. German and Japanese governments provide 30% subsidy for national shipyards to compensate the difference between the cost of the shipyard and vessels' market prices.

In order to avoid WTO's sanctions, subsidies should be granted to the entire industry extended for all contracts. The state has to subsidize loans interest and lease payments not for shipping companies, but shipbuilders. In this case subsidies will be eligible and WTO's penalties are impossible. This approach is recommended by Russian Ministry of Economic Development and Russian Union of Machinery Producers. However, the measure does not provide a completely leveling the playing field "fair" competition. Domestic shipbuilding companies and ship owners are at a disadvantage position because of the conditions for obtaining Russian capital resources. The problem can be resolved by the adoption of additional measures. First of all, it is R & D subsidies that are not subject of WTO's restrictions.

There are some positive consequences of WTO's accession for Russian shipbuilding companies. Some of them will be able entry into foreign markets with the least losses due to reducing tariff barriers and, therefore, decreasing prices of Russian ships and vessels. In addition, WTO's accession will lead to decreasing tariffs on imported vessels' components forming approximately half of the ships' cost. To use the advantage received in frame of WTO's membership Russian shipyards need a special program for compensating its' high costs. However the budgetary compensating support has to satisfy the WTO's requirements on state subsidies of export products.

After Russia's entry into the WTO rapid changes in the national shipbuilding industry are not expected. WTO membership will have an impact on the Russian economy in general and in the shipbuilding industry in particular after 5-7 years period. Reducing tariff protection is the main risk factor for the development of the national shipbuilding industry. Direct competition with the leading shipbuilding companies compels to take serious action. Nevertheless Russia's accession to WTO in the long-run prospect can be considered as the factor of strategic development of the domestic shipbuilding.

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Baltic Sea 2030 – trends and scenarios

By Heikki Liimatainen

Preparation of the maritime transport strategy for Finland commenced in autumn 2012 under the direction of the Ministry of Transport and Communications. The strategy is due to be completed by the end of 2013. The maritime transport strategy can support desirable development. Thus it is important to identify various future development alternatives and actively influence the realisation of the hoped-for future. The research performed by Transport Research Centre Verne at Tampere University of Technology identified various trends and scenarios affecting the future of maritime transport in Baltic Sea up to year 2030.

Maritime transport in the Baltic Sea is a part of a global transport system which is constantly changing. Long term global directions of development, i.e. megatrends, have an effect on the development of maritime transport in the Baltic Sea. Globalization and shift of economic balance can be seen in moving industrial production from Europe to Asia and from Western Europe to Eastern Europe. In the Baltic Sea this increases the freight flows from Russia, Baltic States and Poland which may cause imbalance of traffic flows. This megatrend also affects the trade policies, which can be seen to be changing from free trade development to increasingly protectionist trade policy. The financial crisis in Europe and United States has increased the emphasis of national interest although the global challenges such as climate change and security threats require global collaboration.

Sustainable development and climate change related actions with the increasing price of fossil oil will affect the maritime transport through increasing the importance of energy efficiency. Slow steaming is increasingly used in current vessels and energy efficiency becomes primary design criterion for new vessels. In the Baltic Sea the most significant short term change is the implementation of strict sulphur oxides emission controls in 2015. SOx control increases the cost of fuel further increasing the importance of energy efficiency and making alternative energy sources, such as LNG, more feasible. In the long term the mitigation of climate change may lead to expansion of emission trading system into maritime transport. Sustainability and climate change also open new opportunities for maritime business as melting polar ice creates opportunities to use arctic natural resources and opens the Northeast Passage for commercial shipping. Strong investments in renewable energy also increase the need for maintenance vessels for offshore wind and wave power plants.

To support forming the Finnish maritime transport strategy four different scenarios were formed to depict the future possibilities: Age of growth, Age of regulation, Age of locality and Age of transformation. The characteristics of the Age of growth scenario are fairly rapid economic growth, growth of value added, increase of services, as well as retaining the significance of Russia and Europe as the most important trading partners. The Age of regulation scenario is particularly defined by globally binding and strict environmental restrictions, weak economic growth, diminution of basic industry as well as the increased significance of distant countries as trading partners. The central elements in the Age of locality are the rapid change of climate, binding emission quotas and the high price of energy and the resulting return from global to local economy. In turn, the Age of transformation is represented by an economic boom due to several growth industries, the affordable price of energy resulting from breakthroughs in energy technology, and Russia's strong integration into Europe.

The external characteristics in the four scenarios cause the following changes to the maritime transport system. In the Age of growth the transport volumes remain close to current level, but containers are increasingly used. The port network is wide but ports have specialised and cooperate more than today. In the Age of regulation transport volumes decrease, larger vessels are used and slow steaming is increasingly used. Ports compete against each other to win long term contracts with industries and uncompetitive ports are forced to close. In the Age of locality scenario transport volumes are even smaller than in the previous scenario and transport flows are highly centralised through major ports. Different cargo types are increasingly transported in same vessel to improve utilisation rate. In the Age of transformation transport volumes increase moderately. The ports specialise but diverse industries provide business for wide port network and wide network is supported by increasing coastal shipping.

External and internal factors in the operational environment of maritime transport were examined and their significance for the development of maritime transport were analysed. The factors are closely connected by causal relationships. For the development of maritime transport, the entire operational environment and all significant factors have to be considered regardless of the extent to which they can be influenced by policy making. Only some of the factors can be influenced by government actions. The most significant factors that can be influenced are Finnish industrial policy, port-related infrastructure and route solutions, subsidies, payments and taxation of maritime transport as well as national cooperation.

Scenarios are used to support decision-making and allow for preparation in advance for changes in the operational environment. A good scenario influences the future by expressing the existing alternatives on the whole. In this case the scenario can become impossible in itself by simply having been formed. The aim of the scenarios is not to define the most likely future, but open up possible directions of development. In the strategy work, scenarios assist in identifying threats to be prevented, whilst identifying opportunities with the help of which the prerequisites for success are created for maritime transport industry.

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North-European marine industries – lifecycle business with local shipping, infrastructure and natural resource operators

By Vesa Marttinen

The global marine industry has the growth potential in China, Korea, Singapore and Brazil. That probably expands into Vietnam, Indonesia, India, Russia, with following wave on Latin America and Africa. These are geographical areas for large and medium size product & service companies as well as digitalized smaller companies. For more local and labor intensive marine industry businesses the alternative is regional expansion from the roots. In this article we touch local market niches, business approach and give an example how this could be organized.

Markets

When talking about markets the marine industry is opening its eyes, takes learning's also from other businesses and starts to treat different niches according to market needs. Thus we need to be more market and business model oriented instead of strong product and/or service orientation. Additionally as the impact of globalization is, and has always been, strong on floating assets business one should be wise to select niches where strengths of local actor give clear competitive edge. We start with the market where it all started for local shipyards.

The origin of transporting people and goods across Northern-Europe was with vessels. Today the cost and public support of aviation, railways and highways have taken their part of the transport, but Short Sea Shipping still remains cheapest, most effective and environmentally friendly mean of transportation also in this region. As the cross-regional shipping is only 25%-40% of North-European transportation, the future potential is with local operations. Intra-regional transport for industrial and consumer goods is a life line for current Northern wellbeing. Thus being competitive on serving it, continues to carry the local marine industry businesses.

Especially the Baltic Sea region has shallow waters and several archipelagos. It's fantastic for leisure, but requires more from national infrastructure. At the same time these waters generate special requirements for Naval and Coast Guard fleets. As the demand is anyhow quite limited compared to multi-billion investments and annual OPEX's of main maritime countries, it forms a win-win situation between local public and specialized private sector. This market is for local marine industries to win, with market intelligence, purpose trained talents and operational flexibility.

Natural Resources have been a big thing in the past decades for example to Norway and Russia. Bearing this in mind let's also remember that the forest, minerals and shale oil have been key elements of many North-European industries and shipping & marine alike. With the continuous improvement of technology and innovative operation models it should be expected that also these and other traditional natural resources will come with new business potential. A good example form across the Atlantic is gas. Shale gas is now providing cheap energy, environmentally friendly marine solutions and insourcing of labor intensive works. All this is thanks to RDI and business approach investments in past decade. The renewable energy with bio-oil, wind etc. gives also opportunities to organizations with self-driven people having collaborative approach.

Arctic region begins from North-Europe. No other business region in this scale has this particular potential. So let's face the fact that on the border line the value can be generated by shifting learning's and practices from one side to the other and vice-versa. Other interesting dimension of European Arctic is the richness of several nations with similarities and differences in cultures. We can imagine what could Estonian workers, Lithuanian designers, Finnish managers, Swedish advisers, Norwegian investors and Russian scientists achieve together on this border.

Business approach

How to get best payback of invested time and money? By keeping eye on the ball of our strengths!

In practice this means for actor with strengths in regional market; need to be humble and not run after all worldwide business opportunities. Instead close co-operation and collaboration in North-Europe combined with active development of market place will crystallize opportunities also regionally. In this co-operation the shared activities are important to ensure most effective vertical collaboration and business model with end-users, investors, project/service integrators, technology companies, designers, operators and service providers. In addition to the businesses the closeness with research and academy as well as regulator and governments is essential to lift the business eco-system into winners' level.

Recently the understanding of lifecycle approach with revenues, capital costs, operational cost and business risks have been taken to decision table. This is a clear benefit to value added solutions whether integrated by end-user, investor or service provider. If the capital cost only is the decisive factor, the long term revenue potential and business risk might be worst not to mention easily estimated long term operational costs. It seems to be so self-evident and clear but still we see asset acquisitions with first cost only as decision criteria. Why is that?

There seems to be two answers. First is the natural asset play behavior with ships as floating assets. Wisely the cash rich shipping companies buy when inexpensive and sell when market value is high – this is the traditional way to be a billionaire in ocean going shipping.

The second reason is closer to markets described above and there is a lot to do for local academy, public and private side. That is the financing of short sea, infrastructure and natural resource support fleets. It seems that traditional equity topped with bank loan is currently only financing vehicles around in North-Europe (excl. Norway). In this model the lifetime revenue/cost has no guarantees and is words only. With limited research on the topic it seems that only equivalent we can compare this region is North-America. There the fiscal tools are a lot further developed with Title XI, Marad vessels, Maritime Sealift etc. and true public private partnership is utilized to serve both sectors. In order for North-Europe to reach similar and even better tools and economic impact the lifecycle approach should be a lot more utilized.

The ROE for the investor, transport cost per unit for end-user, and NPV for service provider gives an opportunity to build win-win cases. Additionally the project based horizontal consortiums will make the case competitive and stronger for financing. For it to be strong the promises need to grow from value arguments into daily performance. Then the money should be there for healthy projects and company consortiums. Having said that, there is currently hesitation on first capital projects for post 2015 vessels. That could be assisted by local society in form of guarantees and junior notes for vessels in connection with local wellbeing. Is that then new building or second hand ship with conversion into environmentally friendly and fuel efficient asset.

Vesa Marttinen

Managing Director

Turku Repair Yard Ltd.
part of BLRT Grupp

Finland

Port of Turku as part of the development of the maritime cluster in the Baltic Sea region

By Kimmo Iljin

The transitions in the operating environment of the maritime cluster in the Baltic Sea region in the last few years have been significant in scale, and further shifts are expected to take place in the near future. The changes are brought on by both requirements from the European Union and the financial situation of the Baltic Sea nations.

Finnish foreign trade depends on functional infrastructure, the functional capacity of operators in ports, the logistics servicing port operations, a functional maritime cluster, the maintenance of port structures and the condition of navigable routes maintained by the state.

Turku Stevedoring Oy (hereinafter TurkuSteve) is a stevedoring and logistics company established in 1972. The development of production methods and the equipment used has been vast in the past 40 years, and it looks as if the future will bring even more challenges. The development of technology from the manual performance of workers to automated stevedoring has enabled efficient logistics in the management of the flow of goods.

In the past two decades or so, also the operating environment of Turku harbour has been significantly altered. The change in types of vessels and the development of logistics has provided direction for innovation that has enabled TurkuSteve, together with its clients, to develop new, value-added services. As a result, we have been able to improve our position in the value chain and are capable of providing a comprehensive service to our customer base.

The value-added services include the unloading of products, quality checks, responsibility for storage records, and the collection, dispatching and transportation of products on behalf of the customer. When a customer outsources the entire logistics of the flow of goods to a subcontractor, this enables a situation where the customer's warehouse management system is located with the subcontractor, who will then function as an integral part of the value chain. Naturally, this will deepen the business relationship and increase the volume of co-development activities.

One of the factors in the operations of a maritime cluster is functional port structures. In cooperation with port operators, such as TurkuSteve, the Port of Turku has systematically developed the functionality of port structures through the basic maintenance of wharfs and port cranes and investments in new container and mobile cranes and in the construction and renovation of storage facilities.

Among the strengths of Turku harbour are excellent connections to various parts of Finland also by rail. Unfortunately, VR (Finnish Railway Company) in its operating policies has made it more difficult to serve customers in this region by imposing artificial restrictions on the transfer of carriages and by shutting down a local service point.

The significance of marketing is crucial, and the Port of Turku, in cooperation with the port operators, has been very active in this respect.

In the future, a number of challenges seem to be generated also by external factors. A reform of the Sulphur Directive will no doubt be a positive thing for the Baltic Sea. Unfortunately, the knowledge of policy makers regarding the impact of their decisions on national economies is less than comprehensive and even erroneous. Transition periods provide a good opportunity for effectively influencing matters – without being forced to act in a tight schedule.

A central goal and challenge of employers is to increase the flexibility of collective agreements in the sector. In Finland, diversity between companies in the stevedoring and logistics is great, and local agreements should be introduced in the sector.

In the near future, Turku harbour will be affected by the reduction in the volume of industry in Southwest Finland and the negative implications of this for large industry and the SME sector, which will have direct impact on flows of transport via Turku. The importance of Turku harbour is highlighted by its central position in unit traffic to Scandinavia, a position attained due to a good frequency of ships, which provides the right support for passenger traffic. Conversely, the cost level resulting from long pilotage has a negative impact on the marketing carried out by Port of Turku, and is a significant factor in the opportunities of operators in the harbour to route cargo via Turku.

A second significant challenge in routing cargo via Turku is the long sea journey. The crossing from Utö to Turku is almost 52 sea miles, which incurs costs to shipping companies and significantly lengthens the duration of the sea journey.

The development of value-added services assumes a significant role in the development of Turku harbour. In the future, a port area of the current size will no longer be necessary, but the division of the area should be planned more with the aim of accommodating functions that complement port operations (stevedoring), for example by increasing the size of the logistics area.

The logistics area enables flexible transportation to companies operating outside of the port area. Short transfer distances after the unloading of a ship allow for increasing the volume of industrial activities and further processing functions. For example, TurkuSteve, has created a value-added service for its current stevedoring clients in the forest industry by investing in a sawing line for the processing of engineered wood products in the logistics area.

Through active cooperation with different actors in industry, we would be able to offer functional combinations of services in everyone's area of expertise. Turku harbour could function as a pioneer in its field providing a wide range of value-added services in its logistics area. Short journey to shipping reduces the cost level, the same time improving the starting point for marketing.

Further challenges may also be introduced through the activities of the City of Turku. The amount of land available for the development of housing is limited, meaning that the city planners will easily direct their gaze towards the port area, covering a significant portion of land.

Policy makers should consider the significance of port structures as a generator net income for the City of Turku, particularly when it comes to passenger traffic and the transport of cargo. Housing built too close to production plants immediately generating pressures for transferring the operations from the original, functional location is a phenomenon that has been observed too many times.

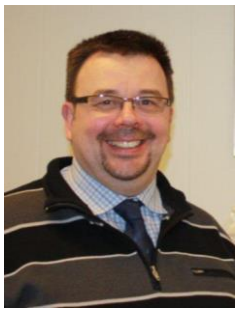
In spite of all these future challenges, I continue to view future of the Port of Turku and the companies operating in Turku harbour as bright: through cooperation with various actors, we will be able to develop port services and also continue as efficient service providers.

Kimmo Iljin

CEO

Turku Stevedoring Oy

Finland



Port of Helsinki foresees growth in traffic to Tallinn

By Kimmo Mäki

The passenger traffic between Helsinki and Tallinn has been growing steadily for some years now. In recent years, need-based travel, commuting, work trips, visiting friends and relatives has increased. The growth is expected to continue in the future as well. The freight traffic has also developed, much keeping in development of the Finnish GDP. The popularity of the route is estimated to continue due to the constant development of the Baltic transport route, development in Eastern European countries and even the sulphur directive.

As a hinder to this development may be the significant difference in the standard of living between Finland and Estonia. This may affect permanent transfer of the labour force to Finland. On the other hand, Finland constantly needs added labour force in the service industry. Economic development and raised standard of living in the Baltic countries may also act as a threat as they will then need themselves the labour force. Harmonisation of alcohol taxation within EU would decrease the passenger traffic but so would insufficient port and transport route capacity hinder the growth. To overcome these threats, the use of Via Baltica, construction of the Rail Baltica together with the increase of living standards in the Baltic countries would affect tourism in Finland.

Lately the figures of commuting and passenger cars and vans by ferries have been significant. Shipping companies have offered excellent connections. This development is expected to continue.

Currently 7,6 million passengers and one million passenger cars travel between port of Helsinki and Tallinn annually. According to a report commissioned by the Port of Helsinki, passenger traffic is estimated to increase to approximately 8,3 million passengers by 2022. Passenger car traffic is estimated to grow up to 1,5 million cars by the same time.

The traffic between Helsinki and St Petersburg has grown steadily since its beginning in 2010. If the discussed bilateral visa exemption between EU and Russia comes into force, it will accelerate the increase of the passenger traffic. It is now estimated that by 2022 there will be 1 million travelers between the two cities but not a significant increase in van and car traffic.

The sulphur directive is estimated to increase traffic between Helsinki and Tallinn

For the past years also the cargo traffic between Helsinki and Tallinn has grown steadily. EU membership, growth of Baltic countries, economic integration between Estonia and Finland, rapid growth of foreign trade, as well as the affordable cargo prices of the transport companies in the Baltic and Eastern European countries have made this happen. Shipping companies have been able to increase their capacity. Fast passenger ferries have proven to be the most competitive with the possibility to carry both passengers and cargo. Their advantages include speed, frequency, cost and environmental efficiency.

The sulphur directive is believed, according to various sources, to increase the costs of sea transport through the ports of Finland by 20 to 50 %. This could improve the competitiveness of land transport routes momentarily. The routes between Finland and Baltic countries or Sweden would be winners in this case and the direct sea route from Finland to Central Europe would be losing. This would of course benefit the port of Helsinki in terms of cargo traffic to Estonia which in particular is expected to increase in this situation.

In 2012 the traffic between Helsinki and Tallinn was 3 million tonnes. By 2022 the estimated increase is 4 tonnes due to the sulphur directive.

The Roro ferry traffic competitiveness between Finland and German ports is at an excellent level and will also in the future remain at a good level. Some traffic may be diverted to Baltic routes.

The development of traffic connections is important in terms of the welfare of the Helsinki region and its economy. Port of Helsinki strives to promote this development by offering its customers an opportunity to develop traffic connections from their own starting points. The Port does not plan any measures to restrict its customers' operational preconditions.

In terms of passenger traffic, West Harbour is the best option for increasing capacity and the amount of traffic. The traffic in West harbor comprises passenger, passenger cars and cargo traffic. Growth is expected to continue for passengers and passenger cars significantly. The Port of Helsinki has made a development programme, to develop the activities and services in harbours. The main focus is on West Harbour. One of the ideas is to develop activities together with customers to increase the capacity of West Harbour. There will be new terminal docks, parking and field areas, good transport connections to th city and beyond. Improving the draught is also necessary. After investments, the capacity of 10 million passengers – double to the amount today - 300 000 cargo items is attained.

Cargo traffic is expected to continue increasing in the West Harbour for a few years. The increase in Tallinn cargo traffic is believed to focus on the Vuosaari–Muuga and Vuosaari–Vanhasatama routes.

LNG bunkering in Helsinki

In 2015 the sulphur directive comes into force. Port of Helsinki has made a feasibility study to investigate the possibilities of LNG bunkering in Helsinki. At the moment there is no LNG distribution network in the Baltic Sea region. Also, based on the current price level it may become an alternative for heavy fuels. According to the study the ship-to ship bunkering of LNG is considered the most suitable solution for Helsinki. This is because the port areas are quite wide spread, three entirely separate harbour areas with a range of vessels so the service needs to be easy to use and flexible. One LNG vessel could bunker vessels at all harbor areas and could get the LNG both in Finland and Estonia, depending where the terminal will be constructed.

Other solutions, like building of a fixed intermediate LNG bunkering tank with the pipework within the limited space available would be extremely challenging. In the Vuosaari harbour the large area would require long pipelines which would increase the investment and operating costs. The fixed structure would limit the freight and passenger traffic operations in the harbour. Safety issues also limit the construction of an LNG system in the harbour area. Another alternative, to transport LNG to the harbour by container trucks would also be limited as LNG is considered as dangerous goods.

At the moment there is no one using LNG in Helsinki, the experiences of Viking Grace are expected to give further knowledge on the issue to the whole industry.

Kimmo Mäki

Managing Director

Port of Helsinki

Finland

Finnish logistics cluster

By Annemari Andrésen

The research project "The future of shipping in Finland 2015 and beyond" carried out by PBI Research Institute revealed that the current competiveness of the Finnish shipping companies leaves room for improvement. Finnish shipping companies suffer from too low usability ratios of their vessels, high bunker costs and low freight rates after the drop from the all-time high level in 2008. The upcoming changes in environmental legislation, such as the sulphur directive, also present a major challenge, as they call for changes in the current fleet.

Moreover, a major finding from the research was that there is at present too little cooperation between the shipowners on the one hand and with the industrial customers and other stakeholders on the other hand. The market is characterized by many small companies, who are competing against each other rather than cooperating. Simultaneously, the trend for the customer industry has been towards shorter agreements with logistics suppliers, for example 1-3 years. This in connection with the fact that financing has become harder to come by has resulted in a reluctance among shipowners to take the risk of investing in new vessels. The current logic needs to be changed. A more long-term perspective is needed, as well as taking on an ecosystem perspective considering all actors and stakeholders involved, and their influence on each other. A dedicated Logistics Cluster needs to be formed in order to secure the competitiveness of the exporting industry and ensure national security of supply.

As a result from the research project, the visions of a) making shipping an enabler for the Finnish industry, as well as b) making Finnish shipping the leading shipping service provider in the Baltic Sea based on sustainable logistics concepts were formulated. The recommendations presented in the report include optimization of freights and ship traffic, which means combining freights in a way that the ship usability ratio can be improved by 10-15%, to the benefit of both the shipping companies and the customers. Another recommendation concerns coordination of activities needed regarding the present fleet. The present fleet needs to be carefully reviewed and calculations have to be made in order to determine which actions are needed; upgrading the vessels through conversions or retrofits such as scrubber installations, scrapping or selling vessels, as well as ordering new vessels. Decisions are needed regarding which fuels are to be used after 2015, when the sulphur directive takes effect in the Baltic. Our anticipation is that different fuels will be applied, as some vessels will switch to diesel, while others will install scrubbers and continue with heavy fuel oil. LNG, biofuels and methanol are complementary possibilities. LNG appears to be the most viable alternative at present, however, gas conversions in vessels are very costly and difficult to carry out, leaving LNG as more a fuel for newbuildings. Another issue which has frequently been brought up as a problem regarding LNG usage is the missing infrastructure. However, in general supply follows demand, and in order to create demand, all parties using LNG need to be mobilized, which means engaging also other users besides the shipping industry. There are already several projects on-going to remedy the missing infrastructure. Biofuels and methanol are also being developed and tested as potential future ship fuel.

The third recommendation in the report concerns the initiation of new design concepts for newbuildings. This work should be done together with design and engineering companies, as well as suppliers specialized in cargo handling and ship equipment. The idea is that the collected competence of the Finnish maritime cluster could be brought together to design and construct a series of competitive vessels for Finnish shipowners. In this area, some work has been done already in connection with another project (Laiva 2025), which has looked at a new, environmental-friendly ship concept, the results of which are to be published in May 2013. However, as mentioned the lack of financing is one major obstacle in the newbuilding discussion, which needs to be solved through introducing new financing instruments. Naturally it also needs to be secured that there is demand for the new ships, as the investments are highly capital intensive.

In order to enhance the cooperation between the parties, it is also recommended that consolidation of activities between Finnish shipowners take place, be it in the form of pooling of activities within the boundaries set by legislation or through mergers etc. There are a number of activities that could be done in a more centralized way, saving costs for shipowners but also benefitting the customers in that they would have access to a larger amount of vessels and receive a more comprehensive offering from the pool, including door-do-door solution. These should be created together with a network of partners, saving the customers from doing it themselves and having own organizations for it, as is often the case at present. Also regarding newbuildings and modernizations, the shipowners would benefit from coordination as this would help them to gain purchasing power. The main obstacle for this development appears to be mistrust and a reluctance to share information with others. This needs to be overcome as the project continues with the implementation of the recommendations above and creating the Finnish logistics cluster, in order to fulfill the visions and open the fairway to the future for Finnish shipping.

Annemari Andrésen

Manager

PBI Research Institute

Finland

Baltic short sea shipping – a strategy for survival

By Jussi Mälkiä

Sea transportation as a sector of the Finnish maritime cluster is facing vast challenges during this decade, with around ten new environmental regulations coming into force within the next 5 years. The most well-known, infamous directive regarding sulphur emission levels will take effect in the beginning of 2015 - only 1.5 years away. However, the sulphur directive is just the tip of the iceberg, and the existing solutions to comply with the changing regulatory framework are still insufficient.

Furthermore, greenhouse gases (GHGs) will have a considerably larger impact on the future transportation market in comparison to sulphur emission levels. Monitoring, reporting and verifying of the GHGs in the shipping industry within the EU have been in practice since the beginning of 2013. Monitoring of CO2 emissions will most certainly contribute to the growing activities of emissions trading or bunker levy in the future. Regardless of what will be the final methodology, the main future challenge for the maritime industry will be to decrease the entire scope of energy consumption dramatically. Existing technological competence can provide two principal alternatives in order to achieve this goal: slow steaming and energy efficiency. In addition to these two, a very relevant question is: do we have possibilities to develop sustainable energy sources like bio energy, and new inventions like fuel cells?

Slow steaming is technically the simplest way to proceed, and is already commonly used within the industry. However this slows down the whole supply chain and will probably cause rush hours in the handling of cargo in the ports. Therefore, the efficiency of the stevedoring operations takes on a whole new meaning. In the future, ships cannot burn expensive fuels to reach the destination port in the least amount of time just for guaranteeing a place in the queue. Time must be saved in the port instead of proceeding full speed at the sea. This can be seen as a major issue of importance in the case of the conventional bulk- and general cargo short sea shipping.

Energy efficiency is a very interesting branch of research and implementation for countries like Finland with highly technological maritime clusters. It is necessary to cut down energy consumption by at least 50%, which is most definitely a remarkable challenge. A retrospective assessment of current operational practices, as well as technical details, is needed in order to achieve this goal. Technical possibilities, e.g. propulsion systems, hull forms, heat recovery and new kinds of solutions to fulfill the ice class demands, are the most important factors to take into consideration for the future wintertime operations in the Northern Baltic Sea.

The main question regarding maritime energy issues is related to the potential substitutes for heavy fuel oil in the long run. The Baltic Sea countries are in a significant position in terms of guiding and acting as forerunners while developing and implementing new solutions. There are several alternatives to be considered, e.g. marine gas oil (containing less than 0,1% of SOx), LNG, methanol, bio-oils etc. The latter could act as a key element in the future fueling, especially in the Baltic Sea countries. Biomass-based fuel sources, together with the side products generated from the forest industry, are beneficial because of their self-sufficiency and renewability. A major challenge for the utilization of bio-oils in the shipping industry is the increasing competitive pressure from other forms of traffic.

Decisions about the taxation of the bio components in bio oils exploited in land transport are crucial for the availability of biomass raw materials for the shipping industry as well. In marine use, the fuels need not be as highly refined as those used for land transportation. From that point of view, it would be easier and more reasonable to generate fuel out of the raw materials based on the higher-volume industries with excessive by-products, than using these highly refined and expensive land transport fuels. The advantage in marine use is mainly based on logistics, easier refining processes and on better aptitude of marine engines for using bio components.

Comprehensive and versatile thinking is needed, as the tax incentives in different modes of transportation versus the possible emissions trading scheme operate within a different time frame. In this case, the competition for the limited raw materials will turn unequal and therefore will not benefit national economy, nor the solutions for sustainable development.

Jussi Mälkiä

President

Meriaura Group

Finland

Shipping is the greenest transportation mode but is faced to be even greener

By Eija Kanto

Shipping is the cornerstone of global trade and the life blood of the world's economy. More than 80 % of the world's trade is carried waterborne by ships and due to that fact the international shipping needs a great deal of fuel. The international shipping is by far the most energy efficient and environmentally friendly mode of commercial transport, but it needs to find new, innovative ways of reducing its emissions. It is vital for the environment that shipping remains at the forefront of freight transportation.

Shipping is a global industry operating under global rules. In the worst case more stringent regional regulations for maritime transport cause distortion of competition, resulting modal back-shift of transported goods to roads. Even modal shift of industrial investments could be seen and at the end the environmental impact could be negative and cause carbon leakage. A level-playing field and global regulations are essential. Shipping industry needs to work closer with international partners, in industry as well as governments, to ensure that industry's own vision for greener international shipping becomes reality via a globally agreed developed in the UN's International Maritime Organization, IMO.

The renewed IMO's MARPOL (International Convention for the Prevention of Pollution from Ships) Annexes IV, V and VI are setting new requirements regarding discharge of sewage into sea, disposal of garbage from ships and limits on NOx and SOx emissions from ship exhausts. All three annexes have more stringent requirements for operations in the special areas. IMO has adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments and the convention is close to the final ratification. It will apply to all ships and gradually requiring ballast water treatment systems on board. Greenhouse gas (GHG) emissions from ships are already controlled by technical and operational measures of energy efficiency set by IMO. According to policymakers the technical and operational measures will not be sufficient to reduce the amount of greenhouse gas emissions from international shipping, although shipping is only a modest contributor to overall CO2 emissions. Therefore, market-based mechanisms have also been considered at IMO level and also EU level. European Commission will propose in 2013 legislation for monitoring, reporting and verification of CO2 emissions of maritime transport as the necessary starting point for any possible measure on GHG reduction. Additional to these environmental regulations mentioned above there are several new rules in preparation at IMO, EU and HELCOM levels.

Special features of the Baltic Sea hinder the competitiveness of shipowners. In the Baltic Sea ships are operating already in the most regulated sea area. The shipowners are facing the historical costs of complying with a numerous new more stringent environmental regulations within next five years. There is increased demand for new environmental investments and new buildings. At the same time the shipowners try to maintain their competitiveness in the European and global markets, and beat recession. The abatement technologies and new cleaner fuels for shipping are a partly answer to meet the new requirements. Massive investments to the bunkering infrastructure, long-term research and development need to be accomplished before new solutions are in daily utilization.

Effective year-round navigation is essential for the Finnish foreign trade, society and economy; about 90 % of the Finnish export and about 70 % of the import is transported by sea. Finland is located far from the European main market areas, having thin flow of goods and there are no alternative modes for shipping. All ports in Finland are ice-bound during an average winter from January to March. The Baltic Sea is one of the most heavily sailed sea areas in the world. Severe winter conditions require ships sailing in the Baltic Sea in winter months to be ice-strengthened and the states to provide icebreaker assistance. Ice-strengthening of cargo ships increases their investment costs and fuel consumption. All these costs accumulate to the freight rates industry has to pay for their cargoes to be transported by sea. It is very important that the special requirements and costs due to winter navigation are taken into account when developing regulations e.g. for energy efficiency of shipping.

Shipowners have widely taken responsibility for the sustainable future of the marine environment. The overall aim in the long run is to minimize air pollution, improve energy efficiency and to reach zero discharges to the sea. The shipping industry has to face these challenges and at the same time to ensure the vitality of the sector. This could be done being proactive and having good co-operation with other stakeholders of the whole transport chain and regulators. It is also important to continuously increase the environmental awareness and training of the crew and shore personnel and to improve the safety culture on board.

Shipping industry is committed to do its share but is calling for a consistent environmental policy, not one item issues, and global and flag neutral regulations to prevent a distortion of competition. Practical implementation and a strong enforcement of the rules allow equal area of operation. There have to be foreseeable global regulations and time to adapt and develop technologies. It is important to recognize the actual share of shipping in the various emissions and set clear responsibilities of the different actors. The ports are playing important role in the environmentally friendly transport chain while having a requirement to provide adequate reception facilities. The ports are also facing the huge investment pressure due to the more stringent environmental regulations of shipping. The whole logistic chain has to co-operate to overcome these challenges if we like to be forerunners and take them as business opportunities.

We have accepted this challenge and the Finnish shipowners will provide to their customers safe, economically sustainable and environmentally friendly transport services also in the future.

Eija Kanto

Executive Adviser

Finnish Shipowners' Association

Finland

Innovation and competitiveness – the future of the maritime companies

By Teemu Makkonen

The maritime cluster is an important sector of the economy in many countries of the Baltic Sea Region. As the economic performance of industrial sectors is, at least to a moderate extent, tied to their ability to innovate, one might expect a high level of innovativeness inside the maritime cluster. However, recent evidence with Finnish firm-level data on maritime industry has indicated unexpectedly low radical innovation related-activity and attitudes towards it. Research on maritime clusters in other countries, for example in Norway, the Netherlands and Canada, has concluded in similar statements of the dominance of small incremental improvements and low research and development spending inside the sector. This is rather surprising considering the significance and past technological achievements of the sector: innovations have played an important role in the development of the whole sector. This development has included technological product, but also service, process and organizational innovations. For example, technological development and automation have had a major impact on management and operational processes in ports and in shipping. Accordingly, shipbuilding has been reshaped by growing role of turnkey deliveries, making the shipyards into more assembly-focused operator. Therefore, at present and in the future maritime companies (and the cluster as a whole) should pay close attention to innovation activities, especially in the interfaces between other industries, for enhancing their competitiveness.

In the Baltic Sea Region, the recent discussion on shipping and other maritime industries has been concentrated on the significant costs and possible modal shifts of transportation, imposed by the environmental regulation introduced by the International Maritime Organization (IMO). These changes will have wide-ranking impacts on the economy as a whole. Therefore, the economic impacts of environmental regulations by IMO have been estimated for the countries of the Baltic Sea Region. The estimations have concluded in bleak descriptions of rising transportation costs and loss of competiveness. Still, the understanding that there are also possibilities for gaining something from the environmental regulations is largely missing. After all, the stringent exhaust control will induce a need for finding new ways of doing things, that is, to innovate. This proposition (befittingly named as the 'Porter Hypothesis' according to its original presenter business economist Michael Porter) states that "by stimulating innovation, strict environmental regulations can actually enhance competitiveness".

Accordingly, the future prospects of tapping into the resources in the arctic region and the potential of year-round shipping via the Northeast Passage have been in the fore of various strategies and development plans. According to these strategies and plans the importance of artic shipping and the utilization of resources found beneath the Artic Sea are more than likely to increase in the future. Therefore, building up of what can be termed as 'artic know-how' is essential in maritime and many other related industries.

Two pathways for innovation creation are highlighted here as having huge future potential. First, considering the forthcoming IMO sulphur and nitrogen emission control areas to be enforced in the Baltic Sea region, innovations related to clean shipping, such as scrubber systems and ships equipped to use bio-diesel, are an important future competitiveness factor for the maritime cluster. Second, the future prospects of year-round utilization of the Northeast Passage and the Artic Sea are definitely worth close consideration. As the importance of arctic shipping and arctic off-shore industries are likely to grow in the future, maritime industries in the Baltic Sea Region should already plan ahead to tap into this area of future growth, when allocating their resources into research and development and other innovation activities. Relatedly, close collaboration with other industry branches is also highly recommendable, as past evidence has shown that the truly new-to-the-world radical innovations are in many cases developed at the interfaces of two or several industries. This combination of knowledge from various different industrial branches (named as the creation of 'Jacobian clusters', after the author Jane Jacobs) is essential, in particular, when considering green innovations and the sheer amount of different types of information and sector specific know-how related to their development and creation.

In short, innovations and collaboration will play an important role in the future competitiveness of maritime companies in the Baltic Sea Region.

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Open innovation between firms and universities

By Kari Laine

The most common source for innovations in firms is practice, and research knowledge and technology are often necessary additions to the technology based firm's innovation process. The innovation chain can be integrated by connecting research knowledge and emerging technologies to real, latent and potential needs of firms and their customers. Effective processes need knowledge management, fast ability to learn and developing expertise. The knowledge and skills of actors must be accumulated. This also requires the development of the role of teachers and researchers in the university, innovative organizing of actions, failure-tolerant atmosphere, and incentives for development.

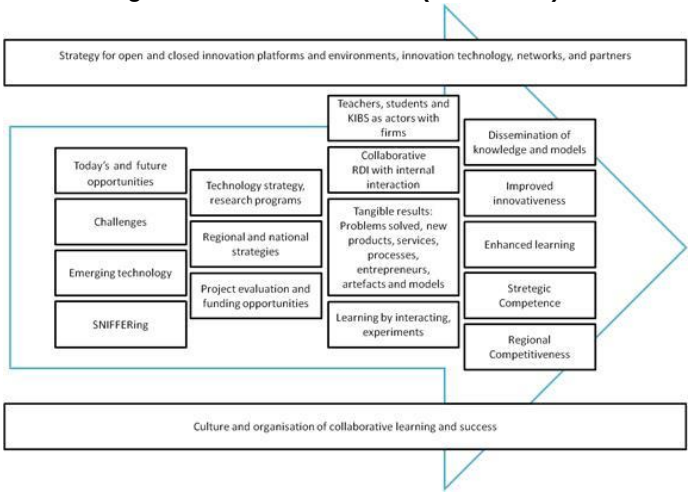
University roles in innovation creation

Universities have several roles in innovation creation. These can be the creation and introduction of new methods, theories, and models for industries and partners. The process should be proactive and the detection of weak signals and emerging technologies is needed. Solutions are not created by researchers and their networks alone. New technology knowledge must also be adopted and transferred based on the firms' acute needs. Problems and opportunities of partners are combined to theory based methods. This kind of pre-solution finding is often crucial for the proceeding of the innovation process. A university can facilitate development processes and interaction between actors to detect their needs and to combine parts of the solutions. Often innovation partners need to be activated and the firms introduced to networks. The modeling of these processes and interaction is crucial for the creation of generic processes and for sharing the created knowledge. New concepts and models can be created by combining parts of functional, already existing models. Universities should pass forward innovation stories, experiences, knowledge, developed tools and technologies by publishing and also by using interactive approaches. When doing this universities can combine their strategic goals to those of the region and the firms, as well as find new pedagogic and professional development levers to bring their teaching into new levels.

The universities should take a proactive role in their region. This means being active in the regional strategic developing processes and act as an innovation activist that fosters innovation processes by enhancing knowledge creation and combination. Qualified regional partners, innovation technology and dynamic national and international networks are most useful in this process.

Open innovation process begins with understanding the partners' challenges and seeing changes in environment as opportunities. Emerging technologies are studied and experimented in the core areas of research in Satakunta UAS. The SNIFFering sub-process is used to understand the development potential of regional partners and to combine new research knowledge and technology with the needs. The technology strategy, content of research programs, the regional and national strategies affect which projects can be executed. Project pre-evaluations are a practical way for making this selection. External funding opportunities also affect which projects can be selected. In project execution the participation of teachers and students is essential. The results must be tangible. Problems must be solved, new products, services and processes created. New entrepreneurs, firms must be created. Artefacts and models enhance diffusion. Learning is enhanced by interacting and experimenting. In the value capture phase models and knowledge are disseminated. Active work leads to improved innovativeness. It enhances learning and strategic competence. Altogether the regional competitiveness is improved.

Figure 1 Open innovation process in collaboration between higher education and firms (Laine 2010)



Technology is used to support innovation processes. This innovation technology defines capability to execute distributed innovation processes and capability to share knowledge effectively. Innovation technology can be social media, mobile solutions, fast prototyping, simulation and modeling or similar solutions that enable and accelerate knowledge combination and collaboration in the innovation process. There must be conscious decisions about connections to networks and strategic partnerships so that they support innovation goals. All connections can't be based on decisions. In research, connections are more based on personal networks. Teachers and researchers must be empowered to innovate. There is plenty of work for the management to create enabling conditions for innovation processes like funding and removal of bureaucracy.

New roles for students and teachers

Students are recognized as central actors in this model and especially in the creation of entrepreneurship. Entrepreneurial skills are seen as important basic skills. It is also understood that entrepreneurial skills can be taught. In addition to entrepreneurial skills, higher education can offer contacts to regional business life. Small growth firms are more important than before in innovation creation and new business creation. In the future the agility of universities to response these needs will be crucial. Entrepreneurship support and research in SUAS are strongly based on the incubator Enterprise Accelerator (EA), its development and the follow-up of its processes. In average, two enterprises are started by students every month nowadays. One of the detected success factors is the strong connection to program studies, research projects and business life in the region. Students have also been strongly committed to their businesses as part of the studies. The university has boldly brought these new processes into practice. Potential

entrepreneurs are detected in student projects, practical training and thesis process. The EA process has created over 250 innovative enterprises since 1997. Students can gain as many as 60 credit points from entrepreneurship related studies and activities.

There is a need for the development of pedagogic practices, teachers' role, and competences to support parallel RDI processes, student entrepreneurship and their integration to study processes. At the same time there is a need to embed researchers with teaching. Pedagogic development needs are related especially to combining the learning processes to the RDI processes. Although there are several models presented in the Finnish context, there is still room for development. Actors can learn from others and develop specific models for their own contexts. Students and teachers can see interaction with industries as an opportunity if they have the support of the university.

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The dilemma of vessel noise

By Maria Mustonen

Noise emissions from the maritime transport have not been a big issue for the industry so far. At the moment, vessel noise is not regulated internationally. For seaports, on the contrary, noise is a top environmental priority. The tightening noise regulations in ports are going to impact the whole maritime industry in the future.

Vessels sailing the fairways are allowed to make as much noise as they like, as there is no international regulation of the noise emissions from ships. To protect the marine fauna, International Maritime Organization, IMO, is now working on recommendations for noise emissions to the water from new vessels.

When it comes to noise emissions to the air, they are only regulated through the environmental permits of the ports. These regulations are issued to protect the public health. As soon as a vessel enters the premises of a port, noise from it becomes a concern for the port authority. The regulations of this kind vary from country to country and from port to port, but it is common that port noise is classified as industrial noise. The practical implication is that quite strict decibel limits are applied to the berthed vessels.

The challenges

Vessels are often the most significant and in many ways the most challenging noise source in ports. Firstly, the acoustical features of vessel noise make it problematic as such. Vessels are, as a rule, running their auxiliary engines to produce electricity they need during the time they are berthed. The sound from the engines is low-frequent, which makes it annoying to hear. Muffling it requires big, space-consuming silencers on the vessel. If the noise is not muffled on the vessel, standard noise walls, sound-proof windows and like are insufficient to mitigate it from penetrating the nearby buildings.

Moreover, the engines are not the only noise source on a vessel. Ventilation systems of the car decks and hydraulics equipment include fans and compressors which generate noise. Car ramps are another noise source on RoRo vessels. On passenger vessels, ventilation and air conditioning systems are also a significant noise source.

In the Baltic Sea Region, the upcoming sulphur regulations are the number one environmental priority for the maritime business. It is understandable that the noise question, which is not even sanctioned in any way, does not end up on the top of ship owners' environmental agenda.

Noise reducing improvements on existing vessels are relatively expensive, and they do not pay back in direct revenues. Therefore, they are hard to motivate. Noise reducing solutions on-board require space, which could be used to revenue-producing functions as cargo or passengers instead. Moreover, they increase the weight of the vessel.

Finding solutions

The dilemma of vessel noise is in many ways out of the hands of the port authorities, who however are held responsible for it. That is why ports have to find ways to handle the question together with the ship owners. In liner-traffic, long-term customer relationships between the ports and the ship owners are created, which makes it rather uncomplicated to find solutions together.

The situation is more challenging with irregular customers such as cruising and cargo vessels using the port occasionally. Fortunately, passenger vessels with low external noise emissions have higher customer comfort as well. Therefore, there are incentives to find silent solutions. In ports, one of the ways to reduce vessel noise is onshore power supply which eliminates the noise from the auxiliary engines.

Even though it is technically more challenging to do improvements on existing vessels, it is possible to install silencers to the exhaust funnels, on machine room ventilation and air vents. This is costly, but sometimes it is necessary to find this kind of solutions to make it possible for a vessel to use a port.

The situation is quite different when completely new vessels are being constructed and built. If the noise question is taken into account already on the drawing board, a good sound level can be obtained. An example of this is M/S Viking Grace which operates the Turku – Stockholm route since January 2013. The vessel has a high environmental profile. When the ship was ordered from the STX shipyard in Turku, a maximum noise level of 50 dB on a distance of 100 metres was specified. Wärtsilä, the supplier of the engines, was also involved in the noise question. For instance, the exhaust pipes of M/S Viking Grace are equipped with resonators which eliminate the low-frequent noise, and her ventilation systems are also equipped with noise reducing solutions. The engines are mounted elastically to minimize the vibrations conducted by the hull, and this lowers also the noise levels. M/S Viking Grace is a best practice example showing that building silent vessels is fully possible.

Altogether, it is likely that the environmental authorities will require more noise-reducing measures from the ports in the future. They have, in their turn, to find solutions together with the ship owners. In this way, the environmental regulation of ports will impact the whole maritime industry. Especially the ports located in inner-city areas, which at the same time are the most attractive for passenger vessels, will see a tightening regulation in the future.

It requires investments to make vessels more silent. On the other hand, being among the first building and operating silent vessels gives a competitive advantage to the ship building and shipping industry. The know-how exists already, and many future problems can be avoided with proactive thinking.

This article is based on the results from the European Union Central Baltic Interreg IV A Programme 2007-2013 project PENTATHLON – Ports of Stockholm, Helsinki, Tallinn, Turku and Naantali – together. More information about the project can be found on www.pentaproject.info.

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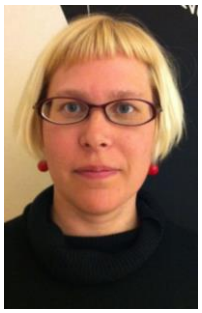

Dynamic capabilities in Finnish maritime industry during the years of weak demand and uncertainty from 2009 to 2012

By Jouni Saarni

Maritime activities are one of the most direct testing grounds for industrial competitiveness as their markets are fully global. A ship as a product can be easily transferred to anywhere in the world and shipping companies constantly optimize their operations and fleet according to freight demand and competition. At the Turku School of Economics industry dynamics and innovation behavior in the maritime industry[1] have been researched covering the whole supplier network (see e.g. Saarni et al. 2013). Based on related projects here is an overview on what building blocks lay in the foundation of maritime industry's competitiveness.

Considering the Finnish maritime industry, many vast changes have shaped its evolution during the last decades. The Finnish shipyards grew starting from the 1940s to 1980s from the orders received steadily from the Soviet Union. In the turn of the 1960s and 1970s the production diversified to more complex products also for western markets. Gradually the production specialized into the segment of cruise ships and ferries. When even larger cruise ships were built the former vertically integrated production system was abandoned and the network of suppliers emerged around yards into a strong cluster.

Cruise ship production in Finland was at a peak between 2005−2009 with high workloads. Since 2008 the industry has struggled time after time due to lack of orders. This was triggered by the financial crisis when shipping companies became more cautious with ordering new vessels and shipbuilding nearly halted globally. Especially freight ships had been built speculatively in so large numbers that many new ships still lie around without use. In Germany for example the building of container ships has stopped and many shipyards have had to struggle for their survival. Even so, competing cruise ship clusters, e.g. German Meyer Werft, have received new orders steadily. In Finland it has raised a question whether the maritime industry here is competitive enough.

In a national economic level competitiveness often refers to cost levels. But in an industry scale the constant goal is to improve the firms' real competiveness. Firms' capability to create innovations in products, services and processes is the core for long-term success. The following theories on firm competitiveness have been pointed out:

- Porterian management thinking explains firms to aim for competitive advantage through differentiation or cost leadership
- Blue ocean strategies encourage firms to stop staring at the products and competitors and instead aim for creating entirely new uncontested markets
- Resource-based view tells that superior, poorly imitable or substitutable resources create the edge on the market
- Dynamic capabilities concept extends to successful firms to have skills to modify their resource base as well to adapt to changes in their environment

Firms in the maritime industry often meet rapid and steep business cycles, which emphasizes the need for dynamism and adaptation in their strategic management. Recent paper by Makkonen et al. (2013) compiles six elements of dynamic capabilities that firms need when adapting to changes and re-shaping their resources:

- Reconfiguration means the firms' capability to reorganize its resource base.
- Leveraging is understood as exploiting the existing resources in other uses.
- Learning refers to firm's actions to increase its staff's competences.
- Sensing and seizing is the firm's ability to explore new business opportunities.
- Knowledge creation takes place in R&D functions to create new knowledge that helps their product or service development
- Knowledge integration helps the firm to extend its innovation activities to use also external information sources through their partners.

These dynamic capabilities actualize the circumstances in a firm for innovations to arise. Schumpeterian concept of creative destruction comprehends that firms must from time to time abandon their old areas to give room to new businesses. During an economic upturn, process innovations receive relatively more attention in firms aiming at improving profitability. In a downturn, as the demand weakens, product innovations are pursued to keep the sales going.

Centre for Collaborative Research at Turku School of Economics has carried out phone surveys for maritime industry's firms both in 2009 and 2012. They addressed innovation activities and attitudes, and a total of 85 CEOs (out of 474) answered to both. The timing is interesting, as the year 2009 was the turning point in shipbuilding orders even globally. Years 2010-2012 were quiet as the downturn continued. As expected, the answers from the 2012 survey reflect a more adaptive behavior.

Considering dynamic capabilities, almost every firm tries to utilize learning and leveraging and two thirds of the firms say they did reconfiguration and knowledge creation in 2012. Lesser attention is given to sensing and seizing and knowledge integration as only half of the firms picked them out.

Longitudinal comparison shows the changes that have happened when the downtrend has dragged on. All dynamic capability dimensions have increased at least slightly. The dimensions that have increased the most are reconfiguration, leveraging and knowledge creation (in 15-20 % of the firms). This means that during the troublesome years 2010-2012 more firms have shifted their focus on developing new products and invested in their R&D. More firms have tried to leverage their existing resources by letting their employees bring out ideas and pursue their own goal to find something new to the firm's products or processes. Also the share of maritime firms that have invested in developing radical product innovations has increased from 33 % in 2009 to 43 % in 2012. Meanwhile the share of firms developing their processes has decreased from 49 % to 44 %.

This brief glimpse shows how maritime firms have reacted to weak demand and uncertainty. Perhaps half of the firms have reflected dynamic capabilities already in 2009 and their share has increased by 2012. Many firms have shaped up and become more agile in their operations. But that still leaves around 30 % of the firms in the sample with a passive attitude to renewal. Is this share of firms with poor dynamism perhaps too high to keep up with the global competition? Findings also suggest that observation and detection of business opportunities and co-operation in R&D are the actions that are most commonly missing from the maritime firms.

[1] In the Finnish context during the recent years the term maritime cluster has been used broadly to refer to shipbuilding, shipping and ports. More specifically maritime industry is understood to include shipbuilding actors like shipyards as well as their heterogeneous supplier network.

Most recently shipyards and their suppliers have been in turmoil since the end of 2012 and some sort of restructuring will be evident. More and more former shipyard subcontractors and system providers do their business now directly to shipping companies or to foreign shipyards. Firms' roles in value networks are much more versatile now as they used to be.

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Shipbuilding industry needs a sustainable orderbook to survive

By Teijo Niemelä

A small number of leading shipyards in Europe have pursued a strategy of building high-class and expensive passenger ships – a niche that cheaper Asian yards have been unable to compete in. The crown jewel of passenger shipbuilding is constructing cruise ships, which have become not only bigger but more expensive with price tags of close to a billion euros for some.

During the past two decades, four countries in Europe have dominated the worldwide market for cruise ship construction. In Finland, there have been three different shipyards, of which now only Turku is constructing cruise vessels; the other yards include Helsinki and Rauma, which along with Turku have over last 20 years experienced several changes in ownership. Today, all three belong to South Korean conglomerate STX (the Helsinki yard is a joint-venture with a Russian partner specializing in Arctic vessels). In Germany, Papenburg-based Meyer Werft is the sole German player in the cruise ship market, although the country has successful yards specializing in other segments. In France, STX owns 66.6% of the shipyard in St. Nazaire, while the French government holds the minority stake. And in Italy, state-owned Fincantieri runs several shipyards, four of which have cruise ships in their portfolios. Still other yards in Europe have built smaller cruise ships, but the four major players have mainly had the market to themselves, with the Finnish and French STX yards competing against each other.

However, the longstanding European dominance in this most demanding shipbuilding segment may soon be over. Less than two years ago, German cruise line AIDA Cruises contracted with Japan's Mitsubishi Heavy Industries to build two new cruise ships. The company was incentivized by a heavy discount, and AIDA's parent, Carnival Corporation & plc (the world's largest cruise operator with over 100 vessels) couldn't resist the offer. Previous attempts by Mitsubishi to enter the cruise ship market have been less than successful, with reported heavy losses from the completed projects. Next in line could be a Chinese shipyard, where Australian billionaire Clive Palmer would like to build a replica of the Titanic.

So what has kept previous cruise ship orders from being awarded to Asian yards? European shipyards have developed unrivalled expertise in the know-how needed to design a cruise ship from the technical and passenger points of view. A cruise shipowner may require many changes to the original blueprints as construction advances – a practice not always understood and accepted in Asian yards. Also, cruise ship construction can take from 18 months to 22 months to complete, which would seriously affect the production line of an Asian yard more accustomed to building cheaper bulk products such as gas carriers, tankers, bulkers, container vessels and so forth. In an Asian yard, building a cruise ship would be like assembling a Ferrari in a Fiat assembly line.

However, perhaps the most important factor is that a European shipyard is more of a place of assembly, where most of the value of the project goes to the suppliers and subcontractors; the shipyard may weld the hull and superstructure, but the high value of the interior outfitting work comes from smaller, highly-specialized subcontractors. This kind of maritime cluster is difficult to export, and for Asian shipbuilders, it might take a decade or more to develop their own domestic supply chain.

During the last five years, another important factor has come into the picture, namely financing. This is where governments have needed to play a significant role. In shipbuilding, the shipowner pays approximately 20% up front when ordering a new vessel, with the remaining 80% to be handed over at the time of delivery. This leaves financing for construction in the hands of the shipyard, which has to pay its own workforce and suppliers in a timely manner. This is why we have read so much lately about the challenges confronting the Turku shipyard in Finland, which is building two new cruise ships for a German customer. Cruise shipowners are typically assisted by state-owned export credit agencies that guarantee their loans up to 80% of the price tag of the vessel.

Since 2008, the cruise industry has witnessed a steady decline of new cruise ship orders. The cruise market has expanded tremendously during the last 20 years and continues to do so during hard economic times in both its main markets, North America and Europe. However, the growth rate has been slowed, and with slower growth there is less demand for new cruise ships, but at the same time the average size of each newbuilding has increased. Today, there are 18 new cruise ships under construction with an average size of over 100,000 gross tons and more than 3,100 passengers (double occupancy) and a combined price tag of over $12 billion.

What does this mean for the future? Even with the diminishing cruise ship orderbook we can expect new yards, especially from Asia, to enter this segment; in response, we can expect European governments, especially those in France and Italy, to defend their shipbuilding interests in every legal way possible; we can also expect cruise operators to require favorable financing terms assisted by export credit agencies; and we should anticipate that the average size of each new cruise ship project will continue to increase, but the number of new ships built annually will decrease. The challenge will be to keep the know-how of naval architecture in European hands and support its maritime clusters with a sustainable and steady orderbook. Currently, there are not enough new cruise ships under construction to keep all the players in the market viable for the long-term.

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The USA and Finland

Finnish maritime industry – observations from the IFCO project

By Kimmo Juurmaa

Background
OTC is a company owned by 13 companies connected to offshore business in Finland. During years 2010 – 2012 OTC was coordinating the project IFCO (Innovative Finnish Product and Business concepts for Offshore). This article is mainly based on results of the project.

History
Finnish maritime industry was created in companies like Wärtsilä, Rauma Repola and Valmet. These companies created their business originally for the Russian market. All major innovations as well as most of the competence within the industry were mainly directed to and financed by the trade with the Soviet Union of Russia. The structural changes within the industry started in 1980's. Already during that time it became obvious that the competence and quality of the products produced in Finland have markets globally. When the Soviet Union collapsed in 1992, the yards in Finland had to restructure their operations. The result was outsourcing as much as possible.

Where are we today
If we look with the eyes of the government or the industrial associations, we see the cruise liners, icebreakers and research vessels. We see that the future is depended on how we can support the yard industry to reach the contracts for these vessels. What we do not often see is the turnover and number of people working in the companies that serve the maritime industry globally. The major companies making their turnover within the maritime industry are not the yards, but the suppliers of components and solutions needed in the vessels to be built. Today the main maritime industry in Finland is not the ship construction, but the system and equipment suppliers. The industry having the knowledge and the competence comes among these.

Offshore as an option
Development of oil and gas deposits is a business where generally there is seen no limits in the near future. Development of oil and gas deposits offshore is a potential area for all maritime industry. OTC started the joint industry project IFCO to reveal the potential of the offshore business for the Finnish maritime industry. From the beginning it was clear that the experience, knowledge and references within the offshore business were widely spread among the companies and people working in the companies today. The history of the Finnish yards is such that the yard references and the competence do not follow each other.

Based on the results of the IFCO project one can see that the potential for the Finnish Maritime Industry to benefit from the development of offshore oil and gas industry globally exists. For many of the companies offshore business is already an important part of their business portfolio, but there seems to be a lack of research and development work to achieve a preferred position compared to their competitors.

What to do for the future
The major problem for the maritime industry in Finland is the way the government and the industrials associations see the industry. All major efforts to support the industry are directed to the construction yards. It is easy to see that large cruise liners or huge oil production structures are the products of the Finnish maritime industry. When you participate to a ceremony of a delivery of such an object, you can really feel to be proud of the Finnish work. And certainly this correct. But, what you forget is, that the majority of the business, turnover and jobs within the industry lie on other deliveries than the one you are celebrating. In fact a delivery of a diesel engine, an engineering product or a software package is something, that you never celebrate, but they create the most of the work that is produced by the industry in Finland. The Finnish yards are today minor clients to many of the companies within the Finnish maritime industry. And still the public and political discussion is around the ownership of the yards. In Germany and in Sweden the maritime industries are accepted without discussion about the yards. German and Swedish maritime industries are major suppliers of the global shipbuilding. Many of the companies within the Finnish maritime industry have also achieved leading position in the world market. And there are many more, which have the potential capability to be there.

During the IFCO project many of the companies expressed their strategic interest towards the offshore business. There appeared to be some reluctance due to unknown factors within this business. To attract and encourage more companies to enter the international offshore business calls for active measures. OTC is actively doing training, facilitating network business development and providing market knowledge and understanding for the industry. Since OTC activities are commercially based, they are done in the volume as the industry sees it necessary. What is lacking here is the research and development activity that would be based on the needs of the industry in large. Today we tend to look for research and development activities aiming at new products for the yards. We do not create research and development projects that would enhance technologies for the different actors in the maritime industry. For instance, instead of developing an icebreaker we should develop solutions for low temperatures. Companies working with diesel engines, cranes, ventilation, structures or anything else that is produced in Finland could benefit the output of such research globally, not only in the icebreaker that would possibly be built in Finland.

Based on the company responds from the IFCO project, it was clear that there are no national values within the business. A number of the companies even indicated that for their business it would be beneficial if the actual object would be built abroad. This is an alarming signal and the governmental bodies and the industrial associations should really reconsider their activities and support policies. Of course it is more challenging to find the ways to support the numerous companies with their numerous projects and deliveries around the world than just put all money and effort in a few companies with only a few megaprojects. But with today's industrial structure in Finland the support would in this reach more jobs than today.

For the future the positive result from the IFCO project is that among the companies there is a strong willingness to work together and the process that was started within IFCO should be continued to achieve a joint Finnish offering or joint Finnish competence for the global offshore market.

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How to support the competitiveness and networking of the maritime clusters in the Central Baltic region?

By Eini Laaksonen and Hanna Mäkinen

The most recent SmartComp Research Report[1] discusses the maritime business networks in the Central Baltic region, particularly between Estonia, Finland and Latvia. Although having somewhat different structures and competence areas, these maritime clusters in Estonia, Finland and Latvia seem to share similar challenges. There is a continuous need for R&D and product development to have competitive offerings, while the general economic situation as well as the global overcapacity in newbuilds give pressure to the shipbuilding sector. The lack of workforce was brought up particularly concerning the Estonian and Latvian clusters, and there is a need for increased maritime education also in Finland. Regarding shipping companies, the sulphur directive is seen as a major challenge for competitiveness, and the development of the Port of Ust-Luga is also likely to influence the Russian transit traffic volumes currently flowing through Estonia, Finland and Latvia.

The survey and the interviews conducted in the SmartComp project this spring 2013 resulted in a great number of suggestions on what kind of problematic issues should be tackled and what kind of concrete actions should be taken in order to strengthen the competitiveness of these clusters. In Finland, a largely discussed issue was political decision-making which should, in terms of tenders, for instance, be far-sighted in order to support the competitiveness of the domestic cluster. As an example, in the procurement of new vessels, room should be left for financing innovative solutions instead of always selecting the option of lowest cost, and take into account the positive multiplier impacts of having the vessel bought from the home cluster. Moreover, when allocating innovation support and other subsidies, life cycle aspects should be valued and thus support should be given particularly for projects that produce vessels to the nearby seas, later providing further work for the local cluster. In addition, targeted networking events should be increasingly organized for the maritime cluster companies in order to support the sharing of experiences, ideas and contacts.

Political will and radical openings are also needed in order to make the most of the Arctic maritime opportunities. To support the ability of highly skilled companies to engage in international projects, they should have a joint contact point or even an international marketing organization. However, one should not focus solely on the arctic business opportunities as it eventually cannot provide work for all the maritime cluster actors. Instead, at the same time, the development focus should be put on natural needs, such as improving the efficiency of the logistics chains, i.e. the number, specialization and efficiency of ports, the conditions and coverage of railway and road networks, etc. The related developments are relevant to the whole cluster and would result in improvements in its overall competitiveness.

Public R&D funding and the somewhat overlapping research projects received lots of criticism from the interviewed company representatives. Research funding should be reorganized to be less bureaucratic and more easily accessible for SMEs and international innovation consortiums, and more concrete and profit-resulting projects were asked for. In addition, communication of various project results should be coordinated at some level so that the results would really reach the business and public decision-makers.

Concerning the companies themselves, it was brought up that in order to make it in this global business environment – whether operating internationally or not – one can never rest on one's laurels. Products and services must be developed further and further, and also the business models must be under continuous consideration as “the good old ones” may not be suitable in the globalized industry. Examples of successful decisions within the supplier companies, for instance, include brave internationalisations, establishing various service offerings to supplement the actual product sale, and outsourcing the unprofitable domestic production while focusing on developing the core competences and customer relationships.

When it comes to the Estonian maritime cluster, the main issues discussed concentrated around the educational needs, internationalization support, and political decision-making concerning for instance the purchases of new vessels. In addition, of particular interest was the development of port efficiency as regards the increasing competition with the Russian Port of Ust-Luga. Regarding Latvia, the interview discussions concentrated on national and international networking, the role of public actors and NGOs as initiators of future networks and projects, and cooperation between universities and businesses in increasing joint R&D and education. The Latvians also brought up the need for improving custom services and throughput capacity at Latvian-Russian crossing points in order to support international freight transit.

On this basis, the clusters really share similar challenges and bottlenecks. Consequently, the interviewees were also asked to discuss the potential for increased cooperation within the Central Baltic region maritime clusters. It was brought up that due to the shared challenges, there is great potential for mutual cooperation in terms of joint R&D, repair and maintenance operations, ship conversions, educational cooperation, and EU-level lobbying. As an example, due to the new as well as the forthcoming IMO regulations, the clusters in the region must rapidly discover and develop new technical and infrastructural solutions. This can make the whole region a ‘green forerunner’.

Nevertheless, international political cooperation and support is needed in order to create a concrete policy and vision for the region. An international ‘meeting point’ and the related events should be organized for companies to meet each other and share ideas. Furthermore, through the Arctic Corridor initiative and land connections of Estonia and Latvia, the Central Baltic region should be strongly integrated into the future global freight transport networks as a logistics hub of comprehensive service packages and fluent customs procedures, for instance. Such joint initiatives and development projects would benefit the whole region.

The developments in the whole Baltic Sea region naturally influence the maritime clusters in the Central Baltic region, which thus can never be thought of in isolation. However, cooperation always has to start somewhere. Such

[1] The second SmartComp Research Report was published on the 13th of June and is available at www.cb-smartcomp.eu. The SmartComp project is financed by the Central Baltic INTERREG IV A Programme 2007–2013.

an example in our neighbourhood is the "Scandinavian 8 million city" transport, innovation and cooperation area under development between the metropolitan areas of Copenhagen, Gothenburg, Malmö and Oslo[2]. Consequently, on the other side of the Baltic Sea we should not only sit and wait to see what the global markets will have for us. On the contrary, based on the shared challenges and opportunities, the Estonian, Finnish, Latvian and Swedish maritime clusters engaging in cooperation might definitely make sense in the long run. In addition, Russia's developing maritime cluster in the neighbourhood is both a challenge and an opportunity, and thus including Northwest Russia into such cooperation activities would add great potential for this international cooperation initiative. Increasing and organizing the international resource and knowledge sharing within this region, both in terms of logistics and shipbuilding, could turn out to be a trigger for increased competitiveness for the region's maritime clusters.

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[2] For more information about the project, please visit http://www.8millioncity.com/index.

What kind of Latvia in what kind of Europe?

By Vaira Vīķe-Freiberga

Of those Europeans born during the 20th century, many have witnessed history in the making more times than they would have liked. Latvians have had more than their fair share of such upheavals, including two World wars with front lines moving back and forth across their territory and all the horrors of both communist and Nazi occupations. When Latvia regained its independence in 1991, after the collapse of the Soviet Union, Latvians thought that, at long last, they would experience a change for the better. A new era was about to dawn, full of freedom, hope and promise. The Iron Curtain was down, they had a free and democratic country, and the only thing left to do was to catch up to 50 years of peace and prosperity that Europeans on the other side of that curtain had enjoyed. To do that as fast as possible, integration into the European Union seemed the logical thing to do. Why try and reinvent the wheel, when other countries had already been perfecting it for decades? Becoming a part of the European Union thus became the first strategic goal for Latvia as early as 1995.

The other major goal for Latvia was to find some model of security that would do a better job of protecting its sovereignty than its declared neutrality had done before the Second World War. Fortunately for Latvia, NATO was there as a major security umbrella and becoming a member of NATO therefore became its second strategic goal.

Now, some ten years after accession to NATO and the EU in 2004, Latvia will be taking a third step in supranational integration by becoming the 18th member of the euro-zone on 1 January 2014. While the previous steps had enjoyed wide popular support, this time more than half of the population are sceptical about the wisdom of such a move. One cannot really blame them for feeling leery, since hardly a day goes by without more bad news about the financial situation of some EU country or another, or about massive strikes and protests against austerity measures in some Southern European country. Latvians have endured successive waves of austerity ever since they can remember, most recently after the banking crisis of 2008. This time, at least, their efforts have paid off, with a growing economy that has largely recovered its pre-crisis levels. Yet the recovery has come at a serious social cost, not least an accelerating decrease in the population, due largely to emigration.

While ten years ago most Latvians looked to the EU and NATO like a drowning man looks to a life-raft, this year many repeat the Estonian joke: joining the euro-zone just now is much like buying a ticket on the "Titanic". Worse still, the very fabric of the European Union seems to be unravelling at the seams, not least with the United Kingdom threatening to withdraw from the EU altogether. Everywhere in Europe we hear complaints about a financial crisis that does not abate, despite billions of Euros spent in attempts to dampen the fires. We hear complaints about collective decisions being too slow, too feeble or incompetent to address the problems. Even before the financial and economic crisis, there was a spreading sense of disillusion, betrayal and anxiety about the future. In most of the Western world, the rich had been getting richer, the poor getting poorer and the middle class shrinking because of increasing pauperization. For the past several years, fears about the future of the "European project" have been becoming deeper, as has the gulf of confidence between citizens and their political leaders or elected representatives. Next fall, a major conference in Brussels will address the question "*How* can we reinvent Europe?" To this, one might well add: "*Who* is it, who will be able to do this?"

Less than ten years ago, eight countries liberated from decades of communist oppression had hoped to join a Europe strong, free, prosperous and committed to social justice. Robert Schuman's vision of a European continent reconciled and at peace, was the blueprint that had guided generations of European politicians towards building impressively successful societies. Sadly, just as we too were beginning to enjoy the benefits of such a strategic vision, the whole system started to unravel.

In anticipation of the Euro-parliament elections next spring, concerned Europeans are beginning to marshal their forces to come up with recipes for overcoming a vast array of serious challenges. In Latvia, there is much more concern about the national parliamentary elections next fall. With so few Euro-parliament deputies to elect, Latvians are all too aware how little weight their representatives can hope to achieve in the overwhelming mass of deputies from other countries. Yet even in countries with large numbers of deputies, the popular interest in the European parliament and its elections is remarkably low. Ordinary citizens have become disillusioned about their real ability to influence important events. This, needless to say, is extremely dangerous for the future of democracy.

In Latvia, after 22 years of democratic governments, people are asking: why are we still lagging so far behind the income of the average European? What are our chances of survival as a nation, if the years of freedom have brought such a dramatic decrease in our population, instead of the natural growth that could be expected? Is our countryside doomed to becoming an uninhabited and uncultivated waste-land and will the professionals that our country continues to educate and produce increasingly leave us for greener pastures abroad? History seems to be playing with us a very nasty game of snakes and ladders, which requires every generation to lose what the preceding one had gained.

From my own personal perspective, having gone into exile as a child, I still feel the thrill of seeing my country reborn after being wiped off the map for half a century. Independence has given our population a chance to become active shapers of their own destiny, even in the context of decisions taken in Brussels or upheavals in the global economy. A lot of power still belongs to the people, if they make the effort to use it wisely and actively. Even living in a small country, one should never accept the defeatist notion that power always lies elsewhere and there is nothing we can do about it.

Many of my compatriots have become doubtful of European ideals, traumatised as they have been by one crisis after another. We have lived through the collapse of communism. Are we to live through the collapse of capitalism as well? Hopefully, it can survive, if there is will enough for the serious overhaul that is needed. Europe may have discovered it has feet of clay as an economic giant, but it still has the chance to maintain its lead in social values, achieved at such cost by previous generations. As for Latvia – it has a tough road ahead, but it will be a road travelled in freedom. We may not be the "motors" of Europe, nor the lords of high finance, nor the owners of vast natural resources. We are our own resource and I believe that is no small thing.

Vaira Vīķe-Freiberga

President of Latvia (1999-2007)

Latvia

Lithuanian success – from crisis towards credible European Union

By Algirdas Butkevičius

Lithuania was one of the fastest growing economies in the European Union prior to the global financial and economic crisis. Then, facing the world crisis, Lithuania has shown strength and unity in tackling challenges that swept the world. Radical measures were introduced to the people of Lithuania: salaries in public sector were cut by 20 percent and pensions cut by 10 percent. The adjustments were very harsh compared with the ones that were undertaken by the countries of Southern Europe but Lithuanians had to adapt to new reality that was brought by strict fiscal policy measures.

Lithuania found the way from crisis without asking support from the International Monetary Fund, (unlike Latvia, where IMF played a major role in recovering countries' economy) and without the devaluation of the currency. The prognosis of "strong deflation" never materialized either. Lithuania has managed to maintain confidence of the international credit market, increase its competitiveness and expand exports very rapidly. Thus, the expected long recession lasted just one year and in two years economy started growing again.

Of course several other important factors contributed towards fast recovery of Lithuanian economy. Lithuania is known for having one of the most educated workforce in Europe as well as one of the leading communication infrastructures in the region. Not only Lithuania is strategically situated between the Nordic region, Western Europe and the CIS, but for more than twenty years the country was focused on education and training, technology, transport infrastructure, development of business-friendly environment as well as economic stimulus and stabilization programs. As a result, Lithuania boasts one of the fastest growing economies in the EU today. The World Bank's 2012 Ease of Doing Business Index, the Heritage Foundation 2012 Index of Economic Freedom and the Wall Street Journal have rated Lithuania as a great place to do business. Lithuania is recognized as a prime transport hub of the EU that also boasts unrivalled Internet speed and has a competitive tax and salary structure. The country has one of the most pristine environments in Europe, and a quality of life that is among the highest in the world.

In second half of 2013 Lithuania is presiding over the EU Council. Besides organizing the Presidency in an efficient and result-oriented manner Lithuania is focusing on three goals: a credible, growing and open Europe. As the European Union is starting to recover from the economic turmoil, closer cooperation between member states is needed more than ever to ensure growth, job creation and competitiveness. It is the right time for The EU to once again prove that it pursues credible financial and economic policies, is committed to growth through joint initiatives that increased competitiveness.

Lithuania will focus main efforts on enhancing the EU's abilities to provide an appropriate response to economic, financial, social and energy challenges. The primary focus will be to further strengthen the financial stability and competitiveness of Europe, as well as the implementation of the Growth Agenda.

Lithuania will focus its attention on deeper EU integration and strengthening of the Single Market, including energy market in particular, where the purposeful effort of all 28 Member States is needed. Furthermore, Lithuania advocates openness of the EU to new members, neighbours and trade partners, who not only advance EU economy, but also reaffirm the EU position on the development of a prosperous, peaceful, democratic, free and open Europe.

One of the major priorities of the Lithuanian Presidency is, credible Europe. Lithuania will strive for the progress towards sounder public finances in the Union and strengthen the ground for financial stability. The efforts will be directed to further develop the Banking Union framework, and achieve progress on other legislative proposals for financial market reforms. The major task is to implement and enhance agreed reforms on economic governance and the deepening of the Economic and Monetary Union.

The Lithuanian Presidency will build on the Europe 2020 agenda and the European Semester, reinforced by stronger Single Market policy, as well as the effective implementation of the Compact for Growth and Jobs. The Presidency will work to complete the initiatives of the Single Market Act I, advance new initiatives under the Single Market Act II and facilitate the Single Market Governance. The initiatives that enhance confidence in the EU economy and result in a dynamic Digital Single Market will be prioritized. Furthermore, due attention on research and innovation issues will be paid. The Lithuania's Presidency will pursue the EU's commitments to complete the internal energy market by 2014, and ensure that no Member State remains isolated from the European energy networks after 2015.

For the appropriate completion of the energy market it is important to monitor properly the implementation of already agreed actions and existing legal framework, especially the 3rd Energy Package, market design, integration of renewable energy sources with a view to overcome the possible obstacles and, if needed, to initiate further follow-ups. Extensive efforts and strong commitment are needed to agree on the first Europeanwide list of projects of common interest and to benefit from the Connecting Europe Facility in order to secure its timely implementation. A solid external dimension of the EU energy policy is necessary prerequisite for the functioning of the EU internal energy market. The Presidency progress report prepared in line with Commission's position and discussions envisaged in the Council will be presented for the endorsement of the ministers in the TTE Council in December 2013. This work will continue and will be based on the principles already agreed by the EU such as: single voice, solidarity and guarantees to member states vis-à-vis third countries, transparency and cooperation.

Algirdas Butkevičius

Prime Minister

Lithuania

Back to the family – two decades of military-to-military U.S.-Baltic relationship

By Arvydas Pocius

In the year 2014 Lithuania and the other Baltic countries will have lived their first decade as full-pledged members of the world's strongest civil-military alliance – NATO.

On this occasion the countries will overview all the different steps and conditions that have helped them to start reconstructing their defense systems after 50 years of occupation and have led their way to rejoining the family of the countries responsible for global security, as well as in forming national armed forces that met the high standards of the Alliance.

Let me remind you of one of the most important factors in this process: the military-to-military support initiative that the U.S. launched twenty years ago to become one of the most important and complex assistance projects in support of developing the armed forces and defense systems of Lithuania and the other two Baltic States in line with western tradition.

In the year 1993 the U.S. National Guard started the first state partnerships with European countries: Pennsylvania-Lithuania, Michigan-Latvia and Maryland-Estonia. It was a significant step in the partnering path of the United States and the emerging democracies of Europe directed at the creation of a strong and stable defense environment in Northern and Eastern Europe after the collapse of the Soviet Union. So far, 22 state partnerships have been established in Europe, while more than 60 partnerships of that kind have been created worldwide.

Let me briefly describe a few practical instruments and directions of partnering that have played a significant role in developing the Lithuanian Armed Forces in conformity with NATO standards.

Military Liaison Team as an instrument of military-to-military relations. What was key to the process of providing initial support to the development of the National Defense Systems via military-to-military relations? The key to the success of the program was the Military Liaison Team (MLT). Three to five-strong multi-service Military Liaison Teams deployed in a country are the key elements in bringing U.S. military expertise to bear on a wide range of issues. Over 5,300 military-to-military contacts, or "events", coordinated by these teams have helped host nations address such fundamental issues as human rights, social securities for and civilian control of the military, and establishment of military legal codes and programs for developing professional non-commissioned officers and chaplaincies. The teams and the events they were conducting provided a clear example of the benefits of a U.S. style of military organisation while also offering American-way solutions to the abundant challenges the militaries of these emerging democracies were facing. As the foundation of all the bilateral U.S. programs in the region such events pave the way for partnering countries to participate in the Security Assistance and Partnership for Peace (PfP) activities.

More than 60 U.S. soldiers served at the MLT in Lithuania during the first ten years of cooperation. All of them did a great job and in 2004 Lithuania and six other European countries joined NATO. In the period of ten years, from 1992 to 2002, over 7,750 EUCOM-coordinated and managed military-to-military events were organized in order to help host nations to understand the U.S. approach to fundamental defense issues.

Composition of contact teams - ethnical factor as the key to success. The Joint Contact Team Program (JCTP) was a military-to-military program that was first applied in Lithuania in April of 1993. That was the right time for it. The occupying army of the former Soviet Union was still deployed in Lithuania and the members of the JCT witnessed its withdrawal process that finally ended in August of 1993. The efforts of the program were directed at developing the host nation's military capacity consistent with western standards of military operations. The program focused on the areas enhancing interoperability with the Western militaries that were assisting the host nation in the Partnership for Peace (PFP) process. The JCTP provided such assistance by scheduling visits of U.S. military experts to the Republic of Lithuania or by arranging visits for Lithuanian military personnel to U.S. facilities. Varied in subject such visits focussed on leadership, civil-military cooperation, communications, and logistics, to name just a few. The JCTP arranged the assistance visits in close coordination with the Lithuanian Ministry of National Defense.

Four out of five U.S. officers and NCOs that made up the original team were of Lithuanian descent. That was a very successful solution as they could communicate in Lithuanian which had positive effects on the population of the host nation – Lithuanians did not see them as new invaders of their Motherland.

Over time the composition of the team was changed due to military personnel rotation policies. However, the tradition to have at least one member of the team of Lithuanian descent was kept for many years. U.S. representatives were very popular among the citizens of Lithuania.

Active partnership in the fields of military education, training, and collective defense. Cooperation with the Pennsylvania National Guard was a vital part of the MLT Lithuania program. In 1993 the state of Pennsylvania was chosen as a partner in the state partnership program because of the large Lithuanian community it had. The partnership is active to this day. Pennsylvania and Lithuania have had numerous exchanges of personnel and information to assist the development of Lithuania's military. Soldiers of the Pennsylvania National Guard participate in the largest and the most significant international exercises hosted by Lithuania and the Baltic region on a regular basis, e.g. large scale exercise SABRE STRIKE 2013 combined efforts of U.S. and Baltic military this year. At the same time soldiers of Lithuania and the Pennsylvania National Guard served in the Lithuanian-led military unit in Ghor province as a part NATO ISAF operation in Afghanistan.

Two decades of successful partnership can set an example for future vision. Joint training events and participation in joint international operations has to serve as a basis for achieving an appropriate level of interoperability. This kind of partnership demonstrates that we are able to support each other exactly when the support is needed.

Arvydas Pocius

Lieutenant General

Chief of Defense

Lithuania

The euro – the key driving force in competition to promote sustainable growth

By Andris Vilks

The aim joining the Eurozone on 1st January 2014 has been an important step for deeper economic and monetary integration with the European Union (EU). Looking back in recent history from 2008 till 2010 Latvian economy took one of the sharpest downturns in the world, when the fall of GDP reached 25%. Latvia took decisive and swift actions to receive the financial assistance from the international organizations, which in return set conditions in the Supplemental Memorandum of Understanding addressing economic policy criteria linked to each instalment and the reporting and monitoring conditions of the loan.

It was a great challenge to overcome the crisis by the implementation of broad set of fiscal consolidation measures and structural reforms, because it affected the amount and quality of public services. In overall consolidation measures reached almost 17% of GDP during the time period from 2008 until 2012. On average from 2008 until 2012 Latvia has performed the fiscal consolidation measures in the amount of 3.4% of GDP per year. However, in view of significant changes in the economy and gradual global economic recovery from the financial crisis, Latvia returned to growth in the latter half of 2010 as a result of economic stabilization measures and internal devaluation, which was accompanied with favorable situation in external markets and increase of market confidence. At present Latvia continues to show rapid and sustainable growth and has achieved considerable improvement in the fiscal position.

Latvia's way to the Eurozone can be compared with the competition where participants need overcome different obstacles in order to win the competition. In 2010 Latvia set a target to introduce the euro until 2014, therefore the government had a strong determination to undertake significant additional measures to meet the Maastricht criteria by 2012, and achieve euro entry by 2014. Due to gained competitiveness GDP growth rate increased to 5.6% in 2012, which was the fastest rate among all EU member states. At the same time, starting from September 2012 Latvia has been able to simultaneously comply with all the Maastricht criteria. In addition, compliance with the Maastricht criteria can be regarded as a quality mark stating that the economy is capable of providing sustainable growth, which is an essential precondition to improve Latvia's investment environment.

Recent economic difficulties in the Eurozone might raise questions whether it is the right time for Latvia to adopt the euro? Besides society has fear that the country will be burdened with additional financial liabilities through assisting the Eurozone countries in trouble. Nevertheless, constructive and productive exchange of thoughts is welcomed, and at the same time any fallacies connected to misinterpretation of our fiscal policy aims should be refuted. One could ask, "What can be expected from Latvia as a new member of the euro area?" One aspect is distinctly clear – Latvia will not be a silent partner but will take an active part in policy making to further strengthen European integration. After the country becomes a full-fledged member of the Eurozone, it will be possible to participate in discussions and decision making process on the same level with other euro area member states.

Both Latvia and the Eurozone have gone through economic difficulties that have raised questions about further steps how to promote economic performance. Thus, there is a need for closer cooperation within commitment to fiscal discipline and structural reforms in order to raise economic potential in sustainable manner. With ratification of the Fiscal compact, the member states have agreed to observe the fiscal discipline marking it as an essential factor in promoting further economic development in Eurozone and EU at the same time ensuring protection form future economic imbalances.

Latvia also has learned from policy making gaps in the past and formulated that that strict fiscal policy is and should be one of the most fundamental cornerstones in economic policy framework in Latvia. New turning point in fiscal policy in Latvia has been adoption of Fiscal Discipline Law in beginning of 2013 which envisages stipulation of fiscal policy principles and provisions (in line with regulations of reinforced Stability and Growth Pact) which ensure balanced budget over the economic cycle and thus facilitating a sustainable state development, macroeconomic stability and reducing negative impact of external factors affecting national economy. Latvia is an example for other EU member states demonstrating the strong will to win the competition.

Overall the euro is not a "wand" for all economic difficulties, but an instrument which can be used to contribute growth of the economic potential. In 2010 the euro introduction was set as a goal, which at the same time was both the crisis exit strategy and the key driving force to promote stability of Latvian economy and to perform structural reforms. Since the recession Latvia has overcome many obstacles and showed considerable improvement in competitiveness through internal devaluation but it does not mean that we should be lulled into complacency. It was just one step in the competition and the euro introduction is another step but not the last one. Latvia will not rest on laurels after the euro introduction, but as hardworking euro area member Latvia will take part in enforcing well-being of all EU.

Andris Vilks

Minister of Finance

Latvia

Finland prepares for increased eastern mobility and possible visa-free travel between EU and Russia

By Päivi Räsänen

This autumn there has been wide-ranging discussion in Finland about possible visa-free travel between the EU and Russia, and its national impacts, in particular. In mid-September, the tourist industry released a comprehensive survey on how visa liberalisation would influence Russian tourism in Finland and what advantages and disadvantages visa-free travel would have. During the present Government's term of office, a number of comprehensive studies has been conducted with the purpose of examining the sufficiency of our resources with regard to increasing eastern mobility. The Government has now decided to give serious consideration to increasing eastern mobility and possible visa-free travel.

There has been an annual increase of about 10% in passenger traffic at the border between Finland and Russia. In 2012, the number of border crossings at the Finnish-Russian external land border topped twelve million. At this pace of growth, the number of border crossings is expected to reach about 20 million within the next five years. The impacts of increased mobility are already evident in the daily work of the border guard, police, rescue and immigration authorities — all covered by the mandate of the Ministry of the Interior.

Finland has already benefited from growing eastern mobility, with Russians being by far the largest tourist group in the country, and still growing. Finnish businesses, too, generally consider the foreseeable impacts of visa-free travel to be positive. It is expected to boost demand for tourism, trade and services, raise the employment rate and increase Russian investment in Finland.

The Ministry of the Interior's goal is to enhance people-to-people contacts and secure the operating conditions for businesses, without putting Finland's or the EU's internal security at risk. The tourist industry is one of the biggest employers in the EU, and it is a key driver of economic growth. Therefore, the authorities responsible for border control, internal security and immigration are to ensure smooth cross-border and transit traffic at the EU's external borders while taking care that the EU requirements for border control are met.

Visa-free travel is a common long-term objective of the EU and Russia set out as early as in 2003. In 2011, the EU and Russia agreed on common objectives and conditions, 'common steps', which need to be implemented before agreement can be made on visa-free travel. A dialogue on the conditions of visa-free travel has been conducted for a while now, and it is only a matter of time when the actual negotiations on a visa waiver agreement will be launched. Now is the time to discuss in Finland, too, what the impacts of visa-free travel will be and how we should prepare for it.

The single most significant challenge for the authorities will be how to maintain internal security. As the number of passengers grows, the transport infrastructure and the flow of cross-border traffic will be put to test, in addition to which ordinary crime and traffic accidents are expected to increase. In order to maintain the throughput of the border crossing points and the management of cross-border traffic at a level required by the growing traffic volumes, we need to take steps to comprehensively develop the crossing points and improve transport routes and connections to them.

The EU's 'Smart Borders' package currently under preparation will have an effect on smooth border traffic. The package consists of the Entry/Exit System and the Registered Traveller Programme which will enhance security and facilitate border crossing in the EU. The systems should be in operational at the Schengen external borders before the possible EU-Russia visa-free travel begins.

At the informal meeting of home affairs ministers of Schengen states with eastern external land borders, held in Finland on 13 September, Poland, Estonia, Latvia, Lithuania, Slovakia and Finland agreed to step up their cooperation and establish a ministerial forum to convene on a regular basis. The forum aims to promote multilateral cooperation, dialogue and the exchange of best practices concerning the challenges of home affairs. Particular focus areas include the future EU visa liberalisations to the eastern neighbouring states, increasing cross-border traffic and prospects for cooperation at the external land borders.

Discussions at the informal ministerial meeting in Lappeenranta showed that Schengen states with external land borders share common interests and face similar challenges. Closer and more regular cooperation will give us increased opportunities to raise issues for discussion, by making use of the ministerial forum of Schengen states with external land borders, and by working together with existing regional compositions, such as the Salzburg Forum.

Päivi Räsänen

Minister of the Interior

Finland

Like minded Baltic cultures

By Rein Lang

The West Sea or the East Sea (depending on one´s perspective) is not merely a historical trade route that once enriched families and cities. Culture – both spiritual and material – moved together with merchants. There is more and more evidence of close interaction already from before the establishment of Christianity in Estonia. Michel Rouche, professor at Sorbonne University, claims in his book "Clovis" that Clotilde, the spouse of the first French Christian king Clovis, was half Norwegian and half Estonian. Clotilde is believed to have convinced her husband to turn to Christianity and to let him be crowned a Christian at Reims Cathedral. All this happened long before Christianity reached Estonia.

The merchants and nomadic monks, many of whom were acting as spies of the Teutonic Order, made it clear in the 11th century that Estonia was worth invading. The year 2014 marks 800 years from when Pope Innocent III devoted today´s Estonia and Latvia to the Virgin Mary. This served as an ideological foundation for carrying out the Crusade. Christianity and the Western Christian cultural space were brought to the Land of Mary – Terra Mariana – with fire and sword. Along came the medieval fortresses and stone churches, many of which have to this day, more or less, preserved their original form. Cities developed, forming the Hanseatic League, in which similar cultural processes took place. 12th-14th century feudalism and consequent allocation of land to German feudal landlords defined Estonia´s cultural development and affiliation. As an outcome of the Great Northern War, Estonian territories were transferred under Russian tsarist rule. Despite this, the land ownership dynamics and the Western Christian cultural beliefs remained intact. Although under the Romanov Dynasty, Russia became an important maritime power and a famous exploration hub, their admirals´ names were still inherently non-Russian – Bellingshausen, Kruzenstern, Kotzebue, Wrangel etc – coming from Estonian noble estates. The Baltic Sea cultural space, including St. Petersburg´s Russia until Lenin-led coup d'état, shaped Estonians´ lifestyle, beliefs and their cultural legacy. Through Estonia, this cultural space expanded to St. Petersburg, turning it into a cosmopolitan cultural hub. Even today, St. Petersburg is an oasis standing out from the rest of Russia, where Western and Eastern Christian cultures meet, continuing to offer timeless works of art to the world culture. Even the communist terror´s hostility towards culture, best exemplified by the conversion of the city´s historical name to Leningrad, could not break the spirit of St. Petersburg.

Although predominantly German, this cultural space included elements from ethnic cultures from all around the Baltic Sea. Estonian cultural space was dominated by the Baltic German culture, which was an entirely unique phenomenon, and which faded due to German landlords` decision to raise arms against the newly created Estonian Republic in 1918. Baron von Goltz, who was defeated by Estonians under today´s Latvian town Võnnu, did not only compromise its people´s political and military power but also the unique culture that had developed over centuries.

The fact that the angry victorious "natives" started to reckon with their former landlords after a successful military defeat is hardly a surprise. However, the cultural beliefs of the leaders of the newly born State should be acknowledged – the cultural heritage remained almost entirely unharmed in the process. Even the coats of arms of noble families remained on the walls of the Dome Church in Tallinn. And yet, it is only now, 20 years after the end of the communist rule, that we re-discover this spiritual and material cultural legacy that was developed here over centuries by Baltic German families. And this is both exciting and admirable. Today, we carry out seminars together with German researchers exploring the ties and hostility between one of the most productive German playwright and former landlord August von Kotzebue and Goethe, we study the heritage of Michael Sittow and try to restore the manor ensembles created for local barons by Italian architects, gardeners and artists.

While in Southern Europe the flowering of the Renaissance was impeded by plague epidemics and quarrels between noble families, the biggest problems for Terra Mariana were the growing ambitions of neighboring Eastern rulers. More than half of the Estonian population was killed during the invasion of Ivan the Terrible. Estonian mainland was re-populated by islanders that had managed to survive. As the result of the Great Northern War, Estonian population fell below 200 000 people. The Second World War destroyed one third of Estonian population.

In 1991, Estonia restored its cultural affiliation with the Western Christian cultural space. Despite all the historical destruction, more than 800 year-old examples of Gothic architecture have remained, together with the understanding of aesthetics and artistic continuity similar to that of Western Europe. Furthermore, our understanding of the relationship between individual and the state, of individual´s responsibility towards himself/herself and his/her loved ones, and of sustainable economic management is similar to that of Finns`, Swedes`, Germans`, Danes`, and Poles`. It seems not only fish and boats traverse the Baltic Sea but also ideas and mentalities. Even in the framework of the European Union, the Baltic Sea states usually think alike. It would be useful for us if at least some of our ideas and values were shared in the St. Petersburg region of Russia, and often that is the case.

To conclude, I would like to stress that the Baltic Sea cooperation is not only necessary but unavoidable if we want to preserve our centuries-old lifestyle and value system. During peaceful times our quality of life has, despite the harsh climate, been high and it continues to be so. The effort to maintain it seems in every sense reasonable and necessary. This is a good reason to continue to look for opportunities to enhance cooperation in all areas.

Rein Lang

Minister of Culture

Estonia

A new transatlantic alliance must be based on shared values and shared objectives

By Hannes Swoboda

The relations between the European Union and the United States have entered a new phase soon after the election of Barack Obama as President of the United states in 2008. This trend has certainly been consolidated by his re-election to office in October 2012.

The Presidency of Barack Obama has marked a change of paradigm in the relations between the US and the world, where the unilateral affirmation of military power has been replaced by an increasing role of political diplomacy and by the promotion of US interests via a more proactive participation in global and multilateral fora.

This trend has coincided with increased attention towards Europe and the European Union, both through a call to take up greater responsibility in conflict management and neighbourhood policy, and via a renewed interest in re-shaping a transatlantic alliance, particularly facing the rise of other more competitive global actors.

At the same time, after the entry into force of the Treaty of Lisbon, the European Union has emerged more and more as a distinct political and institutional actor in transatlantic relations. This shift in the EU institutional system has been clearly perceived by both parties in recent years on the occasion of important negotiations concerning counter terrorism agreements on data exchange and data protection (TFTP and PNR agreements), where the power of consent of the European Parliament significantly shaped negotiation dynamics, away from purely intergovernmental relations.

I believe these political and institutional developments on both sides of the Atlantic constitute an important challenge for the EU and for the US for a renewed and stronger partnership based not only on shared objectives but on a set of shared values.

The EU and the US need to be part of this new global dynamics and lead the change, not only in terms of economic and trade competitiveness: we have the opportunity to define together global standards in line with our historical heritage of democracy, freedom, equality, welfare and learning from the failures that the financial and economic crisis has dramatically brought to light.

For this reason I have welcomed the opening of negotiations for a Transatlantic Trade and Investment Partnership - TTIP last July in Washington.

Economic reasons supporting this choice are self evident.

The EU is the largest economy in the world, representing 25, 1% of world GDP and 17% of world trad, while the US is the second largest economy accounting for 21, 6% of world GDP and 13, 4% of world trade.

Together the EU and the US account for almost half of the world GDP and one third of total world trade. The transatlantic economic relationship is among the most open in the world and the EU and US markets are very integrated. Nonetheless, the relative share of bilateral relationship has been declining over the past decade due to the rapid rise of emerging economies.

In this context, according to the European Commission's recent estimates, a comprehensive and ambitious agreement could increase the EU's GDP by 0.5% annually and the US GDP by 0.4% by 2027.

But there is much more to this than just economic considerations and we would loos an historical opportunity if we did not use these negotiations to discuss also about shared values and actions necessary to promote them and uphold them across the Atlantic and at global level.

For instance, according to estimates of the World Bank, by 2030, 2 billion Asians will enter the middle class. Emerging countries are moving fast in terms of economic growth, technological development, job creation, production costs, boost to talent and creativity. But are fundamental rights and freedoms, labour rights, environmental standards, democracy evolving at the same pace?

At the same time the EU and the US are now - in different ways and at different pace - recovering from the hardest economic and financial crisis since 1930, whose impact on economies, societies, democracies and rights has been deep and will be long lasting.

Another example: the debate around data protection and mass surveillance generated across the Atlantic by leaks on US NSA generalised surveillance programs has highlighted the importance to define shared values and standards for the protection of what is considered by both parties a fundamental right to privacy.

In this respect I believe there can be no trade off between security and freedoms, both online and offline. Cyberspace must not be equated to impunity. Equally, the same fundamental rights and principles that the EU and the US uphold offline must also apply and be promoted online.

These concerns have to be addressed swiftly and credibly by our US friends, if TTIP negotiations are to proceed in a climate of mutual respect and mutual trust, as this difficult challenge deserves. The parallel decision to set up a bilateral EU US dialogue on intelligence, law enforcement and data protection goes in the right direction.

Overall, I still believe that the extraordinary interdependence of our economies is a valuable opportunity in the present historical phase and we need to seize it, knowing that the challenge for both parties is to overcome obstacles to trade and investment, simplifying where possible the regulatory environment, but also to promote the values, principles, models that have made our societies thrive, not only in economic terms, but in terms of democracy, social protection, fundamental rights, consumer rights, privacy rights.

Europe has a specific heritage in this respect. This heritage is that of a set of well developed welfare states, of societies that ensure still a high level and quality of social protection, public education, healthcare, services of general interest, access to culture, in spite of growing inequalities and growing unemployment.

This task specifically questions the role of Progressive forces on both sides of the Atlantic. Socialists and Democrats in Europe and the Democrats in the USA have the historic chance to boost cooperation on a series of fundamental issues, ranging from the regulation of financial markets, to human and civil rights as well as immigration and integration of migrants.

We should use the present opportunity to give not only Europe a new face and create new chances, but to construct a progressive cooperation across the Atlantic.

US-EU cooperation can be the core of this alliance, that should be open to all other actors interested to join forces.

Globalisation can not be stopped and should not be stopped as long as it is fair to all participants. But to make it fair we need a strong EU - US cooperation.

Not - as was the case during the Bush era - a co-operation of those who are willing to intervene militarily and without UN support, but a real transatlantic alliance of progressive forces willing to bring fairness and justice into our societies.

Hannes Swoboda

President

Alliance of Socialists & Democrats in the European Parliament

The Silicon Sea?

By Jouni Backman

For a long time Finland was one of the world's leading information societies. Now Estonia is about to take that position. Also in Russia there is a strong tradition of mathematical and thus also ICT sector know-how. In many other countries in the Baltic Sea region expertise in the information society is on a high level.

This strong know-how could be a source of regional cooperation. Not only around business, but also around research, education and product development. Cooperation in developing the public sector would be challenging, but useful.

The development of the information society is both a possibility and a threat. Regarding the opportunities, cooperation between countries is needed – regarding the threats, cooperation is imperative.

To the side of traditional security threats, or even ahead of them, has risen the so-called cyber security. It no longer means just plain data security, but the safety of the whole electronic and networked society.

Dependence on data networks and their uninterrupted operation these days concerns almost all functions of society. Targets of security threats are both private financial transactions, trade and travel, and states' critical functions and public services. Uninterruption of electrical and data networks is an absolute prerequisite for the functions and safety of a society.

Many countries are investing significantly in cyber security. And as with traditional security politics, it cannot be done only at national level, but also international cooperation is needed. In cyber security the cooperation between states is emphasized, because cyber threats are not geographically limited. A large part of cyber threats is also related to terrorism and other cross-border crime.

The Baltic Sea region is in the core of cooperation formed around cyber security. NATO Cooperative Cyber Defence Centre of Excellence (NATO CCD COE) was established in 2008 in Estonia. The goal is to have 16 member countries by 2016. Finland has also been persuaded to join, at least in the beginning through a permanent expert. Cooperation has already been achieved in many ways.

Tallinn as the choice of location can be explained by Estonia's good information society development. This, in turn, can be explained by a couple of things, at least. In Estonia, the construction of the information society has been able to take place through the so-called clean slate, which means that old structures and practices have not hampered meaningful activity. In many other countries the change process has been much slower and more difficult.

Another secret to Estonia's success was the open-minded decision to introduce joint solutions. Some of them, like a digital identity card for all citizens and a common open technical service platform, have created the necessary foundations. It is noteworthy that these solutions are in use in both the public and private sector. Finland is about to follow the example of Estonia.

ICT's potential has been utilized only to a small extent so far. In particular, this applies to the public sector. In many countries, efforts have been made only in the development and acquisition of ICT technologies, but not to its actual utilization by reforming processes, in other words practices.

Also in this regard, Estonia's example makes a good exception. There, courage to renew also the practices was shown. In Finland, this has happened, for example in taxation, but in many respects, Estonia is clearly ahead. One example is the Estonian-Russian border traffic, where it is possible to book for oneself, in advance and online, a time for border crossing. At the Finnish-Russian border this is not possible yet, but the only way is to wait in line for one's turn at the border.

One key difference between the two countries is the development of citizens' ability to have a say and how transparent the society is. This is not only a question of e-voting, even though Estonia is clearly ahead of the others in this area as well.

Data is a key element of an information society. Transparency and the availability of data are prerequisites for the utilization and further processing of information. Promotion of the transparency of public data pools has started to take effect determinedly in many countries, including Finland.

Good management is related to data openness. In particular, the public sector must take big steps towards modernizing their knowledge management. It does not mean any longer the production of information only for the management, but an automatic utilization of updated information within the entire organization.

The most important area of development is for democracy. The applications of new technology would provide the capability to bring democracy to a whole new level. It does not just mean that meetings can be followed online openly, but it means new and real ways of influence.

The former model country for the promotion of democracy, Finland, has fallen to 45th place in the UN statistics (2008) for e-Participation. We achieved the same as Honduras, but lost to Botswana. In our country, as elsewhere, it would be possible to open the preparation of issues, decision-making and follow-up in such a way that a genuine democracy would become a reality. After all, it surely cannot mean only casting a ballot once every four years.

Jouni Backman

Member of Parliament

Chairman of the Social Democratic Parliamentary Group

Finland

The Russian border – yesterday´s curse, today´s possibility

By Anu Urpalainen

Imatra stands at the outer border of European Union in south-east Finland. A look back in history signals that the border used to be a curse, but today we play the key role of the game called *Finland and Russia economic development and enormous opportunities for co-operation*. Recently region´s heavy industry has gone through challenging structural change but new coming of tourism has versatiled our economic life. To be able to understand the present, it is good to explore the past.

The borough of Imatra was founded in 1948, but its history goes much further. The first record ever written from Imatra dates back to the 16th century as tax inventories contained references to taxes paid on salmon fishing on the River Vuoksi. The official history of tourism at the Imatrankoski Rapids began when The Empress of All the Russia's Catherine the Great visited Imatra in July 1772. When railway was built in 1892 it shortened the journey from St. Petersburg and boosted the influx of tourists. Wealthy Russians from St. Petersburg started to travel to Imatra to admire its exotic rapids. At the end of the 19th century industrial production began to increase and exploit the potential of the rapids of River Vuoksi. Paper mills, cellulose factories of Enzo-Gutzeit and growing industry on metal business cemented region's status as "Ruhr of Finland". As a consequence of the Second World War Finland lost Karelia to the Soviet Union. War closed the border, and the Ruhr of Finland was divided- wartime caused lasting wounds into people´s hearts and souls, and froze the rest of the international tourism.

Over the years people started to reconsider the benefits of co-operation**,** and the border was re-opened little by little. In 1993 the city of Imatra and Svetogorsk made agreement of co-operation covering issues such as business, development of infrastructure, education, tourism and training. The concept of "Twin cities" was born. Both towns stand just on the other side of the border placing them in a unique position to gaze over the border between the European Union and Russia. During the years twin cities have carried out several common EU-projects among which Imatra for example has offered expert help on infrastructural development initiatives. School trips, exchange student programmes, communal teacher´s seminars, language courses, youth music performances and reciprocal shopping visits mark the liaison between the cities. Nowadays the alliance lies strong and going across the border from one city to another is as simple as riding a bike.

In spite of the structural changes the south-east Finland still has a strong centralization of wood industry when counting in International Paper mill located in Svetogorsk. Due to its location it transfers easily raw-materials and components to Finland without needing to put a strain on Russian highways. Good quality of Finnish highway infrastructure furthers the efficiency of the paper mill. Economically beneficial entrepreneur park situated at the gate away of European Union and Russia has attracted many companies to settle their operations there. The modernizing of the Imatra's and Svetogorsk's border station with the EU's ENPI (European Neighbourhood and Partnership Instrument) -fund is an excellent proof of cross-border collaboration by authorities on both sides.

Today Imatra has close co-operation with St. Petersburg, the border guards, the customs, and with the governments' of both Finland and Russia. Wounds that arose during the war have mostly healed; new generation is forming the global world. The era of looking back and closing borders is behind. Last year the south-east border of Finland was crossed by 10 million passengers and Russia was Finland´s number one trade partner and second biggest export market after Sweden. Imatra and Svetogorsk – the twin cities, represent an excellent example of how mutual trust and relationship built between small towns can open big doors and expand connections on many tiers of the society and country.

On September 2013 the Finnish Parliament contributed 10 million euros towards a new fund to support studies in Russian language and culture. The parliament wants to ensure economic development and opportunities for co-operation in the future on governmental level. Finland is also willing to speed up trade and to facilitate planning and construction orders to ensure high quality and easily accessible shopping malls for the needs of increasing tourism. At the moment Russia and European Union are checking out the conditions to start the negotiations regarding exemption from visa. At the earliest it could be possible in 2018. I personally treat the idea with positive attitude.

What was once started in 1993 between small towns of Imatra and Svetogorsk, is now being done between Finland and Russia. Cultural exchange, improvements of language skills, commercial boosting, expert help, reciprocity and common trust are the key elements for fruitful co-operation. The Russian border affords us opportunities without limits, we just need to accept them, roll up our sleeves and team up. I believe we are ready for that.

Anu Urpalainen

Member of Parliament of Finland

Member of City Council of Imatra

Finland

The "non-race to the Arctic" – some observations from Norway

By Ine Eriksen Søreide

Since the end of the Cold War, there has been a fundamental transformation in the strategic significance of the high north and Arctic. The historical situation, with the deep split between the East and West, and the area serving as a focal point for military buildup and activity, is well known. Today we face a new reality with the main focus being the development of natural resources and opportunities for commercial maritime transport, as well as the global challenge posed by melting sea ice and environmental degradation.

In this perspective, the strategic importance remains high, but is much broader and more complex. However, this transformation does not negate the need for a security policy perspective, and all the Arctic states, including Norway, maintain a considerable military presence in the area, both due to issues of sovereignty and to maintain a situational awareness in an area of increasing importance.

The first white paper on Norway's stand on the high north was presented in 2005 by the Bondevik II government. In the Norwegian political landscape there has since been a broad and consistent consensus regarding the Norwegian policies in the high north. Of course there are minor differences in the priorities, but on the macro level the level of agreement has been high over time.

On the domestic side, expectations have been set high as the interest in the area increases. However, exploration, sustainable exploitation, growth and construction of comprehensive infrastructure are all slow processes. I would argue that concrete action needs to be taken in order to strengthen the potential cooperation and growth in the high north further. For us, this also includes strengthened people-to-people cooperation and the exchange of much needed labor and knowledge between Russia and Norway, for instance.

Over the last years, the multilateral frameworks for cooperation and policy development have been strengthened. The increasing importance of the Arctic Council, with a permanent secretariat being established in Tromsø, and several new members being accepted as permanent observers serves as one example. The cooperation between the five circumpolar states, as illustrated by the Ilulissat declaration of 2008, another.

Norway also enjoys, and wishes to maintain, a close bilateral relationship to all the Arctic states. This includes a very constructive cooperation with Russia in areas of common interest. Every day issues are solved in a pragmatic way. One longtime example is our joint management of the fisheries in the high north. This has shown that where we have common interest we can solve these pragmatically and successfully. Our military forces enjoy an increasingly close cooperation with naval and land forces having conducted several joint exercises. More recently the search and rescue exercise Barents Rescue was conducted in Norway. This was done with resources from Russia, Sweden, Finland and Norway.

Regardless of the increasing cooperation between the Arctic actors, there is still a tendency, not least in the international media, to focus on potential tensions and conflicts. A much used metaphor is the so-called "Race to the Arctic". I would argue that this is a clear exaggeration. This is not an area "up for grabs" or without international, and national, regulation. Boundary disputes and delamination of areas of responsibility on the continental shelf have been clarified in an increasing tempo, with all actors respecting the bodies of international law regulating these issues. A huge diplomatic victory for both Russia and Norway took place in 2009, when the boundaries in the arctic waters were set, and a long term border dispute was solved, building on decades of diplomatic craftsmanship.

The future will probably bring an increase in freight transported through the area. The coastal states in the Arctic therefore have a responsibility to provide a comprehensive search and rescue capability, as well as capacity to handle environmental threats and accidents. In several areas this effort will be best solved in close cooperation between states. A strong increase in maritime freight also necessitates the construction of relevant infrastructure and facilities.

Another challenge is the sustainable exploit of natural resources. In vulnerable areas this must be both sustainable and take the footprint the industry leaves in the nature seriously. Potential mineral resources could provide an opportunity to create growth and jobs in the high north. Oil and gas remain important, both on a commercial and strategic level. These industries have some of the same needs and policymakers have to create a framework that meets the expectations from important stakeholders in a comprehensive way.

The complexity of the activity in the high north and the arctic areas demands strategic vision, close handling and political, commercial and diplomatic craftsmanship from policymakers. The opportunities are big and the stakes are high. The actors have chosen a responsible approach through cooperation. The "Race to Arctic" is in fact called off, and the more constructive, though perhaps not as exciting, process of responsible management has taken its place.

Ine Eriksen Søreide

MP for the Norwegian Conservative Party (Høyre)

Norway

The change of the Arctic geography

By Olli-Pekka Heinonen

For many years the Arctic was only known as the opposite end of the Antarctica, predominated by cold weather, thick ice, polar bears and non-navigable waterways. It was in other words considered a hostile ground with harsh conditions. But due to the climate change and the melting of the ice cap our perception – or should I say the mental geography – of the Arctic has been changing rapidly.

What is the Arctic and what it's not?

The Arctic is in the High North. We know it's there, but we disagree where it begins and where it ends. Researchers, scientists, politicians and even legal scholars disagree and have their own ways of defining the Arctic. Geographically the Arctic is the northern circumpolar area, the ice-covered ocean forming the white area at the top of our maps with no evident signs of human activity. And for many people this is how it should be now and forever.

The Arctic also means infertile and barren coastlines, inhospitable and icy islands and fringes where indigenous people used to fish, hunt, raise their families and go on with their daily lives until just a few decades ago. Now there might be a constant search for natural resources in their back yard.

The Arctic area is very diverse. Dozens of languages are spoken by people that have lived there since immemorial times. The Arctic is like a ring tied together by the Northern Polar Circle – in the middle you'll find the ocean and ice field and by the edges are the icy islands, the fringes of three continents and eight states. Some four million people call this place home.

What is really changing?

The melting of the Arctic ice cap is real. A comprehensive satellite study show that the polar ice caps have melted fast in last twenty years. The melting is undeniably caused by the climate change – and even how undesirable this is – we need to address the development and take advantage of the new possibilities it presents. The melting of the Arctic ice-cap will open up the waterways and the main hype seems to evolve around the navigation routes along the Northern Sea Route (NSR).

NSR runs along the Russian Arctic Coast from Murmansk in the Barents Sea along the coast of Siberia to Bering Strait and Asia and is approximately 3,000 nautical miles. Navigation season for transit passages starts approximately at the beginning of July and lasts through to the second half of November. The Northern Sea Route is approximately 10-15 days shorter than the normal route from Asia to Europe through the Suez Canal.

Commercial navigation is still very modest along the NSR. Only 46 cargo ships made the passage in 2012 and this year some 200 ships have been granted permission to sail the NSR. The volumes are still only a fraction of the annual 20 000 ships sailing through the Suez Canal. The trend is however very clear. The number of ships along the NSR will increase, which on the other hand presents both challenges and opportunities for all countries operating in the Arctic.

What needs to be done?

The Arctic environment is unique and fragile. It is also one of the last untouched frontiers left on planet Earth. Its ecosystems and species have adapted to extreme weather conditions and short growing periods. Any human activity may result in permanent changes in the Arctic region. Any economic activities in the Arctic need therefore to be developed in a sustainable manner taking into account the limitations imposed by the Arctic environment and indigenous people's way of life and livelihood.

Finland as an arctic actor

Finland's Arctic policy focuses on understanding the effects on climate change and the limitations imposed by the environment. It lies in the best interest of Finland and the entire international community to preserve the Arctic land and sea areas and to promote sustainable economic and social development. Finland is a true Arctic country, albeit without a coastline in the High North. After all one third of all people living north of the 60th parallel are Finns. Finland possesses the top-level expertise and the know-how it takes to understand, adapt and make use of the changes in the Arctic. The main areas of expertise in the field of arctic business and environment include: offshore and maritime industry, weather and ice information services, tourism, winter testing, environmental technology, cold climate research. The entire list is published in Finland's Arctic Strategy approved by the Government in August 2013. We know how to make things work, regardless what comes down from the sky- and we do it.

And then what?

The management of the Arctic – from change to development, from challenges to opportunities – is a crucial issue not only for the eight states within the Arctic area, but for the rest of the world as well. We must understand the impacts of the changes in the Arctic have on a global scale. We need to seek cooperation on the Arctic issues with outside stakeholders as well. The climate change may slow down in a foreseeable future, but the Arctic will be there for a much longer time. Let's take care of it!

Olli-Pekka Heinonen

State Secretary

Prime Minister's Office

Finland

Baltic maritime safety and research know-how is applicable in the Arctic

By Petteri Taalas

Finland is a country, which is highly dependent on sea transportation. About 80-90 % of the export and import takes place through the Baltic Sea harbours located in the coast of Finland. Finland is also an Arctic country, and about 40 % of the people living north of 60 °N latitude are Finns. Due to the Arctic climate there has been a need to develop icebreaking vessel and service know-how to enable maritime transportation during the winter half of the year, when the Finnish harbours and sea routes are frozen. Finland is well known for its Arctic vessel design and ice service expertise.

Maritime safety is an essential factor in both Baltic Sea and in the Arctic sea areas. The Finnish Meteorological Institute has developed advanced weather, marine and sea ice services for the Baltic Sea. The weather services are based on meteorological forecasting models. Finland is a member of the European Centre for Medium Range Forecasting, situated in Reading in the UK. The ECMWF runs a global forecasting model with 15 km horizontal resolution and timescales ranging from one day up to three months. The quality of the medium range forecasts (1-15 days) is the best in the world. Besides the ECMWF the cornerstone of Finnish weather forecasts in the 1-2 days scale is a limited area 7.5 km resolution model called HIRLAM, which is continuously developed as a joint venture of 11 European countries and run on the supercomputer of the FMI. FMI also runs fine mesh model with 2.5 km resolution for Finland for 24 hours. FMI has also developed models for Baltic Sea oceanography, ice services, waves, streams, temperature, salinity etc.

FMI has developed an advanced weather service production system, which is based on ground-based, balloon, radar, aircraft and satellite observations, weather prediction models, 24/7 operational forecasting office run by meteorologists and oceanography experts and an automatic production system called SmartMet. FMI provides about 1 million weather and marine products every day for various customers. These are maritime safety authorities, shipping companies, harbours, airline companies, winter road maintenance companies, railroads, cities, energy companies, rescue authorities, military, commerce, agriculture etc.

According to the recently published Physical Basis Part of Fifth Assessment report of the Intergovernmental Panel on Climate Change (IPCC) the rapid growth of greenhouse gas emissions has led to higher estimates of the global warming and the sea level rise scenarios by the year 2100. It has also been scientifically shown that the human emission induced climate change has led to enhanced frequency of heat waves and flooding. The largest change is observed in the Arctic. It has been shown, that since 1980 the extent of multi-year ice in the Arctic has diminished by more than 70 %. There has been also a considerable change in the amount of one-year ice with all-time minimum in September 2012.

The Arctic change offers new opportunities for marine transportation, natural resource exploration, commerce, tourism etc. For example the shipping route from Europe to Asia would be 40 % shorter by using so-called North-Eastern passage instead of the Southern route. The North-Eastern passage was first used by Finnish scientist and Arctic explorer A.E. Nordenskjold in 1878-1879. One should hence keep in mind the limitations related to the Arctic shipping routes. Although the ice-free period is getting longer, the ice cover will still exist during the winter half of the year. The shallow routes do not permit the use of the largest container ships. There are still challenges in improving the safety services, which means additional investments in weather and sea observations from satellites and in-situ, improvement of telecommunication systems and development of weather, sea and ice forecasting models applicable in the Arctic conditions.

Due to its location in the every winter frozen Baltic Sea Finland has developed an advance weather, marine and sea ice service infrastructure, models and 24/7 operational forecasting systems to ensure safe and economic use of the shipping routes in the Baltic Sea year around. This know-how and the methodologies are highly applicable in the Arctic Sea area. The Finnish Meteorological Institute has started the provision of weather, marine and sea ice services to the Arctic Sea areas. The FMI is happy to serve additional customers and their dedicated needs in the Arctic to ensure safe and economic businesses and activities in the region.

Petteri Taalas

Professor

Director-General

Finnish Meteorological Institute

Finland

Is Russia a revisionist or status quo power in the Arctic?

By Alexander Sergunin

Since the planting of a Russian flag on the North Pole in Augusts2007, resumption of strategic bomber patrols in the High North and the publication of the Russian Arctic strategy of 2008 the Western experts have often described Russia's Arctic policies as expansionist and even jingoistic or return to a "gunboat diplomacy". However, in contrast with the Cold war era when the Soviet behavior was driven by ideological and geopolitical factors, the current Russian policies in the Arctic are mainly explained by Moscow's pragmatic interests such as competition for natural resources and control over the Northern Sea Route (NSR). According to some Western analysts, because of its economic weakness and technological backwardness Russia tends to make an emphasis on military-coercive instruments to protect its national interests in the Arctic and this will inevitably lead to the regional arms race, remilitarization of and military conflicts in the High North. On the other hand, there are experts (mostly from Russia itself) who argue that Moscow is not interested in changing the status quo in the region and favors international cooperation to develop the Arctic Zone of Russia (AZR).

It should be noted that Russia has important economic, societal, environmental and military-strategic interests in the High North. These interests include the access, exploration and development of the Arctic natural resources. Russia tries to modernize and further develop the RAZ's industrial base which makes a significant contribution to the country's economy. Moscow is also interested in the NSR's opening up for international commercial traffic and developing circumpolar air routes. Moscow is deeply concerned about the debilitating ecological system in the RAZ and trying to stop and reverse the negative trends in this sphere. Russia still has considerable military-strategic interests in the region. These have not lost their relevance with the end of the Cold War. This continuity can clearly be seen in Russia's security perceptions of the Arctic as a region of both challenges and opportunities.

Currently, Russia's Arctic strategy represents a mixture of the revisionist and soft power/status quo policies. On the one hand, Moscow is quite assertive as regards its claims on the Arctic continental shelf as well as demonstration of its sovereignty over the 'Russian part' of the Arctic and military presence in the region. The Russian military modernization programs in the High North are also seen by other Arctic players as worrisome and destabilizing the regional strategic balance. The Russian international partners are also concerned about the lack of serious progress in Russia's environmental strategies and its policies toward the indigenous people of the Arctic.

However, looking at the bright side of Russia's Arctic policies it is possible to identify a number of positive changes. As the recent Russia's Arctic doctrine (February 2013) demonstrates Moscow now realizes that most of threats and challenges to its positions in the Arctic region originate from inside rather than from outside of the country. These problems are caused by the complex of factors such as the degradation the Soviet-made economic, transport and social infrastructures in the region, the current resource-oriented model of the Russian economy, the lack of funds and managerial skills to develop the RAZ, etc. Therefore, Russia's strategy aims at solving existing problems by domestic rather than external means. Moscow understands that the success of its Arctic strategy to a larger extent depends on how effective its socio-economic policy in the region will be. The proclaimed course on modernization and innovation should move from declarations to the implementation phase and be substantiated by specific and realistic projects in the RAZ.

To conclude, the general 'balance sheet' of Russia's Arctic strategy is quite positive. It is safe to assume that in the foreseeable future Moscow's strategy in the region will be predictable and pragmatic rather than aggressive or spontaneous. In contrast with the internationally wide-spread stereotype of Russia as a revisionist power in the High North, I believe that Moscow will continue to pursue a double-faceted strategy in the region: On the one hand, such a strategy aims at defending Russia's legitimate economic and political interests in the region. On the other hand, Moscow is open to cooperation with foreign partners that are willing to partake in exploiting the Arctic natural resources, developing sea routes and solving numerous socio-economic and environmental problems of the region. In doing so, Russia will prefer to use non-violent, diplomatic, economic and cultural methods as well as to act *via* international organizations and forums rather than on a unilateral basis. This brings the Russian behavior in the Arctic closer to the soft power model albeit there is still a long way to go for Russia to fully fit in this frame.

Alexander Sergunin

Professor of International Relations

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Russia

Managing the Arctic – challenges and opportunities

By Jørg Willy Bronebakk

The High North, or the Arctic as it is more commonly referred to here in Finland, is a region full of opportunities, moving to the centre of geopolitical interest. Therefore, the High North has been defined as Norway's most important strategic priority area. Our aim is to enhance knowledge in and about the North, increase our activity and presence and safeguard the foundations for sustainable economic and social development in the years to come.

The main growth industries in the Arctic are oil and gas, aquaculture, minerals and tourism. Northern Norway is currently seeing an increase in population and employment levels, and unemployment is low. Finland, like Norway, defines developments in the Arctic as an opportunity for the whole country – in the whole Arctic region.

Governments can help create the framework for business opportunities. But the business communities themselves must consider them and identify concrete, profitable projects. Finnish companies with cold tech competence combined with a solid track record on health, environment and safety issues, should be well suited to compete for contracts coming up.

Temperatures in the Arctic have been rising twice as fast as the global average. In September 2012, the extent of the Arctic sea ice was smaller than ever recorded before. The Arctic could be ice free in the summer much faster than climate models have so far predicted, perhaps only a few decades from now. This gives rise to opportunities. The Northeast Passage between Europa and Asia has received the most attention. Whereas only four transits of the Northern Sea Route were conducted in 2010, 46 were made last year. This year we may be heading for another record season. However, most available analyses predict that this transport route will remain a complementary route for certain types of products, mainly related to oil and gas. This still leaves open the possibility for business development, on exports and imports of petroleum products and minerals, and on shipbuilding for Arctic conditions.

While certain parts of the regulatory framework need to be strengthened, for instance in relation to shipping, the main legal framework for regulating activities in the Arctic is in place. There is no "race for the Arctic", if this is to be understood as a race between states. All resources known to be commercially exploitable are within areas under coastal state jurisdiction. To the extent that overlapping claims exist, the United Nations Convention on the Law of the Sea provides an adequate legal framework for the settlement of such claims.

We also have the political framework in a strengthened Arctic Council, and in regional cooperation forums like the Barents Euro-Arctic Council and the Northern Dimension. The members of the Arctic Council are the primary stewards of the resources and environment in the Arctic. Our experiences and expertise should provide the yardstick for further development.

The focal point for petroleum activities on the Norwegian continental shelf is now moving northwards. If production and value creation are to be maintained on the Norwegian continental shelf until 2030 and beyond, there is a need for new areas to be opened for exploration. The Government is taking a step-by-step approach with a view to facilitating a gradual increase in petroleum activities in the Arctic.

There is also a great potential for cooperation on land-based industry. Just as Norway is a world leader in subsea offshore operations, Finland has long experience and substantial expertise in the mining sector. The Norwegian government presented a new strategy for the mineral sector in March this year. There is great potential in Norway, but we lag somewhat behind Finland in terms of geological mapping, investments and education and research. Hence, we have a clear interest in cooperation.

As Nordic countries we have to join forces in developing the region's potential. Today, infrastructure is a bottleneck in many areas. Deep-water and ice-free harbours in Northern Norway are ideally located for transporting Swedish and Finnish minerals to the markets. However, there is a need to develop roads and/or railroads to facilitate connections.

The question of new rail corridors has been analysed on both sides. There are no simple solutions, but what is clear is that infrastructure development in the north has to be seen in connection with neighbouring countries' plans.

The government's role is to provide the legal and political framework for value creation, but it is up to the businesses to position themselves to seize the opportunities. Together we can develop knowledge and technology, which is essential for making opportunities into activities. I look forward to seeing increased cooperation between Norwegian and Finnish businesses.

Jørg Willy Bronebakk

Ambassador

Royal Norwegian Embassy in Finland

Shifting the parameters of the debate on global energy challenges – investment needs to become the buzzword

By Urban Rusnák

Many contemporary practitioners of global energy policy have become infatuated with the "challenges" with which the international energy economy is presently confronted. And it is fair to say that our newfound fondness for the "global energy challenges" concept is not without justification. Debates over energy security have become more acute in recent years, as concerns which consumer nations once had over access to cheap oil flows during the 1970s have transformed into an even more alarming politicisation of present-day gas supplies. Peaking demand for hydrocarbons has caused oil and gas prices to spiral inexorably upwards, as consumer-country watchdog organisations continue to warn us of the finite nature of fossil fuels.

Most informed sources suggest that demand for hydrocarbons will continue to not only peak in the years ahead, but that the main source of future demand will come from non-traditional consumer countries, which are mostly located in Asia. Countries like China and India, rather than Europe and the United States, are already becoming the drivers for fossil fuel demand and this trend is only set to accelerate further, looking ahead. These are just some of the challenges which presently confront decision makers as global energy issues inevitably take a higher profile in the international arena.

The axiomatic trend of accelerating demand for energy in the developing world immediately poses two further, inter-related challenges which widen the scope of the energy security debate. The first of these relates to the fact that managing harmful CO2 emissions remains a highly complex task in developing countries, with nefarious implications for climate and the environment due to the increased consumption of oil, gas as well as coal. China and India, where energy efficiency strategies remain underutilized, are in the process of joining the United States in the club of the "world's largest emitters". China is, for all intensive purposes, already there. They may well overtake America if present trends continue unabated.

Second, we need to take note of that fact that, as energy consumption in developing countries continues to grow, such states begin to stake their case for a stronger voice in debates on energy security within the framework of existing international fora. We have already seen a substantial power shift and commensurate wealth transfer from West to East over the last decade or so, as the BRICS countries become more prominent global actors at all levels. Further, their national 'oil champions' hold a commanding stake in existing oil reserves, super-ceding the original "seven sisters" (group of international oil companies). This trend is often seen as yet another challenge by mainstream energy consuming countries. This is particularly the case when developing and/or oil rich countries band together in establishing international organisations in order to forge "solidarity blocs" to uphold their own interpretation of energy security, ie, namely security of demand.

While the whole landscape of contemporary global energy governance briefly surveyed above is, itself, extremely challenging, it is worth reminding both practitioners and policy makers that the real buzzword in international energy relations is, in all respects, *investment*. Although the "challenges narrative" tends to capture our imagination, it is *investment* – both in terms of concept and application – which is the real driver of the international energy economy. Little could be achieved without the realisation of adequate *investment* in the global energy economy, no matter how challenging the governance landscape may have become in recent times.

Furthermore, the *investment* buzzword applies to every situation, at every time and in every place: economies prone to recession need to stimulate *investment* to promote growth; capital poor countries need to find ways of increasing domestic *investment* levels as well as attracting FDI; whilst capital rich countries which may themselves be net exporters of *investment* are constantly on the 'lookout for greener pastures' and new opportunities.

As we seek to rise to many of the challenges confronting the global energy economy, policy makers, practitioners and those of us working within global energy governance institutions should strongly consider shifting the parameters of the debate in order to address the questions of how to: 1/ adequately protect, 2/ securitize and 3/ ultimately promote sufficient investment into the international energy economy. And if we are to have a robust discussion on investment protection and promotion in the global energy sector as a whole, the first question we need to ask is whether the present-day (global energy) governance landscape lends itself to any international investment protection frameworks dedicated specifically to the energy sector.

Assuming that the answer to this first question is yes, the second question we need to ask is whether such frameworks really have any practical relevance – whether they are useful – in terms of stimulating investor confidence. Can multilateral inter-governmental investment protection frameworks imbed themselves as tools which are useful for securitizing and stimulating the deepening of investment flows in the global energy economy?

While my objective in this short commentary is merely to raise a debate about how we should go about creating the conditions for stimulating investments in global energy, we should not negate the fact that the Energy Charter Treaty (ECT), which has been in legal force since 1998, was designed exactly for that purpose. The core objective of the ECT, and the Energy Charter Process which has evolved around it, is the protection of energy investments in the territories of its 52 member countries. Furthermore, the ECT and the Charter Process likewise aims to promote the energy security of its entire constituency in an equal and unbiased manner. While the Charter further purports to establish a rules framework for the promotion of trade and transit of energy goods and services, the Treaty serves to protect investments by providing its constituency with concrete dispute settlement mechanisms: conciliation and arbitration procedures for investor-state and state-to-state disputes that inevitably arise now and again.

The sceptics of multilateral treaty frameworks may argue that such instruments lack practical relevance since countries may already be signatories to bilateral investment treaties (BITs), or provide investors with their own domestic investment protection legislation. This may, to some degree, be true. That said, in a rapidly changing and highly dynamic global energy environment, which is increasingly inter-connected as well as inter-dependant, multilateral frameworks provide substantial value added by promoting

common rules and spreading good governance. In essence, they help to create a uniformed and integrated market environment, inclusive of a level playing field for all of participants, whilst further leading to predictability and greater transparency.

As global FDI flows and investment starts to pick up again following significant recessionary trends at the global level, energy investment projects are themselves becoming increasingly ambitious in nature as well as multinational in scope. BITs and domestic legislation are, on their own, not enough to securitize projects of such magnitude. In order to realise multi-billion dollar gas pipeline projects traversing the territories of multiple sovereign states, or giant electricity generation and distribution projects involving numerous countries, multilateral investment protection frameworks such as the Energy Charter are needed to provide the necessary institutional muscle in order to spur investor confidence.

This applies, in particular, at the level of project governance, where political agreement between multiple stakeholders is every bit as necessary as agreement at the legal and commercial levels. I have little doubt that the usefulness and practical relevance of multilateral investment protection frameworks such as the Energy Charter will only increase further as the international energy environment becomes more integrated and calls for more robust instruments to stimulate investments as the penultimate driver for growth and sustainability in the international energy economy.

Urban Rusnák

Secretary General

Energy Charter Secretariat

New opportunities for cooperation with Kazakhstan

By Galymzhan Koishybayev

Kazakhstan has come a long way in a relatively short time; we have moved to a sovereign state with a market economy ranked as one of the five fastest growing in the world. Kazakhstan has very ambitious plans for growth into a modern, technologically advanced economy and democracy. At the time being Kazakhstan has begun to implement its strategy up to 2050. The country aims to be in the world's top 30 economies by 2050. We aim to produce 50% of our energy from renewable resources by 2050, which provides a massive investment opportunity for Western technology and innovation. Our capital, Astana has won an important bid to host EXPO-2017 with the theme of «Future Energy». This example clearly represents the Kazakhstan's drive on renewable energy. Construction within the EXPO-2017 project in Astana offers huge opportunities for Finnish companies and it will provide a showcase for the Finnish advanced clean and green technologies.

Kazakhstan attaches great importance to bilateral relations with the European Union as well as with its member states including Finland. In recent years the state programme «Path to Europe» has been successfully implemented. Through this programme, the European Union has firmly occupied the position of a leading trade and investment partner of Kazakhstan.

Finland is an important partner for Kazakhstan both politically and economically. In recent years, cooperation between two countries in bilateral and multilateral formats has been strengthened, especially during Kazakhstan's OSCE Chairmanship in 2010. The establishment of the Embassy of Kazakhstan in Finland is a real sign of our firm commitment to further increase dialogue between Astana and Helsinki.

Countries enjoy growing bilateral relations which we are keen to consolidate in the political, economic and cultural fields. Kazakhstan regards Finland as a model country for innovation, education and science. There is also an enormous potential for cooperation in business: Kazakhstan desires to develop its abundant energy resources in an environmental friendly way and Finland has a lot to offer in the energy efficiency, clean technology and mining industry.

The state visit of the President of Kazakhstan Nursultan Nazarbayev to Finland in March 2009 became a milestone in the history of our mutually beneficially relations. Over the past four years ties between our countries have grown stronger. These years passed eventfully in our relations, including high-level presidential visits and frequent contacts by ministers.

The profound foundation for our cooperation was laid out during the state visit of the President of Finland Sauli Niinistö to Kazakhstan in April 2013. Several agreements and cooperation documents were approved and signed during the visit, including a partnership declaration on green economy development and modernsation together with inter-ministry action plans on cooperation in the education sector and on environmental technology development. The sistership relations were established between Astana and Oulu.

Substantive business negotiations and signed documents during the visit of the Minister for European Affairs and Foreign Trade Alexander Stubb to Kazakhstan in October 2012 considerably enhanced development of our economic ties. The active participation of Team of Finland demonstrates significant interest in partnership with Kazakhstan.

At present Finland has become Kazakhstan's first largest trading partner among Nordic-Baltic countries. Bilateral trade volume in six months of the current year increased by 40% compared to the respective period of 2012.

Cooperation in the clean and green tech sector has acquired more importance due to the plans of Kazakhstan to implement own national strategy for transition to the green economy. This goal is a part of the President Nursultan Nazarbayev's broad Strategy Kazakhstan-2050 initiative, which was designed to modernize and diversify the nation's carbon-reliant economy.

Other promising areas of Kazakhstan-Finland include education and healthcare. We are keen to promote direct universities' contacts and raise public awareness in Kazakhstan of the advantages of the Finnish education.

In general, at the moment our relationships are blossoming in several areas beyond the realm of cooperation in energy sector. The future for Kazakhstan-Finland relations remains bright. Our relationships has already delivered great benefits for both sides, particularly in the energy and clean tech sectors but there are even bigger prospects in trade, education and health care for the future.

Nowadays, both Kazakhstan and Finland are faced with the challenge to promote its national economy, where sound cooperation between two countries can have a great part to play. Therefore favorable environment shall be maintained to facilitate business and personal contacts.

Galymzhan Koishybayev

Ambassador

Embassy of the Republic of Kazakhstan to the Republic of Finland

Russia's first year in the WTO – hip, hip hooray?

By Monika Sztajerowska*

As with most birthdays and anniversaries, the marking of Russia's first year in the World Trade Organisation (WTO) comes with a bitter-sweet taste of stock-taking. What has the WTO entry brought to-date for businesses operating or selling their products in the Russian market? What can it bring in the future? And, eventually, what it cannot do, regardless of how many candles will be lit on the anniversary cake?

After a protracted 19 year-long negotiation, Russia's entry into the WTO on 22 August 2012 was welcomed in some circles (not least those of trade negotiators) with a perceptible degree of hope and, admittedly, of relief. From now on, Russia would be subject to international trade rules, for example on maximum import tariff levels or market access in certain services sectors, which should have a real impact on business. The World Bank estimated the likely gains to reach 3.3% of Russia's GDP in a few years after the accession, with most benefits stemming from the removal of restrictions on foreign direct investment (FDI). With this initial enthusiasm in mind, where do we stand one year on, and what has the WTO accession achieved so far?

Reduced import tariffs on goods coming into Russia and removed restrictions on FDI in key services sectors have been among the most tangible gains from the accession. Import tariffs fell on average by 2.2 percentage points for manufactured goods (currently at 7.3%) and by 2.4 percentage points for agricultural goods (now at 10.8%), with significant reductions—and thus sizable cost savings for foreign manufacturers—on passenger cars, civil aircraft, agricultural equipment, pork meat, pharmaceuticals or wine. In services sectors, market access was also broadened, for example allowing 100% foreign-owned firms to operate in sectors to which they did not have access to before, such as telecommunications, insurance and banking. More generally, the extensive body of WTO rules is now binding in Russia—including on the use of subsidies in general, the maximum support for domestic agricultural producers (capped at USD 9bln in 2012 and declining to USD4.4bln by 2018), non-discrimination of foreign products and firms, and the use of regulatory barriers to trade (e.g. sanitary norms, licensing requirements), among many others.

Still, as testified by articles that mushroomed around August this year, many businesses seem not to have felt any, or little, change to-date as a result of the accession. Why is that? First, Russia managed to negotiate long transition periods, with some extending as far as 2020. Only upon their expiry, when all tariff reductions and other concessions become effective, the markets will start adjusting. Pork exporters into Russia, for example, already saw their export and market shares increase, with tariffs falling immediately upon accession. Others will have to wait a few more years for similar effects to become visible. In addition, around the time of its WTO entry, Russia implemented a series of domestic measures that, in the short term, may have partially offset some of the negotiated concessions. Bans on live animal and meat imports and the imposition of a recycling fee on foreign automotive vehicles are a case in point. As some of these measures may be WTO-incompliant (one WTO case already pending), they are likely to be reduced over time, allowing businesses to profit more from the new market opportunities associated with the WTO entry.

In addition, while it may be difficult for managers to see an immediate difference in companies' everyday operations, there are signs of progress. For example, on 13 September this year, Russia —in line with its WTO accession commitments—joined the Information Technology Agreement (ITA), bringing down tariffs on information technology goods covered to 0%. It has also introduced new measures to improve the level of IP protection in the country, notably through the creation of specialised IP courts and the introduction of limited liability of Internet Service Providers to help combat Internet piracy. In some cases where allegations of WTO-incompliant behaviour were brought forward — as in the case of copyright or automotive recycling levies, the government undertook steps to amend its legislative proposals. All this can be considered a novel development. Even in the case of contentious import bans based on alleged sanitary and veterinary concerns, the talks with affected parties are under-way. In a nutshell, while the machine of the international trade rules may be slow-moving, it is turning its wheels in the background, and firms are bound to profit from the ride.

In the long run, it is through the application of the common rules of the game, enforceable via the WTO Dispute Settlement Mechanism, that the WTO membership will strengthen the stability and predictability of Russia's trade regime and thus its economy. The setting of maximum allowed tariff levels (i.e. binding of tariffs), for example, prevents a return to higher rates in the future, and the rules on customs procedures, technical norms, and other regulatory requirements help standardize the trading environment. Still, the WTO entry is hardly a panacea for all economic governance problems. For example, a quantum jump in the quality and transparency of the regulatory environment—still a significant headache for firms doing business in Russia—can only be achieved through a continuous domestic reform. This also applies to the extent and nature of state intervention in the economy. In addition, while WTO disputes provide a safeguard against WTO incompliant behaviour, they take time and resources, and there is scope for affording a certain degree of protection that does not breach the official rules (e.g. via trade defence measures).

All in all, the WTO accession is undoubtedly a positive, albeit not an immediately revolutionary, development in Russia's economic history — with time, it will provide a more stable and predictable framework for trading and doing business in the country but some of the most significant economic benefits will have to come from yet more difficult domestic reforms.

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** The views expressed here are those of the author and not of the OECD or its Member States.*

Universal higher education and its social and economic impact – case of Russia

By Yaroslav Kuzminov and Isak Froumin

Over all the transition years Russia has been moving toward a policy of universal higher education. This process is accompanied by the explicit tendencies such as increasing number of higher education institutions and enrollment rates, which doubled since the '90s. The shift to the universal higher education is a steady trend and changed the meaning of tertiary education and its curriculum. Expansion of higher education in Russia is inspired by the idea of equality and opportunity, social equilibrium and promoted on the following grounds: demographic necessity, economic considerations and labour market demands for more innovative manpower with special competences and capacities for lifelong education. In the context of expanding and internationalization of education, Russian higher education faces the challenges of adaptation to financial, social and institutional constraints. The issues of special interest are cost and benefits of mass higher education system and challenges it has to meet.

The impact of this great expansion in Russia still should be analyzed and understood. For now one can see that the expansion did not lead to greater equality of opportunities. It also did not lead to sustainable growth of the productivity of the labor force. One can argue that the higher education brought important externalities like healthier behavior or sophisticated consumption. Our analysis suggests that this expansion had greater social than economic impact because it was driven by social demand and not by the demands of growing economy..

On the one hand the growth of accessibility of higher education has triggered the process of universities transformation. Mass higher education is expected to become a sufficient basis for social mobility, upsurge in economic activity, innovative development and economic growth. Looking from another perspective, mass higher education brought a problem of quality on the table. Radically increased enrollments, "institutional trap" in the higher education system and diploma-hunting has become one of major concerns at a moment. According to expert estimates in 10-20 years the labour market will experience imbalances in a workforce, caused by the prevalence of workers with higher education.

Russia's higher education expansion in the 1990s was different from the other middle-income countries because it came from a much higher initial enrollment rate (comparable to Europe's), but it was similar to the other BRICs because of relatively slow growth in the 1970s and 1980s and the large increase in enrollment beginning in the mid-1990s.

There are several features of higher education expansion in Russia that are different from the earlier leaps in the developed countries. That higher education expansion is increasingly differentiated financially as it incorporates more students, is increasingly "rationalized" through entrance testing, and is increasingly financed by families paying user fees (tuition), whether through cost-sharing in public universities or through tuition payments to private universities and colleges. That is the sign of latent demand driven by the high economic returns to completing university, particularly to completing technical and business university training

Not only is Russia unique among the middle-income countries in the massification of its higher education, it is unusual among all the world's countries in another way: it has reached such a high level of incorporating youth into post-secondary institutions that for the next ten years or so a more general slowdown of population growth (common to many European countries) is resulting in an absolute decline of youth seeking to enter higher education.

This, combined with the economic recession of 2008-2009, has major implications for higher educational reform. The Russian government is attempting to "rationalize" the large number of public institutions developed during the Soviet era. Core strategic measures are effectiveness monitoring aimed to cut the "low quality" segment and "5-100" initiative providing special support for the universities targeted to global rankings. The mechanism of regulation of public financed admission quotas is going to be the next stage of the struggle for quality enhancement. The tricky lock is in bringing the partially still Soviet higher education system closer to the labor market of new economy.

Russia in the post-communist era will likely reverse the spatial and social equalization connected with the planned economy, introducing market rules to public institutional location and economic development.

We would argue that higher education expansion may have contributed to rising productivity, but Russia is a good case showing that State development policies (the politics of the development process) are extremely important in the relationship between education and economic growth.

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Russia

Baltic Sea market – new era, new challenges

By Jyri Häkämies

Trade and investment within the Baltic Sea region seldom raise big headlines or emotions. The globe has shrunken and company strategies often describe this area as expanded home market.

Statistics confirm this development. Finnish Customs recently produced an analysis, which shows that Sweden, Denmark and Estonia are Finland's leading partners in intra-industry trade, that is, the importation and exportation of goods belonging to same group of articles.

The Baltic Sea unites businesses and the importance of the region has not diminished although activities in BRIC countries and other markets have increased. Thus the countries around the Baltic Sea have not lost their importance for Finland, its companies, economy and welfare. Not even the current economic turmoil has reduced their significance for Finnish foreign trade and cross-border investment.

The share of the countries around the Baltic Sea - Sweden, Denmark, Germany, Poland, Lithuania, Latvia, Estonia and Russia - remains at a very high level in Finnish foreign trade.

In January-June 2013 the share of these countries in Finnish exports totalled 38.4 per cent. Adding to this figure exports to Norway and Iceland, member countries of the Council of the Baltic Sea states, we end at 41.6 per cent. In Finnish imports the corresponding figures were even more significant - 51.5 per cent and 53.6 per cent.

As regards foreign direct investment we have no other region where investments from and to Finland were as numerous and versatile as in the Baltic Sea region.

Never-ending need for change

In 1996 prominent Baltic Sea business leaders asked for major policy revisions in the Baltic Sea countries and signed in Stockholm the Declaration on Growth and Development of the Baltic Sea region. Thereafter positive change in the region has been impressive and we have been able to enjoy a long period of rapid growth of economy and welfare, which ended - for the time being - with the first decade of this century.

Today all countries around the Baltic Sea except Russia are members of the European Union. Also in Russia business environment is much closer to that of the rest of the region as a result of the reforms made to attain WTO membership. This unity has been of great importance for economic integration and reaping benefits from removal of trade and investment barriers for the whole region.

Radical improvements have taken place and we have come a long way in 17 years. Nevertheless there is plenty of room for fine-tuning in practically all issues covered by the Stockholm 1996 recommendations and published under following headings: Rule of law, Less bureaucracy and better public administration, Integrate Europe, Stable monetary systems and prudent economic policies, Greater flexibility - a necessity for the future, Links in the Baltic Sea region - improve infrastructure, Development must be sustainable, Human capital - a natural resource.

We must continuously address the challenges of global competition. The past few years have shown that we all are vulnerable in the economic turmoil. Thanks to liberal trade policy we have gained a lot from global economic integration. Unfortunately the integration process in the WTO framework has stalled and companies have faced growing protectionism during the last decade.

The medicine taken is deepening bilateral economic integration between the EU and its trade partners. All Baltic Sea businesses strongly support this policy and concluding comprehensive free trade agreements with all major trade partners. Unfortunately negotiations take time and the agreements seldom bring quick results.

Untapped potential of Baltic Sea cooperation

The quickest and most effective medicine to regain competitiveness is in the hands of national governments and parliaments. Joint efforts by all Baltic Sea countries or a group of them in different areas can foster positive development. Such opportunity should not be neglected.

An example of an area of common interest is labour mobility where the situation has improved drastically since the 1990s. However, progress in some issues like harmonisation of qualification requirements has been too slow.

In the transport domain Pan-European corridors and TEN-projects have been important for the development of regional rail, road and maritime connections. A recent milestone in this area was reached in September, when Ministers of Transport of Estonia, Latvia, Lithuania, Poland and Finland signed an agreement to establish a joint venture to develop Rail Baltica from Tallinn to Warsaw. Construction should start in a few years and be ready in 2023.

Another area of successful regional cooperation is linking electricity networks of the Baltic Sea countries with each other.

Significant results have also been achieved in environmental cooperation especially concerning the protection of the Baltic Sea. Unfortunately, without proper economic impact analysis, tightening environmental regulation with short transition periods may lead to undesired consequences. This is the case in cutting maximum sulphur content in marine fuel, the cost of which will be a massive competitive disadvantage in logistics. The realization of this requirement on sulphur should, however, not undermine Baltic Sea countries' cooperation, but, instead, remind us of its great importance.

Though companies as a rule see competition all around, they also need each other. This is particularly true for countries with limited domestic markets. Instead of only competing, more efforts should be made to find partners and build clusters around the Baltic Sea. Only the sky is the limit – and not even that! Already today, the regional cooperation ranges from space research and technology to arctic challenges.

Jyri Häkämies

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Finland

S Group seeks growth from its neighbouring countries

By Antti Sippola

S Group is a Finnish cooperative retail company group which consists of the SOK Corporation with its subsidiaries and 20 regional cooperatives. These regional cooperatives are owned by their customers and the cooperatives own the SOK Corporation. The number of S Group's co-op members already exceeds two million. The purpose of S Group's business is to provide the co-op members with diverse services and benefits they find useful and satisfying. S Group's business model is built on a nation-wide chain business combined with the regional cooperatives' good knowledge of local markets and customers. SOK's main purpose in this business model is to centrally produce chain management services and joint service operations for regional cooperatives.

In Finland, S Group's business includes the grocery and consumer goods trade, the service station store and fuel trade, the travel industry and hospitality business, the automotive and accessories trade and the agricultural trade. In addition to the home market, S Group has international business as well. Through its subsidiaries, SOK engages in the supermarket trade and travel industry and hospitality business in the Baltic area and Russia's St. Petersburg.

S Group's internationalization started already in the mid-1990s

For S Group, internationalization is not a new thing, it has operated abroad since the mid-1990s. The first international operation was CitySokos, S Group's department store concept of that time, which started in Tallinn, Estonia, in 1995. In addition to this, S Group has also had some agri-business in Estonia and car business in Estonia and Latvia during the last few decades.

When the new strategy regarding S Group's internationalization was revealed in the 2000s, it started a whole new phase in S Group's internationalization process.

The two focal points of this new strategy were and still are supermarket trade and travel industry & hospitality business. Geographically, S Group sees growth potential especially in Finland's neighbouring countries and therefore it operates now in the Baltic countries and in Russia's St. Petersburg.

The first implementation of this new strategic vision was the acquisition of Tallinn's iconic landmark Hotel Viru in 2003. The next and quite natural step was to establish the first hotel in Russia's vivid and rapidly evolving St. Petersburg in 2007. Today, S Group operates three hotels in St. Petersburg.

S Group's international supermarket trade concept is a somewhat localized version of its successful hypermarket concept Prisma.

The first country S Group entered with the supermarket trade was again Estonia, in 2000. After that SOK started up supermarket trade operations also in Latvia and Lithuania. Today, S Group operates altogether 17 Prisma hypermarkets in the Baltic countries: nine in Estonia, five in Latvia and three in Lithuania. More stores will be opened in the near future.

In 2008, S Group entered a new market with the supermarket trade when it opened the first Prisma hypermarket in Russia's St. Petersburg. Today, S Group has the biggest growth expectations particularly in the St. Petersburg area, where it has grown quite rapidly and now operates 15 Prisma hypermarkets. S Group's current plan is to open four to six new hypermarkets in 2013–2014 and in the near future there will be about 30 stores in total.

Prisma's strengths, both in Finland and abroad, are good sites, reliability, permanently economical prices, diverse and broad selection, quality and efficiency. The ease of shopping is important for customers and Prisma sites offer, for instance, enough parking spaces. Customers' changing needs are carefully analysed and the concept is remodelled accordingly and locally when needed.

Why become international?

Growth is the key for every business and S Group makes no exception in this matter. In Finland, S Group is a very strong market leader in the grocery trade and its key promise to customers is to provide them with the cheapest shopping basket. One of the most important ways of making customers' shopping baskets cheaper is to increase volume in purchasing. But for S Group, as a market leader, the opportunities for growth are nowadays very limited in Finland, and because of that our purchasing power cannot grow much either. However, the international business helps S Group to execute this with much bigger volumes in purchasing. As a result, the international business supports S Group's price competitiveness both in Finland and in neighbouring markets.

Exposing its concepts to international and local competition in a new business environment helps S Group to develop them to be even more competitive. This adaptation to new markets has to be agile. S Group has a great opportunity to learn from this process and these experiences also affect its business in Finland by creating an evolving learning cycle.

Operating in Russia and in the Baltic countries also gives S Group valuable information regarding Russian and Baltic consumers. They travel quite often to Finland and Russian customers are especially a very important and a rapidly growing customer group in Finland in general and for S Group as well. Their importance is particularly shown in S Group's eastern regional cooperatives. Understanding foreign customers and their habits better helps S Group to serve them better.

How do we do in the neighbouring markets?

During the last five years S Group has grown quite fast internationally, especially in St. Petersburg. The business itself is doing very well, but for the time being the investments are made by SOK Corporation. In the future, the investments will be financed by cash flow. That is already the case in Estonia with the latest investments. As a whole, the investments in the neighbouring markets are still less than 5% of S Group's total investments.

For SOK Corporation, international business is a bright spot. The retail sales in neighbouring markets will exceed EUR 500 million this year and the business grows by tens of percentage points each year.

S Group will continue its investments in these rapidly growing markets and strongly believes they also benefit its customers in Finland.

Antti Sippola

CEO (acting)

SOK

Finland

Jyväskylä and the Union of the Baltic Cities

By Markku Andersson

Why is Jyväskylä, an inland city, a member of the Union of the Baltic Cities organisation? This is a question that is put to me from time to time.

Jyväskylä is indeed an inland city, but it is located in the Lakeland area of Finland at the northern end of Päijänne, the country's second largest lake. Partly for this reason Jyväskylä has become a major hub for research and expertise in environmental and energy technology. Know-how connected to the waterways around Jyväskylä has been exported to China among other places. What is more, the Union of Baltic Cities deals with many other issues than those involving simply the Baltic Sea.

Jyväskylä became a member of the Union of the Baltic Cities in 2006 and has enjoyed two terms on the Executive Board commencing in 2010. The Union of the Baltic Cities, or UBC for short, was founded in 1991 and currently has 101 member cities. Where the organisation scores, in my opinion, is the broad scope of its membership, which embraces Saint Petersburg, with a population in the millions, as well as various other big cities and a number of small ones.

The network of cities in the Baltic countries supports and strengthens Jyväskylä's existing international contacts, which include our twin town, ICLEI - Local Governments for Sustainability, LUCI -Lighting Urban Community International and EUROTOWNS networks. The goal of such international networks is to reinforce economic, social, political and educational cooperation, to extend the comparison of best practices and to help us respond to common challenges. Furthermore, the goal is to apply for project funding from the European Union for necessary joint undertakings. Joint projects for their part promote the mobility and availability of quality labour, streamline the regional economy and underpin member cities' development efforts.

The joint activities of the countries in the Baltic Sea Region will serve to cement the region's competitiveness as partnership between Russia and the European Union increases. Jyväskylä Regional Development Company Jykes Limited has indeed had its own office in Saint Petersburg for twenty years now.

The cities in the UBC are important partners for us in a variety of areas. We wish to compare best practices and apply in in the city's functions, in relation to such issues as the state of the environment, healthcare, education, culture and well-being, matters concerning young people, municipal construction, and the operating conditions for companies.

For Jyväskylä, education, international collaboration between institutions of higher education and companies, as well as the international mobility and exchange of students and workers are vitally important entities and turning them into reality is something worth tackling in the forum offered by the UBC, too.

National and international dialogue is essential for the development of our city. It provides us with great ideas, which we can also offer others, creating a true win-win situation. We are constantly seeking to improve the international visibility and reputation, appeal and competitiveness of our city. To achieve this we need solid, trustworthy partners.

The current challenges faced by European cities are related to the economy, employment and the sustainability gap. Balancing and improving these issues is at the top of the agenda in many cities of the UBC, also in Jyväskylä.

However, we cannot only concentrate on stabilizing the existing imbalance. We must also look to the future and create new innovations. For Jyväskylä, this means a resource-wise attitude.

Resource wisdom is a concept devised to convey a more positive take on sustainability issues. There is no denying that energy, food, transport, water and waste are quite serious subjects, but a shift in attitudes and a more holistic approach to resources can open up new opportunities and innovations.

The Finnish Ministry of Employment and the Economy has selected five themes for the Innovative Cities programme, which will be launched in 2014. Administered by the Finnish Funding Agency for Technology and Innovation (Tekes), the programme will run from 2014 to 2020. In addition to funding from cities and the state, the programme will use financial support from the European Structural Fund Programmes to strengthen innovation hubs.

The five main themes for the national programme are healthcare, bioeconomy, sustainable energy solutions, smart cities and industrial reform, and cyber security. Jyväskylä is responsible for the theme of cybersecurity. According to a recent view put forward by Jyväskylä-based companies operating in this branch, cyber security is an area of business that is currently experiencing powerful growth. Smart specialisation, genuine expertise in one's own field, has been seen as the response to globalisation and ever-tightening international competition. For the cities of the Baltic Sea Region, this could well be a good platform for cooperation.

It is crucial to recognize the role of the largest cities as the key drivers of growth and competitiveness and to highlight themes important for urban regions' growth and development.

Within the framework of the UBC we must clearly try to establish how we can turn this international and Baltic cooperation into more jobs, better cities, a better climate, and a better environment.

I sincerely hope that what I have outlined here provides an answer to the question posed at the beginning.

Markku Andersson

Mayor

City of Jyväskylä

Finland

West Finland coast guard district – slimming down with help of synergies and technical applications

By Jukka Savolainen

The current fiscal/financial crisis in Europe shows the importance of agile and lean authorities for any national economy. Nowhere in Europe will the state authorities face lazy days with increasing budgets any more. The winners will slim down and look for synergies and technology advantages. In this respect, the Finnish arrangements in the field of maritime safety and security are worth noting.

The last recession, in early 1990's, paved the way to synergetic solutions amongst state maritime authorities in Finland. A principle was agreed to save money and effort: three administrations should maintain their major operational maritime capacities and be ready to represent all other authorities' interests at sea. As a result, the other authorities could afford to reduce their directly sea-related investments and costs. The sustaining three maritime authorities were (main line of activity in brackets):

- The Coast Guard, an integral part of the Border Guard (law enforcement, search and rescue),
- The Navy (all military duties)
- The Finnish Civil Maritime Administration (for example water ways, charts, vessel traffic services, competences, licenses). Later on, this administration was reorganized and its main functions are now performed by the Finnish Transport Agency and the Finnish Transport Safety Agency.

These three services, each falling under separate ministries, then started actively cooperating. Joint bases were founded, common communication and surveillance technologies were built and surveillance data was shared. Instead of building networks of their own, all three merged their efforts and gained substantial savings and an increased effect. This work is being continued in the daily work and in development projects as well.

Another field of inter-agency cooperation also concerns the Coast Guard. The Police, the Customs and the Border Guard (including its Coast Guard districts) have been given the jurisdiction to assist each other and even carry out each other's functions whenever this increases the promptness or economy of activity.

Based on these two co-operational arrangements, the Coast Guard is the civil law enforcement body posing the major capacity to monitor and react to incidents at sea. The sphere of responsibility covers such duties as immigration controls and related surveillance of all vessel movements, maritime search and rescue, as well as the detection and sanctioning of ship-borne pollution. In addition to these main duties, the Coast Guard performs various functions whose major owner is another authority. Such duties are, *inter alia*, fisheries control, surveillance of the integrity and sovereignty of the state area, maritime police duties and customs control. The operational capacity consists of a fleet of offshore patrol crafts, patrol boats, helicopters and fixed wing aircrafts. In addition, a chain of radars and cameras is constantly monitoring vessel movements. The daily work is being carried out hand in hand with the fellow organizations with shared technologies and common interests. Furthermore, any authority not possessing maritime capacities may ask for and will be granted assistance by the Coast Guard. Thus, they can either request the Coast Guard patrols to take action on their behalf, or they may come onboard and join the patrols.

The West Finland Coast Guard District, an integral part of the Finnish Border Guard, is responsible for patrolling a significant part of the Baltic Sea. Its area of responsibility covers the entire western part of Finland, including the Gulf of Bothnia, the Åland Islands and the Sea of Archipelago. In this area the boundary of Finnish territorial waters is 1074 kilometers long which reflects the dimensions of the maritime and adjacent coastal areas to be monitored.

Internally, the West Finland Coast Guard District is amidst a significant transformation process. The current number of personnel is 350 and it will be reduced to 267 by 2017. The reduction takes advantage of modern communication technologies that allow two major savings in comparison to earlier. Firstly, it is nowadays possible to supervise all the surveillance sensors of the vast sea area at one single point. Secondly, all 15-20 active Coast Guard units can be controlled, in spite of the long geographical distances, by one tactical commander. There is no need to hold several officers in 24/7 readiness any more to command or carry out routine radar surveillance as was performed in the earlier years. In line with that development, a reduction of managers and field workers has become possible.

In order to slim down the organization, the West Finland Coast Guard District now performs both functions mentioned above - real time surveillance and tactical command - side by side in the same district command centre. In that very centre, there is one more significant feature present. The Coast Guard and the Customs have established a joint unit performing criminal intelligence and analysis. This is utilized in an inter-agency interest: whenever need be, a thorough control by field patrols is arranged, often as a joint operation between the Customs and the Coast Guard.

Currently, a Coast Guard command centre forms a hub that consists of three important elements: intelligence information, real time surveillance data and the authority to command and control. This has facilitated the necessary cuts in the number of our personnel. Future will show that we will have improved our outputs, even under diminishing funding.

Jukka Savolainen

Capt (CG)

Commander of West Finland Coast Guard District

Finland

Maritime traffic at the threshold of the new customs regime

By Jarkko Saksa

As known sea transport is essential to Finland´s foreign trade. Nearly 83% of tons is transported in vessels (export 88%, import 79%). The correspondent percent in value is 81.Route Finland as transit route to Russia was blooming for a long period, but started to decline some five years ago. Transit to Russia is mainly using the sea route to Finnish ports and then continuing with trucks across the border. At its best the transit route via Finland´s share of all Russia´s import from the EU was more than 20%.

The transport chain, including customs procedures, should be as seamless and cost effective as possible to meet the competitiveness demands of today´s economic challenge. Roughly half of the import and export originates from the EU. Although intra community traffic is free of customs clearance based on the principle of free movement of goods, in sea transport between EU ports customs formalities are still in place, unless there is a certificate for regular shipping issued by Customs. The ratio lies in the need to ensure that all goods that need to be declared are declared and that customs control on supply chain is possible.

Customs rules and demands and especially the way they are managed by all the parties involved in the transport chain form one part of the competitiveness of the delivery chain. EU has a very ambitious plan to modernize customs procedures gradually in the period already started and ending by the end of year 2020. First steps have already been taken. The legal text, the Union Customs Code has been approved by the Council and the Parliament. According to the Union Customs Code no customs clearance is needed for union goods transported from one EU port to another. This simplifies the customs procedures in the maritime environment.

Lot of work is still ahead. The most significant part, articles of delegated and implementing acts, that practically constitute the customs procedures, each parties´ obligations and the basis for interoperable IT environment, are still to be drafted, understood, negotiated and decided. When starting the planning of the modernized customs code some 10 or more years ago, the main drivers were simplification and electronic services. Since then a lot in the environment of the world trade has changed. After 9/11, safety and security concerns have risen significantly and come to the very center of the customs work worldwide. Tackling new threats has meant new procedures had to be put in place with an extra price tag for all parties involved. At the starting point of planning the new customs legislation calculations were presented showing the growth in export for the whole EU as a consequence of cheaper and smoother processes. The calculation was part of the “evidence” justifying the investment with very rapid and high rate of return. The investment can be estimated to exceed one billion euros counting together economic operators´ and customs´ shares.

Are we still on the right track? Do we have a crystal ball for right way to 2020s and beyond? Can EU with 28 member states reach the goal and meet the targets in a cost effective way? Isn´t there a danger that the EU develops something not quick and fit enough to compete in the global market?

There is yet no answer to all that. It remains to be seen. All efforts in national customs administrations and in DG TAXUD are focusing on achieving the goal. In 2020 we should have a compatible, well-functioning IT customs environment serving for the facilitation as well as control purposes to ensure EUs competence on the world market and a good level of safety and security of Europe and its citizens.

In Finland we are proud to have a good cooperation among authorities and companies operating in the area of sea traffic. We have already more than 10 years ago built up jointly a single window system to maritime transport called PORTNET. It already fulfills the requirements set up in the Ship Reporting Formalities Directive 2010/65/EU, which has to be implemented in each member state by 1.6.2015.

As described, legal framework in the customs area is changing. There are various drivers in other policy areas outside customs area, such as the blue belt initiative, effecting the development in sea transport. It will be challenging to combine various demands together. The widely accepted goal is to reduce the administrative burden and build up a single window solution. The real challenge is how to do it. The closer we are to deadlines, the more evident it becomes that the key factor to success is good collaboration between authorities and economic operators nationally and inside the EU. The focus of the work and impact to cost and functioning of the system is development of data contents, ways of managing information and information flows and harmonization of the interface between economic operator and Customs EU wide. The more different data contents and interfaces there are the more cumbersome and costly it gets to the companies operating in different members states.

Jarkko Saksa

Deputy DG

Finnish Customs

Finland

Finnish harbours in Russia's transit traffic

By Juha Mutru

The economy of Northwest Russia has grown significantly in recent decades and this trend will gain strength in the future, spurred by Russia's membership in the World Trade Organisation. In spite of the considerable growth of the harbour of Ust-Luga, Russia will continue to need the transit routes of the Baltic Sea in the future as well. Finland also needs Russia's transit traffic.

The Finnish route works efficiently, which is attributable to a number of factors. The harbours have powerful expertise. Finnish industry and commerce have plenty of experience in trade with Russia. The available services linked with foreign trade are of high quality. The infrastructure and the developed information systems support efficient international trade.

Special strengths of the Finnish route also include stability and transparency. A comparative study by Transparency International in 2012 found that Finland ties with Denmark, as the least corrupt country in the world. The activities of Finnish officials, Finland's system of justice, and the workings of Finnish society are extensively trusted owing to their predictability, and to the stability of the regulations on which they are based. The Finnish state has a AAA economic rating, putting it among the most economically stable in the world.

In a comparison made by the World Economic Forum (WEF) Finland was ranked as the third-most competitive country in the world in 2013. This comparison speaks of Finland's long-term structural competitiveness, and of the good operating environment that companies have in Finland. In the most recent years Finnish competitiveness has been weaker. Russian transit traffic via Finland declined considerably at the end of 2008 and has not significantly risen since then. Finnish harbours today have plenty of unused capacity for transit activity. In other words, a "buyers' market" now prevails.

In Finland transit traffic is powerfully focused on certain harbours. The greatest amount of transit goods pass through the ports of HaminaKotka and Kokkola. Transit traffic has traditionally been a key line of business for the Port of Hanko as well. A certain amount of transit traffic also passes through the harbours of Helsinki and Turku. The greatest amount of transit tonnage moves from east to west: ores, concentrates, chemicals and fertilisers. Transport from west to east largely involves parcelled goods in containers. In addition, metals and metal products go east.

Eastbound container traffic (for instance, consumer goods en route to St. Petersburg) is linked in an interesting way to the competitiveness of Finland's forest industry. Empty containers are taken from St. Petersburg and sent back to the Port of HaminaKotka, where the containers are filled with products of the wood processing industry, which then move southward. This equilibrium in the flow of containers is a significant factor in the competitiveness of Finland's forest industry.

Environmental regulations, which are constantly becoming stricter, pose a threat to the future of Finland's transit route. Pending environmental regulations include restrictions on sulphur and nitrogen emissions, as well as requirements for ships' energy efficiency, EU plans for trade in carbon dioxide emissions, washing waters for ships' holds, ballast waters, etc. These environmental standards threaten the competitiveness of the entire Baltic Sea route, and in many scenarios could even add to emissions if cargoes move away from maritime traffic to other forms of transport. The fact is that shipping is the cleanest of all forms of transport in terms of emissions per tonne of cargo. For the future it is important for the EU and Finland not to lose competitiveness for the sake of environmental protection. In the long term it might be said that better protection of the Baltic Sea environment than that which is in force of other seas could give transport passing through the Baltic a green competitive advantage.

Both the EU and Finland currently have maritime and harbour policy projects pending aimed at improving the competitiveness of maritime transport. It is very important that the projects in question should achieve their goals. In Finland, especially the development or elimination of the shipping route fee would give a significant boost to transit traffic. Labour market organisations, for their part, also share responsibility for improving competitiveness. The Finnish Port Operators Association sees the reduction of disturbances to industrial peace to be a key challenge on the labour market. Even one illegal industrial action is one too many. In addition, the working hours at harbours need to be made more flexible so that the service becomes available whenever there is demand for it.

Juha Mutru

Managing Director

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Finland

A new matrix for Russia's shipbuilding industry? Civilian-military and public-private partnerships

By Katri Pynnöniemi

In late August 2013, President Vladimir Putin gave his approval for the rebuilding of a "super-shipyard" in the Russian Far East by 2018. The shipyard will be based at the same site as the existing Zvezda shipyard in Bolshoi Kamen, a state-owned enterprise established in 1946 and specialised in renovating and dismantling nuclear submarines. The Zvezda project exemplifies the challenges Russia's shipbuilding industry faces in fulfilling both military and civilian production targets. But it also shows that Russia is willing to renegotiate the border between the military and civilian spheres in order to achieve results.

Identification of problems

Discussions about the super-shipyard surfaced in the Russian media after President Putin criticised the Russian military's build-up programme, especially when it comes to shipbuilding. In a meeting held in late July, Putin listed a number of problems that have caused delays and budgetary excesses in the Russian Navy's orders for new ships and submarines. At the heart of the problem is the dysfunctionality of the subcontracting network, which in turn is due to the inefficiency of state-owned enterprises – although this last point was not openly admitted in the discussions led by Putin. The deputy prime minister, Dmitry Rogozin, who is responsible for the coordination of both civilian and military shipbuilding, has adopted a two-pronged strategy in response to the criticism.

First, back in spring 2013, Rogozin commissioned the planning of a new military procurement programme with a 2025 timeframe. This will focus attention on future challenges and possibilities, and deflect it away from the problems related to the current programme, due in 2020. Secondly, Rogozin has indicated factors that have led to the present problems. Top of the list is the former minister of defence, Anatoly Serdyukov, under whose term the "governance of the procurement programme practically ceased to exist", as Rogozin put it. The executives of Russia's defence industry, in turn, are to blame for the rising prices and the low quality of their products. Rogozin has stated that the corruption and negligence of the executives amounts to treason.

Rogozin's criticism is targeted specifically at the United Shipbuilding Corporation (OSK), a wholly state-owned corporation established in 2007 by a presidential order. It currently controls 22 shipyards and nine research institutes in Russia. In the new strategy for OSK it is suggested that the Corporation will be restructured along functional rather than territorial principles. It is perfectly possible that plans have been underway to split up OSK for quite some time, and the criticism expressed by Putin has served to kick-start this process into action. However, if that is the case, the change does not appear to be very well coordinated.

The restructuring of the shipbuilding industry is underway

In late September, the Russian government's maritime collegium (*morskaya kollegiya)*, led by Deputy Prime Minister Rogozin, was granted new powers over federal and regional authorities to monitor the implementation of the federal target programmes for civilian shipbuilding and marine technology. Given Rogozin's role as the head of the government commission on military procurement, this move seems quite logical. Yet, in keeping with media reports, it was the head of Rosneft, Igor Sechin, who suggested that control over the reconstruction of the Far East super-shipyard should be placed under a private consortium.

The decision made in August 2013 means that Russia's major oil company, Rosneft, is set to replace OSK as the company in charge of the project. Rosneft, together with Gazprombank and Sovcomflot, will set up a consortium that will assume control not just over Zvezda, but over all military and civilian shipyards in the Russian Far East. This situation leaves it unclear as to who is actually in control of the undertaking – state-owned companies that order the ships and finance them in large part, or the federal commissions that are supposed to coordinate the state actions in this sphere. Some observations on the situation can consequently be made.

Observations rather than conclusions

First, the debate about the super-shipyard has illuminated a fundamental difference of opinion over the development of Russia's shipbuilding industry. Russia's Ministry of Industry and Trade holds the view that decisions about shipyards should be made only once the prospects for Arctic energy projects have been confirmed. Rogozin and Economic Presidential Assistant Andrey Belousov, on the other hand, think that the shipyards must be developed swiftly in order to maintain the potential to build new ships in domestic shipyards.

Second, participants in this debate are unanimous about the need for state support for Russian shipyards in the face of international competition. The role of foreign partners is acknowledged as important, yet it is made clear that they are expected to transfer technology and know-how in a way that helps Russia to rebuild its own capabilities. In the meantime, one option is that the supertankers will continue to be built in Korea, while the Zvezda shipyard will do subcontract work for the Koreans.

Lastly, estimations of investments required for the construction of the super-shipyard are either superficial or completely absent from the debate. Only after the principal decision was made in late August was it reported that the reconstruction of the shipyard is estimated to cost 111 billion roubles. In connection with the discussion on the new OSK strategy, it was announced that the total investments up to 2030 would amount to 1 trillion roubles, of which 20 per cent would be covered by the state budget. What these figures tell us is that the modernization of Russia's shipbuilding industry, and the fulfillment of the ambitious military procurement and civilian shipbuilding targets, poses a serious challenge for Russia.

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Finland

Eurozone's model student Finland fell into a debt trap

By Veijo Hyvönen

Finland is known as the eurozone's model student in following the EU regulation for example in public debt. Now Finland is facing a serious debt problem of it's own. The financial and the euro crisis and the ongoing restructuring of industry have had a serious impact on Finland's economy. A record growth in public debt is based on lower tax income and increasing public costs.

Finland's public dept grew ten billion euros in 2012 and exceeded one hundred billion euros for the first time in history. The Ministry of Finance expects that in 2014 Finland's public debt is going to exceed 60 percent of gross national product, and so violates the EMU criteria. In 2015 the public debt is estimated to be 62 percent.

Public consumption is 57 percent of the national product, which is a relatively high number among European Union countries. It is expected to stay permanently higher than before the financial crisis. The current problem is how the growth of debt effects on Finland's credit rating. As an AAA country Finland gets loans at a very reasonable price. In a hundred billion euro loan a percentage point growth in interest rate means one billion euro increase in yearly costs.

Although Finland has a serious debt problem, the amount of the debt is not intolerable for now. The latest Eurostat's statistics show that Finland's public debt was 55 percent of the gross national product in the end of March. Only three euro countries – Estonia, Luxemburg and Slovenia – had a smaller debt ratio.

The other AAA countries had clearly bigger debt ratios: Germany 81, Austria 74 and Holland 72 percent. Eurozone's debt ratio was 92 and EU's 86 percent.

The major credit rating agencies do not focus on the debt ratio or EMU criteria, but mainly on long term development of public debt. The government of Finland decided in the end of August on structural reforms and cost reductions. It was a beginning of a reform, which the credit rating agencies have been expected.

German banking company Commerzbank predicted in August that only Finland and Germany will maintain their AAA status. It is generally believed that Finland maintains the best credit rating at least for 18–24 months.

Finland gets loans at record low interest rates. In the eurozone only Germany gets cheaper loans. The cost of borrowing for Finland is now in its lowest in twenty years, although the amount of debt is record high.

Finland has also a very good status in net debt comparison. Finland's public net dept was -51 percent of the gross national product in 2012. It means that Finland has 99 billion euro more outstanding claims than debt.

In Finland the labour pension paid by employers and employees go to pension funds. Government doesn't use the surplus of the pension funds to the general spending, so the capital on the funds grow. There is over 200 billion euros in the public and private pension funds.

Finland's public net debt ratio is the best in EU. In Sweden the ratio is -18, in Estonia 3 and in Denmark 8 precent. Norway, with all the oil money, has an outstanding net debt ratio of -166 percent.

Growth rate is the most worrying thing about Finnish public dept. The debt ratio has increased six percentage points in one year. Only in Slovenia, Slovakia and PIIGS countries has the growth been faster.

The biggest challenge for Finland is the long term sustainability gap in public economy. The credit rating agency Fitch has estimated that if Finland won't do structural reforms, the public debt ratio will be 90 percent in 2030 and 260 percent in 2060.

It is not possible to finance public deficits by ingreasing debt in the long run. The effects would be too severe to the future generations.

The cost of borrowing will increase when the interest rates come back to normal levels. The more Finland loans from others, the bigger the cost of borrowing is. If the credit rating drops, the interest rate goes further up. Finland can't finance deficits with the pension fund money, because in the future the pension funds start to diminish, as more and more people retire.

European Comission has paid attention to Finland's structural problems and emhasizes measures that prolong careers. These include raising the age of retirement and decreasing youth and long term unemployment. Finnish government has decided on reforms that will increase taxes and decrease public costs by 21 billion euros in 2013–2017.

Vice-president Olli Rehn from the European Comission considers these reforms to be a good start. He reminds that the Finnish government can't decide on its own on important reforms as age of retirement, labour markets and communities' economic efficiency.

The rapid growth of Finland's public dept is a matter of consern for the European Comission. It can damage Finland's reputation as a reliable country. It is also a bit embarrasing, because Finland has demanded strict discipline from the southern countries of Europe.

International media has not been interested in Finland's public debt. In Finland it is an important topic, but in the rest of the world it is hardly noticed.

Veijo Hyvönen

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Finland

Latvia and euro – a window of opportunity

By Jānis Ikstens

On the eve of EU accession referendum in September 2003, Prime Minister Einārs Repše delivered a live TV address to the nation urging people to vote in favour of Latvia's EU membership to strengthen the country's security and to foster its economic development. The two considerations were clearly behind a solid majority of two thirds voting in favour of the accession the next day. Yet, many accompanying obligations escaped the public eye and replacing the national currency with euro appears to have been one of those.

The Bank of Latvia (BoL) that had pegged Lats to euro in January 2005 despite limited public discontent, was keen on early transition. However, the post-accession economic boom fuelled by massive inflow of capital and inexpensive loans and facilitated by reckless government policies triggered notable inflation effectively barring Latvia from Eurozone. This did not preclude BoL from setting Eurozone membership as a major political goal at the height of the boom.

The 2008 financial crisis and the resultant economic collapse in Latvia paradoxically presented the country with a chance to introduce euro. Under the premiership of Valdis Dombrovskis, Latvia chose internal devaluation accompanied by an international rescue loan as a way to economic recovery. A series of spending cuts and tax increases were introduced. Labour costs plummeted and prices shrunk to boost competitiveness of Latvian exports. Yet, a change in foreign trade balance came at a high social cost – unemployment stabilized in double-digit area and emigration of economically active persons from the already ageing country intensified.

As the economic recovery in EU turned out to be slow and was further burdened by earlier policies of various Eurozone countries, technocrats of BoL seized an opportunity for Latvia's accession to the common currency: the inflation rate was contained by internal devaluation; the bailout loan was issued on condition of keeping a small budget deficit; the government debt remained within margins set by convergence criteria; long-term interest rates on Eurozone bonds rose in reaction to default risks in several countries mathematically helping Latvia meet the remaining convergence criterion. The government steered by two former bank analysts enthusiastically supported BoL's position and even lowered VAT rate to keep inflation at bay in mid-2012.

The clever plan had only one weakness – a lack of public support. Although officials made nearly bi-monthly pledges to cut through scepticism about euro and achieve a 50% public support to Latvia's accession to euro, that target was never met. Low popular support to accession to euro was also noted by the European Central Bank.

A major source of scepticism towards euro stemmed from the uncertainty surrounding the common currency after several Eurozone countries had to accept a bailout and some other were on the verge of this move. Moreover, Latvians that were recovering from an economic collapse had legitimate concerns about the cost of rescue to wealthier Eurozone countries, debts of which had been partly written off. Further, Latvian Lats is at times called part of national identity, and adoption of euro in a EUroskeptic country would symbolize a further delegation of powers to Brussels. A group of economists and entrepreneurs asserted that giving up national currency would strip Latvia of any instruments of economic policy. Some constitutional lawyers including the Head of Constitutional Court pointed out that circumstances of EU membership had changed since 2004 and a referendum on euro accession could be appropriate.

To win public support, BoL chose to focus on practical advantages of euro such as ease of travel within the Eurozone, elimination of bank fees for currency exchange, and absence of currency risks for persons who had taken loans in euro. In addition, BoL argued that Eurozone membership would save hundreds of millions in servicing government debt as Latvia's credit ratings would improve after accession. Estonian experience was often cited to illustrate the expected influx of foreign investment. Yet, BoL was evasive on financial consequences of Latvia's obligation to assist other members of Eurozone and was rather nervous in live public discussions about the currency union.

These factors set stage for calls to hold a referendum on joining the Eurozone echoed by political opposition. PM Dombrovskis dismissed the popular vote option as unnecessary in view of the 2003 EU accession referendum. Subsequently, Harmony Centre, the largest opposition party, withdrew its objections after backstage negotiations with the Prime Minister's party. The Central Election Commission, in turn, rejected a referendum petition by an anti-euro NGO on the grounds of anti-constitutionality and, thus, removed last obstacles to Latvia becoming the 18th member of Eurozone.

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Regulatory exemption for the Finnish–Baltic gas markets – the impact of an LNG terminal

By Kim Talus

The Finnish – Baltic gas markets are currently not competitive, not integrated and, finally, not connected to any other markets. They constitute what is called an "energy island" in the EU energy parlance. An energy island can be subject to a special regulatory regime under Article 49 of the current gas market directive. Where an EU Member State is not directly connected to the interconnected system of any other Member State and has only one main external supplier (meaning that one supplier has more than 75 per cent of the market), it may derogate from certain requirements of the gas market directive, including the unbundling requirements, the market opening requirement, and the authorization procedure for new gas facilities. The conditions for the derogation for an isolated market cease to exist if one of the above conditions is eliminated. Finland and the Baltic markets (hereinafter the "Region") are examples of isolated markets and receive their gas supplies from Russia.

Article 49 continues that: "Articles 4, 9, 37 and/or 38 shall not apply to Estonia, Latvia and/or Finland until any of those Member States is directly connected to the interconnected system of any Member State other than Estonia, Latvia, Lithuania and Finland."

This paper will examine the exemption and the impact of an LNG terminal in the Region to the continuing applicability of the exemption. The exemption for a State in this Region can expire in various situations. First, a State connects to the interconnected system of another EU Member State (except to the other Member States in the Region). Second, a State connects to a new gas source through a pipeline (Finland to Norway, for example) or an LNG terminal with sufficient capacity to supply more than 25 % of the national market. A third option is that internal connections within this Region are created and one of the States then proceeds with option one or two, though in option two, there are other factors to consider. These will be discussed below. Of course, there is also the fourth option that a country voluntarily (most likely for political rather than economic reasons) voluntarily decides to cease the application of the exemption regime, as took place in Estonia. This last option will not be discussed here as it is not connected to the regulatory regime, nor should not have an impact on the other States and markets in the Region.

Baltic natural gas markets are connected to each other. While Finland is currently not connected to the Baltic natural gas markets, there are plans for this connection to take place in the future, through the Balticconnector project. If we assume that this connection will take place, we are in the situation where the above options one, two and three are all possible. Given that the connection to the new source through a pipeline is somewhat unlikely scenario in the short- and mid-term, a possible LNG terminal or a connection to Poland becomes the most likely projects that can end the applicability of the exemption. The connection to Poland is a relatively straight forward option: the exemption regime is clear about the connection, it does not contain capacity thresholds and, as such, any connection should be sufficient. In other words, if the Baltic States are all interconnected and if Finland connects to Estonia, a connection between Lithuania and Poland will end the application of the exemption. Compared to this, the LNG option is more complicated. It requires a comparison between the regasification capacity of the LNG terminal and the total volumes in the relevant geographical market.

For a Member State in the Region with its own LNG terminal, the impact of an LNG terminal depends on the regasification capacity compared the size of the national market. Where the LNG terminal reduces the market position of the main supplier below 75%, the LNG terminal will end the applicability of the exemption regime. The situation is more complicated if the Region is interconnected and an LNG terminal is constructed to the territory of another State. In this situation it is necessary to consider the capacity of both the LNG terminal and the interconnections between States. An LNG terminal that has sufficient regasification capacity to cease the applicability of the exemption in the Member State where it was constructed, does not necessarily have that impact in the other States that are connected to that Member State, as Article 49 seems to refer to connections to "interconnected system of any other Member State", not connections to international LNG markets. Only if the capacity of the LNG terminal and the relevant interconnection are both significant enough to allow for alternative supplies constituting more than 25% of the total supplies to the Member State market, will the exemption cease to apply. In other words and concretely, if an LNG terminal is constructed to Estonia, the impact on the Finish markets depend on the capacity of both the LNG terminal and the interconnector between Finland and Estonia. Only if the market share of Gazprom supplies in Finland is reduced to less than 75%, will the exemption regime cease to apply.

As has been examined in this short paper, the impact of an LNG terminal to the regulatory treatment of the Finish-Baltic gas markets is not easy or straight forward. In addition to the questions raised here, there are others. Clearly, when dealing with EU energy regulation, the "devil lies in the details".

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Finland

The global gas revolution – why European shale might not matter

By Joseph Dutton

When I wrote an article on the 'shale gale' for BRE in 2010 Europe was abuzz with anticipation about indigenous development, with the US shale sector held up as a blueprint for a route to energy independence and breaking Russia's grip on European gas supplies. Despite the sweeping optimism from governments, analysts and operators alike, a single molecule of shale has yet to be commercially produced in Europe. While some have been at pains to stress direct comparisons with the US are not possible and European production is unlikely before 2020, the slow pace of development has frustrated the gas industry and shale proponents in governments. Indifferent drilling results, supply chain constraints and public opposition have all contributed to limited development. Poland and the UK are countries leading shale development in Europe, yet they are both a long way behind where optimists forecast them to be. Poland is the most developed in Europe, with 40 test wells drilled so far and the first producing shale gas well (drilled by San Leon); however, at production of only 8,000cu.m/day commercialisation is some way off. Although Poland still has a number of both independent operators and larger IOCs active in the shale sector, since 2012 Chevron, Talisman Energy and Marathon have all ceased operations. In the UK one shale gas well has been fracked, but operations were suspended after seismic activity occurred at the well site. Other sites have been met with protests, while in October 2013 sector leader Cuadrilla Resources announced it was abandoning one of its primary well sites.

Though European shale gas has of course not impacted gas markets in the way some forecast, US shale has had profound impacts across the continent. Though the impacts are in-direct in their nature, since the early to mid-2000s and the boom in US shale gas production, previously unforeseen structural changes to supply, demand, and pricing in Europe have occurred.

The growth in shale gas production (from 0.39tcf in 2005 to 5tcf by 2010) displaced LNG destined for the US, with the country previously forecast to have a 23% global LNG market share by 2010. A combination of this and a large volume of liquefaction capacity coming online (mainly in Qatar) led to an oversupply of LNG in the Atlantic Basin. US-bound cargoes were redelivered to European and Asian markets, with US LNG import terminals substantially under-utilised. Reflecting the shift in supply patterns, LNG spot sales grew from 10% of the global LNG market share in 2004 to 25% in 2011.

The loss of the US LNG market and redelivery of cargoes to Europe with associated growth in the LNG spot-market, placed pressure on the existing European gas pricing mechanisms. The increase of gas-to-gas priced imports and spot market gas entering European markets as LNG challenged the oil-indexation system of gas pricing - the mainstay of contracted Russian pipeline gas in Central and Eastern European. Gazprom's European gas market share fell from 47% in 2003 to 34% in 2011 as a result of reduced gas demand and increased flexibility in gas supply. Over this period both Statoil and Qatar increased their market shares with predominantly spot or short-medium term sales.

However the glut in LNG supply did not remain, with strong gas demand in Asia due to continuing Chinese economic growth and Japan's shift to natural gas in the wake of the 2011 Fukushima nuclear accident. In a short time period the LNG glut was replaced by a tightening of marketplace with greater demand in the higher-priced Asian market squeezing both gas supply and prices in Europe.

US shale forced down the Henry Hub gas price from $12.69 in June 2008 to $1.82 in April 2012, resulting in the power generation sector shifting away from coal to cheaper gas supplies; consequently, high volumes of coal were exported to Europe, with the region's US coal imports in 2012 29% higher than in 2011. Compounded by LNG sales to the higher-priced Asian market hubs, the high relative cost of gas in Europe compared to coal imports has seen the power sector make the opposite switch to the US - going from gas to coal. This switch underlies the perceived current poor market conditions for natural gas in Europe, with many a number of power generators delaying investment in new gas power plants or mothballing existing facilities.

Shale-fed LNG exports from the US to Europe (expected from 2016) and new production from large fields in East Africa and Australia in the coming decade will greatly add liquidity to global gas markets and may reverse the current market tightness. As a result the future of oil-indexed gas in Europe is uncertain, with gas-to-gas priced LNG and hub-based trading in Europe likely to increase. But in this future scenario the development of European shale is still very uncertain. US shale has fundamentally altered global gas markets, but these changes may well limit both the scale and necessity of any European shale production.

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Oil refining in Russia – time for a change

By Mikhail I. Levinbuk and Dmitry Yu. Murzin

The Russian oil and gas sector will undergo a number of changes in the coming years. These changes are partly influenced by the shale gas revolution, general trends in global oil refining as well as some other reasons related to changes in the Russian federal law.

The general trends in oil refining are related to processing of heavy oils and bitumen, increase of the refined amount of oil globally with a simultaneous decrease of the overall number of plants thus increasing the average capacity of an oil refining plant.

Processing of heavy bitumen in USA and Canada along with utilization of shale gas will have an impact on export of oil to those countries from Middle East and eventually can decrease the price of oil.

Among another trend we should mention a large increase of diesel cars in Europe, which should be reflected in the ratio between gasoline and diesel needed in Europe.

These changes will have their impact on the Russian economy, which is based very much on exporting natural resources, such as gas and oil, giving 65% of all exported from Russia goods. One of the particular products related to oil refining, which is very profitable for Russian refineries to export is heavy, low quality fuel oil (called mazut in Russian). The taxation policy of the Russian government forced export mazut rather than high margin products of oil refining and petrochemistry due to differences in prices within Russia and in the international market. As the result masut is exported to Central, Eastern and Northern Europe where it is further processed. In addition it should be mentioned that almost 70% of the oil and oil related products export from Russia is just low margin crude oil, which did not undergo any processing.

Currently, Russia has 22 large refineries with the throughput exceeding 4 million t/year and 8 medium refineries with the annual capacity of 1 to 4 million tons and over 200 small refineries with the capacity significantly lower than one million t/year. The latter ones process ca. 5% of all oil.

The plants are running with lower than name-plate capacity producing ca. 50% of more light products (15% of that in gasoline range) and ca. 27% of masut, while in the Western countries more light products constitute 75% and amounts of masut are just 5% in the USA and 12% in Europe.

New limits set few years ago on the quality of fuels consumed in Russia and deadlines for the transfer to higher standards of fuel quality produced in Russia forced oil refineries to start modifications.

In addition new export duties for heavy petroleum products (66% of the crude export tax in effect from October 2011 and 100% starting from 2015) will also force refinery modernization.

Such modernization would require a higher degree of processing calling for wider utilization of such processes as catalytic cracking and hydrocracking.

Fluid catalytic cracking is one of the most important conversion processes used in petroleum refining and is applied to convert high-boiling, high-molecular weight hydrocarbon fractions to more valuable gasoline.

Hydrocracking being also a catalytic process converts gas oil into distillate and jet fuel in the presence of hydrogen.

Currently among the large Russian oil refineries only 13 have catalytic cracking (only 8 of them are modern) and just 5 have hydrocracking units.

Such modernization is coming at a certain cost, which in fact is rather significant. Thus refinery modification with the aim to focus on gasoline would require investments at a level of approximately $4.3 bln. Such investments can lead to profitable outcome only for large refineries with the capacity exceeding 10 million t/year.

Obviously smaller refineries with the capacity less than 500 thousand t/year would not be able to compete with large ones without substantially increasing their capacity and will eventually have to shut down not being able to comply with stringent regulations and requirements related to higher product quality.

Modification of all small refineries with their capacity increase to a minimum efficient one will result in twofold increase of oil refining output in Russia which is unrealistic. As a consequence small refineries will cease to exist unless they are able to increase their annual capacity to at least one million tons. The degree of oil conversion should be ca. 70%.

Since small refineries contribute to ca. 11 millions of processed oil per year (ca. 5%) if any void is going to happen because of mini-refineries closure, it will be easily filled by big players in oil refining.

Situation with medium-sized oil refineries (1-4 million t/a) is not that straightforward. Due to the fact that they contribute to ca. 10-15% of the total refining capacity and the geographical distribution of them, closing down some of such refineries can strongly influence the regional markets in Russia and could even affect the Russian market for petroleum products.

Preliminary estimates for 2015 when new custom duty for heavy petroleum products is going to be introduced, indicate that a minimum annual processing capacity of a profitable refinery able to get to get return on investments should exceeding 8 million tons. Construction of heavy oil residue processing units would be needed requiring heavy investments for most medium refineries with the low level of secondary processes on a par with constructing a new refinery.

Finally it can be stated that Russia can be a global player in the market of high quality oil refining products only on the conditions of substantial modernization of existing oil refineries or (which is less probable) construction of modern refineries.

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Germany's energy transformation and the coal 'renaissance'

By Rafal Bajczuk

Since 2010 Germany is pursuing an ambitious energy strategy which aims at increasing renewable energy sources in gross final energy consumption up to 60 percent by 2050. Parallel to that the use of energy should drop by half (this should be achieved by increasing energy efficiency) and CO_2 emissions should go down by 80-95 percent in 2050 compared to 1990 levels. Cutting consumption of fossil in power generation is the most crucial of all sectors involved as it accounts for almost half of all CO_2 emissions generated by the German economy. The transformation of the energy system (German 'Energiewende') is strongly supported by the public opinion and watched closely by the international community. Despite the rapid deployment of wind farms and solar power systems in 2012 greenhouse gas (GHG) emissions have risen by 1,6 percent. This slight change is insignificant compared to the long-term trend (between 1990 and 2012 emissions have fallen by 25.5 percent, exceeding the reduction target under the Kyoto Protocol). However it marks a return to coal as a fuel for power generation in Germany.

When in March 2011, short after the Fukushima Daiichi nuclear disaster, German chancellor Angela Merkel announced nuclear power phase-out and support for development of renewable energy production natural gas was predicted to be the bridge-technology to the renewable energy future. According to the German energy strategy the share of renewable sources in power generation should increase gradually to 80% in 2050. While nuclear power, hard coal and lignite will lose their share in the energy mix, natural gas, as a flexible and low-carbon source of energy, will maintain its share in the power system. Crude reality verified the ambitious plans, however. As the share of RES in the power mix is steadily rising from 17 percent in 2010 to 22 percent in 2012, so does the share of hard coal and lignite. The share of natural gas in turn has decreased from 14 percent in 2010 to 11 percent in 2012. These numbers have a direct impact on natural gas imports. According to the Federal Office of Economics and Export Control between January and March 2013 German natural gas imports have fallen by 16.8 percent in comparison to the same period in 2012. The declining demand has caused a price fall of 3.4 percent compared to the previous year.

Declining consumption of natural gas and an increased demand for coal is a trend observed in most EU member states. Besides Germany, in the last three years, use of coal significantly increased in United Kingdom, Spain, Italy and the Netherlands. This coal 'renaissance' was triggered by the shale gas revolution in the USA. Between 2007 and 2012 natural gas production in USA has risen by circa 25 percent. The industrial price fell by 50 percent. This in return prompted American *power sector to switch from coal to gas. Surplus US' coal substituted by natural gas has been exported to Europe and caused the global coal price to fall.* As the German Coal Importer Association states, only in the first quarter of 2013, the imports of coal in Germany have risen from 8 to 10 million tons, in comparison to previous year. The import of coal for power generation grew by 15 percent (around 70 percent of hard coal in Germany is used for power generation), biggest suppliers being the CIS states (27 percent) and USA (25 percent). Additionally Germany is using around 170 million tons of lignite per year for power generation. It is the only primary energy source which is produced completely from domestic resources. As a result of these developments the share of hard coal in electricity production has increased between 2011 and 2012 by 3 percent and of lignite by 7 percent.

So far this trend of a growing consumption of coal and declining use of natural gas for power generation is continuing. Currently there are eight power plants under construction that will use hard coal and only two gas fired-power plants. Power companies in Germany are even planning to take their gas fired power plant offline as they are not profitable, taking under account the low wholesale prices of electricity and high prices of natural gas. Just in August the Norwegian utility Statkraft put two of four of its gas-fired power plants into cold reserve. However this situation should not last for a long time. As experts predict United States coal production will decline as the low price of coal makes exports unprofitable. On the other hand both the European institution and Germany will support measures to reduce its GHG emissions. In order to fill the gap left behind by coal with natural gas German politicians and energy experts are currently discussing mechanisms to support this technology. The most discussed option is the introduction of a capacity market, which would make natural gas-fired power plants again profitable. Germany will surely continue its energy transition as it creates *positive* effects on *economic* growth and is widely supported by society.

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From the Varangians to the Greeks – critical infrastructures interconnector

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In 1976 a Richard Dawkins has coined the name of 'meme' for the mind entities that generate collective behavior and change, similar to the evolution, induced by genes. Looking at the last years we think that there was a sort of collective behavior in concentrating on the East –West direction for gas pipelines under the meme name of 'the silk road'. This is a good thing as long as one keeps in mind the big picture. The choice of TAP versus Nabuco has contributed to break the collective almost obsession of Nabuco form the last few years.

Let's get two steps back and look at the map of the 'silk road'. There are several areas of North – South crossing roads: one is the Russian Federation to China, in the East; another one is the Norway to EU and the North Africa to EU in the West.

Looking at the change of energy paradigm in the World today one may identify another North – South road, in East Europe. This is not a new road since the history mentions in this part of the World 'the road from the Varangians to the Greeks' – very popular at the end of the first millennium.

Directive 2008/114/CE defines gas critical infrastructures along with other critical ones. The security of these critical infrastructures needs interconnectors (pipelines) that will be able to transport gas both ways. The discovery of non-conventional (shale and offshore) gas reserves in Poland, Ukraine, Romania and Bulgaria associated with the potential opening of both the Baltic Sea and the Mediterranean and Black Sea for LNG imports from all over the World (e.g. Qatar, USA) supplies new gas sources for the countries on this 'road'. Along with partial imports in the mentioned countries there is a need for gas in Finland, the Baltic States and Greece, leading to full imports. Diversification would be welcomed in order to increase security of supply.

The table below shows an interesting story i.e. that with the nonconventional reserves the region may substantially extend its gas supply availability and its overall energy security.

Critical gas infrastructures interconnector 'from the Varangians to the Greeks'

Country	Rezerves	Production	Consumption	Shale gas	Imports
	[Gcm]	[Gcm/y]	[Gcm/y]	[Gcm]	[Gcm/y]
Finland	0.0	0	3.6	0.0	3.6
Estonia	0.0	0	0.7	0.0	0.7
Latvia	0.0	0	0.62	0.0	0.62
Lithuania	0.0	0	3.4	0.0	3.4
Poland	121.8	4.3	15.4	4190.9	11.1
Ukraine	107.6	18.2	53.7	3624.6	35.5
Romania	934.5	11	13.8	1444.2	2.8
Bulgaria	0.0	0	2.9	481.4	2.9
Greece	0.0	0	4.5	0.0	4.5
total	1163.8	33.5	98.62	9741.0	65.12

	years		
Reserves/Consumption	12		Gcm
Reserves/Production	35	Imports for 35 y	2262.3
(Reserves+Shale)/Consumption	111		

Source:
1. BP statistical review of world energy 2012/ Data for reserves production and consumption except Estonia and Latvia
2. EIA Technically Recoverable Shale Oil and Shale Gas Resources: An Assessment of 137 Shale Formations in 41 Countries Outside the United States June 2013/ Data for Shale gas
3. https://www.cia.gov/library/publications/the-world-factbook/ data for Estonia and Latvia consumption 2010

Maybe it is time to take a 90 degrees rotation from the East – West line in this region and think of an interconnector of gas critical infrastructures along the old road from the Varangians to the Greeks.

Finally, it is important to notice that such an interconnector should not be seen as an isolated project but included in the EU and international gas pipes network. Its main role is to increase security of supply in the region and through this to allow better competition with the associated effect on prices. To make such a project a reality a joint effort is needed to generate credibility that further on will attract the investments. It may not be easy but, we think it would be worth trying.

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Development of regional cooperation between South-East Finland and St. Petersburg and Leningrad Region

By Päivi Ilves

Past

Finland entered the European Union in 1995. As a consequence in the eastern border regions three INTERREG programs began. And the regional cooperation between South Savo, Kymenlaakso, South Karelia, St. Petersburg and Leningrad region under the EU framework was formed.

The program and method was INTERREG and the cooperation was at regional level. The first program period was not a full seven-year period but ending in 1999. In INTERREG programs the majority of project operations were carried out and majority of funds were used in the member state, in this case Finland. The decision-making was done in the member state. The funds were originating from the EU and the national co-financing from Finland. During the first program 1995-1999 there were a lot of new procedures and new methods in several levels. Learning and adopting of them was time consuming. From the first beginning the networks were not ready and existing but they have to be built gradually. The projects were planned in Finland and the needs of cooperation were based on the needs on Finnish side.

The second period 2000-2006 was exceptional as an alteration was made in 2004 when an INTERREG program was changed to a Neighbourhood program in the middle of a program period. During the years 2004-2006 when the Neighbourhood program started cooperation moved a step forward as the selection of projects was made together with Russians. However, funding on Finnish side came from multiannual INTERREG and equivalent Finnish national co-financing and in Russia from yearly allocated TACIS. As the whole decision-making process was not under the same authority the implementation of funded projects was not synchronized and there were remarkable deviations in schedules. Therefore the idea of mirror projects, on both sides of the border, could not be realized. However, cooperation deepened when selecting the projects together and trying to find projects which would benefit both sides of the border area.

Today

In 2007 a new seven-year period of cooperation began. The cooperation started under the EU's External Action Services instead of DG Regio. The program name changed from Neighbourhood to ENPI. Based on the experience of the previous years there were expectations in both countries that during this period even better results should be achieved. Both participating countries admit the importance of cooperation in border regions. A remarkable sign of it was that the Russian Federation announced to invest their own funds to the programs implemented on the border between Russia and the EU. This information was surprising and the rules and regulations should be partly renewed and it caused an outstanding delay to the launch of programs. Thanks to project planners and all stakeholders the funds have been allocated during two years and it seems that all funded projects can be implemented in due time before the end of 2014. The Russian funding guarantees equal participation and equal partnership of Russians to the program.

The nature of projects has developed as the networks, knowledge and trust of partners have increased. As the global situation has changed, compared to previous years, there is a need of infrastructure related to border crossings. It was taken into account when allocating the program funds. Half of the program financing was directed to infrastructure projects. Besides concrete projects, on both sides of the border, the most important priority was determined to be economic development. Now, when we are at the stage where the program implementation is in the middle we can state that the measures have been more concrete than in the past. However, the new rules and regulations when changing to ENPI from INTERREG and when the final decisions still have been made in Brussels have caused exceptionally long periods between submission of the application and signature of the grant contract. This cannot be acceptable when thinking the applicants and the future.

During the period there are some major improvements compared to the past. Firstly, there is "pooling" of funds. The funds are coming from three different sources (the European Union, Russia and Finland) but they are pooled by the joint managing authority and the projects receive the funds without a need to request them separately. Secondly, allocation of all funds is multiannual. Thirdly, the planning and implementation of projects have been made jointly on both sides of the border.

Future

The next programming period 2014-2020 is now under preparation. The experience of the previous and present periods will be taken into account and the difficulties can hopefully be avoided. The contents, priorities and themes of the program will be jointly selected during the coming months taking into account the needs, gathered background information and overall situation in the program area and naturally the objectives of the European Neighbourhood Instrument (ENI) rules.

All participating partners (EU, Russia and Finland) have announced their will to continue to finance the program as today. Hopefully, we can fit together the EU and national legislations and delete some legislative obstacles and hinders of cooperation and guarantee a smooth implementation of the future program.

Experience and benefits of cooperation

The benefits of this cooperation are stronger networks, better knowledge of each other's culture, greater opportunities, more prosperity to border areas and a gateway for Finns to Russia and for Russians to Finland and to the whole Europe. Even though it takes years before the benefits and importance of cooperation can be seen, the results and impacts are clearly visible in South-East Finland and St. Petersburg and Leningrad Region. One obvious, but not at all insignificant and unimportant benefit is capacity building. During the coming years we should enhance the favourable development and cooperation in all areas, sectors and levels.

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Bothnian Arc – vital cross-border area in northernmost part of the Baltic Sea

By Heikki Aalto

The Bothnian Arc is a coastal zone shaped like an inverted letter U at the northernmost end of the Gulf of Bothnia. The arc connects two countries; it begins in Skellefteå on the Swedish side, crosses the border at Haparanda and Tornio, and extends to Kokkola on Finnish side. The biggest city on Finnish side is Oulu and Luleå on Swedish side. The region is already marked by vitality and activity, but it holds the potential for much more.

This dynamic northern cross-border area has a strategic location at the intersection of the Baltic Sea Region and the Barents Region. The Bothnian Arc can serve as a link and a meeting place between these areas, improving communications, and enabling social, cultural and economic exchange. At the same time this growing area can be part of the international area of operations, and act as one market area.

The population of the northern areas of Finland and Sweden is concentrated in the Bothnian Arc region, which has around 700 000 inhabitants. The Arc has an abundance of young people, know-how, universities and other higher education institutions, large international companies, top technology, large ports, and international airports.

Northern Sweden and Finland have many centers of education with a varied range of courses. Most educational facilities are centered on the coastal area of Bothnian Arc. The largest educational institution of the area in Finland is University of Oulu while the Luleå University of Technology is the largest one in Sweden. Together they have over 30 000 students, more than 3000 researchers and teachers, and 350 professors. Concrete example from cooperation between those two universities is Nordic Mining School. They agreed on the opening of the School which will offer a new degree program in the field of mining industry. The purpose of this project is to strengthen Nordic education cooperation, and support the competitiveness of the mining industry.

Cross-border activity has increased significantly in EU and also in Baltic Sea area. There is more and more activities between the countries and across the borders. At the same time there is more developed financing instruments to be used in different kind of cross-border actions.

The Bothnian Arc fits in well with this trend. Now we just have to come with modes of operating that benefit and interest the region's companies and other operators and people as much as possible. It is quite often a question of knowledge and the opportunities to notice the benefits from cross-border cooperation.

Many interesting projects and networks have already been made. Quite naturally universities and other education institutes participate to cross-border activities. Also same branch of industries have found each other and they have started networking. We have started many cross-border projects financed by EU. Effective examples can be mentioned from metal industry, audiovisual sector, ICT, logistics, tourism, culture and energy. In many cases these projects have been like pilots for cooperation and afterwards partners continue the activities.

Long-term sustainability is a primary consideration in the development of the area. The attention of people must be drown to areas of natural beauty, heritage sites and other sights and attractions which are then to be used to develop tourism. At the same time, we must safeguard sensitive environments for the enjoyment of future generations.

Business development agencies owned by municipalities are supporting companies' internationalization. This is one reason why these municipalities wanted to establish an association called "Bothnian Arc" to support cooperation in Bothnian Arc area. During last 10 years Bothnian Arc association has encouraged and activated various parties to collaborate across borders by building networks, lobbing and creating new projects.

Northern dimension is coming more important all the time. The Barents area is situated on both sides of the Arctic Circle and covers also the northern parts of Sweden and Finland. The development of the Barents Sea area and the use of its natural resources provide Northern Finland and Sweden with significant economic cooperation opportunities, such as transit traffic and the related economic activities, and new business activities and improved employment rates. The investments in north Scandinavia are almost astronomical and that gives huge possibilities for growth and development.

Improved cooperation between different instances is still crucial in the Bothnian Arc area. A commitment to regional policies and extensive partnership is necessary in order to ensure development. This calls for active people and participation from businesses and organizations. This is the only way for cross-border activities to remain lively in the future. In recent years, new organizations and actors have joined in the cooperation, and they have taken charge of duties from various fields. In the future, more and more interested participants are required in the networks, in order to reach the desired objective, top-level growth and development in EU.

It is not yet very widely known what a gold nugget the Bothnian Arc at its best could be, nor what opportunities it offers. So far, this is like a hidden treasure even to the people living in the Bothnian Arc. Cooperation is key word and as our slogan in Bothnian Arc says; Together we are more!

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Cross-border cooperation in eHealth issues in the Baltic Sea Region – the eHealth for Regions Network as facilitator and booster

By Roland Trill and Anna-Lena Pohl

The Baltic Sea Region is a region with striking differences in health care systems, but nonetheless countries are facing similar challenges. This applies not only to the financing but to the organization of different health care levels, the integration of other stakeholders involved in health care issues and at the same time to the use and acceptance of eHealth. In Germany eHealth as an important facilitator of the whole health care-puzzle is rather seen as a marginal phenomenon than an appropriate and potential tool to deal with up-to-date challenges. In Estonia on the other hand the use of eHealth applications is much more common and accepted by the citizen.

When it comes to a generally accepted definition of what eHealth actually is one is confronted with several sources trying to put in words what many of them are not able to define clearly.

The World Health Organisation (WHO) for example defines eHealth as " (…) the transfer of health resources and health care by electronic means. (…)"[1]. It identifies access to the required technologies as one of the major issues for the distribution of eHealth applications.

But eHealth does not only stand for electronic devices and the use of ICT in health care. Another objective is to increase efficiency in health care and decrease costs, a challenge all countries around the Baltic Sea are facing nowadays. Furthermore the empowerment of patients is a purpose when introducing eHealth applications. They are a proper tool to motivate people to take over responsibility for their own health. By making knowledge accessible via internet citizen are enabled to make own choices and to manage their health care on a self-determined basis. Patients are encouraged to change the relationship with their GDP to a partnership and take decisions in a shared manner.[2]

This is not so much a problem of people being not interested or being just opposed without trying to understand what is meant. It is more a problem of an open dialogue and a more citizen centered approach of explaining. And it is a question of how to integrate technical progress in such a sensitive field health care still is. People are often afraid of being left alone with IT and computer without having a real person to talk to. And it is a question of time since at least in Germany the health care system was something dominated by medical professionals being the experts the patient relies blindly on. The understanding of managing the own health instead of being treated when ill needs time to grow up from a vague idea to a common agreement between citizen, medical professionals and the political level.

In Germany the discussion on the electronic health card, going on for several years now, show how tricky it is to achieve a fair balance between the regulatory framework and security concerns of citizen on the one hand and the need of a more technical advanced and more efficient health care system on the other hand.

And again differences between countries are striking. Data security being one major issue in Germany has been one of the easiest solved questions in Denmark.

But why do we need cross-border cooperation in eHealth issues? The field of eHealth has long been seen as having great potential in making health care more efficient. But eHealth has not developed as expected. It is referred to as a sick market and one which does not fully exploit its potential. There are many reasons for this and the EU Commission's lead market initiative is focusing especially on this problem. The main factors contributing to the sick market perception are a **lack of interoperability, obsolete and unharmonised laws and regulations and a lack of business plans** to guarantee reimbursement for services offered. Finding solutions to these transnational problems requires transnational cooperation.

Another aspect is the **need for infrastructure and software applications** to support health cooperation across borders. This can be seen as a 'chicken and egg' dilemma. Making things happen might require two elements to co-exist and there are problems in pushing the development of one element before the other exists.

The eHealth for Regions network is a platform for all the different stakeholders from all Baltic Sea Region countries to discuss eHealth issues, find project partners and develop project ideas up to concrete project applications. It aims at fostering the development of eHealth infrastructure and applications within in the region and beyond. By promoting eHealth issues it serves as a link connecting eHealth actors to all other stakeholders and issues in health care and making it compatible to the surrounding pieces of the bigger puzzle of health care. The network strives to establish links to other more conventional approaches so eHealth is not seen as a separate but rather inclusive approach to the major challenges in today's health care systems.

The network initiated several successful flagship projects coping with up-to-date challenges in health care. For example *ICT for Health* (2009 - 2012) worked to strengthen social capacities for the utilisation of eHealth technologies in the framework of an ageing population. Partners from eight countries in the Baltic Sea Region participated in the project: Denmark, Finland, Germany, Lithuania, Norway, Poland, Sweden and Russia.

PrimCareIT (2011-2014) aims at raising the attractiveness of remote primary health care for medical professionals by the means of tele-consultation and tele-mentoring. Thereby the project counteracts brain drain and professional isolation in sparsely populated areas for more equal access to primary health care in the Baltic Sea Region. 16 partners from eight countries including Belorussia are part of this ambitious project.

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[1] See http://www.who.int/trade/glossary/story021/en/, last access 6. June 2013.

[2] See Eysenbach, Gunther: What is e-health?, in: Journal of Medical Internet Research, Vol. 3 (2), 2001.

Gdansk University of Technology and its cooperation in the Baltic Sea Region

By Aniela Tejchman

Gdansk University of Technology (GUT) as the most renowned technical university in Northern Poland, which educates more than 25 thousand students at the undergraduate, graduate and doctoral level, strives to provide high quality education for the needs of a dynamically developing economy in the region and a knowledge-based society.

GUT is expanding its study programmes and research activities in a number of scientific fields related to the Baltic Sea Region (BSR), including among others environmental issues, transport, economy, policy and also construction of vessels and ports. These activities are often carried out in cooperation with BSR institutions involved in education, research and innovation.

The political and economic transition in Poland in the nineties boosted opportunities for new forms of cooperation. Financial founds accessible within EU Programmes stimulated the dynamic development of academic cooperation in various fields.

Some of BSR Universities became our partners in TEMPUS Programme launched in 1990. For our University TEMPUS had a significant impact on the development of new methods of engineering education, also with the use of modern laboratory equipment. It initiated the processes of harmonization of the Polish education system with EU partner countries' systems, including also international relations, library service and university management.

Since 1998, when Poland became a country eligible to participate in ERASMUS Programme, GUT has been receiving substantial funds to support the educational mobility of university staff and students. Till present more than 8 million EUR have been allocated to fulfil this aim.

In the year 2000 our university was among 16 institutions from Finland, Poland, Lithuania, Latvia, Estonia, Russia and Belarus which signed an agreement on the creation of the Baltic Sea Region University Network (BSRUN) in Turku. The network aimed at facilitating and enhancing cooperation between its members, establishing a platform for new ideas, contacts and projects. Active participation in BSRUN enabled us to develop partnership with a growing number of member universities in various areas of cooperation, mainly in internationalization, regional development, management and administration, but also to exchange information and participate in seminars and meetings.

In the year 2004 Poland joined the EU. The accession opened new opportunities for education and research for our country and the region. Poland became eligible for many new programmes on central and regional level. The staff of our university began to apply for new funds for education and research programmes, which was possible due to long lasting cooperation with partner institutions from the Baltic Sea area. An increase in funding is best reflected in ERASMUS expenditure. The funds allocated to GUT for 2003/2004 amounted to 165 thousand EUR, for 2004/2005 to over 320 thousand and for 2005/2006 to about 590 thousand EUR.

Cooperation with the eleven Baltic Sea Region countries, i.e., Denmark, Estonia, Finland, Island, Lithuania, Latvia, Germany, Norway, Poland, Russia and Sweden (classification by the Council of Baltic Sea States), which involves education mobility and research, is very essential for our University. On the basis of ERASMUS reports, mobility of outgoing students and staff to the Baltic Sea countries averages about 30%. However, in the years 2009-2011 due to support of the EEA & Norway Grants, mobility to BSR countries reached 40% of the total GUT mobility within education.

An increasing interest in mobility, including student and teacher exchange, introduction of innovative actions as practical trainings for students and staff, allowed developing cooperation in the region and signing many new bilateral and multilateral agreements. Gdansk University of Technology currently carries out cooperation with BSR partner institutions within around 70 ERASMUS agreements. Since the year 2000 GUT has spent around 2.5m EUR for the mobility of more than 1000 outgoing students and about 350 staff within educational programmes.

In the year 2012 our University and BSRUN organized Baltic Seminar for University Administrators on "Knowledge Triangle: Education, Research, Innovation", which gathered almost 80 participants from the region. The event created an opportunity for the participants to attend sessions and a round table discussion on new perspectives for the Baltic Sea community in education quality, commercialization, innovation, cooperation with industry, competences related to the development of the region based on cooperation between BSRUN Universities.

Gdansk University of Technology and our partner Higher Education Institutions in the Baltic Sea Region are aware that the sustainable development of this area, its economy and environmental protection are our mutual interest and concern.

Aniela Tejchman

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Russia's small business tax regimes

By Michael Alexeev and Robert Conrad

In order to promote faster development of small business, Russia, like several other transition economies, has been using special tax regimes (STRs) aimed at reducing compliance costs and the tax burden on small businesses. Russia has four different STRs, including one for agricultural businesses. All small enterprises, including legal persons, are eligible for a so-called simplified tax system (STS). Under STS the business can choose to be taxed either on a gross revenue basis at a 6% rate, or on a profit basis at a rate of 15%. Small businesses, again including legal persons, providing certain types of services may be taxed on a presumptive basis where the amount of tax is determined by activity-specific physical indicators such as the number of employees or the square footage of the trade area. (This tax regime is to be phased out by 2018.) Finally physical persons engaged in provision of certain services and whose gross revenue is below a specified threshold can be eligible for a "patent" system under which the entrepreneur pays a fixed amount independent of revenue or profits. As of 1/1/2013, the patent system has been modified giving the regions more autonomy in tailoring the charge to their own needs and in expanding eligibility. In particular, the maximum number of employees of a business using the patent system has been increased from 5 to 15. All of these tax regimes replace either the profits tax or the individual income tax (whichever is relevant) and the property tax. The STS also replaces VAT. All system are voluntary and small businesses can opt out of these tax regimes if they prefer to be taxed under the regular system.

Justifications for STRs for small business include reducing compliance costs for taxpayers and reducing administrative expenses for tax administrators which might result in little net revenue gain. Unfortunately, Russian implementation of STRs has serious shortcomings and the latest developments exacerbate some of the problems by expanding eligibility. Optional participation (and optional tax base under STS) provides an incentive for taxpayers to self-select into regimes that reduce tax. That is, holding compliance constant, regime choice leads to legal tax arbitrage. For example, under STS, high margin businesses would choose the gross revenue as a tax base while low margin businesses would choose net profit, other things equal. Also, businesses just under a patent threshold would benefit from the patent system while those with lower revenues would be hurt by it because the average tax rate decreases with profit. The results in different taxpayers paying different effective rates leading to significant economic distortions. Moreover, STRs provide disincentives for enterprise growth by imposing extremely high marginal rates at the eligibility thresholds. The same consideration provides incentives for splitting businesses and registering them under different owners in order to preserve eligibility. The thresholds based on the number of employees and the existence of a patent regime also strongly encourage reclassifying workers as independent contractors.

The eligibility of legal persons for STS and the presumptive tax regimes combined with difficulties of ascertaining true ownership of a corporation may result in large businesses taking advantage of tax breaks aimed at small businesses. This is exacerbated by the high eligibility threshold for STS in Russia (almost $1.9 million at current exchange rates). Thus, a number of related parties, might be created all of which are small businesses, reducing total taxes for the owners.

While the special regimes could indeed lower compliance costs of taxpayers who choose to comply, administrative costs might not be reduced. Eligibility thresholds need to be monitored and specialized skills need to be developed in tax administration because audit rules differ between regular tax regimes and special ones. Moreover, even significant improvement in compliance is not assured despite relatively low rates. For instance, taxpayers with employees are still expected to withhold taxes on wages paid. In addition, small taxpayers might be reluctant to be identified by the tax system no matter how low the effective rate. This latter consideration is particularly relevant in a country with high degree of corruption. It is not surprising that despite a favorable tax regime, small and medium enterprise (SME) sector in Russia remains relatively small even after 20 years of transition. While SMEs account for two thirds of private sector employment in the EU, the corresponding share for Russia in 2010 was less than one half. The total SME sales revenue in Russia is approximately the same as in the Netherlands and only 50% greater than in Poland.

We think the overall economic costs of STRs exceed their benefits. If, however, such regimes are to be preserved, they should target a much narrower group of taxpayers. Most important, the revenue threshold for STRs should be coordinated with the VAT threshold and legal persons should not be eligible for any STR. In addition, clear rules for distinguishing between employees and independent contractors should be developed and transition rules should allow for a gradual transfer of growing businesses from an STR to a regular tax regime. Such reforms may be politically difficult as the recently reversed attempt by the government to bring social tax on individual entrepreneurs closer to that paid for employees has demonstrated. Nonetheless, we believe that such reforms are important in the long run for improving Russia's tax system.

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Science Link adds value to BSR's industry and SMEs

By Johanna Aaltonen, Graham Appleby, María Fernanda Bocángel and Taina Laiho

Science Link is a project based network operating in the Baltic Sea Region (BSR). The network's function is to connect industry with science within Research, Development, and Innovation (R&D&I) of materials, to add to the competitiveness of the BSR. Within Science Link, the R&D&I of materials are based on applications of synchrotron and neutron radiation (a well known example of such a large-scale particle accelerator research infrastructures is CERN in Switzerland). In the BSR, they are located in Germany and Sweden. The main drive of the network is to make these German and Swedish top synchrotron facilities accessible for businesses and non-research users, and especially for Small and Medium Enterprises (SMEs), from all over the BSR. The network's ability to function has been tested by calling piloting companies in three open calls during 2012–2013, with outstanding results.

Science Link's geographical coverage includes Denmark, Estonia, Finland, Germany, Lithuania, Latvia, Poland, and Sweden, and there are a total of 17 involved organisations. Science Link is a multi-organisational performer, and operated by: 1) synchrotron and neutron facilities, 2) regional research infrastructures like universities, who support material science research and applications, and 3) Contact Points such as regional business development units, who know the contacts and needs of local industries. All of them are possible doorways into the entire expertise network.

The network is also a multifaceted performer, and serves not only limited industries. The involved radiation facilities are DESY, Helmholtz-Zentrum Berlin, Helmholtz-Zentrum Geesthacht, and Max IV Laboratory. Each facility employs Industrial Liaison Officers, who are physicists with a wide range of expertise of industrial cases. The entire network has been able to match with the needs of the Calls' applicants representing a varied range of industries, from life science, construction, automotive, personal care, chemistry, and engineering to agriculture.

In the Calls during 2012–2013, Science Link offered companies free, high-level supporting services and intensive consulting during the application phase, and if the company was approved, pre, during, and after the measurements within the relevant research facility. The companies were appointed a maximum of two days of free measurements. More than 60 companies from the BSR applied, of which 47 were approved and 70 % were SMEs. 17 approved companies have already performed the measurements with success.

Science Link has already added value to companies at society, company, and personal level. The main added value at the society level could be the more competitive role of SMEs in the field of R&D&I, and the simplified access to measurement time for industrial users. The project has also produced better access to information about the existence and possibilities of the facilities; face-to-face at the project events and consultations, as well as in the media and social media, and has popularised it.

At the company level, the relatively short manifestation time is important for companies such as SMEs who cannot wait for long-time profits. Pilot companies could simultaneously overcome the process of application for industrial measurements, their lack of workforce, and the financing, as the process were led and mostly resourced by the Science Link partnership. Most of the companies have been new users of synchrotron facilities, and the experience has encouraged some of them to continue the co-operation at their own cost, when they have realised how it works and what the facilities can do for their company, and manifold better and more cost-efficient than as ´R&D&I as usual´. Importantly, the companies have been able to directly exploit the research results of their Science Link measurements.

Furthermore, Science Link has offered companies tailored and personal consultations in their own native language, and face-to-face meetings with the personnel of regional contact points and research infrastructures. The Science Link network has been able to share the material science challenges with the companies and work side by side with them to develop better products and processes. The companies' contacts with Industrial Liaison Officers at the synchrotron and neutron facilities have continued the individual learning processes of the company participants, when they have taken part at the measurements at the synchrotrons. Personal contacts construct trust and confidence, and new entries are always personal decisions in the end.

The partnership has also shown success to the network operators themselves. This is why the goal for the near future is to make the network self-sustaining after the Science Link project ends in 2014, and develop a public-private financing partnership onward. Geographically, the area is also planned to enlarge, and will include the St. Petersburg region more closely.

The network is looking after new leads of industrial users and SMEs. The network is looking after new high-performers, who are interested in corporate entrepreneurship. The network is also applying for supporting public finance for a number of spin-off projects.

More information for example about the approved companies and their cases, and the Science Link project are available at: www.science-link.eu. The main part of the project finance is ERDF of BRS Programme 2007–2013.

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Sustainable exploitation of the Baltic Sea fish resources require integration of thinking

By Eero Aro

We agree that fisheries are at first economic activities, which are very much dependent on and interact with the ecosystem and other exploitable resources. The volume of the total annual fish catch in the Baltic Sea has varied last fifty years roughly between 600 000-1 000 000 tonnes (value of 480-690 million US$) This variation is caused by normal nature variation, population dynamics and by management actions taken.

The Baltic Sea fish community is dominated by three species i.e. cod, herring and sprat. They form more than 90 % of the total catch and round 60 % of the biomass in the system. The nature of the fishery of cod, herring and sprat consists mainly of single species fisheries. However, fisheries are closely connected as there are strong ecological inter-connections between the species. Cod is predating herring and sprat, and herring and sprat are competing on plankton food resources. Therefore, a management measure taken for one species will inevitably affect the other species, their abundance, distribution and economy.

The necessary decisions for future sustainable management of fish resources are driven not only by changes in the environment and population dynamics but also by the economic activities. On the other hand environment- and fisheries management objectives are many, covering ecological, economic and social dimensions, which are often conflicting.

Sustainability in fisheries management is a demanding goal for policy makers. It forms an integral part of maximum sustainable yield (MSY), which has become the chosen reference marker for European fisheries management under the new Common Fisheries Policy.

Most of the European fish stocks are now managed according to harvest control rules (HCRs), one of the key questions for the future. HCRs should contain environmental, economic, and social sustainability as well as the further definition of sustainability objectives.

As conservation targets of exploited fish populations are typically near those quantities that will maximize long-term sustainable yield (MSY) and best economic gains typically occur in the neighborhood of these same quantities. Thus we should not necessarily expect too much trade-offs between conservation and economic objectives, at least.

The evaluation of the Baltic Sea natural resources and their sustainable exploitation call for a new integrated thinking to take into account ecosystem components and processes like various habitats and marine protected areas, interacting species, system productivity, biodiversity, other ecosystem services, and many human activities.

Modern biological stock assessment models are rather sophisticated with regard to biological content, but they rarely account for economic objectives. On the other hand biologists have criticized traditional biomass models in fishery economics for being oversimplified and too general.

There is a clear political agreement that sustainable development of aquatic sector requires a comprehensive, ecosystem-based approach that looks beyond the traditional focus on yields and profits. To move toward this goal, aquatic and fishery systems must be recognized as being comprised of at least four subsystems that are connected in a powerful feedback loop – the natural system, ecosystem services, the management system, and the relevant socioeconomic system. Each subsystem in turn consists of complex components that deal with everything from multi-species population dynamics to multi-fleet fisheries, social dependencies and ecological interactions.

A next step in integrated assessment and management should be to include interactions between the fisheries sector, environmental issues and other sectors on a more regional scale. A global scale is not enough. This more regional evaluation framework of fisheries and ecosystem-based management should *inter alia* contain models with varying levels of complexity of the ecosystem and the fishery and socio-economic systems that would increase the understanding of the feedback between subsystems.

The goal of new integrated thinking should in the first place to alter the widespread present practice of assessing fishery biological subsystem in a very quantitative detail, while human dimensions and ecosystem services are considered only qualitatively.

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Context matters

By Henrik Meinander

Two things are frequently in mind if you live somewhere around the Baltic Sea: Russia and Germany. This includes also the Germans and Russians, who measure themselves either against each other or search for their point of reference more far away. However, for the rest of the Baltic people their lives between Russian-German poles have usually been exciting enough – to put it politely – and this bipolar world view has in much shaped also Finland and its people.

After 600 years as a part of Sweden this region often called Finland was joined to the Russian empire 1809 as a consequence of the Napoleonic War. Due to its Swedish laws and values, which were Northern variations of the German Lutheran culture, the Grand Duchy of Finland would from the start begin to develop into a state within the state. And when the driving forces in geopolitics, world trade and technological environment in the 1890's began to change the balance in European power politics more rapidly, this cultural gap between Finland and Russia widened swiftly and lead eventually to Finnish independency in 1917.

The Republic of Finland will thus after four years rejoice its 100 anniversary as an independent republic. This is certainly something worth celebrating, not least because the country was able to maintain its political system and western values also during the Second World War and Cold War Era. But when we look at the Finnish path to national sovereignty, parliamentarian democracy and a generous welfare state it is much too easy to explain it as a straightforward outcome of wise decisions taken by good Finns. In fact they were equally much chain reactions of various developments on macro level in European power politics, trade and technological change.

Take for example the declaration of Finnish independency in December 1917. The Finnish parliament would certainly not have taken this step, had it not been for two strong impulses from abroad. The first was the Bolshevik coup de etat in Petrograd, which sharply increased the criminality in the empire and raised fears of that the revolution would spread also to Finland. The second strong impulse came from the German government, which during the ongoing World War encouraged countries in the western parts of the Russian empire to declare their independency in order to force the Bolsheviks to peace treaty.

The development in Finland during the next 18 months was a terrible mess. First a tragic civil war, then a German controlled government, and finally a swift normalization of the diplomatic relationship with the Western victors of the war. The development would most probably have been much graver if the Bolsheviks had lost their grip or Germany would have won the war.

In either case Finland would have been dragged into a new empire. But now the newborn republic got its chance to find its domestic balance as a parliamentarian democracy and strengthen its defense, which paid well off during the next war.

Another obvious example of how the societal development in Finland has been framed, formed and facilitated by external forces is the postwar era, the golden age of the European nation states. Although a wartime ally with Germany, Finland escaped a Soviet occupation and built up a good relationship with Moscow. This made it possible for Finland to recover swiftly, find markets both in the eastern block and Western Europe, and fund its transformation into a Scandinavian type welfare state. However, this evolution would not have been possible without the sharp division of Europe, which cynically speaking was rather favorable for the Finnish industry. The socialist Eastern Europe was out ruled from the competition, whereas the EEC- block again was keen to maintain Finland as a Western society and was thus prepared to ease its export westwards.

The Cold War era was also in other respects a stable era for Finland. Never before or after has the Finnish culture and society been so strongly united around the imagined community called Finland. One reason for this was the fresh memories from the war, which made the Finns do whatever they could to avoid a new confrontation with the Soviet Union. The media technology was also very suitable for this. As elsewhere in Europe the national message was cabled out through a couple of state controlled TV-channels, which served "correct" interpretations of the political life on both the domestic stage and abroad.

There are many other examples of the strong impact of external driving forces in Finnish history. When the country joined the European Union in 1995 a new era of Finnish dependency began, which nevertheless has many similarities with earlier experiences of how the context dictates much of the content. If you want to know more about this, please read my short cut book *A History of Finland*, which has been published also in a number of Baltic languages![1]

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Finland

[1] Finlands historia: Linjer, strukturer, vändpunkter, Helsingfors & Stockholm 2006, paperback 2010.– **Translations**: Suomen historia: Linjat, rakenteet, käännekohdat, Helsinki 2006, paperback 2010; История Финляндии, Moscow 2008; Історія Фінляндії: Лінії, структури, переломні моменти, Lviv 2009; A History of Finland, London 2011,; Soome ajalugu: Suundumused, pohijooned ja pöördepunktid, Tartu 2012; Somijas Vesture: Linija, strukturas, paversienpunkti, Riga 2013.

Finnophobia replaces finlandization

By Veikko Saksi

In their early history Finns were brave. In the twentieth century reigned Finlandization. By the early years of the twenty-first century a sort of Finnophobia began to develop. Finlandization was adapting Finnish domestic and foreign policy to the will of the Soviet Union, even though the outside appearance of independence was maintained.

Finlandization was called by several names in the 1960s: silent "Satellization", running for Moscow matters, time of self-censorship or incompetence to select their own political leaders. Some people looked at Finlandization positively: skillful promotion of our own benefits, proportional victory of foreign policy, cold-bloodedness and competence of the administration, or reduction of dependency.

It does not pay to be proud of Finlandization. It was submission under the authority of a stronger state. A powerful example of this was the Agreement of Friendship, Cooperation, and Mutual Assistance.

A positive Soviet attitude was projected as the visible manifestation. Those politicians, people and representatives of the media who did not bow to the East, were anti-Soviet. It was an effective weapon that ended the careers of several people.

Finlandization had greatly influenced Finnish society in almost all spheres, although its grip has diluted during the decades. First the shackles slipped from people's grip, then gradually from the media. Lies or propaganda will not last indefinitely. The politicians in power are slow to become aware of this matter.

Not even the collapse of the Soviet Union in 1991 fully devastated Finlandization, although Finns dared to breath more freely and self-censorship weakened.

Finlandization is no longer the sole right of the Finns. Some Estonian politicians are "Finlandized", because they see that the Finnish politicians have managed to cooperate so well with Russia.

Germans are strongly "Finlandized". They are still whipping themselves because of crimes of the Nazi era, although they have apologized repeatedly for those actions, and compensated the victims. A German is afraid of political suicide, if he or she dared ask for a balanced treatment.

The Soviet Union and Russia have never made a genuine apology for Soviet crimes, not to mention compensation for their actions to the victims or returning the occupied territories. Yet the Russian people are "Finlandized".

At first Homo Sovieticus was cultivated in the Soviet Union. Now **Vladimir Putin** leads Russians with a powerful stance to accept the atrocities of **Stalin's** time as economically crucial. For instance, acceptance of the power vertical, widely spread corruption and managing by violation are part of this Russian "Finlandization".

"Finlandization" in Russia has not led to outside but inside bowing. The state leader is bowed to and feared. A Cossack leader was afraid of the collapsed Soviet Union so much that he refused to take back Cossacks' own land, even though the government offered it to him. This Cossack leader behaved exactly as Finland's president did in the 1990s because of the fear.

Finlandization is a passing folklore. It has now been replaced by Finnophobia, which means the Finnish fear of advocating for own rights and legal benefits. It is to invalidate their own achievements and leads to feelings of guilt for those crimes that Finland never committed.

Finnophobia is thus self-repression and claiming of guilt, the need to defend a stronger party's right to use pressure and to accept aggression against oneself. It has similar characteristics as Stockholm syndrome, i.e., to identify with the will of the oppressor.

Finnophobia as a concept is broader than Finlandization. It considers not only the Soviet or Russian attitude, it also insists Finns should support corrupt countries and financers of southern Europe.

Finnophobic people accept that violent treaties bind them and do not consider that it is allowed to try to change them peacefully. This means that, for example, the war guilt sentences, which are against the Finnish Constitution, or the return of Karelia, could not be opened, not even as a win-win event.

Englishmen have a good expression – chilling effect – which means ice cold and hamstring effect. This concept is often translated in Finnish as an atmosphere of fear. This is part of Finnophobia.

In jurisprudence the chilling effect means preventing use of one's constitutional rights. For this reason a significant part of the population do not dare to the use their freedom of speech.

Finnophobia can be described as a concept or an attitude. Attitudes will change and other people can affect them. Change is always a possibility. A Roman poet Horace articulated immortal words: *Sapere aude*, i.e., dare to be wise.

Using your own common sense to stop Finlandization and Finnophobia is a positive thing. It means adhering to a sound national identity that is ultimately possible only by accepting the truth.

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Gender equality the Nordic way – an asset in soft diplomacy towards the Baltic Sea Region?

By Helene Carlbäck

In contemporary political global discourse and practice, the degree to which a nation recognizes human rights has become a measure of civilization and democracy. It is an asset with which states can compete through techniques of soft diplomacy. In this connection gender equality should be mentioned as one of the basic democratic and human rights.
When the socio-economic and political systems of Eastern Europe and Russia were drastically changed after the end of the Cold War, Western actors could market values and transfer knowledge about human rights and democracy in the former communist states in a new way with fresh possibilities of exerting soft diplomacy. The Nordic countries have for long been regarded as maybe the most progressive among European countries in developing successful gender equality politics. Thus the new geopolitical situation in the Northern and Northeastern parts of Europe contributed to a niche opening up for the Nordic countries to work on the basis of cooperation with the aim of developing values regarding gender politics in their near abroad.

Since the 1990s the Nordic Council and the Nordic Council of Ministers have sought to promote gender equality in the Baltic States and Russia, specifically in the region of Northwest Russia. Recently, scholars at the universities of Stockholm and Södertörn in Sweden have set out to investigate the outcome of these efforts through a research project named "Mourning becomes Electra. Gender discrimination and human rights". The project asks questions to what degree influence can be attributed to the Nordic Council and its Council of Ministers in developing gender equality and if the methods applied are optimal in reaching the cooperation partners. According to the researchers, the Nordic countries have contributed much to the establishment of arenas for political recognition of gender equality, especially in terms of funding. Conferences and workshops have functioned as meeting places for scholars, experts, politicians, activists, trade associations and lobby groups on both the local and international level.

Regarding e.g. Lithuania, one report notes that a widespread opinion can now be challenged that all democratic changes, including the establishment of new democratic institutions, have come about under strong pressure from the EU and transnational agencies in exchange for EU and NATO membership. Instead the establishment of the Lithuanian Office of Equal Opportunities Ombudsman (EOO) is an example of how the Nordic Council of Ministers has played a significant role in building bridges between women's NGOs and local government. The same report concludes that Lithuanians have become more sensitive to public representations of gender, especially in commercial advertising. This is due to the EOO pressuring companies to change their portrayal of female inferiority, undue focus on physical appearance and women's eroticism as opposed to moral and intellectual values.

When it comes to Northwest Russia, a positive result of the Nordic-Russian cooperation is a growing awareness among local policy-makers and civil servants of the importance of gender equality and women's rights. The cooperation has facilitated the founding of many new women's rights NGOs, providing assistance with organizational management and encouraging political and educational activities. It has also helped increase the general public's knowledge about the legal and welfare systems of the Nordic countries and the international system of safeguarding of women's rights and gender equality. The report points to certain problems, however. In contrast to the intentions of the Nordic cooperation partners, most women's NGOs in Russia have been focused on charity and policies for the survival of certain layers of the population that were hit hard in the transition politics more than acting as independent organizations within civil society. Accordingly, they have been more interested in defending social rights, and less focused on promoting (Western) democratic values. The local authorities in Russia have also shown scant interest in the development of civil society and even less in dealing with women's NGOs. With the onset of a more authoritarian political regime in Russia during recent years, with attempts to reintroduce a more Soviet-style protection of women as mothers, the conflict between independent feminist organizations and local authorities' policies for the protection of women has became more pronounced.

Another problem being addressed is the somewhat asymmetric relations in the cooperation work in developing gender equality. Although statements to the effect that Nordic countries and the Baltic states and Russia shall promote jointly the Nordic dimension of gender equality, the underlying idea seems to be that the Nordic countries are best qualified to decide the political content of this Nordic dimension expressing their task in the following way: "Singled out as the most gender-equal societies in the world, the Nordic countries have contributed essentially to developing their Baltic neighbours' understanding of the goal of gender equality so we can truly work together to achieve it." Thus the mission of the Nordic countries in the cooperation reflects a certain effort to induce gender equality the Nordic way, a method that might be seen as counterproductive in the work of soft diplomacy.

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Baltic States – choices on citizenship and Western integration

By Li Bennich-Björkman

More than 20 years ago, the political leaders in the two Baltic States of Estonia and Latvia in the process of transforming from being part of the Soviet federation made some formative constitutional choices that as a consequence disenfranchised large numbers of the Russian-speaking minorities residing in the countries. These constitutional choices have come to affect the societies and polities in terms of integration, in particular in Latvia. In the process of moving from Soviet republics to independent states, these two – in contrast to the rest of the former Soviet republics – did not opt for what at the time was called the "zero-solution", basically offering citizenship to all residents living in the territory at the time according to a *jus soli* principle. Instead, the political majority of Estonia and Latvia decided to restrict entitlement to citizenship to those who either had been citizens before 1940 or who had close relatives who had been. This *jus sanguinis* principle was justified by legal arguments pointing to that what was being done was a process of restoration, and not creation, of these states. The constitutional choices resulted in an electorate dominated, and still so, by titular Estonians and Latvians, since in both countries the largest numbers of Russian-speaking immigrants had arrived during the 1940 and 50s. However, a larger minority of Russian origin that had settled before World War II resided in Latvia, which resulted in a more substantial Russian-speaking electorate than in Estonia. In Latvia, party politics have thus come to revolve partly around an ethnic dimension which still persists. Lithuania, the third Baltic State, in the end opted for the *jus soli* principle. Given her divergent ethnic composition with over 80 percent ethnic Lithuanians at the time of independence and a much smaller minority of Poles (around eight percent), Lithuania´s geopolitical and cultural situation was much less complicated.

The choice made by the then political leaders was clearly controversial at the time, and was questioned internationally if not from a legal then from a democratic point of view. In the years that have followed, citizenship and more broadly minority policies have belonged to the issues gaining most attention when the Baltic States are in focus, both in academia and in the more popular debate. The common knowledge regarding the motives behind the citizenship legislation has pointed out profoundly emotional considerations, a wish to revenge the Soviet occupation and to – at high costs –safe-guard national survival and culture.

I maintain that a more accurate historical description takes into account the fact that it was a *combination* of "emotional" motives and motives involving purely political calculations concerning how Russian minority voters would view integration with the West, or "geopolitical" motives, that led to the provocative position adopted in respect to the question of citizenship. Western integration quickly became a central question of great priority for Estonian and Latvian politicians. However, they regarded the Russian-speaking population as having a different agenda that in large part involved continued integration, admittedly as independent states, with Russia and the former Soviet republics. The processes of state formation in both of these countries thus involved explicit considerations in which the end – Western integration – justified the means chosen – restricted citizenship. Both Estonia and Latvia started membership negotiations in 1997-1998, and became both EU- and NATO members in 2004.

Was it right – in order, for example, to reach a goal that made NATO and EU-membership possible – to deviate from what many viewed as fundamental democratic principles? Did the exclusion of the Russian-speaking population work to prevent ethnic mobilization, such as the one that shook, for example, Moldova? The answers is not self-evident against the background of what we now know about the serious economic and political paths and ethnic conflicts that have left their mark on the majority of the new states – including Russia – that emerged after the demise of the Soviet Union. The two Baltic States comprise a remarkable exception in this regard. Moreover, NATO and EU-membership has had clearly positive effects when it comes to human and military security, including the creation of new opportunities to work in Europe not least of all for young Baltic Russians. These are possibilities that Ukraine, Georgia, and Moldova still strive after in vain.

When judging the choices made at the time of transition, the easy option is to condemn as is often done by Western academics and observers. However, that is to look away from the complicated geopolitical and demographical situations that faced decision-makers in these two countries at the time, faced with large minorities who for historical and cultural reasons felt greater affinity towards the Russian civilization than towards the West. Today, however, the two countries could well re-consider and allow for more generous citizenship legislation. Old loyalties have transformed as time has passed, and both Estonia and Latvia are embedded in the European and Western structures that the leaders once desired.

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How can the post-Soviet countries use the Belarusian subsurface regulations?

By Oleg Bukhovets

In summer-autumn in 2013 an acute conflict blazed up between “Belaruskali” and “Uralkali” which formed an alliance in 2005 to strengthen their positions in the international potassium market. The conflict has found a great resonance on the international level and it seems not to have been resolved yet. There are certain circumstances that make it difficult to predict if it can be resolved: “Uralkali” is a private company, run by Mr. Kerimov, a known Russian “oligarch” and a high-powered politician; and “Belaruskali” is like a “nationwide property” and it is of strategic importance for setting the Belarussian budget.

The latter circumstance has been the main reason for most Russians to support the Belarussian government taking a tough stand in the conflict.

What is more important is that the present conflict attracted the Russian general public and the community of professionals’s attention to the way Russia’s ample natural resources are being disposed of. In fact, most recently, in November 2012, there was held the VIIth All-Russian Congress of Geologists attended by nearly four thousand delegates and guests from 83 regions of Russian Federation and other countries.

A large number of reports which were made in the congress focused generally on expressing alarm over the condition of the Russian geology and subsurface management. Mr. V.Orlov, the President of the Russian Geological Society, described the major problems in the field to be solved as “black spots” for the country and the people.

Mr. E.Kozlovsky, Honorary President of the Association of Russian Geological Organizations, wrote in his article after the Congress: “right now we are 15-20 years behind on critical areas of advanced mining countries in the scientific and technical developments”. (The Russian Resourses, №4, March, 5, 2013, P.10). This understanding provided the “joyless consensus” that emerged at the Congress on the current state and the future of the Russian resource-raw sector.

The speakers were very tough about the current situation: “we are wasting resourses”, “the government is losing control”, “all gimmicks are useless”, “imminent danger”, etc. Mr. V.Orlov, the above-said President of the Russian Geological Society is firmly convinced that “if we are thoughtful of the future of the country, the restoration of mineral resources, it is essential to invest public funds”.

Mr. A. Natalenko, Chairman of the Board of Directors of NOVATEK, a highly informed member of the Congress, made a distinctive and dismal remark. In the situation, he said, when “the government is persistently late” with taking urgent measures, “the sector *degrades faster than we make decisions* (personal remark – O.B.)” (A.Fateev. Black Signs of Russian Geology. *Tyumen news. Parliamentary newspaper. No 201 (5643). 09.11.2012*).

In connection with such a bleak diagnosis of the Russian subsurface use, there is a reason to look at the experience closest ally for Russia in the post-Soviet space – the Republic of Belarus.

The Natural Resources Code of the Republic of Belarus was approved in 2008. Its key point is proprietorship on natural resources. What is the importance of the modern Belarusian regulatory version determined by? The point is that still starting with the "perestroyka" times and the next 10-15 years of independent existence of states USSR successors the idea of necessity and expedience of the most large-scale denationalization, in general and subsurface resources management, in particular has gained a vast ground in public opinion, expert groups and consciousness of élites in power. "Less governmental intervention!” - this is the lapidatory form the supporters of market fundamentalism have transformed the principle into. It's based on the idea that private proprietorship is the "heart" of the market economy widespread all over the world (especially in Anglo-Saxon countries). The famous Russian economist R. Grinberg ironically said at the Belarus-Russia "round" table in 2009 that the world financial and economic crisis has refuted this "general illusion". "Competition is the real heart of the market", he highlighted. (Belarusian Economic Journal. 2009. № 4. P. 40).

The Natural Resources Code 2008 has drawn a line on this legal matter which used to be long-lasting and has made people's mouth sore. Article 5 of the Code reads as follows.

1. “Natural resources are exclusively state proprietorship. The state exercises his rights of ownership, use and disposal of natural resources via authorized state bodies.
2. Resources can't be a subject to collateral, donation, purchase-sale, inheritance, contributions to charter fund and a subject to alienation in any form" (http://www.pravo.by/main.aspx?guid=3871<p0=Hk 0800406<p2= (NRPA).

In 2013 Belarusian legislators continued improving Resources Code: on April, 2 the House of Representatives passed the draft of “Law about introducing amendments and additions to Resources Code of the Republic of Belarus” and on April, 18 the Council of the Republic ratified it. After being signed by the President the new law was registered in the National register NCPA RB №2/2017 06.05.2013. The law becomes effective on January, 1, 2014.

Becoming effective this law will simplify both the procedure of allocating resources and using them. The law specifies the increase in terms of using resources for mining and using geothermal resources; cancels the limits to their mining, reduces the time and costs on execution of documents. The law pursues general reduction of the list of sites coming within industrial safety expert examination by the government.

The law also specifies the reduction of job specification on geological examination of resources if state geological examination of their project documentation is carried out. This will allow cutting costs of the Republic’s budget.

The law introduces the equality of opportunity while allocating resources sites for making both investment and concession contracts. In future this must ensure more investors getting involved in the exploitation of deposits, as nowadays investing activities based on making concession contracts are not in high demand as their terms are less beneficial as compared with the terms of investment contracts.

The new law simplifies the process of geological and mining leases for legal entities formed as a result of the reorganization. If the firm had already acquired the right to mine minerals, newly reorganized company will continue to

do the same on the basis of the application of the legal entity in accordance with the transfer or separation regulations.

After the entry into force of the Natural Resources Code 2008, the executive and legislative branches of Belarus were constantly engaged in monitoring its enforcement practices. The executive and legislative branches of Belarus took into account the enforcement practices and the justified proposals of subsoil users and amended the law. The changes and additions of the above-mentioned law reflect the liberalization of the Natural Resources Code.

However, in some important areas a legislator enhances the protective function of the government in the use of mineral resources. The government imposed restrictions and prohibitions on mining in the areas under special protection. The aim of such a protection is achieved by introducing a certain order of conservation and liquidation of mine openings because the procedures of liquidation and conservation of mines and underground facilities not related to mining and excavation differ in the nature and volume of work performed and in the possible impact on the environment.

Such a balance between liberalization and protectiveness of legislation on mineral resources is justified in the light of current global trends. The basic principle of the exclusive state ownership on the subsoil helps to maintain this balance. The foregoing aspects of the Belarusian legislation on mineral resources are especially important for the functioning of the Customs Union of Belarus, Russia and Kazakhstan, as well as for the future of Eurasian Economic Union. In fact, while these three countries produce now just 2.6 % of world's GDP and 4% of world's export, there are 9% of world's proven oil stock and 25% of natural gas on their territory (I.V.Khalevinski, V.B.Kudryavtsev 20 years of CIS. *World and Politics*. 2012. no 2 (65), February, P.53).

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Belarus is pregnant with charity

By Valentina Simkhovich

Socially responsible initiatives have been known in Western and Eastern societies for many years. The first form of social responsibility that was widely spread out in antique Mediterranean, later – in European countries, was charity. The result was that private business responsibility acquired a free will character and became seen through the prism of charity. Even today corporate social responsibility (CSR) and charity are often viewed as equal.

The Belarusian CSR practice in this regard is not an exception. Priority given to charity by home companies has the rational grounds for: the UNDP documents appropriate charity the highest CSR level. Most Belarusian companies start their way to CSR with charity projects, i.e. the forms supplied with their resources available and it complies with the world CSR practice.

Charity domination in Belarus has got another explanation. Socially oriented business was given the state support which was fixed by law acts and right there a growth of charity acts undertaken by businesses was noticed. The growth happened despite the economic crisis that according to the data of December 2011 poll revealed the businesses' positive attitude to the CSR practice in general. It was proved by their higher corporate social activities due to available possibilities and resources and increased charitable aid to those who are in great need under the crisis.

Figuratively one can say that Belarus is pregnant with charity and the latest realities prove its dominating position in Belarusian business social activity. Charity is realized in such forms as corporate philanthropy, charity marketing, social marketing, volunteering, sponsorship etc.

Of highest popularity among them is charity marketing, often called "percent policy". Many Belarusian companies transfer a certain percentage of their sales to accounts of various establishments – orphan or elderly homes, medical centers to buy drugs, equipment or cure the sick, help the disabled etc. The known examples of the policy are "Make good together!" act arranged by *Master's kitchen*, a frozen foodstuff producer, "Rainbow of Hope" by *Conte*-Spa, a hosiery producer, "Red Dress Collection" clothes' demonstration by *Mobile Telephone System*, a cellular operator, "Velcom Nice Numbers" charitable auction by *Velcom*, a cellular operator etc.

At the same time lack of simple and convenient mechanisms of giving aid is a certain barrier to charity wider development in Belarus. Its first aspect is in the fiscal area: lack of privileges and access to soft loans for business, complexity of paperwork of arranging donors' aid, indistinct understanding of whom and how to help etc. In particular, social projects are financed with the after-tax profits, and they are not the grounds to have any tax privileges or preferences. Moreover, due to mentioning in legislation the CSR events can entail different tax loading for the company.

The other aspect lies in legislation. Due to lack of the systems approach to regulating different kinds of charity, charity and its form of sponsorship are regulated by isolated normative acts, realizing various, sometimes contradicting each other, approaches to regulating charitable activity. They do not give a mono-semantic interpretation of the terms relating with charity, but put an equal-sign between charitable (gratuitous) and sponsor aid. The donors' right to render charity is restricted by a limited number of purposes. The only criterion is compliance with the purposes determined by law but often the purposes of gratuitous help do not comply with the purposes determined by law. The list of organizations in the development of which the state can see social benefit is too limited and includes only entities of culture, information, physical culture and sport. These and other restrictions mean that legislation more constrains than stimulates charity development in Belarus.

Domination of charity may hide a number of other problems. One says that companies, willing to demonstrate their social orientation, render help to the needed ignoring their personnel interests. It is not the situation in Belarus and the 2011-2012 sociological research revealed home businesses' understanding a connection between CSR and investments in personnel development (65%), bettering of working conditions (60%) and payment of high legal wages (49%). Willing to keep high quality employees under crisis Belarusian business did not apply to socially irresponsible restructuring, in particular to mass discharge of employees. Although large companies were the main source of unemployment in the republic, the prognostic indices of unemployment rate of 1.2-1.5% determined for 2012 by the State program of assistance of employment among the population were not exceeded.

Another problem is social dependence caused by charity. The Belarusian mass media inform of the people whose children have recovered thanks to charitable help but the still arriving money is spent by them on their personal needs – car purchase, rest abroad etc. In other words, using humanity of our society, some citizens are able to make profit on their own grief.

Despite its significance charity is a less favorable form of business and society interacting. As a rule, it is outside main business. For a company, it is costs in the short time while for the society it is money "fallen from the heaven".

But as a form of investing into a social idea charity reveals a certain economic benefit for business. A company's participation in the social life via arranging charitable acts and projects is an additional stimulus for customers, investors, society of the whole to pay attention to its produce and results of activities that entail increased sales, stronger brand and reputation position, higher investments etc. As development of any business should be coordinated with solving social problems, CSR programs, charitable ones among them, should be integrated into its corporate strategy of sustainable development. If a company views its social programs as social investments, these programs have a big positive effect for both business and society. In particular, an enterprise's aid to a profile educational establishment produces a higher effect than its support of education in general.

There are examples of strategic charity in the republic, as well. *EPAM SYSTEMS* corporation interested in training Belarusian IT-specialists equipped laboratories in Belarus State University of Informatics and Radio-Electronics and Belarus State Economic University with SAP software. In March 2013 *TOMS Shoes* corporation started a "Walk together" charitable project aimed at making shoes for the needed children in Grodno region. The project is part of the state program of creating the system of rehabilitative and preventive services to avoid social orphanage.

At the same time corporate strategy does not deny charitable aid to those who are in need. In this regard priorities are coordinated in the dialogue with key stakeholders. Charity should promote initiative, intensify the stakeholder's resources and, finally, change the situation but not create dependence. It should attract potential partners giving them a chance for participation. Anyway, it should be coordinated with priorities of the state policy.

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NATO occupies a half of Russia's foreign economic relations

By Kari Liuhto

The Russian military doctrine of 2010 identifies the expansion of NATO to Russia's borders as one of the main external threats of war (Moscow Times 8.2.2010). Contrary to Russia's military doctrine, Anders Fogh Rasmussen, Secretary General of NATO, said a year ago that the alliance does not present a threat to Russia, and furthermore, NATO currently does not consider Russia as a potential enemy (Sergei Vasilenkov, pradva.ru, 20.11.2012). Less than half a year later, Dmitry Rogozin, Deputy Prime Minister of Russia, who oversees the country's military-industrial sector, stated: "*We really need to understand what our strategic threats are, clearly define who our adversary is, what kind of adversary, and configure our Armed Forces and military-technical systems to counter those threats*" (RIA Novosti 20.3.2013). Russia's 2011-2020 arms procurement programme stipulates an annual upgrade of up to 11% of the military equipment (ibid). While Russia increases its military spending, several NATO members have simultaneously cut their defence budgets.

As an economist specialising in the Russian economy, I try to find an answer to this imbalanced situation through analysing the current state of the economic relations between Russia and the NATO member countries.

According to the statistics of the Customs Russia, the 28 NATO members account for a half of Russia's foreign trade. The majority of the Russian exports to the NATO countries consists of oil, natural gas, metals and other raw materials, and correspondingly, the NATO countries supply Russia with machinery and a great variety of consumer goods. Such an extensive trade would hardly take place among adversaries. Only the wildest conspiracy theorists suggest that the extensive trading is used as a means to destroy the counterpart.

The data of the Central Bank of Russia indicates that the role of the NATO countries as a source of capital and an investment target is more modest than the trade ties. A quarter of Russia's inward foreign direct investment (FDI) stock originates from the NATO member states and a third of the country's outward FDI stock has landed on the NATO territory. Before jumping into any conclusions, two essential issues should be kept in mind. First, if the tax havens and Cyprus, representing mainly the round tripping of Russian capital, would be excluded, the share of the NATO countries would be approximately 60% of Russia's inward FDI stock. The NATO stake in Russia's outward FDI stock would be even larger, close to 70%. Second, the capital inflows from the NATO countries to Russia are almost the same as the capital outflows from Russia to the NATO member states (approximately $ 120 billion each) i.e. both parties have equally gained in this money exchange.

According to the Russian Federal Agency for Tourism, the NATO countries account for nearly a half of the outbound tourism of Russians. In 2012, over 7 million Russian tourists visited a NATO country. If we look the reverse side of the tourism, it becomes evident that only a bit more than one million tourists from the NATO area travelled to Russia last year. In relative terms, however, the NATO citizens cover a half of the inbound tourism to Russia. This statistical peculiarity is due to the fact that the outbound tourism from Russia is six times larger than the inbound tourism to Russia.

The tourism flows, the emigration data of Russia, the information on Russians studying abroad and the location of the Russian businessmen's and politicians' residencies abroad show that Russians are not afraid of spending their time in the NATO territory or even sending their younger generation to be educated there. If NATO would be a genuine enemy, we would hardly witness such a widespread move of Russians to the NATO countries.

Russia's elder military staff and the personnel of security agencies have most likely spent less time in the West, which partially explains their reserved and antiquated attitude towards NATO. When the post-Soviet generation jumps into the boots, they will discover that the military threats have fundamentally changed since the end of the Cold War. A slight contradiction between the East and the West may still exist but they will find out that neither the West nor the East in particular is the same what it used to be during the Cold War. While having concluded so, one should be aware that there are strong interest groups inside Russia, NATO and elsewhere, which benefit from the NATO-Russia antagonism and hence are ready to a lot in order to preserve the illusion of adversary and by doing so maintain their revenues and influence.

When the economic relations between Russia and NATO are analysed as a whole, it becomes evident that about a half of Russia's foreign trade, foreign investment and foreign tourism are done with the NATO member states. The importance of NATO to the external economic relations of Russia is much stronger than Russia's economic significance to NATO. However, NATO is dependent on Russia as well due to Russia's large energy exports. Though the interdependency is by no means symmetric, it is hard to understand those views arguing that Russia and NATO are still enemies. One can ironically conclude: who needs friends if the economic relations with the foes are so good.

The accession of Finland and Sweden to NATO would further increase the economic relations between the Western military pact and Russia, since Sweden is a notable investor into the Russian economy and Finland's trade intensity per capita with Russia is the highest within the EU, excluding the Lilliput EU member states. Moreover, Finland is the 10th most attractive tourist destination for the Russians in the world. As Finland and Sweden are the most R&D-intensive economies in the globe, they could contribute to the on-going modernisation of Russia. Should Russia fail in its modernisation, the Russian Far Fast may turn into "*a raw material appendage of China*" as the Russian forefront professor Sergey Karaganov has phrased it (Russia in Global Affairs, 2.7.2011).

The appendage path will be a probable outcome if Russia has only one centre of external gravity. In order to avoid the Eastern appendage scenario, Russia will need both the EU and NATO as its second centre of gravity. The Eurasian integration will paradoxically fasten Russia's slide towards China, since most of the CIS states will decelerate Russia's modernisation pace rather than accelerate it.

It is easy to agree with Russia's Deputy Prime Minister Rogozin concerning Russia's need to understand its contemporary strategic threats and adversaries; sooner the better.

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The maritime agenda of the Rapporteurs of the Baltic Sea Parliamentary Conference on Integrated Maritime Policy

By Jochen Schulte and Roger Jansson

As the region's common element the Baltic Sea offers countless opportunities for cross-border cooperation. This is true for sustainable development, public health and social wellbeing and also for economic growth. The Baltic Sea brings together a labor force of 67 million people, representing 30.9 % of the total EU labor force. The Baltic Sea Region makes up over 25 % of Europe's economic strength and is responsible for one third of all European exports. Europe's maritime economy is innovative but is also confronted with a number of challenges: the effects of the global economic crisis of 2008, the accompanying decline of large parts of the seaborne trade, competition from new players, and a growing oversupply of tonnage.

As Maritime Rapporteurs of the Baltic Sea Parliamentary Conference (BSPC) we follow and report on developments in the field of Integrated Maritime Policy.

The Baltic Sea Parliamentary Conference is currently made up of 11 national parliaments, 11 regional parliaments and 5 parliamentary organizations around the Baltic Sea. The conference aims at fostering the common identity in the Baltic Sea Region and at facilitating the exchange of the involved parliaments with the other organizations at the international and interregional level. The Baltic Sea parliamentarians deal with common ecological, social, and economic issues, initiate corresponding political measures and accompany these. We held our latest annual conference in Pärnu, Estonia on August 25 - 27, 2013.

For us, the CBSS is a natural correspondent on governmental level. We as parliamentarians are also a transmission belt between public, executive authorities and specialists. Also for this reason one issue that we as Maritime Rapporteurs constantly deal with is the problem of how to optimize the framework for the maritime industry in the region to help its competitiveness. First and foremost there are changes to the Directive 1999/32/EC of 26 April 1999 relating to a reduction in the sulfur content of certain liquid fuels and amending Directive 93/12/EEC. The Council passed the directive in a vote on October 29, 2012. Parliament and Council agreed to adapt existing EU legislation to revised, stronger IMO regulations concerning the reduction of sulfur limits in marine fuels as from 2015 in Sulfur Emission Control Areas (COM(2011) 439 final). We have addressed the issue in a number of conferences and events, among others during a conference on the competitiveness of the maritime economy in the Baltic Sea Region, organized by the Maritime Rapporteurs on April 12, 2013 in Schwerin.

The stronger sulfur limits were background for a letter from the rapporteurs to the European Commission, HELCOM and the Council of the Baltic Sea States (CBSS), in which we made aware of the difficulties arising from different national state aid policies for the shipping industry. Only through similar implementation of state aid rules and incentives can we achieve a level playing field for the maritime industry.

The conference in Schwerin provided important input for the XI. Southern Baltic Sea Parliamentary Conference on June 2 - 4, 2013 in Schwerin. The delegations of 7 Southern Baltic Sea regions passed a resolution, which among others called for economic incentives for fleet rejuvenation, the facilitation of alternative ship engines and fuels, and a common approach to a liquid gas bunker infrastructure. These demands also found their way into the final resolution of the 22nd Baltic Sea Parliamentary Conference in Pärnu.

In our work as Maritime Rapporteurs we have also called attention to a number of other important legislative developments at the EU level, which are going to affect our own industries and those of countries that will operate in the Baltic Sea.

Very topical for our work is a Commission proposal for a regulation on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport and amending Regulation (EU) No 525/2013 (COM(2013) 480 final). In June 2013 the Commission had set out a strategy for progressively integrating maritime emissions into the EU's policy for reducing its domestic greenhouse gas emissions (COM(2013) 479). The strategy consists of three consecutive steps: monitoring, reporting and verification of CO_2 emissions from large ships using EU ports; greenhouse gas reduction targets for the maritime transport sector; further measures, including market-based measures, in the medium to long term. The proposal for a regulation would implement the first step in the strategy. It would create an EU-wide legal framework for collecting and publishing verified annual data on CO_2 emissions from all large ships (over 5,000 gross tons) that use EU ports, irrespective of where the ships are registered. Ship owners would have to report (at the latest as of August 31, 2017) and monitor (as of January 2018) the verified amount of CO_2 emitted by their large ships on voyages to, from and between EU ports. Owners would also be required to provide certain other information, such as data to determine the ships' energy efficiency. As of 2019 ship owners would be obliged to submit an annual report to the Commission and the respective national authorities regarding the emissions on board and any other climate-relevant information. As of June 30, 2012 all ships will have to carry a valid document on board, which confirms the correct reporting in line with the regulation.

In our talks with industry representatives it became apparent that the shipping sector has to contribute its fair share to global climate protection goals. However, the proposal so far seems to entail a disproportionately comprehensive obligation to monitor and report the aforementioned data. Furthermore, the monitoring would have to be verified by dedicated assessors, which further increases efforts and costs. The already tough competition between ship operators and builders and the rising fuel costs already induce a need on the industry to implement energy efficient shipping technologies. Furthermore, the Shipping Energy Efficiency Management Plan (SEEMP), a set of best practice measures for fuel efficient shipping, has been mandatory since this year. A contribution from the shipping industry to climate protection is only warranted, however within the parameters of what is economically feasible.

Another issue for the rapporteurs will be the forthcoming IMO decisions regarding the potential designation of the Baltic Sea region as a NECA area (Nitrogen Emission Control Area) from year 2021 onwards, whereby nitrogen will be restricted in the Baltic Sea. This is a scenario that the shipping industry must take into account.

A further issue on our agenda is the question of how to finance the technical improvements that come with the new environmental regulations. A lot of ship operators face the

problem of receiving increasingly less credits for new, energy efficient builds or energy efficient retrofitting of existing vessels. We therefore support the initiative by HELCOM to create a "Green Technology and Alternative Fuels Platform for Shipping", which would focus on the dialogue between the public sector and the private stakeholders, including ship owners, shipbuilding and marine design enterprises, manufacturers and ports, and the research community. High on the agenda will be the question of financial support schemes for the industry.

Among all the executive and non-governmental organizations in the Baltic Sea Region the Baltic Sea parliamentarians try to ensure that the voice of the legislative bodies is heard. We are your partner to work towards a healthy and prosperous Baltic Sea Region.

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The future of maritime regions around the Baltic Sea

By Janne Tamminen

Conference of Peripheral Maritime Regions (CPMR) is an organisation of 160 regions around Europe. The Baltic Sea Commission (BSC) is one of its six Geographical Commissions representing 26 Regions around the Baltic Sea. Maritime issues are one of the main policy areas on the agenda of the CPMR Baltic Sea Commission. For most of the Member Regions, the sea is a crucial factor economically, environmentally, culturally and historically.

For the CPMR Member Regions the sea has several important meanings. The sector of maritime issues is very broad, covering a whole range of different kinds of activities. Accessibility and transport are crucial issues especially for the Regions whose economy is strongly based on exporting industries. Gas pipes and oil transport, offshore wind energy production, cables etc. emphasise the role of the seas as a corridor between producers and consumers. The activities on the Baltic Sea are increasing all the time and the Regions are looking to the future, to see how to increasingly benefit from this use of the sea.

Then, of course, another big issue is how to protect the sea, if the risks are increasing at the same time. Tourism and other leisure activities, as well as fisheries, are dependent on the well-being of the Baltic Sea nature. That is the reason why the CPMR Baltic Sea Commission strongly supports all the new methods to mediate different interests and avoid potential conflicts.

Maritime industries are very closely linked to other maritime issues. There will be great opportunities in the future to create new and sustainable growth in maritime clusters. Better and more advanced technology is needed. That will surely also help to improve safety at sea and in coastal areas. Around the Baltic Sea there is a huge amount of expertise in this sector of industry. Long experience of winter navigation is a good example of the special skills that will have a high demand in the future, not only in the Baltic Sea but also in the Arctic Ocean. In this field the BSC, as well as the CPMR as a whole, will support the Blue Growth Initiative.

But we need to address how to handle this situation which may be a little chaotic and how to minimize the risks. With the European Union's macro-regional strategies there is the possibility to create tools to manage the ever-increasing maritime activities. The CPMR Baltic Sea Commission considers the EU Strategy for the Baltic Sea Region to be an important tool in promoting the most significant issues with regard to the Maritime Policy sector.

Maritime Spatial Planning and Integrated Coastal Zone Management have been high on the agenda of CPMR Baltic Sea Commission during the last few years. In line with the work carried out by the CPMR in that field, the CPMR Baltic Sea Commission will continue its debates concerning the next steps in the action of the European Union. This will be realised in particular in relation to the draft Directive published in 2013 by the European Commission, and with the work developed within HELCOM in relation to this issue.

Maritime safety is a big challenge while maritime activities are increasing. A serious accident or even a rather small oil leak could easily cause huge damage to all Regions around the Baltic Sea. The Member Regions of BSC will support all initiatives to improve maritime safety. Links with the initiative Baltic Science Park have been forged by the Regions and other organisations which were involved in the Baltic Master II project. BSC Member Regions are involved in CPMR activities relating to maritime safety.

In the CPMR´s Maritime Agenda, the main policy guidelines include: A better Integrated Maritime Policy; to develop a European Maritime Policy with a strong territorial and spatial dimension; better knowledge of the oceans and a "Blue Growth" strategy that combines existing and emerging sectors and Oceans and Coasts protected from accidents and pollution. The Baltic Sea Commission provides its own input to strengthen and involve these political issues and supports the synergies with all initiatives implemented by the CPMR in the maritime field. Just like all CPMR Geographical Commissions, the BSC will also take part in the work carried out on these policy sectors at CPMR level.

In parallel to these developments, the BSC will continue to structure its work on maritime issues, through a synthesis of its work, in order to contribute to the strengthening of a maritime vision for the BSC Regions. The idea to potentially develop a European project involving BSC Regions has been discussed in the framework of the BSC Maritime Working Group, and will be taken further.

There are a lot of different kinds of organisations and actors around the Baltic Sea. Many of them have their own membership structure, agenda and way to work. However these organisations want to achieve significant cooperation, not to raise competition! For example the BSC cooperates very closely with BSSSC in particular, the Baltic Sea States Sub-Regional Cooperation, which is a political network of all the regions around the Baltic Sea and Norway. In the field of maritime issues, the BSC and BSSSC have a common working group.

The EUSBSR, as already mentioned, is of course an important part of the work of the CPMR Baltic Sea Commission and also a practical framework for cooperation. Regions that cooperate productively will create an even better future for the Baltic Sea.

Janne Tamminen

Executive Secretary

CPMR Baltic Sea Commission

Clean Baltic Sea – the role of ports

By Gun Rudeberg and Chris Wooldridge

Eutrophication may be regarded as one of the most severe threats to the Baltic Sea as it affects the structure and functioning of the marine ecosystem resulting in algal blooms and in turn, reduced water transparency and oxygen depletion. Shipping contributes to the eutrophication through nitrogen air emissions, sewage and waste pollution. There is consensus that the maritime transport system needs to be optimised to meet the demands of a sustainable development. The challenge is recognized not only by regulators and environmentalists but also by the port sector and shipping industry themselves.

A series of credible options for future management were recently developed in the CLEANSHIP Project (www.clean-baltic-sea-shipping.eu) that was funded by the Baltic Sea Region Programme 2007-2013, where it was part of the Action Plan of the EU Strategy for the Baltic Sea Region's Priority Area 4 "To become a model region for clean shipping". At policy level, CLEANSHIP was considered a component of the EU Baltic Sea Strategy flagship project to "Promote measures to reduce emissions from ships and enhance the development". At the strategic level the project was designed to bring about harmonisation of environmentally related harbour dues, to contribute to the IAPH Environmental Ship Index, identify existing agreements between ports, and to develop systems for the supply of shore side electricity, gas and LNG, and the provision of sewage reception in ports.

It is widely acknowledged that both current and future environmental management must serve not only the conservation imperative per se but must also assist in delivering sustainable development. The various stakeholders agree that sectoral and industrial objectives cannot be achieved in isolation but that an integrated and collaborative approach is essential at all stages from policy development to effective implementation through practicable activity programmes. As ever, ports may be considered to be in a unique position both as critically important logistic nodes and as organizations well-placed to facilitate and assist best practice.

In terms of quality of the environment including ecosystems and sustainable development in general, ports have an ever-widening role in terms of the functional organization necessary to deliver environmental protection and improvement at the quayside, throughout the port area, in port-city links and as part of the Logistic Chain. Port authorities may have fixed liabilities or as Landlords may be considered to be in a position to bring influence to bear on a wide range of operators and tenants. Their Environmental Management Systems (EMS) must cater for the range of stakeholders and the demands for evidence of performance (see, for example, pprism.espo.be)

It is in the latter context that CLEANSHIP developed an approach so that Baltic ports could both assist shipping with the strategic objectives and actually demonstrate the Baltic Sea port sector's credentials by reference to an Index of benchmark performance.

1. EMS (input all 10)	2. Environment (Input any 5)	3. Shipping Aspects (Input 2)
• EMS	• Air & water	• Green Ship
• Policy	• Water quality	• Differentiated Fees
• Sector docs.	• Soil & Sediment	• Reception facilities
• Legislation	• Habitats	• Bunkering options
• Aspects	• Ecosystems	• Speed reduction
• Objectives	• Noise & Waste	• Virtual arrival
• Training	• Ship emissions	• Port infrastructure
• Monitoring	• Ship waste	• Automated mooring
• Responsibilities	• Carbon & Energy	• VTS
• Report	• Water	

Summary of the major components of the CLEANSHIP Port Index. It is an adaptable model from which an Index may be calculated based on responses to selected indicators: 1. EMS- indicates the Port Authority's own credentials; 2. Environment - is a list of indicators for monitoring, and 3. Shipping - lists areas where ports can assist with objectives through collaboration.

Many Baltic ports can already demonstrate a pro-active and high standard of EMS (see presentations and reports at www.clean-baltic-sea-shipping.eu and www.ecoports.com). Future challenges for the Baltic ports are likely to focus on the need to continue to demonstrate their benchmark performance in terms of environmental protection and sustainable development in a transparent and publically available programme to an ever-widening group of stakeholders ranging from international regulators to local communities. The sector's own policy-making organization, the European Sea Ports Organization (ESPO) continues to recommend the production of an Environmental Report, networking to exchange knowledge and experience, endorsement of its Green Guide (www.espo.be) and adoption of its EcoPorts tools (www.ecoports.com). All these measures are designed to assist its members to achieve compliance through voluntary, self-regulation, reduce costs and risks, and to deliver continuous improvement of environmental quality.

Independent detailed analysis of the benchmark performance of the Environmental Management of Baltic Sea port partners in the CLEANSHIP project provided exemplar best practice in many key areas and high benchmark performance in terms of implemented EMS. Although each port is unique in terms of its geography and commercial profile, experience to date confirms that a networked and integrated approach throughout the sector and in collaboration with its other, major stakeholders will be essential to effectively manage the impact of the wide range of aspects given the open system and trans-boundary dynamics of the Baltic Region. The scope for further development, implementation and application of the Port Index could be a useful tool in demonstrating the credentials of Baltic ports, tracking trends of environmental performance, and measuring the extent to which sustainable development is being achieved. Members of the Baltic Ports Organization (www.bpoports.com) and ESPO are well-placed to continue the research-led collaboration that has contributed substantively to the tool kit of options available to assist the maritime industry in the Baltic.

The authors acknowledge with grateful thanks the input from the colleagues in Pilot Project 5 of CLEANSHIP from the ports of Tallinn, Rostock, Turku, Trelleborg, Kalundborg, Oslo, Helsinki, and Stockholm. The cooperation of the Baltic Ports Organization was much appreciated and special thanks to the Project administrators and organizers in the Port of Trelleborg.

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LNG in Baltic Sea Ports Project

By Emil Arolski

About the Project

According to the EU's environmental and transport policies as well as the Baltic Sea EU Strategy (COM (2009) 248), the most negative effect of shipping is air emission. Thus, most of the ship owners operating in EU waters and sea ports would have to implement new internal strategies in order to meet the limits and emission criteria imposed by the European Union and other international organisations (e.g. IMO).

Moreover, a harmonised approach to the development process as well as utilisation of best practices is necessary on a European scale. One of the statements take into account the currently discussed Clean Power for Transport Package and the proposal for a Directive (…) on the deployment of alternative fuels infrastructure (COM(2013)18/2) which defines that "***publicly accessible LNG refuelling points are provided in all maritime ports of the TEN-T Core Network by 31 December, 2020, at the latest***".

Baltic Ports Organization has initiated 'LNG in Baltic Sea Ports' project as a response to the IMO's decision to establish new sulphur content limits in marine fuels sailing in Emission Control Areas (covering the Baltic, the North Sea and the English Channel) from the 1st of January, 2015. Liquefied natural gas is perceived as one of key solutions to meet the new requirements.

The main aim of 'LNG in Baltic Sea Ports', co-financed by the EU TEN-T Multi-Annual Programme, is to foster a harmonised approach towards LNG bunker filling infrastructure in the Baltic Sea area. Seven ports are involved in the project – Aarhus, Copenhagen-Malmö, Helsingborg, Helsinki, Stockholm, Tallinn and Turku. Each of the project partners is planning the development of port infrastructure to offer LNG bunker stations to ship-owners in the future. Port of Helsingborg has been appointed as a Project Coordinator by the Steering Committee and the Project Partners.

The works in the ports focus on pre-investment studies such as environmental impact assessments, feasibility analyses for LNG terminals or bunkering vessels, project designs, regional market studies, safety manuals, etc.

The results of the studies will allow starting the physical investments in infrastructure for LNG tanking. Moreover, project works include a so-called 'stakeholder platform' which will facilitate a discussion among various actors, such as port authorities, ship-owners, gas infrastructure providers, energy traders and bunkering companies. The platform will also welcome representatives from the North Sea who will share their knowledge and views on LNG.

The project's idea is meant to deliver both credible know-how on LNG as a marine fuel and an answer to the IMO's sulphur directive. This will also contribute to the realization of TEN-T Priority Area 21 (Motorways of the Sea) in compliance with the EU Strategy for the Baltic Sea Region – a model area for clean shipping.

Project Activities

The detailed objectives of Activities from 1 to 7 are:

- Initiate and finalise pre-investment studies in 9 ports in the Baltic Sea Region which will provide the necessary grounds for investment of LNG bunkering infrastructure;
- Speed up and secure fast development of LNG infrastructure;
- Achieve a coordinated and harmonised approach in the pre-investment phase leading directly to investments LNG bunkering facilities in the Baltic Sea Region;
- Contribute to a decrease in emission to atmosphere and make sea transport more environmentally friendly;
- Provide possibilities for knowledge exchange between ports working in the same direction
- Provide guidelines for LNG bunkering infrastructure in ports that can be applied by other ports in the Baltic Sea region and in other regions in Europe;
- Facilitate use of LNG as fuel by the shipping industry by developing a harmonised approach for LNG port infrastructure;
- Present "state- of-the-art" concerning continuous investments in LNG bunkering for shipping in the Baltic Sea Region and in Europe.

Activity 8 - "Harmonisation and stakeholder platform" has been included within the framework of the project. The aim of the harmonisation process is to secure a common approach between the pre-investment studies in the different ports. Harmonisation activity will be disseminated and the completion of the sub-activity will result in the publication of a LNG Handbook that will represent the Baltic Sea Region as a benchmark for implementation of LNG in other parts of the EU.

The main goal of the second sub-activity "stakeholder platform" is to secure a dialogue process and disseminate the information gathered between the various stakeholders and the participating actors within the action and beyond. The stakeholders' platform will gather the key actors from the Baltic Sea Region and other regions within the EU and North Sea region.

At present, development of "LNG in Baltic Sea Ports" project is progressing satisfactorily and according to plan. Full involvement of the seven participating ports is obvious and visible.

The project will end on December 31st, 2014, just one day before ECA becomes the daily bread in the region for us all.

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Possibilities for the use of LNG as a fuel on the Baltic Sea

By Stefan Jankowski

During the next few years, according to IMO regulations, all vessels must decrease air pollutant in the exhaust gases especially inside emission control areas (ECA).

In 1997 a new annex was added to the International Convention for the Prevention of Pollution from Ships (MARPOL). The main aim of the Annex VI "Regulations for the Prevention of Air Pollution from Ships" is finding a solution to minimize emissions from ships oxides of sulfur (SOx – Fig. 1), particulate matter (PM), nitrogen oxides (NOx – Fig. 2), ozone depleting substances (ODS), volatile organic compounds (VOC) and their contribution to local and global air pollution and environmental problems.

Fig. 1 Emission limit for SOx (IMO, Annex VI, the regulation 14)

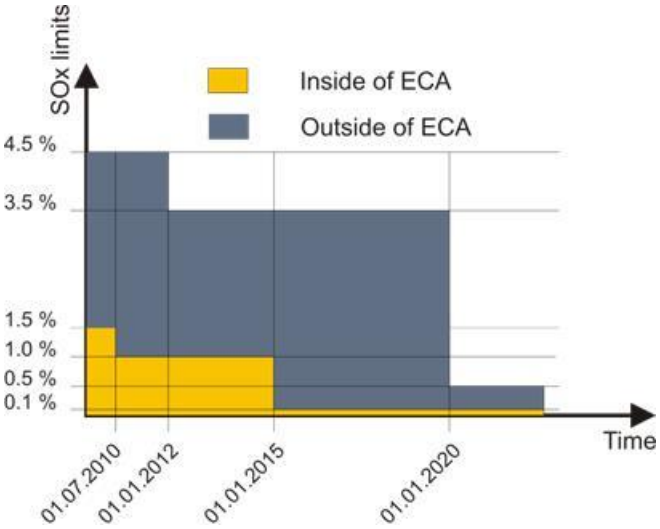
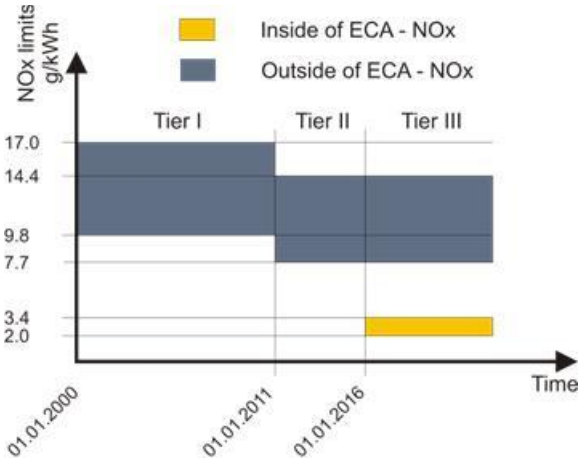


Fig. 2 Emission limit for NOx (IMO, Annex VI, the regulation 13)



Annex VI entered into force in 2005, but in 2008 was revised. The significant tighten emissions limits adopted in 2008, are gradually introduced from 2010.

In addition IMO has adopted mandatory technical and operational energy efficiency measures which will significantly reduce the amount of CO2 emissions from international shipping.

Currently Baltic Sea and North Sea are established as an ECA only for SOx, but everybody engaged in sea transport business should think perspectively. North America and from 1 January 2013 United States Caribbean Sea are SOx, NOx and PM ECA.

There is a high probability that new ECAs will be established (Fig. 3) or that the existing ones will be more restrictive.

Fig. 3 DNV's map of current and possible ECAs (DNV 2011)

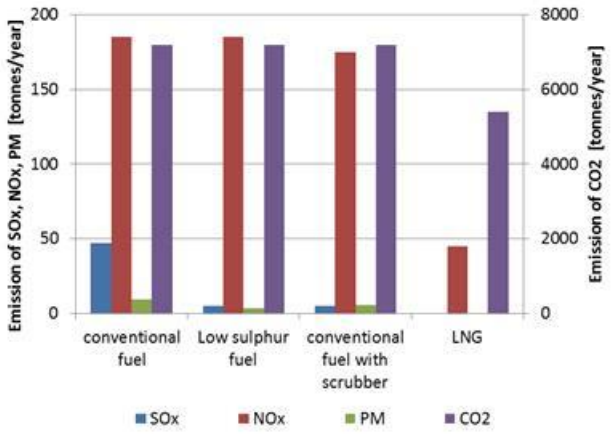
The review of existing engine technology and its development indicates that currently only three solutions are in accordance with SOx regulations. If shipowners wish to continue sailing on Baltic Sea after 2015 they have to choose (DMA 2012).

The first solution, **low sulphur fuel**, require only minor modifications on vessel fuel systems. The content of sulphur in a fuel like MDO (marine diesel oil) and MGO (marine gas oil) can be below 0.1%. The main disadvantage such a choice is limited availability of low sulphur fuel is that rising demand is expected to increase its price uncertainty.

The second solution, **an exhaust gas scrubber**, requires installation of an exhaust gas scrubber to remove sulphur from the engine exhaust gas by using chemicals or seawater. This technology require significant modifications on ship systems. Additional tanks, pipes, pumps, and a water treatment system. The sulphur-rich sludge produced is categorized as special waste, to be disposed of at dedicated facilities. Moreover, scrubbers increase the power consumption, thereby increasing its CO2 emissions.

The third solution is using **LNG** (liquid natural gas) as a fuel. Natural gas is the cleanest form of fossil fuels available (Fig. 4), and when fuelling a ship with LNG no additional abatement measures are required in order to meet the ECA requirements. However, an LNG-fuelled ship requires purpose-built or modified engines and a sophisticated system of special fuel tanks, a vapouriser, and double insulated piping. Available space for cylindrical LNG fuel tanks on board ships has been a key challenge, but new hull integrated tanks are expected to simplify this issue.

Fig. 4 Emissions of different fuel solutions for typical Baltic Sea cargo vessel (DNV 2010)



For new ships delivered after 1 January 2016, exhaust gas purification by Selective Catalytic Reduction (SCR) or LNG fuel are the only two currently available abatement measures to meet Tier III requirements.

LNG means liquefied natural gas. The natural gas is temporarily converted to liquid form at -163° Celsius, under atmospheric pressure. It takes up 600 times less space than as a gas, therefore it is more efficient for storage and transport

In addition LNG is clean not only in aspect of exhaust gases, but also in case of spill. LNG does not cause environmental disaster because in such a case it will evaporate quite fast. The main hazard in case of LNG spill, are frostbites due to extremely low temperature.

Taking account above mentioned three solution it should be said, that LNG is the best alternative in aspect of economic and environmental impact to Baltic Sea.

The cost of a new vessel equipped with LNG propulsion is higher about 10-20% than conventional vessel with similar gross tonnage. The additional cost is mainly due to the sophisticated LNG storage tanks, the fuel piping system and in some cases a slightly larger ship. Based on experience from ships built, the additional investment cost for the LNG fuelled typical Baltic Sea cargo vessel has been estimated to about 4 million USD. Estimated cost of scrubber installation should be around 1 million USD. Taking these assumptions into account and forecasting price of marine gas oil (MGO) in 20 years perspective the lowest exploitation cost are in case of LNG vessel.

In order to enable navigation of vessels using LNG as a fuel, a grid of bunker stations is required. An average period between bunkering for the LNG vessels today is about one week, and vessels should have possibilities to obtain LNG in one of the ports during their trips. Currently the LNG infrastructure on Baltic Sea is very weak.

The number of import terminals is not enough to provide a supply of LNG for every route on Baltic Sea. They should operate rather as a hub of LNG and distribute it to small scale bunker stations.

In case of decision about building new import terminal, it belongs to government in order to securing energy independence of given country, but decisions about building small scale LNG terminals or bunker stations, depend on market. Currently there is no LNG bunker stations on Baltic because there are a small number of LNG powered vessels, and lack such vessels is a result of lack of bunker stations. It seems correct that at least at the beginning, the bunker stations should also have a political support.

MarTech LNG – “Marine Competence, Technology and Knowledge Transfer for LNG in the South Baltic Sea Region (SBSR) is one of the projects which aims are dissemination of LNG technology by exchanging experiences, knowledge and competencies within SBSR. The project supports the activities related to LNG technology, promotes LNG as a green energy and the cleanest marine fuel. Main idea of the project is to create a better access to technology and knowledge on LNG related business activities to build up a better competences and specialization among the SBSR maritime business supply chain.

One of the first tasks of the project was region study in terms of existing education, research, training and consulting institutions providing activities related to LNG technology. Based on this analysis interactive map were created (Fig. 5).

Fig. 5 . LNG activities on Baltic Sea

LNG is one of the best solutions for Baltic region to protect environment against pollution caused by conventional fuels. Now is the time for owners to decide which solution to choose to be in compliance with the MARPOL Convention. They will choose LNG, if on Baltic Sea the LNG infrastructure will exist. Unfortunately it seems that without political support, building infrastructure may be difficult.

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Maritime spatial planning – a new layer in integrated marine management

By Gonçalo Carneiro

Six decades ago concerns began to be expressed in the USA about the increasing pace of anthropogenic degradation of many coastal areas. The problem was not only one of growing exploitation of coastal spaces and resources, but more importantly one of lack of coordination of the planning and management of this exploitation. The response came in the form of the world's first statutory coastal zone management programme, codified in 1972, a fundamental element of which consisted in mechanisms for harmonising and controlling the development of human activities at the coast.

Developments were slow in the years that followed, including in the USA.The relevance of cross-sectoral marine management was raised sporadically in academic circles, but concrete action was scant. The 1992 Rio conference proved instrumental in reviving the interest for and a commitment to a global agenda for integrated coastal and ocean management. In its wake, that decade saw important conceptual and institutional developments in both coastal zone management and international oceans governance. In the US the federal coastal management programme was revived, and at the end of the decade the EU launched its demonstration programme to test novel approaches to integrated coastal zone management. The international oceans agenda culminated in 1998 being declared international year of the ocean, something that provided several countries the momentum to adopt national ocean policies coordinating all activities related to the marine and coastal environments.

These efforts at institutionalising integration were not easily matched by a *de facto* transformation in the planning and management of human activities at the coast and at sea. Coastal zone management continued to be bound by the regimes for terrestrial land use planning. Despite successes in some specific environments – e.g. estuaries and coastal wetlands – and in raising awareness of and knowledge about the specificity of coastal environments, coastal zone management has seldom achieved the statutory independence that it once aspired to. Activities at sea, on the other hand, remained largely in their segregated planning paths, harmonisation occurring only in those cases and areas where it proved necessary. Proactive, anticipatory and integrated planning remained – and remains – for the most part elusive.

On the ground, evidence of environmental degradation continued unabated. In global fisheries, for example, the 1990s mark the consolidation and recognition of the decay of most fish stocks, the collapse of the Newfoundland cod fisheries constituting but one in many examples of grossly inadequate fisheries management regimes. Environmental degradation continued to mount in the world's coasts and seas in tandem with growing human population and maritime uses.

The expansion of activities with exclusive claims for maritime space in the late 1990s and early 2000s – notably offshore energy installations – was to revive the long-held interest for spatial planning of sea areas. The concept was not new, as spatial measures had been used to regulate human use of the sea for several decades. Examples included safety zones around fixed installations, regulated fishing areas, or measures for regulating navigation such as traffic separation schemes, areas to be avoided and places of refuge. Also in marine conservation, zoning was a mature concept already then and had been applied to control human activities and the respective impacts on marine ecosystems in different protected areas. The novelty of maritime spatial planning (MSP) as it emerged in the first half of the 2000s was that integrative planning – i.e. one planning for all sectors, instead of one planning per sector – should serve cross-sectoral objectives – i.e. the objectives of all sectors and not only of selected few should be represented in the planning process. Again, the underlying concept of the spatial ordering of the sea was not new – so-called 'sea use planning' having been discussed at least since the late 1970s – but it was not before the early 2000s that a clear justification and the necessary technology came together and opened what has since been a particularly fertile field of research and practice.

Maritime spatial planning is in many respects an adaptation of terrestrial physical planning to the sea. Some important differences aside – notably that of ownership, which is fundamental to planning on land, but is absent at sea – the two processes share several important commonalities. Both serve to harmonise claims on shared spaces and to steer and control future developments; both should represent the views of relevant claimants and be adaptive to how these change with time; and both should harmonise the cumulate anthropogenic pressure with the capacity of the natural environment, ideally on a scale matching that of key ecosystem elements. The planning process is ideally one that supports the resolution of incompatibilities between different claimants in both space and time for the benefit of society as a whole. A key end product is a spatial representation of current and future uses of the sea.

Methodological developments in MSP have proceeded at a fast pace in the last half a decade, propelled largely by academic institutions. Pilot and research projects have emerged throughout Europe, which has been at the forefront of this development. Several states have also engaged with MSP, but only in very few cases has this evolved into statutory processes. Larger-scale initiatives, such as that of the US and Canadian federal governments and of the EU – where a joint coastal management and MSP directive was proposed last spring – have so far exhibited limited progress, be it for lack of interest, insufficient preparation, or outright opposition by member state governments.

Industry has shown varying commitment. While sectors such as offshore wind and to a lesser extent offshore mariculture have been keen to promote MSP as a means of securing space for their own development, the more traditional sectors for which freedom of the seas remains paramount and which have traditionally held a privileged role in maritime space allocations maintain a cautious distance to MSP. Initiatives are in place at different scales to engage industry in MSP – that of the World Ocean Council being one of the most prominent – but it remains to be seen how they succeed in attracting shipping and fisheries to the MSP table.

The current impetus to MSP carries both risks and benefits. An important risk is that it diverts attention and resources from other marine environmental measures that remain urgent, notably those pertaining to the impacts of land-based activities and of climate change. On the other hand – and this is what this text has tried to highlight – if one regards MSP primarily as a process for harmonising different interests with one another and with the carrying capacity of the marine environment, it will benefit the long-standing commitment of marine environmental managers worldwide towards integrated management of coastal and marine resources.

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e-Navigation – a key for safe, efficient and sustainable shipping

By Michael Baldauf

Ensuring and increasing safety

'Baltic Ace' – 'Corvus J',' Almeria' and' Lisco Gloria' four ship names each of which stand for a sample case of an accident: a collision, a grounding or a fire on board ended up in the successful evacuation of all passengers but the total loss of the ship – three sample accidents that recently happened and are in our minds when we think about the future of sea transportation. The International Maritime Organization (IMO) aims for safe, secure and efficient shipping on clean oceans. Research and technological development is looking for solutions to avoid accidents. However, although there are numerous sophisticated safety systems installed on board ships as well as ashore in dedicated traffic management centres in order to avoid such events or to minimize the consequences of any accident, the number of accident seems to constantly remain on a high level. Between 2004 and 2010, each year approximately 100 accidents happened only in the Baltic Sea. Are the safety systems not sufficiently appropriate to support captains, pilots, navigating officers? How can e-Navigation help to increase safety and simultaneously contribute to make sea transportation more efficient and environmentally friendly? e-Navigation is a holistic concept defined as

'… the harmonised collection, integration, exchange, presentation and analysis of maritime information onboard and ashore by electronic means to enhance berth to berth navigation and related services, for safety and security at sea and protection of the marine environment.'

One of the aims of e-Navigation is to harmonize and to standardise systems to ultimately make the mariners' job easier, therefore reducing the risks of collisions and groundings and to avoid pollution of the marine environment respectively. It should be realised by integrated onboard navigation systems "that benefit from integration of own ship sensors, supporting information, a standard user interface and a comprehensive system for managing guard zones and alerts." It is quite obvious that such systems will have strong effects on safety of navigation and the protection of the marine environment as well.

In the last two decades a number of technological improvements addressing specific safety related aspects. New pieces of equipment and enhanced and sophisticated systems were introduced onboard and ashore as well to primarily contribute to more safety. We can mention e.g. Automatic Identification Systems (AIS), we can refer to the introduction of Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (S-VDR), on Integrated Navigation Systems (INS) and Integrated Bridge Systems (IBS) and many more pieces of equipment that are today state of the art. Maybe Electronic Chart Display and Information Systems (ECDIS) can be seen as one of the major cornerstones of all these developments and systems that have been introduced rather as sole and stand alone systems but need to be integrated all together into an overall framework in order to make them working and performing at its best and to materialize the inherent potentials – like making all the instruments of an orchestra sounding perfect. The e-Navigation concept is exactly about this and is to help all the human operators on board the captains, pilots, navigating officers, engineers or the VTS and SAR operators ashore to fulfil their tasks they are responsible for.

e-Navigation – bringing together technical systems and human operators

e-Navigation applications like e.g. enhanced anti-collision displays, dynamic tidal and current information integrated into ECDIS but also completely new services as e.g. route broadcast and rote suggestion services for enhanced traffic management and coordination are about to be developed, demonstrated and tested. However, it is very well recognized that also training requirements will rise. From ongoing research it is concluded that there is a need to pay attention not only to the potentials of the new systems and their options to display and highlight safety related objects but moreover and particularly also to the constraints and the corresponding consequences for sophisticated presentations including processed and linked information and even warnings and alarms. The operators must be much more aware and must know about the details of the limits of any system used for navigation.

From research projects like e.g. ACCSEAS it has become obvious that the users e.g. wish to have more sophisticated harmonization of alarms and warnings when navigating in shore-based monitored areas. Warnings triggered by the collision and grounding avoidance system ashore and onboard must be harmonized in order to avoid confusion and unnecessary communication. The minimum level of harmonization should be in using harmonized approaches when training and educating the end users. On the other hand as e-Navigation also addresses harmonized presentations, users support the idea of standardized human-machine-interfaces. Research clearly proves that standardisation helps to make training more efficient than it is today, when e.g. type specific training is required for certain pieces of equipment.

New technologies have to be integrated into the training programs. In the European ADOPTMAN project new enhanced manoeuvring support modules have been developed and tested in a ship-handling simulator environment and lead to the parallel development of new tools to enhance the training and education. e-Navigation will not only make use of modern simulation-based functions but also will improve training and education as well. In the 'TeamSafety' project a multi-dimensional simulator has been developed in order to improve team training for maritime safety related subjects for complex scenarios as e.g. a fire onboard a RoRo-Passenger-Ferry that also includes the actions to prepare the evacuation and coordinate the shore-based support.

Conclusion

The e-Navigation concept is obviously a driving force for safe, efficient and sustainable shipping in the future. It not only effects technical and technological developments but also maritime education and training. The research partners, dealing with the ambitious e-Navigation concept, need to also consider the training issues. ACCSEAS and other e-Navigation related projects are therefore continue their work with further surveying and studying the situation and want to develop ideas and derive suggestions and recommendations on how to design e-Navigation training in order to materialise the benefits and to make the new services working efficiently from the very first moment of its introduction into the real world.

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The international legal framework of MONALISA

By Proshanto K. Mukherjee

MONALISA is the acronym for Motorways and Electronic Navigation by Intelligence at Sea. It is a visionary concept designed to make a tangible contribution to maritime transportation in terms of safety, efficiency and environmental protection. It has a two-fold objective: one aimed at contributing in a concrete way to safe, efficient and environmentally protective maritime navigation and the other to focus specifically on EU strategy in the Baltic Sea Region.

The work relating to the legal framework of the MONALISA project was spearheaded by the Swedish Maritime Administration (SMA) and the research and preparation of the report was undertaken by the author of this paper a Professor of Maritime Law at the Faculty of Law of Lund University assisted by Olena Bokareva, doctoral candidate and Nut Sillwatwinyoo, LL.M. graduate. The report is very comprehensive and the discussions on the multifarious issues are detailed and thorough. The project itself is technologically highly innovative which poses challenges to the traditional and well established legal regimes pertaining to sea navigation. The report addresses the relevant issues by recognizing the formidable hurdles and attempts to overcome them through critical legal analysis.

The salient features of the MONALISA Project are depicted through four activities. These are as follows:

- Dynamic and Proactive Route Planning (DPR) otherwise known as “Green Routes”;
- Electronic Verification of Officer’s Certificates;
- Ensuring the Quality of Hydrographic Data on Shipping Routes and Areas;
- Global Sharing of Maritime Data.

The central core of DPR, and in essence, the MONALISA Project itself, is the concept of sea traffic management (STM) which is akin to air traffic management (ATM). It is anticipated that STM will offer a new service facility known as the Sea Traffic Coordination Center (STCC), similar to air traffic control centres (ATCC) in aviation. The STCC concept will provide new processes and methodologies for communication of information between ship and shore, and ship-to-ship. Apart from DPR the second, third and fourth activities mentioned above are equally significant. This Report focuses only on the legal issues relating to the salient features of MONALISA.

One of the key concerns regarding the acceptance and implementation of MONALISA internationally is the potential conflict with certain aspects of UNCLOS particularly in relation to the notion of freedom of the high seas and flag state sovereignty over its vessels on the high seas. Closely associated with UNCLOS issues pertaining to the rights of coastal, port and flag states are issues relating to maritime safety and protection of the marine environment. While UNCLOS provides the basic legal framework for both these matters, the specifics are contained in the two principal IMO Conventions SOLAS and MARPOL. In particular, the SOLAS provisions dealing with navigational safety, have an impact on key aspects of MONALISA since SOLAS largely contemplates control of high seas navigation being in the hands of the shipboard navigators whereas MONALISA envisages the concept of DPR which is a shore based advisory system but final navigational decisions are left to be decided by the ship master. The object is to improve navigational safety and minimize environmental damage through the institution of “green routes”. There are also implications for the application of the COLREGS.

Another area of potential concern is the second activity mentioned above which can be viewed as an intrusion into the flag state’s exclusive authority over certification requirements of officers serving on board its ships. However, the end objective of this activity like the first one is to facilitate maritime safety and not to cause an impediment. It is well-known that human error is a primary cause of accidents at sea and that inadequate seafarer qualifications contribute to accidents and environmental damage caused by ships. In monitoring seafarer qualifications MONALISA introduces the concept of the smart card which despite a potential conflict with the existing regime relating to seafarers, can be of great practical usefulness. This innovation has implications for the application of the STCW Convention and the newly adopted Maritime Labour Convention.

Through the MONALISA Project there can be better quality of hydrographic data for the use of ships which in turn can contribute to better navigational safety and protection of the marine environment. Indeed, global sharing of all maritime data serves the same purposes globally as well as in the Baltic Sea Region. The potential conflicts of MONALISA with the extant international legal framework are not irreconcilable. The ultimate aim of MONALISA is consistent with the objectives of the international maritime community to promote maritime safety and protection of the marine environment, and therefore, it should be viewed in positive light by all concerned, especially the international bodies responsible for shipping and its legal framework.

Given the fact that the project encourages and instigates the global community concerned with maritime safety and environmental protection to recognize the legal implications of this technological advancement in the field of sea navigation, it is hoped that new avenues will emerge that will reconcile the innovations with the traditional legal regimes which govern navigation at sea at the present time. The role played by Sweden as a Baltic Rim state in this MONALISA initiative is an inspiration to all and the contribution of the Lund University Law Faculty to the realization of this aspect of the project is exemplary and intellectually rewarding for the author and his two associates who have assisted in the work.

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Using modern web-based solutions in connecting marine industry professionals

By Mikko Varjanne

People are used to using web-based solutions in their private life over the years since Internet and web-shops have matured. It is pretty safe to say that you are one of the persons who are already used to using different online tools in your private life. The reason for saying this so confidently is because it applies to most of the people.

Nowadays companies are able to serve their clients' needs better by utilizing modern Internet solutions, information reachable by web-services and being active in the online world. Many shops and services are available easily online without the loss of precious time and energy, regardless of time of day and place. What once was consumers searching for a physical place to buy goods is now searching for the product itself. Why search for a company that makes or sells coffee makers, when you can search for the coffee makers themselves and find multiple solutions from different companies to take your pick? It is easy to understand, if thinking about the standards of today. The demand for these kinds of solutions is easy to see, when simply reflecting your own life. Intensive work life, pressure to accomplish in short time and price-consciousness are rather common characteristics for today's individuals.

The individuals meet this same phenomenon at work. Professionals work with tight time schedules and tight budgets which create constraints but still the tools remain quite the same. This is the case at least in the industries where processes have stayed the same for decades. Old and proven methods create certain standard and sometimes it is hard to see outside the box.

Telex and its later version telefax revolutionized the ways of written communication in the modern business world especially when they were a norm in the 80's. Later, Internet and emails enabled mass delivery of information. This lead into environment where we are today, the amount of data and accessible information is enormous. For an individual, this mass of information might create difficulties in chaos-like information flood. However, the more mature Internet becomes, the better the information can be filtered. Like consumer's way of shopping, business information can also be handled in an effective way.

Maritime industry is a business, where standards and regulations give strict directives to shipbuilding and ship operations. Material manufacturers, sellers and service providers need to know and follow these regulations in order to serve the industry. Sourcing and selling in this special niche industry has been expensive and time consuming in global and scattered environment. This has caused, in some cases but not always, an overlapping value chain, which creates higher costs and consumes time and loss of information in the process. Transparency, easy access to verified information, concentrated marketplace and low cost tools, which are well known and proven in the business to customer -environment, can help even in the business to business environment.

Like a home owner, who wants to source for a new home, an industrial buyer should have a free tool to make sourcing easy and fast. Homeowners go to geographically selected portal, or in global business, to a niche portal such as vacation home portal. The buyer usually is prepared to spend money and therefore should have a free access to data given by those who have products and services to sell to the buyer in need. An open marketplace, with as low transaction costs as possible can create the transparency and efficiency needed. Supply can meet demand, without non-value adding middlemen. Looking at the value chain with holistic perspective, the value is added by the manufacturer of a product and the service is given.

Keeping these simple needs in mind, we have created a modern solution to arrange the data in the industry. SHIPSU is a web-based service, which has many roles in the maritime industry. It is an open marketplace for the shipbuilding and marine operation professionals. Open information about products and services with references and specifications like in a web-shop usually seen in business to customer sales, SHIPSU creates transparency in a unique way.

For a company making purchases in the field of maritime industry, tools like this makes it possible to source for even the most customized solutions from a large global network of providers. On the other hand, providers of maritime services and products can have a cost-effective tool to meet the demand. In addition, collecting big data from different operations done in the internet and in the service can be beneficial, when used properly for customers. Naturally the change to a completely web-based sourcing solution can take a while and, that is why also a professional team available to aid in the sourcing process is needed behind the service.

SHIPSU has a consistent goal to be the world's largest database for maritime industry products and services with nearly 100 000 products to be sourced by a network of nearly 75 000 buyers in thousands of industry's recognized organizations. This will not happen in weeks or months, but follow us to see it happen in the near future.

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Containership gigantism – reaching the limits of uncertainty

By Raphaël Baumler

In July 2013, the largest containership ever began its operations. Once more and since 1996, the Danish company Maersk sets containership standards by launching triple-E class which means "Economy of scale, Energy efficient and Environmentally improved" design. Soon after, other companies declared their intention to embrace the race to gigantism. For the time being, this strategy of economy of scale seems successful. The Ultra Large Container Ships (ULCS) category is expanding in size and number. An economic approach (reduction of container slot price) combined with an environmental communication policy (reduced air emissions by slot) justify this tendency.

However, ULCS ships do not exist in isolation; they integrate existing transportation systems having their own inherent restrictions. Indeed, to benefit from their size, each segment of the supply chain must acquire the appropriate dimension to accompany the move to gigantism. In short, ULCS forces landside adaptation in order to maintain smooth and efficient flow of operation. Ports need to be geographically shaped and prepared to accept such monsters. Berth and storage facilities, appropriate port equipment, and adequate structures are vital to avoid impairing the expected competitive advantages of ULCS. The need to adapt the complete transportation system combined with geographical and technical constraints have serious impact on ULCS operational flexibility. Today, few ports meet ULCS demands. So optimized operations are difficult to achieve in many other ports. Consequently, the range and possibilities of deployment of such ships are reduced. To cope with the shipping gigantism, large port and hinterland investments are required to avoid cargo supply disruption and to optimize load as well as reduce excessive time in ports. But, unlike shipbuilding, port modification and supply system transformation may take years and considerable efforts in many countries. This situation may destabilize the adequacy of port and ship dimensions.

In addition, intrinsic uncertainties on ship's load may endanger their resilience. Effectively, the present container trade is characterized by a permanent inability to accurately assess cargoes, particularly in terms of weight distribution and container contents. Several casualties have demonstrated the lack of consistency between the actual cargo declaration and the real content of the containers. After the 2007 foundering of the *MSC Napoly*, the investigation conducted by the Maritime Accident Investigation Branch (MAIB) in the UK unveiled, *inter alia*, that 20% of the containers analyzed "were more than 3 tonnes different from their declared weights." With such levels of uncertainty on container weights, total cargo weight and distribution of masses on board cannot be established with confidence, which jeopardizes the risk management on ships. Despite their quality, the on-board computerized loading systems reach their limits with data quality inputs. Without proper supervision possibilities, the crewmembers in charge of the safe loading become blind and have to rely on unverified data. Therefore, the seafarers are unable to adequately assess and manage the risks associated with the cargo. So, despite the onboard efforts to preserve ship's stability and integrity, the weights distribution uncertainties affect the overall strengths applied on the ship structure and raise the level of risks. Repeated over time, this situation may endanger the ship resilience and endanger the ship itself.

Other investigations following incidents and accidents showed that other serious issues affect containerships. Misdeclaration of dangerous goods constitutes one of the main risks affecting safety. Fire and explosion causing extensive damages have been observed. In addition, several security issues have been documented. In this respect, in its 2012 report on Maritime Transport and Destabilizing Commodity Flows, the Stockholm International Peace Research Institute (SIPRI) highlighted the growing use of containerization to traffic of arms. SIPRI declared that control deficiency in the container trade permits unlawful activities to flourish. Drug, waste and human trafficking have also been reported. Moreover, on larger ships, the amount of containers carried increases uncertainty levels and may seriously affect ships' resilience – e.g. the absolute weight gap between declared and existing weights increases mathematically with ships size as well as the potentially harmful contents locked behind container doors. Coincidence or misfortune, during the first half of 2013, two of the largest ULCS suffered casualties - engine flooding on *Emma Maersk* and container fire on the *Eugen Maersk*; and two serious disasters affected container shipping during summer 2013 – the split and sinking of the 2008 containership MOL Comfort in June and the total loss of the Hansa Brandenburg after a fire in July. These consecutive accidents question the safety of poorly regulated traffic of containers.

The inconsistent or lack of controls of container weights and contents find its reason in the willingness to avoid trade disruption. In the investigation report on the Annabella in 2007, the MAIB summarized the issue: "While key industry players will attest that safety is of paramount concern, evidence obtained during this and other MAIB investigations into container shipping accidents suggests that in reality, the safety of ships, crews and the environment is being compromised by the overriding desire to maintain established schedules or optimize port turn round times."

In conclusion, the economic and commercial calculation justifying gigantism may be caught up by world realities. Unsuitable transportation chain and inadequate container control may generate serious operational hazards. Without adequate integration of uncertainties affecting the container trade, proper risk management mechanisms and mitigation measures cannot secure nor ensure ship safety and security. In this respect, industry leaders and countries demonstrated their willingness to solve some issues related to misdeclaration of containers during the last meeting of the Sub-committee on Dangerous Goods, Solid Cargoes and Containers at the International Maritime Organization in September 2013. While the industry tends to gigantism and therefore require an ever increasing level of accuracy in its operations, the identification, assessment and management of uncertainties become paramount for vessel safety and environment protection as well as for business preservation.

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The current and future needs of postgraduate maritime education

By Neil Bellefontaine and Ilias Visvikis

During the last few years, following the financial crisis that led to the amplification of the risk exposures and volatility in the market, to the decrease of profitability, and to the magnification of competition pressures, the shipping industry has recognised the need for maritime professionals with specialised knowledge and skills, following the international standards and practices, that they will further contribute to the development of the industry.

The specific need is directly related with the structural changes that have occurred in the international shipping industry, where maritime professionals must cope with the excessive competitive environment, take important decisions under a limited amount of time and with insufficient information, follow newly-established safety and security regulations, design fleet employment and chartering strategies that aim in cost minimisation, and follow the business cycle by timing the purchase and sell of expensive assets (vessels), amongst others. It has become clear, more than ever, that in order to meet such needs and requirements, academic knowledge should be combined with the practical experience. A postgraduate degree, can, therefore, reassure that maritime professionals have the theoretical expertise and academic education that together with their practical background to undertake efficient decision-making in the shipping industry.

Furthermore, this need has become rather a necessity, as with the freight rate market at historical lows, with the bunker fuel prices - representing about 60%-70% of operating expenses - at unprecedented highs, and with vessel prices depleted, profitability has been deteriorated. Topics, such as, commercial and technical risk management, investment appraisal and alternative sources of shipping finance, mergers and acquisitions, fleet and routes optimisation, cost-effective budget control, energy efficiency, corporate social responsibility, and maritime sustainability, among others, have already ranked highly in the agendas of practitioners operating in the shipping environment around the world.

Postgraduate degrees have become a common necessity in the last few decades. A postgraduate degree in the maritime field can safeguard that the above topics are covered in detail, that the required education is assessed, and that knowledge is widely disseminated across the shipping industry. Such degrees should be able to apply the acquired theory into business practice. Research should also be part of the curriculum of such degrees, as research results today lead the changes and the new knowledge creation of tomorrow.

As an example, the World Maritime University (WMU) serves for the past three decades as the apex institution of postgraduate maritime education and research for the sake of human capacity building on behalf of the 170 International Maritime Organisation (IMO) Member States (www.wmu.se). WMU aims to be the best postgraduate University for maritime education and research, and endeavours to educate the maritime leaders of tomorrow. As of 2013 WMU has to date graduated 3,657 students from 164 countries.

Today, WMU is an institution that provides its students with privileged access to and understanding of the operation and decisions of IMO; an institution where over 100 international experts and professionals – both resident and visiting staff – from around the world provide a high-level education and research network; an institution which gives its students direct and extensive access to the most modern technologies and methods in marine transportation and administration used in the industrial world; an institution which carries out a wide range of maritime research, with many projects involving partners from around the world; and an institution at the centre of the global network of maritime institutions, experts and practitioners. These are the attributes that make postgraduate education at WMU unique and have the highest essence for the global maritime community.

Moreover, since 2006, WMU has led approximately 90 Professional Development Courses (PDCs) for almost 2,000 maritime professionals in various locations around the world, providing mid-career updating and knowledge sharing for maritime professionals. The blend of academic expertise and hands-on practical experience can be immediately applied in the workplace. Finally, to further cover the aforementioned needs, WMU is considering plans to launch in partnership with two other universities an Executive MBA in Shipping (EMBA), with the aim to provide motivated and skilled graduates for the maritime industry, prepared with the abilities, and knowledge needed to compete in the shipping industry. The EMBA program will combine operational training in shipping knowledge with the use of managerial theories and practices. The graduates of such a postgraduate degree will be ready and well equipped to staff managerial corporate positions in the wider maritime cluster.

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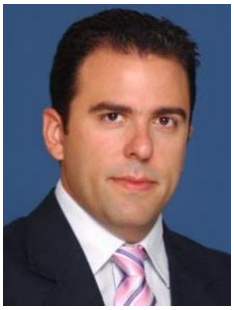

Current trends in the Polish maritime industry

By Urszula Kowalczyk

Development of maritime sector in Poland is influenced by several factors, especially the globalisation and integration processes in the world economy and seaborne trade. Fluctuation observed in recent years in the world shipping had signifficant impact also on Polish martime economy.

The problem of SOx emission is a hot issue for the whole maritime sector and Poland is no exception. The costs of adapting the tonnage to new regulations are very high, for example installing the scrubber is up to millions of 5 million PLN. Not only shipowners have to face the challenge, but also sea ports will be forced to introduce adequate technological solutions. The adaptation of different technologies, the cost of installations, cost of fuel production and the reaction of fuel producers have are of key importance for Polish ports considering their determination of changing the cargo handling structure.

Following the increasing global interest for LNG as an alternative fuel, also Polish ports and maritime transport operators have to challenge the high costs of ships deployed in ECA areas, increasing costs of transport services, shift of cargo from sea to land transport means, decreasing competitiveness of local and regional carriers on the benefit of global carriers and especially with the probability of less interest in Polish sea ports and more focus on the South European ports.

The Port Authority of Szczecin/Świnoujście is participating in the largest Polish project focused on energy supply – the LNG terminal in the port of Świnoujście. The LNG terminal in Świnoujście shall be completed before the end of 2014. The terminal will be prepared to receive natural gas carried on board of ships from any part of the world. There are over 22 such terminals operating in Europe. The terminal in Poland will be the only such installation in the South-East Baltic region. The terminal will be prepared to receiving and regasification of liquid natural gas.

The construction of LNG terminal in Świnoujście includes also bunkering facilities and a special gas storing tank will be constructed. The investment shall be rewarding within the next years and that is also the point of view of other Scandinavian and West-European ports, where the ships will be fuelled and smaller gas tankers supplied with gas to be further distributed to smaller ports.

In line with global trends in maritime transport Polish ports are focused on adapting their cargo handling capacity and port infrastructure to the market requirements. Container terminals in Polish ports are developing their capacity and investing in modern equipment. Deepwater Container Terminal in Gdansk is un questionable leader among Polish container terminals.

In 2010 the container turnover in DCT Gdansk grew by 180% and the terminal became one of the fastest growing terminals in the world and in January 2011 one of 15 strategic ports of Maersk Line. In 2012, DCT container handling grew by another 40%, to nearly 1 million TEU. Already in 2011, when Maersk Line's first E class type vessel Emma Maersk called DCT Gdansk, the carrier and the terminal set a new standard for servicing the Polish market and introducing innovative solutions in cargo transport. In August 2013 DCT Gdansk was hosting the world's largest container ship - the first Triple-E class ship Mærsk Mc-Kinney Møller on her maiden voyage from Asia to Europe. It proves that DCT Gdansk is ready to service ultra-large container vessels in the Baltic Sea region. The event can also be considered as an unquestioned milestone for the entire Polish container business. Poland has become an important link in the transport chain connecting Central and Eastern Europe with Far East. Being one of only 14 world's ports capable of handling the Triple-E, DCT Gdansk confirmed its role as the major Baltic hub port.

The development plans of DCT are focused on building a 2.5 million TEU extension, which will increase the terminal's total capacity to 4 million TEU p/a by 2016. This will place Gdansk among the top-10 ports in Europe able to serve the new generation of largest vessels in the world from both Maersk Line and other carriers.

The Port of Gdansk and DCT in particular, have also a unique chance of development in relations to the sea-land transportation corridor linking Northern and Central Europe and subsequently linking both Southern and Eastern regions: the Balkans and Turkey. Also the on-going construction of the Pomerania Logistics Centre, will be highly beneficial for DCT. Thanks to that corridor, of which the ports Gdansk/Gdynia are important nodes, as well as the motorway A-1 and the rail lines E-65 and CE-65, many industrial centres along the corridor will gain an access to those ports and to many nodes abroad, especially to landlocked countries, like Austria, Slovakia or Belarus.

The port of Gdansk investment activities include also the construction of storage facilities for liquid fuels and oil derivatives. Following the agreement with the Belgium operator "Sea Invest" and the British company "Arcelor Mittal", a dry-bulk terminal ultimately dedicated to the distribution of both exported and imported goods across the entire Baltic Sea region has been decided. The considerable potential for growth in the deep-water part of the port through the construction of new piers on the land reclaimed from the sea will enlarge the port's dry bulk cargo handling capacity up to 12 million tons p/a

The current deep crisis in the shipping sector is forcing the shipbuilding business to look for other field of activity. Polish shipyards, like other European giants, have lost their competitive position, but they are still involved in the construction of smaller vessels and supply units. The ship repair sector in Poland has been more resistant to the impact of the turns and twists of the shipping market, in comparison with the Polish former national pride - the shipbuilding industry. Currently the most profitable business is in offshore and wind farm constructions. The company Remontowa Group, along with several affiliated companies and subsidiaries, is the leader amongst European ship repair yards and a major player on the world market, specialized in ship repairs and conversions, design and construction of new ships, offshore units and steel structures. Every year, over 200 vessels and offshore units from all over the world, are repaired or converted at Remontowa. In 2010 and 2011 it has been listed the third in Europe (after Germany and the Netherlands) with 10-11% share in European market.

Despite several obstacles in the world shipping environment, the performance of Polish maritime sector, especially the port,s in recent years is satisfying and their financial results are reflected in new investments and development of infrastructure.

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Maritime sector stakeholders and new regulations

By Alari Purju and Eva Branten

The article applies the typology of stakeholders to discuss governance issues of maritime sector. In very general terms stakeholder is any agent (individual, group, organization, public institution etc.) who can affect decisions of other agents or is affected by their decisions. The classification based on three attributes, legitimacy, power and urgency, is applied here. The legitimacy is attributed to stakeholders that have a legal, moral or presumed claim on the issue. Power belongs to stakeholders who are in a position to influence the decisions of other agents. The urgency is related to a possibility or to a need to demand immediate attention due to crucial impact of respective issue on the results of agent´s activities. To be a stakeholder means that there is either a legitimate claim, there is an urgent problem or crises which should be solved and there is more or less power to influence respective decisions. The position of different groups of stakeholders is dynamic. Situation, changes in political system and also regulations could change nature of the claim of one or another group of stakeholders. The stakeholders themselves are active in improving their position.

The legal framework for vessel traffic is tightening, the sulphur emission regulation which will be introduced from 2015, giving the most recent example. The main regulation which will be adopted with this directive is that the proportion of sulphur in fuel should be not more than 0.1%. The limit has been 1.5% up to 2010 and 1.0% after 1.7.2010. The requirements introduced by the sulphur directive have been an activator of stakeholders and are considered here as an important aspect in depicting position of stakeholders in maritime sector. The article uses the structure of Estonia´ maritime sector stakeholders as an example.

The definite stakeholders are those who possess power, legitimacy and urgency. The definite stakeholders in Estonia´s maritime sector are government agencies for the reason that they have power and legitimacy to act and also urgency is related to the need to introduce respective legislation which is foreseen by international commitments. The shipping companies are definite stakeholders in relationships with other partners in the maritime sector because their decisions on shipping lines are framing crucially the flows of traded goods. Especially important are the routes of ocean lines in framing the global cargo flows. The ports visited by these shipping lines are destinations of reframing transport flows into smaller lines and cargo handling companies adjust wishes of their clients about ports of arrival of goods to availability of options provided by shipping lines.

The *expectant stakeholders* are those who possess two of the three attributes and imply more active relationships with the company. Ports, cargo handling and shipbuilding companies are all in different ways dependent on the new requirements. Ports have to develop new infrastructure to serve waste treatment. Cargo handling companies have to adjust their services to new conditions taking into account also additional costs. They have to be ready to redirect trade flows from sea to land with increasing share of car transportation from and to continental Europe. Shipbuilding companies should develop new products taking into account new technical conditions. All these industries have legitimacy of claims because the new regulations have a quite substantial impact on their business activities. They all are legitimate stakeholders with urgency claim, but with limited power to enforce it. Building of alliances and appealing to the values of decision makers are their relevant strategies and for that reason they are dependent stakeholders. At the same time they have certain limited tools to have influence on certain decisions. State-owned ports are important sources of tax revenue and they have some power in economic decisions which have impact on other companies (sale or rent of capacity for terminals). Cargo handling and shipbuilding companies create also tax revenues, provide employment and demand for services of other industries. Local governments have impact on certain concrete decisions like sale or rent of additional land for ports. At the same time, they are dependent on tax revenues (income tax connected to inhabitants of local government and land tax connected to its territory) created by these business activities. Associations of Maritime Sector related activities are urgency and legitimacy of actions because they represent companies which are very directly influenced by the new regulation. They have access to government agencies but their direct power is limited and they can act as a lobby group intermediating information between the government agencies and companies. Local communities and environmental groups have urgency and legitimacy for actions but their impact is even lower and they could make their voice heard through local governments or state agencies.

The latent stakeholders possess only one of the attributes – legitimacy, power or urgency. In Estonia´s maritime sector trade unions, citizens and academic institutions are actors with legitimate claims but without power or demand that require immediate actions and they are for those reasons stakeholders at the discretion. Citizens have the claim to environment conditions, including conditions of sea, but their direct impact on solutions is limited and their demands could be considered first of all if they were presented by intermediating bodies. The environment related problems are urgent for local communities living in areas close to the sea coast or/and industrial constructions of maritime industry. Academic institutions have legitimacy and obligation to examine environmental conditions and develop technology for industries, but their impact depends on access to political decision making and urgency for particular businesses.

Media belongs to the subtype of stakeholders with relative power. At the same time the faith of maritime industry is not an extremely urgent topic for media and as there could be only medium to long term processes dealing with critical issues and providing solutions, the media is very often not patient enough to go into details. That makes from media a dormant stakeholder, that is, to the extent they are willing or able to use their power. Tourism industry is dependent on certain services provided by the maritime sector but for them also substituting products are available. The future generations naturally have legitimacy for reliable environmental conditions but especially in the countries with relatively pragmatic short and medium term approach to business activities and the related use of natural resources the urgency and power are limited in taking into account of their interests.

The agents related to maritime sector activities have to take into account new conditions. The legal framework for vessel traffic is tightening. Current fleets need to be reviewed and renewed, which means getting rid of old tonnage and making sure that the rest meets the new demands regarding environment and fuel efficiency. This means retrofits, conversions and new buildings, which again provide business opportunities for the shipyards in the region. These business activities are dependent on different public services and regulations like safety and security related services and regulations, environmental conditions related issues (regulations and required improvements in technology). One impact of this dependence is that a big number of different stakeholders are involved and would like to see their values and preferences followed in governance process. Clarification of positions and possible roles of stakeholders makes visible rules of the game and patterns of possible outcomes.

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SmartComp – Finnish perspective through national consultation days

By Sari Nyroos

SmartComp - Smart competitiveness for the Central Baltic region project aims to unite the maritime clusters of the region, i.e., Estonia, Finland, Latvia, Sweden, and to strengthen existing networks as well as to create new ones in order to improve competitiveness of the sector and to create sustainable growth possibilities for the sector through triple helix cooperation. The strategic focus of the SmartComp project work package three is to create fruitful environment for companies to cooperate and innovate in the Central Baltic maritime cluster. The work package three, led by University of Turku/Centre for Maritime Studies, comprises organizing of two international and six national (two in Estonia, Finland and Latvia each) SmartComp consultation days. During these consultation days the participants brainstorm for new ideas on promoting competitiveness of the maritime sector in the Central Baltic region. This article focusses on the Finnish national consultation days' discussions and conclusions.

The first Finnish, national SmartComp consultation day was arranged in Turku on May 27, 2013, analysing the Finnish maritime cluster strengths and competitive assets. As a result of group discussions it was concluded that the Finnish maritime cluster's competitive advantages are based on comprehensive, broad knowhow, including material and equipment technology, engineering and specialized knowhow. In addition, project management with smooth and reliable deliveries can be considered as a particular strength.

Whereas, weaknesses of the Finnish maritime cluster, based on consultation day group discussions, include the incoherence of the cluster and the fact that companies are more and more led by foreign owners with entirely economic interest. Further, it seems that even too much effort is put on the high product standards, when volumes, however, make more difference in the global markets. It was widely considered that the public funding system should be developed to better support the companies. In addition to the fact that the funding system appears to be highly fragmented, the processes of utilizing it are far too complicated for SMEs, in particular. The system should be developed in order to be able to practically support companies to swiftly establish new inventions.

Another issue dealt with in the Finnish national consultation day's group discussions in May was the question on possibilities of utilizing the Central Baltic region cooperation in order to strengthen the national maritime cluster. It was discussed that there are several Finnish companies operating in the Central Baltic countries and vice versa, but little attention has been paid on expanding the cooperation across the countries. Green and arctic technologies, for example, were mentioned as possible areas of expanding the cooperation. The key issue discussed, however, was that improving and developing the cooperation within the national cluster should be the priority, first. The networks should not be based on traditional subcontracting chains, but encouraged to function in more horizontal cooperation. The whole business culture should be changed to become more open and encouraging towards innovativeness, seeking for new production technologies.

The second Finnish, national SmartComp consultation day was held in Turku on September 19, 2013. The cooperation potential between maritime industry companies and research institutes in a national perspective, as well as national maritime cluster cooperation as an asset to conquer global markets were discussed.

The second consultation day was chaired by professor emeritus Pentti Häkkinen, opening the day with his own presentation and views on maritime cluster competitiveness. Competitiveness, in particular, is the key question when talking about preserving jobs on national level - whether in high-level expert positions or jobs in production - this is what professor Häkkinen brought up right in the beginning. The working group investigating the competitiveness of the Finnish marine industry considered the arctic knowhow and offshore industry as the most potential fields to base the future perspectives on. Professor Häkkinen stated that these are both worth putting an effort on, but should not be entirely trusted on, bearing in mind the tight competition in the target markets. Further, the working group puts emphasis on the Finnish marine industry network concept as a particular strength. Even there professor Häkkinen reminds that trust in national cooperation networks and innovativeness is prevailing elsewhere in Europe, as well, not only in Finland.

A critical question was courageously raised up by the audience on whether there are possibilities to survive for the Finnish marine industry in case all the manufacturing activities would be transferred elsewhere, and only the expert design and planning phase would be conducted from Finland. No particular positive expectations were laid on regarding preserving national jobs and know-how in this case. In general, professor Häkkinen reminded that SMEs are playing a larger role in the Finnish labor markets in the present circumstances where the ownerships of large companies are more and more running into foreign hands.

Through various company cases representing Finnish SMEs that were heard during the day, an observation was made that employees in SMEs seem to be more motivated and innovative than in larger companies. Also, the operative management in SMEs is clearly more present and available in the everyday working environment than a director in a large company. The background combining the various company cases was clearly an enterpriser having a clear and determined vision that has been put forward with persistency - often through trial and error - encouraging the personnel throughout the years to absorb the initiative atmosphere to work hard with motivation for the common goal. It became evident through the cases that spreading the thought throughout the company that survival is dependent on each of the workers' contribution will lead into positive results. Therefore, it is always worth putting effort on feeding positive atmosphere and team play. In addition to positive, initiative atmosphere, the success factors seem to culminate into knowing the company's expertise, specialization, customer orientation and marketing know-how - starting from the management level and reaching through whole of the personnel.

Successful examples were heard on cooperation between companies and research institutes, and the topic raised lively discussion and ideas on developing fruitful ground for deeper cooperation as one of the success factors for Finnish companies' foreign expansion. Positive development during the recent years was generally seen in the ways of communication and finding common goals between the companies and research institutes. Still, there seems to be a gap in the processes and rhythm of activities between the world of work and research institutes, since the research organisation approach cannot always catch up with the hectic cycles of business environment. However, positive trends and good intensions for getting more out of business and research cooperation was clearly in the air. This provides a fruitful ground for further SmartComp activities to smoothen the way for the industry - not only in Finland but also to reach the cooperation into deeper seas within the Central Baltic region.

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Does the Central Baltic region maritime cluster need a brand?

By Esta Kaal and Kaja Tampere

Cluster is a specific type of network – a geographical agglomeration of companies that are vertically and horizontally linked by channels for business transactions, cooperation and/or competition. These companies share a localized support infrastructure, labour markets and services, and face common market opportunities and threats[1]. Clusters may comprise regional and/or field - specific cooperation networks which are in different stages of their life cycle: the so-called embryonic, established, mature or declining, or they may be purely theoretical constructs. Cluster networking may be based either on enthusiasm (so to speak) or on a well-defined strategy. Thus, in reality the aims and development stages of clusters may vary considerably.

The Central Baltic region maritime cluster

The Central Baltic region (Latvia, Estonia, Finland and Sweden) is a large region and a tightly connected economic area. Its geographical and environmental centre is the Baltic Sea which is an important area but also endangered by heavy sea traffic as well as other economic and human activities. Various maritime business actors (ports and port operations, shipbuilding and offshore industry, shipping companies, suppliers and logistics) contribute considerably to the GDP of the countries. The actors' economic activities, supply and value chains are intertwined both on the local and supranational level. Connected to them are various non-profit actors, like the government, local and city authorities, academic institutions, research and interest groups, associations and other sub-clusters.

Within the SmartComp project[2] , analyses on the cooperation within the Central Baltic region maritime sector and on global competition have been carried out. These analyses show clearly that due to the changes in the conditions of the external environment, the maritime industry of the region faces common challenges:

- Increasingly fierce competition, well-developed power positions and the changes of business models in the global maritime industry.
- Lack of qualified workforce.
- Tightening environmental regulations which necessitate the introduction of qualitatively new –- ships (green/blue ships) and fuels.

Thus, the CBR maritime sector exhibits all characteristics of a cluster, and to meet the challenges, fast measures and the utilization of the common potential of the region, primarily in the R&D sector, are required. The clusters in the region must rapidly develop the technical and infrastructural solutions to meet the new regulations and to make the whole region a "green forerunner" in the global competition.

The analysis of current cooperation networks revealed that at the moment the maritime expertise in the CBR relies on a group of individual companies. To make the regional maritime sector prosper, more efficient cross-border cooperation networks inside the cluster are needed. The benefits of horizontal cooperation are always linked to the increase of sales and profit, for instance through joint R&D, sharing labour and other resources, and even by getting access to new customers through the partner company. However, the preconditions for any cooperation always include soft, so-called intangible values such as trust, openness, the feeling of togetherness, and identity. Interviews with the main stakeholders of the CBR maritime cluster confirmed that the success of a relationship is highly tied to trust, which develops through open discussion, involving also challenging issues which are not always agreed upon. Win-win-opportunities are real, but their realization requires courage and trust. Also, it was pointed out in the interviews that in the end it is a question of corporate culture and communication.[3]

How do the current communication messages of the maritime sector of the countries in the region reflect the keywords relevant for the CBR cooperation such as high-tech, environmental friendliness, sustainability, effectiveness (low energy usage)? Based on the monitoring of homepages of the CBR cluster actors, we can conclude that the communication practices in this channel are rather different. Not all companies registered in the maritime-related areas have the address of their homepage at the moment; for example, in Latvia only a minor part of maritime-related companies had a homepage. Also, the values offered by the organisations to their customers and partners are primarily described through the quality indicators of the product/service (quality, professionalism, speed, etc.), not through the keywords of the CBR's aims in Latvia. The promises of environmental friendliness, smart (high-tech) and effective management were quite similarly represented on the web pages of actors of the Estonian and Finland maritime clusters. Still, there is a stronger promise of "sustainability" in Finland that was not mentioned in the monitored web pages in Estonia. Also, "safety" was well represented.[4]

Is there a need for a cluster brand strategy?

Thus, the CBR has all the characteristics of a cluster, and taking into consideration the size of the region, the complexity of relationships, differences in organisational cultures and communication practices, and the common challenges for the region will certainly not be solved with a sufficient speed through the development of cooperation in its so-called natural manner. The larger the region and the larger the amount of different actors a cluster comprises, the bigger the role of strategic management in achieving

[1] Padmore and Gibson 1998; Chiaroni and Chiesa 2006; Ketels 2012

[2] SmartComp – Smart Competitiveness for the Central Baltic region is a Central Baltic INTERREG IV A Programme 2007–2013 financed project which aims to support smart, environmentally sustainable development, growth, competition and cooperation between maritime clusters, cities and universities in the Central Baltic region, i.e. in Estonia, Finland, Latvia and Sweden. http://www.cb-smartcomp.eu

[3] Maritime companies and their business networks in the Central Baltic region. SmartComp Research report 2, June 2013, p28 http://www.cb-smartcomp.eu/index.php/cbsc:materials

[4] Kaal, E., Niin, T., Sihlman, P., Sukhno, M. (2013) CBR maritime cluster companies mission, vision and values statements: based on monitoring of CBR maritime cluster companies web pages. (in total 249 randomly selected webpages of maritime cluster members).

the goals. The stated vision of the goals and perspectives of the cluster and the implementation of this vision requires a common understanding of who we are how we want to be seen by others (reputation) and which human values underlie the relationships of the members of the cluster with their internal and external stakeholders. It is the identity and reputation that are part of the brand and branding which in turn is strongly related to all marketing goals of the cluster.

According to the recently published global study of cluster initiatives, from a list of ten objectives , two objectives related to generally promoting collaboration in the cluster, namely Identity and brand and Strategy and vision, have the highest priority ratings, followed by Innovation and R&D and Business environment improvement. Joint purchasing is the objective with the lowest priority ratings.[5]

The cluster branding is a tool for cluster reputation management that might provide different kinds benefits for cluster members, like recognition, a direction for cluster development. It also helps create civic pride, attract talents, investments and new cluster members, support export and sales promotion, express the company's corporate social responsibility (CSR). There is clear evidence that not only SMEs can benefit from cluster reputation, but also regional subsidiaries of global corporations (R&D and product units) may strengthen their position in the internal competition for resources among MNCs. Shortly, branding and marketing goals of a cluster involve creating visibility, attractiveness, differentiation and identification. Based on the analysis of the cases of the most successful clusters there have been pointed out five principles of cluster marketing and branding: 1) cluster brand as a relationship, 2) it needs a reason (common aims and challenges),3) marketing is communication and development where cluster brand acts as a promise, 4) cluster marketing is a people's business, and 5) the fact that „differentiation" of cluster brand relies very much on „culture of sameness". Clusters are complex systems with multiple stakeholders. A solid, clear cluster brand image reduces the complexity and can make the cluster more comprehensible to the outside world, and also create the context and direction for stakeholders within the cluster. [6]

Branding of regional clusters is a time-consuming and complex process. The branding and identity building of the Baltic Sea region have been on a high-level political agenda for over a decade. Actions that would generate more 'we-feeling' in the region are very much needed. The image of the region and the way it is perceived by outsiders may affect the way it is seen by the locals and vice versa. [7].

A cluster is always part of a larger system

The developments in the whole Baltic Sea region influence the maritime clusters in the Central Baltic region, which thus can never be considered in isolation. It is clear that just like cleantech R&D which the CBR maritime cluster need requires cooperation with other clusters, projects in innovation and environmental protection (such as HELCOLM, InnoShip, etc.), the CBR maritime cluster branding and marketing need cooperation with the ONE BSR initiative, which aims at branding the Baltic Sea region.

Summarising: the CBR maritime cluster is currently in the embryonic phase of development, at the early stage of growth. It is clear that a cluster cannot be created and managed by someone from the outside. This is the outcome of the interest of the actors in the cluster, the outcome of their agreements and activities. Triple helix (business, public and academic) cooperation can be very fruitful, but **a clear and shared future vision** as well as joint commitment is required for this cooperation to be productive. SmartComp project's final documents formulate the potential strategic goals of the cluster and the possible values of the common identity. The first strategy documents serve as the basis for further discussions on various future networking events inside the cluster. Only active networking and participation of cluster actors can increase the visibility of the local expertise, provide support for match-making forums for businesses and leverage the advantages of the cluster.

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Surging U.S. energy production revives maritime sector

By Tony Munoz

The sweeping economic transformation of the United States is being driven by surging production of shale oil and gas. The U.S. is expected to become energy independent by 2030, if not sooner, and, according to the Energy Information Administration and other experts, has already overtaken Saudi Arabia as the world's largest supplier of hydrocarbons.

The new output is coming largely from the Bakken Formation in North Dakota and the Eagle Ford Formation in Texas. But there are also large shale deposits in Ohio, Pennsylvania, New York and California that are fueling the U.S. economic boom and the renaissance of U.S. maritime. And let's not forget the Gulf of Mexico, where new deepwater plays are boosting production and the demand for offshore workboats and tankers.

As a result, the U.S. over the past five years has reduced imports of crude oil and natural gas by 15 and 30 percent, respectively. The ability to produce more energy domestically has not only narrowed the U.S. trade gap but transformed the politics of oil.

It used to be that OPEC and, to a lesser extent, countries like Russia held all the cards. Following its formation in 1960, OPEC gave notice in 1973 of its ability to politicize crude, which resulted in recessions and unprecedented price swings in Western countries. OPEC member Venezuela's former president, Hugo Chavez, relished in mocking the U.S. with his disdain for American presidents and their policies.

But even before his death last March, Venezuela's crude production was falling; and the nation, which depends on oil for 95 percent of its exports and 45 percent of its annual budget, watched its crude exports drop by half. As the geopolitical wheel turns, Venezuela now relies on the U.S. more than the U.S. does on Venezuela.

Bottom line, the U.S. energy boom has reduced OPEC to a shadow of its former self and provided other benefits as well.

Record investment

With the U.S. a hotbed of energy production, investments in domestic production are skyrocketing, and not just from U.S. companies. In January Sinochem bought a 40-percent stake in the Wolfcamp Shale in West Texas for $1.7 billion. Japanese conglomerates Mitsui and Mitsubishi and GDF of France each bought 16.6 percent of Sempra Energy's planned LNG facility at Hackberry, Louisiana for an estimated $7 billion. And Mitsubishi invested about $6 billion in an Encana Corp. shale project.

Even OPEC has jumped on the bandwagon and – along with Statoil – made big investments in U.S. shale and LNG. The Energy Information Administration recently reported that more than twenty percent of the $134 billion in U.S. gas investment between 2008 and 2012 came from joint ventures with foreign companies, who see the potential in U.S. exports of LNG.

The Department of Energy has approved 16 applications for LNG export licenses to countries with Free Trade Agreements. In September, it approved its fourth conditional license for LNG exports to non-FTA countries – this one for Dominion Resources' proposed Cove Point Terminal in Maryland.

Future exports of U.S. LNG are attractive due to the huge disparity in natural gas prices in global markets – from $1 per mcf in Russia and $3.50 in the U.S. to $8-$10 in Europe and $16 in Asia. With the U.S. entering the gas export market in 2015 or so, prices are expected to stabilize at around $8 per mcf within a couple of years and remain there for the foreseeable future.

Reviving the maritime sector

No one was more surprised by the sudden boom in energy production than the U.S. maritime industry, which had been struggling under decades of decline and neglect. There was a glimmer of hope in 2010, when President Obama announced a bold new initiative to boost energy exploration in the Gulf of Mexico, but a few weeks later the *Deepwater Horizon* rig exploded and so did the prospects for shipyard orders and new jobs.

The fact is the U.S. has not had a maritime policy since before the Reagan Administration despite the fact that the Jones Act -- the U.S. cabotage law which was passed by Congress as the Merchant Marine Act of 1920 – contributes about $36 billion each year to the economy.

The federal shipbuilding program known as Title XI is a loan guarantee program legislated in the Merchant Marine Act of 1936 and designed to promote vessel construction in U.S. shipyards. The current program was restructured by the Nixon Administration as part of the Federal Ship Financing Act of 1972. But it has suffered from a lack of funding over the years.

While Title XI was revived by President Clinton with new guarantees of nearly $1 billion, it struggled under the Bush Administration and has failed to receive additional appropriations from the Office of Management and Budget, which consistently eliminates what it considers corporate subsidies. Meantime, the wars in Iraq and Afghanistan were overwhelming federal budgets, and the funding dried up.

As a result, since the late 1990s U.S. shipowners have had to self-fund projects based on customer demand. Consequently, shipyards – particularly those medium and small yards that make up the majority and do not benefit from military contracts – have received only sporadic orders.

So the last twenty-four months have been filled with hope and excitement about new jobs and tonnage for U.S. maritime. One of the main beneficiaries to date has been Crowley Maritime Corporation, which earlier this year completed a 10-year program of building 17 new articulated tug-barges, adding more than three million barrels of capacity to its fleet just in time for the boom in shale oil production. Crowley has since ordered eight new product tankers from Aker Philadelphia, the first four of which will be delivered between 2015 and 2016.

After several lean years, Aker Philadelphia had been struggling to stay in business due to the dismal state of shipbuilding in the U.S. In 2011 it received $42 million from Pennsylvania taxpayers and, along with private financing, built two 330,000-barrel tankers solely on speculation. In 2012 Crowley stepped in to buy the two tankers, the *M/V Pennsylvania* and *M/V Florida,* to replace the *Coast Range* and *Blue Ridge*, single-hull tankers which were being phased out due to OPA 90.

General Dynamics NASSCO in San Diego had also been shedding jobs and in 2012 reached its lowest level of employment in more than 25 years. The U.S. drawdown in the Middle East put a big question mark in NASSCO's future as well because of the yard's heavy dependence on the U.S. Navy for business.

So it came as a huge and welcome surprise when, last December, TOTE, Inc. announced it had contracted NASSCO to build two 3,100-TEU, LNG-powered container ships, the first of their kind in the world. Even more amazing, there had not been a container ship constructed for the Jones Act trade since the 1970s.

This past May NASSCO got another pleasant surprise – a contract to build four product tankers for an affiliate of American Petroleum Tankers, a company majority-owned by the private equity firm Blackstone. The contract will add more than 800 jobs to NASSCO and more than 165 seagoing union jobs. The yard had previously built five product tankers for APT. And just last month Seabulk Tankers announced it would build two new Jones Act product tankers at NASSCO.

Boom times in the Gulf

The energy boom has also launched a new wave of shipbuilding for Jones Act operators in the U.S. Gulf of Mexico, where freight rates for Jones Act tankers have topped $100,000 per day and the demand for offshore workboats has never been greater. Privately held Edison Chouest, the biggest operator in the Gulf, announced in July that it would build 40 new offshore support vessels to meet growing demand in the Gulf and U.S. Arctic.

Harvey Gulf, another operator of offshore workboats aimed at the burgeoning deepwater market, announced an additional investment of $540 million in new offshore vessels, raising its total capital spending to $1.7 billon. The newbuildings will include the first LNG-powered workboats in the world. And Hornbeck Offshore is building 24 new deepwater vessels at a cost of more than $1 billion.

As the U.S. once again becomes the world's biggest energy producer, the maritime sector will continue to benefit. The boom is stimulating investment both onshore and off, and U.S. maritime is embracing its newfound opportunities with open arms.

Tony Munoz

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The USA

Finnish marine SMEs in Brazil

By Arto Kuuluvainen

At the moment, there are about 60 Finnish firms operating in Brazil. According statistics provided by Finnish customs, Finnish companies employed almost 20 000 employees in Brazil in 2011. However, the number of Finnish SMEs operating in the country is clearly smaller than this 60 while many of these firms are large corporations (for example Wärtsilä, Metsä-Serla, Nokia Siemens Networks etc.). Again, when Brazilian markets are observed from the viewpoint of Finnish marine SMEs, it is noted that less than five companies have a postal address in Brazil. However, Brazilian marine sector is growing extremely fast and this opens great business opportunities also for Finnish SMEs. Hence, as a part of FIMECC's Innovations and Networks programme's project 'Direct International Marine Networks and Business Models', researchers of Turku School of Economics have studied internationalization processes of Finnish marine SMEs already operating in Brazil. As a result, several challenges related to Brazilian operations were identified. Most typical of these are briefly introduced in this paper.

First of all, it should be highlighted that Brazilian know-how in marine sector is still rather weak. Therefore, for example local shipyards need help from international partners. Otherwise, answering to the requirements of country's huge investment programs would be impossible.

For example, in 2013, there were 28 new drilling ships to be built in Brazilian shipyards for the needs of partly state-owned oil giant Petrobras. Time period for the delivery of these ships is 2015-2020. These investments are related to the huge oil discoveries conducted by Petrobras during the last decade. In October 2006, the company managed to discover a very large oil field. The field is currently known as "Lula". The Lula field lies below 2,000 metres of water and then 5,000 metres of salt, sand and rocks. The field was discovered in a geological formation known as the Pre-salt layer. Challenging circumstances just underline Brazil's need for highly developed off-shore technologies. This is something that Finnish marine companies should be able to sell to Brazilian companies. Moreover, new oil discoveries will be most probably made also in the near future and Petrobras has announced that it aims to duplicate Brazilian oil production until 2020. It has been evaluated that investments required for reaching this target will be worth of about 240 billion dollars during the next four years.

However, like already mentioned, this far Finnish SMEs have been very careful concerning Brazilian markets. There are many reasons for this carefulness. Of course, Brazil is geographically very far from Finland and, on the other hand, only very few Finnish companies possess experience about collaboration with Brazilians. Some of the most typical challenges are introduced next:

- Brazilian regulations and taxation
- Cultural differences (also between different parts of Brazil)
- Language barriers
- Lack and price of qualified personnel
- Weak infrastructure
- Shipyard structures
- Competition

From the Finnish viewpoint Brazilian taxation and regulations (for example local content -regulations) are often found really complex, constantly changing and hard to understand. Therefore, Finnish SMEs usually need Brazilian partners (such as law firms) to help them with the establishment process.

There are also some cultural differences between Finnish and Brazilian. However it could be stated that these cultural factors only rarely cause major problems between Finnish and Brazilian managers. In general, it could be stated that Finns have more straightforward mind-set and therefore they may sometimes be surprised about slower Brazilian decision-making styles. It is also stated that making business with Brazilians requires more time than similar deals would take when done between companies coming from Nordic countries.

Language barriers refer to the fact that English is not very widely spoken in Brazil. It has been evaluated that only about 5 % of Brazilians can speak English fluently. Therefore, it is essential that Finnish companies have managers who can speak Portuguese. This is important also from the viewpoint of getting access to local networks. The role of personal relationships is very important in Brazilian business environment.

Also local infrastructure can be an unpleasant surprise for Finns. Although Brazil is investing in new harbours and railways, the road infrastructure is still very poor.

Furthermore, especially marine sector faces lack of competent workforce. Brazilian marine industries were really weak before recent oil discoveries. Therefore, also the education and training investments in marine sector were really minor. Hence there are only a very limited number of marine engineers in the country. As a consequence of current high demand for marine engineers, these engineers have quite high salary level. In other words, cost of workforce can be surprisingly high in Brazil.

Also the structures of Brazilian shipyards differ from Finnish shipyards. Whereas Finnish shipyards operate mainly through their networks and utilize lots of suppliers, Brazilian shipyards are still producing many tasks by themselves. In other words, Brazilian shipyards are in a sense more labour-intensive whereas Finnish shipyards can be seen to be more like systems integrators.

Finally, the Asian companies are already operating in Brazilian markets and therefore the competition is getting tougher. Some Brazilian shipyards are already partially owned by Asian companies. As a consequence, these shipyards usually prefer Asian suppliers and solutions that are already familiar to them.

Despite of many challenges, Brazil still offers huge opportunities for a profitable business. This was recently proved by Finnish Almaco Group Oy by winning the newbuilding contract for the complete Living Quarters on six drillships to be used in the Brazilian pre-salt ultra-deep layers drilling program. The deal is worth over 100 million dollars.

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Seafarer demand forecast based on economic conditions

By Makiko Kubo and Takuma Matsuda

It is important to study and understand the volume of the demand for seafarers at present and in future, in planning and ensuring human resource development of seafarers. Japan Maritime Center (JMC) has recently conducted a study, "seafarer demand forecast based on economic conditions" to challenge the issues left by the preceding researches.

Regarding forecast of seafarers' demand and supply, the most well-known research is the one by the Baltic and International Maritime Council (BIMCO), which is an international organization, standardizing a form of charter contracts, and the International Shipping Federation (ISF) (hereafter called "BIMCO/ISF"). Others include the one by Drewry Shipping Consultant which is often referred to as to complement BIMCO/ISF, and "A research on world seafarers' demand and supply forecast and effective measures to ensure sufficient seafarers" by the Japan International Transport Institute (2010).

BIMCO/ISF, conducted by Professor Rob Wilson of Warwick University, has been undertaken every 5 years since 1990, and its latest publication is "MANPOWER 2010 UPDATE" (hereafter called "BIMCO/ISF 2010"). It conducted a questionnaire survey to the governments and the shipowners' associations in the major seafarer supplying countries to estimate seafarer supply in 2010. It also collected other information such as job turnover rate from the appropriate organizations to develop 2015 and 2020 forecast of supply. As for demand of seafarers, it figured out a size of each country's merchant fleet based on Lloyd's Register-Fairplay (currently IHS-Fairplay), then deemed the number of seafarers necessary to operate them the estimated demand for seafarers. For 2015 and 2020 demand forecast, it assumed expansion rate of world merchant fleet in the future at 2.3% per year (on base case), by taking into account of actual numbers of vessels of the past years, a number of shipbuilding orders and so on. BIMCO/ISF 2010 showed that a seafarer shortage in 2015 will be 69 thousand and it will diminish to 38 thousand in 2020 (on base case).

BIMCO/ISF relied mainly on the result of questionnaire and actual figures of the past years and did not take economic conditions explicitly into consideration. However, it is well known that the volume of fleet on the trans-ocean shipping and the merchant fleet size to carry cargo are highly responsive to the world economic conditions, and so is the demand for seafarers accordingly. It should be, therefore, important to include the impact of economic conditions explicitly in the projection of seafarer demand.

In order to challenge this issue, JMC constructed a forecast model for demand of seafarers, taking into account of the major economic indicators. To start with, this study estimated collective volume of freight movement of bulker and tanker respectively in between the 9 zones of the world. Gravity model, which is often employed in the analysis of international trade, was adopted, assuming that the volume of freight movement was correlated positively with "GDP of the both zones of export and import" as well as the "population of the zone of import", and negatively with "distance" of voyage. An exception to this assumption was the container ship case, in which "population of the zone of import" was not used as an independent variable, because it reduced explanatory power of the model. The next stage was to estimate the world shipping tonnage in the future, assuming that it was proportional to the amount of freight movement. Then, the number of vessels in the future was estimated by dividing the world shipping tonnage by an average ship tonnage of the vessel. As an average ship tonnage should reflect the recent trend of the vessels getting larger, the average increase rate of the ship tonnage each year was calculated and it was assumed that the average ship tonnage was to increase in accordance with this rate. Finally, the demand for seafarers in the future was reached by multiplying the number of vessels so estimated by the number of seafarers per vessel.

As data for freight movement, GDP and population, and the average shipping tonnage, such data compiled by IHS Global Insight, World Economic Outlook Database and IHS Fairplay World Fleet Statistics were deployed respectively. For distance, those between the largest ports in each zone were adopted. For the number of seafarers per vessel, the result of the study by the Japan International Transport Institute (2010), which estimated the number of seafarers for container ship, bulker and tanker in the case of a vessel more than 8000GT as 23, 21 and 26 respectively through the questionnaire survey, was referred.

This study concluded that the seafarer demand was estimated to be 1,352 thousand in 2011, 1,459 thousand in 2015, and 1,569 thousand in 2020. The gaps between demand and supply could be calculated by using the supply forecast in BIMCO/ISF 2010, and it was found that there was a shortage of 4.6 thousand seafarers in 2015 and 140 thousand in 2020 on that basis.

The gaps between demand and supply estimated by the JMC study are much smaller than those in BIMCO/ISF 2010 as a whole, although the gap in 2020 was larger than that in 2015, contrary to BIMCO/ISF 2010. The difference between the two researches can be explained by the fact that JMC study reflected the world recession after the failure of Lehman Brothers and the future economic growth in emerging countries, whereas BIMCO/ISF 2010 (and other studies) mainly reflected changes in the size of world merchant fleet in the past.

JMC's study shows the importance to analyze a mechanism of how the size of merchant fleet and the number of seafarers rise/fall according to the economic conditions, and to reflect it in a forecast in the trans-ocean shipping. We hope that this study will be of any help towards the improvement in the methods of forecasting seafarer demand and supply as well as in the planning of seafarers' human resource development.

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Korean marine industry and opportunities for Baltic region

By Ari Virtanen

In the past decades shipbuilding has moved from Europe to North East Asia. China, South Korea and Japan combined account for more than 90% of the world's ship and offshore deliveries. China is the biggest producer measured by gross tons but South Korea is the biggest measured by the value. In South Korea there are few big companies dominating the marine industry; Hyundai HHI, Samsung SHI, Daewoo DSME and STX. These four companies are the biggest in the world and produce altogether more than 400 vessels annually from which almost half are made by Hyundai group shipyards.

Samsung SHI is the most specialized of these shipyards. They make offshore vessels like Drillships for oil exploration, oil rigs, LNG carriers and floating production units. Newest and greatest vessel type is floating LNG-FPSO unit, which is developed together with Technip for the Royal Dutch Shell. This Prelude type vessel will be 468 m long massive LNG production unit for Australian waters. Samsung shipyard is located at Geoje island near Busan. Another Geoje based shipyard belongs to DSME. They are specialized in offshore but are also a major producer of naval ships and ferry ships.

Hyundai Heavy Industries owns the world biggest shipyard in Ulsan. Annually more than 90 vessels are built there. Huge shipyard keeps roughly 50 000 people busy at work. Out of those 50 000 workers 28 000 are under Hyundai payroll and others working for suppliers and ship owners. Company is sourcing parts and technology from all over the world. HHI procurement division sources more than 1 million different items. Especially in demanding offshore area large shipyard companies use more and more so called integrators. Some famous integrator companies are ABB, Kongsberg, and National Oil Well which are also well known in the Baltic region.

The ship owner will say their word what supplies and suppliers are used. They make a so called preferential list containing major important parts used in ship. Ship owners also send their representatives to follow the construction project. Besides ship owners also integrators are decision makers to say what parts are chosen. Integrators are especially important in demanding offshore projects. Finally shipyard is always negotiating with suppliers and integrators to find the lowest cost but still keeping the quality in mind.

Ship or offshore vessel owners are often located in northern Europe. Norway and UK are some of the big countries. North European Companies like Maersk, Stena and Wilhelmsen are well known all over the world. Also integrators are strongly based in Baltic region. Companies like ABB, Rolls Royce, Wartsila and Kongsberg are among the biggest integrators in the marine industry. Suppliers for regular cargo ships are mostly doing production in Asia close to their clients. On the other hand many offshore suppliers are successfully doing their production in the Baltic region.

Understanding the marine industry value chain is crucial for the offshore supplier located in the Baltic area even though most of the vessels are built in South Korea. Marketing and communication should be targeted to all decision makers. Biggest wins are made if supplier companies are involved in early stages even with design studios and teams. Local representatives communicating directly with shipyards is often needed. Friendship with the decision makers is the best way to do business.

Shipyards choose suppliers not only based on price level but also the quality and prompt deliveries. In Asia and especially in South Korea the human face to face communication is extremely important. If the representatives of the supplier is on the other side of the globe in different time zone, everyday business is not really working. Language and cultural differences are big. Friends prefer to buy from friends. Local presence and 24/7 service attitude is needed to be successful.

Business model where the most expensive parts or top of the line products come from Europe but in the mean time lower cost and large volume products are made locally is working often well. Shipyards in Korea are all the time looking for this kind of collaboration. Investment for the production can come from the Korea side. Establishing this kind of production is also supported by the Korea government. Korean government also has established a free economic zone BJFEZ specialized in marine industry. Different kind of in kind support and tax breaks are possible for the Joint venture if the majority is owned by the foreign company.

Company doesn't have to do all the business alone. Good and low risk way is to find a local agent in Korea. Agent can be the communication channel between the company and clients in Korea. Finpro is one of the best organizations to help in finding an optimal agent or a distributor in marine industry. Having established relations to the biggest shipyards in the world speeds up the finding the best local partner. The objective and neutral role of Finpro as a partner in Team Finland is appreciated also by the companies in South Korea.

There is number of products sold to Korean shipyards by northern Europian companies. On the other hand many companies are still very much focused doing business only in the near by Baltic region. Huge opportunities exist in Korean market especially when both shipyard and supplier can find win-win situation. In high technology applications these win-win opportunities are more likely.

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Head of Finland Trade Center

Finpro

South Korea

Common value chains in East Asia – case shipbuilding

By Jari Makkonen and Sari Arho Havrén

Preface

Team Finland Foresight has addressed in 2013 the topic of "Common Value Chains in Shipbuilding", with particular focus on China and South-Korea.

Reason and need for considering East-Asia and emerging markets in general as focus business areas lie in the forecast of development of the world GDP in the future. Western Europe will be 7% of the world economy in 2050 (Tekes –report "Sino-Finnish Paths to International Competitive Advantage" by Booz & Co.) and hence adaptation and work on keeping Finland and Europe in general competitive in the long-run needs our attention already today. Furthermore, we must point out that when talking about building of new ships, South-Korea, China and Japan maintain market share of over 90% globally. Hence, succeeding in Asia is one of the key factors to existence of maritime cluster in Finland.

At the same time Europe has, however, maintained market share in some special type of vessels, such as cruisers. Also, the European suppliers of maritime components have been able to find new opportunities in offshore oil and gas industries, whilst construction of merchant ships and container ships, for example, has been transferred to Asia. The Asian competition is getting tougher and the Europeans will find it harder to maintain their position in the special products.

New regulatory and market driven trends will offer new opportunities for the Europeans as well. Scenario documents offer some guidance on possible futures and innovation around the identified trends might be crucial for future success and position in the value chain.

Document "Green growth opportunities in the EU Shipbuilding sector"[1] is exploring these new opportunities, which include: fuel efficiency, higher Corporate Social responsibility (CSR), nitrous oxides (NOx) abatement, sulphur oxides (Sox) abatement, greenhouse gases (particularly CO2) abatement, ballast water and sediment treatment, offshore renewable energy and development of Arctic resources exploitation. Market potential is debated to be minimum of 12.5-15.5 billion Euro per year.

Crisis of global shipbuilding and effect on East Asia

Korean companies have converted more aggressively towards offshore –industry than Chinese shipbuilders, who instead seem to seek more opportunities in cleantech –related business or in metal-working business in general. Relatively low technology content of Chinese shipbuilders is also affecting their ability to compete even on bulk carriers and merchant ships since the end users' requirements for energy efficiency and other technology content constantly grow.

Chinese shipbuilders face great difficulties: out of 1600 Chinese shipyards only 200 have currently any orders. Several of them will focus on ship repair instead of new ships. Many of them will also close during 2013-2015. The latest target of the Chinese government is to scale down the number of shipbuilders into 10 strong ones.

At the same time the component market seems to move towards low-mid and low-low segments. This might result into loss of market share by some foreign companies. The foreign companies need to work on end customer demand assessment and product adaption and eventually move towards mid and mid-low segments.

This will require major paradigm shift in Finland, as well as increased sense of urgency. At the same time, however, more suitable mid-segment products might have to be developed for gas and oil offshore business, since this sector definitely requires much more on the quality, longer life-cycle, approvals and technical documentation of components and similar.

Market share of Chinese ship owners increasing

China has done major leaps in the field of international finance (foremost through China Development Bank and China Exim Bank) and is not remaining short of measures at home either. This will result to higher market share of Chinese owners and operators of ships and other maritime structures.[2]

Currently most Finnish suppliers work with shipyards focused on foreign ship owners. Instead, one should learn how to focus on Chinese ship owners (mainland China, Hong Kong) and satisfy their needs, unless Finnish and other foreign players accept being further marginalized in this industry.

Regional differences of industry structure between China, Japan and South-Korea

Intraregional trade of components in East Asia is relatively high.

East Asia is has done fairly well in sharing production and components intra-regional trade being 50 % compared to Europe's 63 %.[3]

The role of China has been assembly, the role of Korea and especially Japan, supply of high-tech components and content. Japanese and Korean industrial policies have been "*export out/protect in*"[4] The idea has been to let national champions (capable of design and engineering) grow thanks to protectionist measures against foreign suppliers, both de facto and through a very developed sense of favoring national suppliers (and their own, national ecosystem of component suppliers and similar). P.R. China has opted for an accelerated model of developing its economy and even if it is claimed to be protectionist in several sectors, however, it can be considered relative open if compared with Japanese "keiretsu" or Korean "chaebol" –based systems. We can as a matter of fact suppose that China could be more open to buy value added services in ship design and engineering than e.g. South Korea.

Considering the a.m. differences of business environment, Finnish companies should consider the implications to their business model, partnerships and end-customer relationships. Each East Asian country needs an individual approach and a local presence as well.

[1] Ecorys 2012, Source 6

[2] United Nations: Review of Maritime Transport 2011 & 2012, Sources 16&17

[3] Trade Patterns and Global Value Chains in East Asia: From Trade in Goods to Trade in Tasks, Source 40) and the Economist magazine (a Continental Divide, May 18th 2013, Source 35),

[4] (World Economic Forum, The Shifting Geography of Global Value Chains: Implications for Developing Countries and Trade Policy, Source 26).

Implications for manufacturing operations in Finland

Strong global signals indicate, supported by studies of global value creation, that some industries are repatriating their production, especially from China because of higher international forwarding cost, higher local salaries and strong RMB. However, this is particularly possible for countries having a big home market, which is not the case of Finland.

At the same time, maritime-related Finnish companies interviewed indicated that for them is important to have local manufacturing base in Asia for the pure reason of being near to the customers and not having to rely on far-away production taking minimum 5-6 weeks to ship the product to East Asia.

For Finland and our innovation system it will however be important to maintain part of industrial operations and especially R & D & I in Finland and near to Finland, since we can hardly maintain our competitive advantage by transferring all production operations to Asia. We need more encouraging policies for improved business climate, better people skills for increased efficiency in manufacturing and all types of test beds allowing companies to design components and systems so that positive differentiation and competitive edge against Asian and global competitors could be maintained.

Currently Finnish companies have good financing and technological support –related to tools e.g. from Tekes and VTT. These tools should now be used aggressively to improve the market penetration in shipbuilding and in oil and gas offshore industry.

Team Finland can assist the Finnish partner companies to search for local funds for R&D and other development work.

Challenges for the Finnish machinery producers in general

The topics raised in this report remain universal for any machine-building industry, being namely

1. **Sense of urgency:** emerging economies grow fast; the decision-making cannot be slow amongst the Finnish companies acting on the global markets growing fast.
2. **Need of understanding business of end customers** and improve **market segmentation** and design of solutions for local customer needs.
3. **Need of** being present on the market and **live in the rhythm of the end customer and distribution channels – become local**. Sometimes this can be reached through a good local network of distributors and other stakeholders, very often through own commercial operation and more and more frequently through own local manufacturing.
4. **Need of understanding the specifics of each country** and not oversimplify the modes of market entry or business development.

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China

Skyrocketing Chinese maritime cluster and its future development with international partners

By Minghui Gao

The development of the cluster

In the last two decades, with China's emerging as a global giant on exporting, a vital foundation has been provided to its maritime development, especially in terms of its shipbuilding industry, shipping industry and ports.

By 2010, China has been ranked as the largest shipbuilding country in terms of order book volumes since then. As the world's biggest ship manufacturer, 80% of the gross output of Chinese shipyards is devoted to export customers, mainly to Asia and Europe. With their mega-size production and technology capacity, two conglomerates – the China State Shipbuilding Corporation (CSSC) and the China Shipbuilding Industry Corporation (CSIC) – dominate China's shipbuilding market.

With China's ever-increasing trade and its flourishing shipbuilding business, China's total demand for maritime shipping is the largest among all countries. Two originally state-owned enterprises – China Ocean Shipping Company Group (COSCO) and China Shipping Company Group (CSC) – have become "the backbone" of China's logistics/shipping market. By the end of 2012, the dimension of China's shipping fleet ranks 3rd in the world.

As the country increasingly gains ascendance in global trade, China has been experiencing a boom also in harbor construction. Currently there are over 150 seaports in China, providing an overall port throughput tops the world list. Meanwhile, China's port handling efficiency also set world records.

International networks of the cluster

In the recent years, foreign investment has been engaged in support activities of shipbuilding industry, such as marine equipment industry. Most of the foreign capital comes from Europe, South Korea, the U.S., and Japan (e.g. Wärtsilä, MAN B&W, ABB, Caterpillar, Daeyang, Samsung Group, Daewoo). Foreign investment in most joint ventures has been limited to a 49% share, especially when it concerns shipyards, diesel engine and crankshaft manufacturing enterprises. They are also required to "transfer their expertise to local partners through the establishment of technology centers". Besides such joint ventures, the cooperation between China and foreign shipbuilding companies has also been increasing. For instance, the increasingly topical polar scientific research has brought the Helsinki-based Aker Arctic Technology Inc. (hereafter Aker Arctic) and China together. In 2012, Aker Arctic signed a contract with China, who chose Aker Arctic to design a new icebreaker that is equipped with advanced scientific equipment for the purpose of China's research on polar oceans.

Concerning shipping industry and ports, the main players COSCO and CSC have been actively developing their international networks by expansion overseas. Meanwhile, the international network of China's ports has been strengthened by the entry of foreign companies. More importantly, the EU-China Maritime Transport Agreement entering into force has further accelerated the international cooperation in the global shipping industry.

The future of the cluster

The development of China's maritime clusters receives powerful support from the Chinese government, maritime enterprises in China generally have adequate funding to carry out their operations, and profit from rather low labor costs comparing with many other countries. However, the industrial structure and layout should be optimized in order to have more rational planning in terms of shipbuilding and shipping capacity, to establish stronger connection between clusters and cooperation between industries, and to form a more open market for competition. Meanwhile, a more advanced strategy for human resources should be applied in order to attract more skilled personnel who have the updated know-how on technology and management. This would require cooperation between the clusters and with universities, other research institutes, and foreign partners.

Concerning shipbuilding clusters, they need to find a new direction for further development – for instance in building high-end cruise vessels and icebreakers. In this case, maritime companies in the Baltic Sea region would have more opportunities to provide such technologies to design vessels for China's maritime clusters, or provide supporting facilities for them. The previously mentioned Finnish Aker Arctic has set a very good example on this matter.

Concerning clusters for shipping and ports, as international tycoons like the Danish Maersk are extremely powerful in the international markets, other companies in the Baltic Sea Region might want to cooperate with the Chinese shipping lines in order to benefit from services which have advantages on both price and the shipping routes. Furthermore, the entry into force of EU-China Maritime Transport Agreement will definitely create more opportunities and reduce more barriers in the field of shipping. More open shipping lines and ports would benefit both the parties concerned.

To conclude, the cooperation between maritime clusters of China and the Baltic Sea region will require efforts from both sides, from the company level and the governmental level. The Chinese government has expressed its willingness to utilize foreign advanced knowledge, and has encouraged such activities by adopting policies accordingly, which might do a big favor in accelerating such cooperation.

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This article is based on the chapter of Chinese maritime clusters in the SmartComp Research Report No. 3.

The booming maritime sector in the Far East – what's in it for Finnish companies?

By Eini Laaksonen and Hanna Mäkinen

The maritime sector's general outlook

The global maritime sector is facing great changes. The shipbuilding industry worldwide is suffering from significant excess capacity, particularly due to the large improvements in the productivity of the shipyards and the over-investments in the industry. The production capacity, particularly in several Asian countries, was expanded forcefully before the economic crisis – for instance, in only a few years, China rose to the largest shipbuilding nation in the world. Europe, on the other hand, has lost its market share for the booming maritime industries in the Far Eastern countries, mainly China and South Korea, which are producing series of standardized vessels at low costs. However, as the competitive advantage of the European clusters lies in high quality and specialization, they have been able to maintain their market share particularly in some special types of vessels, such as cruise ships. The imbalance between supply and demand in shipbuilding has also affected shipping markets because so much new tonnage is entering the market. Although the demand for shipping services has been growing after the economic downturn, the fleet oversupply is still overrunning the cargo growth and the future demand for cargo ships remains uncertain.

Besides the changes in the shipbuilding industry worldwide, there are other trends shaping the development of the global maritime sector. The rise of emerging countries, such as China and India, is to have large effects on seaborne trade, driving supply and demand of goods and services, resources and technologies. Consequently, Asia is expected to take a central position in the global seaborne trade in the future. Concentration of trade flows to certain locations and increasing urbanization can lead to infrastructural bottlenecks, necessitating the development of more efficient logistical solutions. The growing energy demand, on the other hand, is leading to the shifting of energy production to new areas and to drilling of oil and gas into even greater depth, particularly in the Arctic region. Energy production in challenging conditions together with opening of new shipping routes, such as the Northeast Passage, create a growing demand for specialized maritime and offshore solutions, as well as new icebreaking and shipping services. Environmental-friendly solutions are of increasing importance as well, as there is both a growing need and awareness to prevent environmental pollution and to mitigate the climate change.

For Finland these developments create great challenges as well as opportunities. The Far Eastern clusters have rapidly emerged as true rivals, and the European clusters have not found ways to respond to this development. However, by investing in the core competences and by keeping these competitors close through active networking, the Finnish maritime companies could gain a new kind of role in the global maritime sector.

The presence and networks of Finnish maritime companies in the Far East

China has seen an unforeseen growth in its maritime sector during the past decade, and thus it is one of the key destinations of international maritime business. Even though most of the Chinese shipyards are state-owned and the openness of Chinese shipbuilders to foreign shipbuilding companies is limited, the situation is changing gradually and recently foreign investment has been engaged in support activities of shipbuilding industry, such as marine equipment. Most of the foreign capital comes from Europe, South Korea, the U.S., and Japan (e.g. Wärtsilä, MAN B&W, ABB, Caterpillar, Daeyang, Samsung Group, Daewoo). Foreign investment in most joint ventures has been limited to a 49% share with a requirement to transfer expertise to the local partners. Besides such ventures, the cooperation between China and foreign shipbuilding companies takes place also in other forms – in 2012, Aker Arctic signed a contract with China on designing an advanced icebreaker.

Interesting regions for maritime sector are also Japan and South Korea, in which Finnish maritime companies are also relatively active. In Japan cooperation has taken place for instance in the development of RoRo ships, fuel cell products, and diesel engines. Moreover, for example NAPA has collaborated with Japanese ClassNK, the world's largest ship classification society, in creating solutions to increase eco-efficiency and reduce fuel consumption. Elomatic, in turn, has cooperated with Japanese MTI, NYK Line and Italian marine designer Garroni Progatti in developing an environmentally friendly low emission container ship. Several examples of Finnish activities can be found also in South Korea, such as Wärtsilä providing ship power related services.

While being a hub of maritime business and expertise, Singapore is also one of the key locations for Finnish maritime experts. In fact, of the ASEAN countries, Singapore is Finland's largest trading partner and over 70 Finnish companies are present in Singapore to serve the whole Asia Pacific. Over half of the Finnish exports to Singapore comprise machinery and equipment, and the most significant Finnish operators in Singapore include Neste Oil, Kone and Wärtsilä. The formation of these business relationships has been supported through international agreements concerning issues such as visa freedom and taxation and through minister-level trade promotion visits.

In addition to these global players, Indonesia, Malaysia, Philippines and Vietnam are growing steadily and can be considered as emerging players in the maritime sector in the Far East. For instance Konecranes recently won a record order of over EUR 100 million for container handling equipment from an Indonesian terminal operator. While Finnish companies have not yet found that much business opportunities in Malaysia, Philippines and Vietnam, other Nordic companies have, Norwegians in particular. For instance Aker is currently investing in Malaysia, and Norway also participates in training seafarers in the Philippines.

The Russian Far East is also an increasingly important arena of maritime activities as the offshore oil and gas production increases and as the Northeast Passage is attracting international interest. The Russian Government aims at quintupling the Russian shipbuilding output by 2030 with the total state funding of RUB 1,3 trillion, and the new Far Eastern shipyard complex seems to be the future priority for the state due to the required shipping capacities in the area. Although the Finnish maritime companies have mostly been cooperating with companies located in St. Petersburg or Moscow, the actual outcomes might be often used in the Far Eastern or Arctic waters. Currently Finnish and Russian shipbuilding companies cooperate through shared shipbuilding processes, Finnish companies focusing on design and Russian companies on building hulls, and thus complement each other like in the case of Arctech Helsinki shipyard. Plenty of Finnish companies have also been involved in the Russian maritime business, such as Aker Arctic, Evac, Justuxia, Kemppi, Mareco Marine Systems, Marioff, Rolls-Royce, Steerprop and Wärtsilä.

While the Far East today is a global center of maritime activities, the presence of Finnish companies there is of

increasing importance. It can be noted that although the Finnish maritime cluster possesses various kinds of expertise, only a group of large, international companies are active in this region, although the emerging maritime clusters in the Far East would provide market opportunities also for other Finnish businesses with cutting edge niche expertise.

The business opportunities and challenges in the Far East

The Finnish maritime businesses have special expertise particularly in cleantech solutions, design and engineering services, ship repair and conversion services, offshore and Arctic solutions, for which there is growing global demand. Interest in the Arctic knowhow is growing particularly in China, Japan, Russia and South Korea which creates business opportunities for Finnish companies specialized in this field. Finnish companies have potential to become forerunners in various green technologies and solutions in both shipping and shipbuilding, for which there is demand for instance in Singapore and South Korea. Particularly Singapore is interested in European design and solutions, and in the future the country will provide increasing business opportunities for international companies specialized in LNG, port construction, and green shipping, for instance. In addition, Chinese and Russian markets offer opportunities for design and engineering companies as well as other suppliers of the maritime industry as there is great demand for foreign technologies and expertise in shipbuilding in those countries. The smaller maritime players in South East Asia, i.e. Indonesia, Malaysia, Philippines and Vietnam, offer cooperation possibilities for Finnish actors for instance related to the development of energy saving technologies and environmental solutions, maritime safety, and maritime training and education.

However, in the growing markets there are also more and more competing actors and the constantly increasing global competition creates challenges for the European maritime clusters. Although knowhow in various niche technologies forms the current competitive advantage of the Finnish maritime cluster, there are also other companies providing state-of-the-art expertise in the same fields. For instance, although the offshore markets are extensive, several countries worldwide plan to focus on the related activities and expertise, and there is eventually room only for the best of the best. It seems that the future competitiveness of Finnish companies lies in highly specific niches and they can only respond to global competition by maintaining their position in the forefront of the global innovation development with highly active marketing operations and cooperation with customers.

In fact, it has been concluded in various contexts that although Finnish companies are highly advanced in innovation activities, there is room for improvement when it comes to marketing and selling these innovations and expertise. Companies need to be present in new markets already at the emerging phase and build customer relationships and business networks – later it might be too late, if competitors have already managed to establish relationships with the key actors.

However, building presence in emerging markets is resource consuming and requires patience, thus being challenging for Finnish SMEs. Internationalization requires intensive networking, both within and outside the home cluster, so that the companies can pool their resources and benefit from each other's contacts and experiences. When operating in the Far East, getting into new projects requires existing contacts, international reputation, or at least high-level references. This forces SMEs to form groups of companies that can together participate in project biddings. Having employees with skills in local language would also be highly helpful in establishing new business relationships. Such knowledge pipelines can help foreign companies in learning how to deal with local regulations and authorities, for instance.

When taking into account the resources needed for such activities, it is no wonder why Finnish domestically operating SMEs tend to find it overly challenging to enter the booming Far Eastern markets – particularly when the home market also provides new challenges to tackle, such as the sulphur directive and increasing cost levels. However, while the home market requires developing new technological solutions, the same solutions could be sold to the world, the sales again providing further resources for R&D. Consequently, the Finnish maritime sector experiencing a structural change is in need of active networking at a global scale. In fact, as the whole maritime business today is global, it is hard to define such thing as home market.

In addition, while the Far Eastern maritime sector provides considerable market opportunities for Finnish businesses, it is clearly worth noting that those competing clusters have also been smarter in some dimensions of developing the sector, for instance by establishing international investment hubs. Consequently, the maritime clusters not only in Finland but in the whole Europe should closely follow the market developments as well as technological, infrastructural and business-related advancements in other parts of the world – the Far East currently providing the most interesting example.

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The Finnish marine industry in the midst of structural change

By Lauri Ihalainen

Vigorous structural change is currently going on in the Finnish marine industry. One of the leading enterprises in the field, STX Finland Oy, is suffering from the financial problems of its Korean parent company, STX Group, which culminated in the company's debt restructuring; while a large order considered as certain was cancelled with regard to another leader in the field, Technip Offshore Finland Oy. These have led to the highly regrettable termination of the Rauma Shipyards, which were rich in tradition, as well as the co-operation negotiations and dismissals in the companies concerned and within the subcontracting chain.

At the same time that the shipbuilding industry suffers from the lack of industrial competitiveness afflicting Finnish industry in general, shipbuilding yards in particular are troubled by global over-capacity, which makes such competition severe and partly unhealthy. However, business activity is still profitable and abundant growth opportunities are on the horizon in many of Finland's marine industry companies, global equipment and system suppliers and design-field companies, as well as in firms serving the offshore field and Arctic shipping. Also marine industry subcontractors who in the past were mainly concentrated on domestic demand have found new markets in, for instance, Norway and Russia. Well managed, the next renewal resulting from structural change could lead to fortification of competitive ability.

The shipyards' order books increased throughout the period from 2002 until the worldwide economic crisis that started in the autumn of 2008. With the growth in the number of orders, new shipyards were built in abundance in various parts of the world; for instance, merchant vessels were ordered and constructed considerably more than was required on the basis of their actual transport needs. This led to an oversupply of both ships and shipbuilding capacity – which still troubles the shipbuilding market today. As a result of the crisis, the overcapacity of the shipyards was not allowed to unwind: on the contrary, states began to prop up their shipbuilding industries with various support programmes.

The crisis also led to changes in market shares. Momentarily, China rose to become the leading shipbuilding nation in the world, surpassing South Korea and Japan. As a consequence of the crisis, European shipyards also experienced a new threat when the Asian yards endeavoured to capture market shares over special vessels more actively. These special ships comprised, for instance, cruise vessels and car passenger ferries, in addition to icebreakers. The markets for these vessels have traditionally been controlled by European shipyards. Currently South Korea is once again the world's leading shipbuilding nation, as it has concentrated on higher value ships (ultra large container vessels, LNG carriers, offshore vessels, etc.), and has left the more traditional bulk vessels to the Chinese yards.

There is also overcapacity on the cruise vessel side, which represents Finnish peak expertise, even if growth can be seen in the cruise market. Moreover, the cruise and passenger vessel markets suffer from the established funding practice in the field, where 20% of the vessel's price is paid at the outset of the project and 80% only after the vessel is completed. This requires financing by special state financial institutions – first for the shipyard doing the construction and next for the shipping company making the order, which are subjected to competitive bidding with regard to the financial terms and conditions of special financing institutions, leading to competition between states.

Does the Finnish shipbuilding industry have a future, in view of the fact that we only get continuously bad news from the field? From the employment figures angle, the figures for the shipbuilding industry also appear to have declined in 2013. At the outset of 2012, the marine industry still employed almost 18,000 people in Finland, of which over 80% worked outside the shipyards. Approximately 3,300 people worked in the shipyards, but this figure can be reckoned to be considerably smaller due to the changes at STX Finland Oy and Technip Offshore Finland Oy. Nevertheless, almost 50% of Finland's marine industry personnel were employed by Finland's international system and device supplier enterprises, for whom the Finnish shipyards are one customer among others.

Even so, maritime transport, the marine industry and offshore operations are future growth areas. Goods and people shall be transported in larger numbers in the future, the search for natural resources shall extend to more and more difficult areas (deeper waters and arctic regions), and the opening of northern sea routes as well as more stringent environmental regulations on maritime transport shall demand increasingly advanced and environmentally-friendlier vessels. All of this raises the challenges to know-how in the field, but at the same time this represents the core of Finnish marine industry expertise.

Through the ages, shipyard operations have formed the core of the Finnish marine industry. Impressive, demanding types of vessels and offshore structures have established a global reputation for Finland as an expert in demanding structures. Alongside shipyards and offshore machine shops, a versatile marine industry-based cluster of expertise has taken shape in Finland and, given the correct measures, they may remain here in the future as well.

Amongst the first in the group, Finland and Finnish operators have to adapt to increasingly stringent environmental norms, as a result of which pioneering expertise is being generated in Finland in the development and utilization of related solutions. Within the next ten years, global markets shall also be created for this know-how. The combination of cleantech development work with already strong shipbuilding expertise shall generate strong potential in Finland's marine industry in, among other things, northern market areas. Completely new vessels representing new technologies have been created in this cluster under the lead of Finnish shipyards. In the development of green technologies, increase in energy efficiency, and in the deployment of alternative fuels (used by vessels) such as LNG and bio-oil, energy effectiveness and hydrodynamics, Finnish yards and marine industry shall more extensively represent global peak levels. Concrete recent examples are, the bio-oil fuelled multipurpose deck cargo vessel *Meri and Viking Grace,* the world's first large-class passenger ferry to use LNG, thereby obtaining comprehensive attention throughout the globe. These examples show that there is room at the top of the value chain for new technologies, prototypes and experimentation.

Regardless of the recent difficulties, it is still possible to see a future in Finland for the shipbuilding industry. This,

nevertheless, requires that the production capacities and costs of the pivotal operators are adapted to match the orders obtained and operational methods are renewed to make them competitive. The State on its part is ready through various means to support structural change in the shipbuilding industry and, from the long-term perspective, to put shipyard operations on a profitable as well as sustained and durable path.

The State supports, through various methods, structural change in the marine industry. At the outset of 2013, the Marine Industry 2020 working group, appointed by the Ministry of Employment and the Economy, introduced many measures for the promotion of Finland's marine industry. Of these proposals, many are under development at both the Ministry of Employment and the Economy and at other ministries. In the near future, a new marine industry development programme under Tekes (the Finnish Funding Agency for Technology and Innovation) shall be launched. Its public funding (from Tekes) totals over 40 million euros. When private funding is added to the sum, up to 100 million euros of funding impact shall be achieved. Through the Tekes programme, new technology- and service-based solutions linked with all kinds of marine business operations shall be sought and applied. A marine industry programme is also being initiated by the Ministry of Employment and the Economy, which shall focus on the development of the operational environment for this field. The public funding share for this measure totals four million euros. By these actions, the purpose is to renew the Finnish marine industry and find sustainable cornerstones to support it over the long term.

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Security in the Baltic Sea area

By Ari Puheloinen

Security issues in the Baltic Sea region

Today, the Baltic Sea region is a stable and secure area. However, the littoral geography of the Baltic Sea is challenging. Traffic is channelled through the archipelago and several choke points. Shallow waters limit free navigation. Part of the sea freezes every winter, making the conditions arctic. The importance of the sea lines of communication in the Baltic Sea is increasing and they will be essential also in the future.

Globalisation has caused interdependence between states and global actors. Growing interdependence and the increasingly more technological operating environment also bring new kinds of vulnerabilities. In order to be countered, these require increasing regional cooperation and new approaches from all actors.

The threat of an armed aggression in the region is low, but it cannot be ruled out completely in the long term. A wider conflict or a regional crisis could result in the use of political pressure or military force in this confined area. Therefore, countries continue to prepare for external security challenges, especially in the challenging maritime arena. The interests of NATO and Russia also affect the Baltic Sea region. More emphasis is given to Article 5 obligations as NATO reorients itself to a time after broad scale crisis management operations. Russia's military activities have increased since the 1990s and the early years of the 2000s. The changes will be reflected in an increase in the number of military exercises in the Baltic area in the future.

Besides the traditional military threat scenarios a number of different types of threats exist, such as environmental problems, organised crime, terrorism and cyber attacks. The military organizations have to prepare to act against these kinds of challenges in close cooperation with the civilian authorities.

The development of technology has revolutionised the possibilities for communication. At the same time the network-based systems are vulnerable to cyber attacks. Networks depend on critical infrastructure, technical systems that use electricity and telecommunications. The risk of serious disruptions in society becomes all the more severe. Cyber space does not have state boarders, so threats have to be repelled together.

The Arctic is today's focal environment. The main interest is economic, but alongside of this the security issues in the area are also growing. This might be reflected in the Baltic Sea area. Although there seems to be a common desire not to militarize the Arctic, the militaries of the region prepare to operate in the severe arctic environment. In the first place, future activities would be maritime surveillance, and search and rescue at sea.

Security arrangements

Commonly accepted rules and procedures are the basis of security. The United Nations is the most important global organisation from this perspective. Common values are also strengthened through the Organization for Security and Co-operation in Europe.

The European Union is a growing security policy player. The development of EU crisis management capabilities strengthens the Union's capabilities. The EU is not a defence organization, but its Common Security and Defence Policy and solidarity clause reinforce the EU as a security community.

Most EU nations are members of NATO, which gives them security guarantees. NATO is actively seeking partnerships, which is binding Baltic Sea countries to cooperation. The USA is shifting the focus of its international politics to Asia, but it will remain a strong actor in Europe.

The Nordic countries share similar values and therefore form a natural group for cooperation. Nordic Defence Cooperation NORDEFCO is a suitable regional means to improve military capabilities, increase interoperability and enable cost-effectiveness. This cooperation increases collaboration and promotes stability in the northern region.

Finally

Concrete examples of successful military cooperation are the Cross Border Training of the Finnish, Swedish and Norwegian Air Forces in the north and Surveillance Cooperation Baltic Sea (SUCBAS), which all of the Baltic littoral states, with the exception of Russia, have wanted to join. It would be important that also Russia would participate in cooperation. The navies of the region meet and train on a yearly basis and thus build trust and interoperability among their navies. Common exercises form a platform for enhancing development. The cooperation in the civilian sector is also active. Good examples are arrangements for oil recovery, search and rescue and ice breaking.

In order to maintain a safe and secure maritime environment, to prevent friction and maintain the positive development, we must continue networking and building partnerships, share information and collaborate with all essential regional and bilateral actors. It is important to take small steps in the right direction.

Ari Puheloinen

General Commander

The Finnish Defence Forces

Finland

The Baltic connection

By Eeva-Johanna Eloranta

Here, in the cold, faraway North, the waters of the Baltic Sea wash the shores of the edge of Europe. Long ago our destiny was to react to outside impulses and events whilst coping with harsh realities dictated by nature. Gradually our position changed from one of isolation and rigid individuality and started attaining a more worldly flavour through trade and commerce. The Middle Ages saw rapid growth in trade that spanned across the Baltic Sea. In the wake of the 20th century, then, the Nordic societies started gradually evolving into welfare states and, especially after WWII, showed signs of rising living standards and a proliferation of new technologies and innovations. Yet another historical milestone was reached, when in the 90's, the Baltic States regained their independence and the EU and NATO enlarged eastward bringing prosperity and stability to the European North.

The speed of recent historical events has been dramatic. Especially when one thinks that only twenty-four years ago, during the Cold War, the Iron Curtain spanned across the Baltic Sea stretching all the way from Lübeck in Germany to Virolahti in Finland and created a significant gap not only in living standards but also between societies, the rights of the individual and an air of danger through potential military confrontation. Estonia, Latvia and Lithuania became full members of the EU only a decade after regaining their sovereignty. These decades can and will be branded exceptional.

Today the Baltic Sea Region encompasses nine countries, different cultures and a plethora of histories, yet they all share the fundamental importance of our lifeblood – the Baltic Sea. The enlargement of the EU, now encompassing nearly all the countries in the region, has only added to the importance of the Baltic Sea Region within the context of Europe. There is no doubt that, thanks to political, economic, cultural and social ties and cooperation, the significance of the Baltic Sea Region will only grow in the future. Many barriers between countries have been eradicated and today it is often taken for granted that people can move across borders for travel, education and work purposes. However, there is still a lot of work to be done before the integration processes of the Baltic Sea Region are finished.

The EU Strategy for the Baltic Sea Region aims at improving the marine environment of the Baltic Sea, at increasing the safety of marine traffic and at strengthening economic cooperation in the region. In other words the three main objectives are to save the sea, connect the region and increase prosperity. The aim of the Northern Dimension is to support stability, welfare and sustainable development in the Baltic Sea Region through practical cooperation.

The Baltic Sea is an important area for tourism. As a matter of fact approximately half of all the tourists arriving in Finland come from countries around the Baltic. Equally often these countries are the main tourist destinations for Finnish tourists. The significance of the Baltic Sea Region as a tourist destination will probably grow in the foreseeable future as the greenhouse-effect makes summers in Southern Europe and the Mediterranean too hot to enjoy during summer holidays. The Baltic Sea Region offers a mild climate, clean nature, beautiful archipelago sceneries and also some nice, long beaches. The Sea has immeasurable value in terms of recreation.

Bearing the above mentioned in mind, it is sad to say that there are dark clouds gathering over the recreational use of the sea, since the marine environment of the Baltic Sea is in very bad condition. Every summer blue-green algae rises to our shores. Because of this our children can no longer go swimming. Nowhere else in the world can we find such high levels of nutrient content in the sediments. Nowhere else in the world can we find a seabed with so little life due to lack of oxygen.

The main actor tasked with the protection of the Baltic Sea environment is HELCOM, which defines the measures necessary in order to save the Baltic Sea. The Baltic Sea Action Summit process (BSAS) gathers together public and private bodies in order to implement actions that have a positive impact on the state of the Baltic Sea environment. The Council of the Baltic Sea States (CBSS) promotes stability and welfare in the Baltic Sea region. Currently Finland holds the presidency for 2013–2014 choosing a Clean, Safe and Smart Baltic Sea as its umbrella theme.

Saving our sea can be achieved through strengthened cooperation of all the actors and with the help of national parliaments, the European parliament, the Nordic Council and the Baltic Sea Parliamentary Conference (BSPC), which provides a political platform for parliamentarians from the Baltic Sea Region to meet, form opinions, exert political pressure in relation to questions of regional importance as well as organise political activities to bring about major improvements in the Baltic Region's health and prosperity.

Eeva-Johanna Eloranta

MA, MSSc

Member of Parliament of Finland

Member of the City Council of Turku

Member of the Nordic Council

Finland

Economic growth in South-Eastern Finland

By Jukka Kopra

South-Eastern Finland consists of regions of Kymenlaakso and Etelä-Karjala (South-Carelia) and about 320000 people live in the area. South-Eastern Finland has traditionally been a stronghold of large-scale forest and paper industry. As a result of the financial crisis and global trends this heavy industry has been shrinking dramatically causing severe unemployment and general lack of financial prospects.

Entrepreneurs and politicians alike in the area have been scratching their heads to find means to stop the economic decline and to get back on the track of growth again. While this question is still largely considered unresolved there are some special trends that shed some light to this valley of economical darkness. The forest industry is reinventing itself and investing in new innovations. One good example of this is the new facility of value of 150 million euros for production of biodiesel from excess pulp fibres in Lappeenranta by UPM-Kymmene Inc.

Alongside of these activities there is a sector of economy that looks very promising. It seems that the region's location next to Russia is generating very bright rays of light to the abovementioned darkness and enabling significant growth.

Russia is at the moment the single most important trade partner of Finland. At the moment, 80 % of all the logistics between Russia and Finland - people and goods - pass through South-Eastern Finland and its harbors and border stations.

The effect of Russia and especially the area of St Petersburg to the economic development of South-eastern Finland has been very strong during recent years and is still growing. Most visible consequences of this are long lines of Russian tourists at border stations, growing revenue from tourism services and a strong and growing demand of consumer goods.

This growth has lasted for several years despite the economic crisis and general recession in Finland and EU. Most of the Russian tourism to Finland concentrates on the area of South-Eastern Finland and a large portion of tourists are day-travelers. This means that a large number of people come from Russia to Finland in the morning, visit the cities alongside the border, do some serious shopping and head back home in the evening. It is mostly because of this the demand for retail services has been growing steadily and strongly especially in South-Carelia area.

As the South-Eastern Finland is full of picturesque lakeside cottages the owners of these facilities have found a new and serious clientele in Russian tourists. Fishing, swimming, boating, picking mushrooms etc in the last frontier of EU is very popular among Russian tourists, too.

The tax-free sales to Russian customers are growing in 2013 although the pace of growth has somewhat slowed down. The most popular cities are Lappeenranta and Imatra. The area of Lappeenranta sporadically presents higher sales figures to tourists than the capital of Finland, Helsinki.

Last year Russian customers spent approximately 500 million euros in South-Carelia area only. Combined with the figures of Kymenlaakso, the expenditure in South-Eastern Finland is close to 1 billion euros.

There are several estimates of the development of Russian travel, spending and tourism to Finland. Estimates of the turnover of this "industry" for the year 2025 in South-Eastern Finland with a mediocre growth trend range from 2 billion to 5 billion euros. For the economy of the area these figures are extremely attractive.

Of course, to accomplish these figures of growth, a lot of investment in border stations and commercial and logistical infrastructure is needed. The business community in the area is working at full power to utilize new opportunities. The municipal and regional authorities are co-operating very closely. The government of Finland has acknowledged these possibilities and opportunities in South-Eastern Finland and will provide legislation and investments that enable the development of the infrastructure.

In general, the effects described above have naturally been a welcome boost to the area. One might argue, that this is the "normal" situation that has traditionally been in effect between Finland and Russia. With the exception being the era of the communist regime in Russia 1917-90 when all direct interaction between people of South-Eastern Finland and North-Western Russia was strictly forbidden.

Nevertheless, the cross-border economical activities - be it simple retail-trade or more serious industrial investments - are of substantial importance not only to the area of South-Eastern Finland but to the whole country. We also should acknowledge their importance to Russia and its people, too. For Russians South-Eastern Finland acts as an entry point to the EU and to western ways of doing business.

Jukka Kopra

Member of Parliament

National Coalition Party

Chairman of the Board

Regional Council of South-Carelia

Finland

The Baltic Sea region has a role in transatlantic relations

By Ritva Koukku-Ronde

There is an increasing interest in the US towards the Baltic Sea region while at the same time there is a growing interest to emphasize the importance of regional cooperation. This US interest was clearly seen when President Barack Obama recently met with the Nordic leaders in Stockholm and with the Baltic leaders In Washington DC to discuss shared global priorities and long-term goals.

In the meeting with the Nordic leaders the countries agreed to deepen the collaboration on important shared global priorities, including e.g. climate change and clean energy, the Arctic, a strong, open multilateral trading system as well as Europe's regional and security environment. A week earlier the US and the Baltic leaders reaffirmed to strengthen their relations by expanding trade, enhancing strategic cooperation and advancing democracy and human rights around the world.

The Baltic Sea Region is known in the United States as a model for fostering economic prosperity and implementing sustainable environmental policy based on knowledge, innovation and research. It is also logistically well connected and a stable area with over 80 million consumers in reach.

Finland already offers a solid base for trade in a wider region. Our world-class logistics, together with a highly-educated workforce, create an attractive hub for foreign business. I love the expression my American counterpart in Finland, the US Ambassador, uses of Helsinki: "The Epicenter of the New North".

The innovation center of the US Embassy in Helsinki is a clear sign of the interest of US businesses in the market. Finland can serve as a hub for activities in the Baltic Sea area, including especially North-West Russia. Finland can also work as a gateway for Russian companies to enhance their businesses in the European and Transatlantic market.

Looking from Washington DC, the Baltic Sea Region is a case in point as regards to regional cooperation in logistics, security and safety. It is seen as one of the most prosperous markets in the world, embracing the Russian markets and also exploring the opportunities in the High North. There are many opportunities for practical cooperation. For example the Gulf of Finland Vessel Traffic Reporting System GOFREP could be a model for a similar system in the Arctic including the Bering Strait. And let us not forget the Barents cooperation, which has already a functioning search and rescue agreement with common exercises. GOFREP has proven to be a success. It is drastically lowering the accident rates in the Baltic Sea and preventing close calls for ship collisions and possible oil spillages. In addition to this it is also a prime example how three nations - Finland, Estonia and the Russian Federation - sharing a common sea and common concerns for safety, can successfully work together.

Another area of special interest is the cooperation between the Nordic countries and the Baltic States, both in terms of foreign and security policy and the economy. Our interconnected electricity grids are often mentioned as another showcase of successful regional cooperation. The discussion on LNG-terminals and the security of supply in the Baltic Sea area is one of the topical questions, also with a view to the US becoming a net exporter of natural gas in the coming years.

The Baltic Sea is truly a Sea of Cooperation and can offer best practices in many fields, which might be of great interest to the United States in the emerging Arctic cooperation. The US will take up the Presidency in the Arctic Council in 2015 and Finland will follow in 2017. This is an opportunity we should not miss in transatlantic relations.

At the moment, the EU and the US are negotiating a comprehensive Transatlantic Trade and Investment Partnership Agreement, TTIP, which would increase global trade and boost the EU´s economy by 120 billion and US economy by 90 billion US $ annually. It would increase EU´s exports to the US by 28 %. This historical process gives new impetus to EU-US relations in all sectors and the outcome will certainly benefit the Baltic Sea region as well.

Ritva Koukku-Ronde

Ambassador of Finland
to the United States of America

Austria and Finland – a partnership with room for improvement

By Elisabeth Kehrer

At first glance, Austria and Finland don't share many commonalities. When it comes to geography, history and tradition, language, economic ties and regional policy priorities, they are quite different. Austria, small successor to a once great empire, lies landlocked in Central Europe. It neighbours eight countries, which are members of NATO or in a status of neutrality. Finland, comparatively younger as an independent state, looks out on the Baltic Sea and has close relationships with its neighbours, particularly Sweden and Russia.

Nevertheless, the 20th Century created similarities in both countries. During the Cold War, both found themselves bordering the Iron Curtain and choosing a status of military neutrality. As bridges between East and West, Finland and Austria took similar positions in foreign policy matters, with a strong emphasis on multilateralism, peace-keeping and international law. In the United Nations as well as the Helsinki Process, Finland and Austria played an important role and contributed to democratic changes in Europe.

This consonance also extended to our participation in European integration. Long-time members of EFTA, Austria and Finland decided to seize the opportunity provided by changes in Europe in the late 1980s and to apply for EU membership. This culminated in simultaneous EU accession on 1 January 1995. A side benefit of negotiating together for membership are friendships and long-lasting ties between politicians, civil servants and diplomats which serve us well in today's larger EU.

Both countries joined the EU as advanced market economies with high social and environmental standards. From the beginning, we have been net contributors to the EU budget. This leads to many shared interests in the EU's ongoing work, ranging from sustainable agriculture, to consumer protection, from easing regulatory burden on SMEs to trade liberalisation, from pursuing high environmental and climate goals to ambitious EU standards on science and research – to name but a few examples.

Austria and Finland are members of the Eurozone, weathering its crisis together. Both countries are contributing to the various support mechanisms for EU countries in fiscal crisis. And we also share the position on stricter implementation of fiscal rules and reducing public debt.

In an EU of 28 member states, cooperation on a regional basis seems called for. Finland and other Nordic countries have therefore set the initiative for the creation of macro-regional strategies, the first one for the Baltic Sea Region. Austria together with other Central European countries has followed this example by proposing and implementing the Danube Regional Strategy.

Like the European Union as a whole, Austria and Finland face similar structural challenges how to maintain high social and environmental standards while dealing with demographic shifts and changes in the global economic development. Both countries have traditional industries (e.g. paper, pulp, wood processing, steel and machinery). And both countries are making efforts to diversify and to shift towards clean technology, alternative energy, in particular biomass, or medical technology.

Globalisation requires that European businesses move from industrial production to industry-relevant services, from invention to permanent innovation. When dealing with these challenges, Austria and Finland can learn from each other, and compare best practices. Similar government structures and functioning social partnership make such exchanges even easier. Learning from the best will have to become a general principle for both countries – and other EU partners of similar size. For example, while Finland is a model for a highly successful primary and secondary education system, Austria could provide insight into its successful dual education system with its strong emphasis on vocational training on the job. Similar examples could be found in other fields, e.g. in tourism, IT or bio-energy.

Despite similarities and close cooperation within the EU and Eurozone, trade relations and FDI between Finland and Austria have remained at the same level for several years. In a globalised world, bilateral trade figures may not be too relevant as indicators. Nevertheless, cooperation should be intensified. Given that Finland and Austria's economies rely to more than 90 percent on SMEs, "teaming up" among SMEs might be a key to success in globalised markets.

For smaller economies like ours, cooperating mainly on a regional basis seems too narrow. Open integrated European markets allow Austrian and Finnish SMEs to look beyond their immediate neighbourhood for business partners best-suited to complement them, in order to venture into global markets together. Shared interests in Russia and Central Asia could be the beginning of such "teaming up". Austria's experience in South Eastern Europe could also be of interest. So – as indicated in the title – there is indeed room for deepening our cooperation.

Elisabeth Kehrer

Austrian Ambassador in Finland

The Baltic Sea orchestra is playing out of tune

By Björn Carlson, Valery Gergiev, Juha Nurminen, Esa-Pekka Salonen and Michael Tydén

The critical condition of the Baltic Sea is by far the biggest environmental problem in Northern Europe. The uninitiated can nothing but marvel at the high number of organisations and statements churned out from the Baltic Sea cornucopia. If the number of Baltic Sea seminars and publications were used as an indicator, the Baltic Sea would already have been saved.

The Baltic Sea orchestra of 14 nations will not be able to keep in tune without a charismatic leader. The Helsinki Commission HELCOM is a step in this direction, but it lacks the power of decision required of a leader. The cooperation body of the states around the Baltic Sea acts on the basis of consensus, and it has no right to punish member states that have not delivered. In autumn 2013 the Ministerial Meeting of HELCOM convened in Copenhagen. There was no breakthrough but ambitious goals where set – once again. This target setting has to be followed through – simply because we have witnessed too much hot air when it comes to the action plans about improving the poor status of our Sea.

For us, the signatories, the Baltic Sea is a beloved and central part of our lives. For many years, we have looked on as the status of the Baltic Sea has deteriorated, and, using our own means, have all done what we can to help the sea. Our efforts have been channelled through art, music, foundations we have established, or projects aiming to protect the Baltic Sea.

We believe that leadership and an unambiguous roadmap are needed to save the Baltic Sea. We have no time to waste, as the sea, particularly in terms of eutrophication, is approaching a critical threshold. For too long, the sea has been protected only in official speeches and through such activities that carry an insignificant or nonexistent actual environmental impact.

Today, we need to focus on actions that help the Baltic Sea as fast and as efficiently as possible. First, we must block the greatest streams. Although non-point agricultural load is the greatest source of nutrients in the Baltic Sea, we can help the sea fastest by continuing to focus on the remaining major point load sources.

We have seen great progress at municipal wastewater treatment plants particularly in new EU states and in Russia, but this work needs to be carried out to its completion. When municipal wastewater treatment plants have been renovated, it is important that they are also used in a way that removes nutrients to as great an extent as is possible. It is a question of life and death to the Baltic Sea that Poland, for example, does not merely treat nutrients at the minimum level required by EU but strives to meet the more strict HELCOM recommendations agreed by the countries surrounding the Baltic Sea.

At the same time, the remaining major industrial point load sources must be dealt with. We thought they were a thing of the past, but unfortunately they continue to exist. The shocking news of massive nutrient loads generated by the fertilizer industries of Russia and Poland must not be repeated. We are facing an absurd situation: thousands of farms in Southern Sweden use buffer strips to fine-tune their nutrient discharges of a few kilograms while, at the same time, blue-green algae in the main basin is being fertilized by a discharge of hundreds of tonnes of fertilizer phosphorus, originating in waste stacks. The same applies to discharges to the environment from industrial animal farms. These major sources of nutrient load must be dealt with.

Even though fast results are not likely, we must carry on with measures that reduce nutrient loads from agriculture. By its nature, agriculture generates loads to waterways, and especially the phosphorus runoff from the soil can continue for decades. Still, we cannot give up. Long-term effort for more environmentally friendly agriculture must continue. Otherwise there is no future for the Baltic Sea.

While the status of the Baltic Sea continues to be poor, a lot has been achieved through conservation effort. Discharges of nutrients and poisonous substances to the Baltic Sea have reduced as the volumes of municipal and industrial discharges have declined. Particularly in the Gulf of Finland, where nutrient loads have been significantly reduced in recent years, the ecosystem is showing signs of recovery. Combined, the improved efficiency of phosphorus removal from the wastewaters of St. Petersburg and curbing the phosphorus discharges of the fertilizer factory in Kingisepp have reduced the phosphorus load to the Gulf of Finland by almost 60%. In some areas, codfish has returned. Populations of seal and the white-tailed eagle have recovered. A Baltic Sea that is clear, clean and diverse no longer looms hopelessly far on the time horizon.

We must be able to discuss even difficult issues without accusations, focusing on solutions. We need doctors, not judges. Here is our 'first aid prescription' with which major results can be achieved already in the next few years:

All wastewater treatment plants in the Baltic Sea area must treat their wastewaters in line with the recommendations of HELCOM.

Phosphorus discharges entering the Baltic Sea from the fertilizer industries of Poland, for example, must be blocked by treating the runoff waters of gypsum stacks and building appropriate insulation around them

Manure from large animal farms in the Baltic Sea area must be treated so that discharges to waterways are minimised.

The credibility of the effort to save the Baltic Sea is in the hands of political decision makers in economies around the Baltic Sea. We who love the Baltic Sea place our hopes in you.

Björn Carlson

Founder and Chairman of the Board

BalticSea2020 Foundation

Valery Gergiev

Conductor

Artistic and General Director of the Mariinsky Theatre and co-founder of the Baltic Sea Festival in Stockholm

Juha Nurminen

Founder and Chairman of the Board

John Nurminen Foundation

Esa-Pekka Salonen

Composer and Conductor

Co-founder of the Baltic Sea Festival in Stockholm

Michael Tydén

General Manager of Berwaldhallen

Co-founder of the Baltic Sea Festival in Stockholm

Evangelical-Lutheran Church of Ingria

By Alex Prilutskii

Evangelical-Lutheran church of Ingria is one of the two oldest Lutheran churches, which exist in Russia: the first documental mentioning of it comes back to 1611 year. Before revolution in 1917 the church had 32 parishes in Saint Petersburg and its regions, right up to the Estonian border. Total number of parishioners at that time was 147 000.

During the post-revolutionary period of time the natural church development was handicapped and for many following years the church was forced to exist in shadow. Only in 1970 when new parishes were officially founded in such towns as Pushkin and Petrazovodsk the church revival was begun.

Nowadays parishes of the church of Ingria are located all over the country – both on the historical territory of Ingria, and also in the region of Povolzie, Siberia, at Urals, including the central regions of the country.

For the support of congregations in the church body there were formed four special committees, which are responsible for the work with children and youth, spiritual enlightenment, and informational support of the church life. At present there are 110 ministers, which work in the church body. Most of them are Russian citizens.

The church supports the work in the houses of old men, which were built with the aid of the official finish structures, such as Finish Ministry of the social support and health, and Inkerinliitto community.

The church tries to restore and develop those traditions, which were lost in post-revolutionary period of time. In different parishes restoration of the historical church buildings is carried out. Many of these buildings are considered as historical and architectural monuments. Completion of the restoration of the central cathedral of Saint Marry in Saint Petersburg became an important event in the life of the whole church of Ingria.

One bishop heads the church body of Ingria. At present this ministry is carried out by Arri Matveevich Kugappi, which was elected a bishop by the Church Synod and ordained according to rules of the apostolic ministry in 1995.

1. Strengthening of provost regions

Huge geographical coverage of ELCIR makes the church administrating process difficult. Week information channels, bad internet connection, absence of computers in some parishes, and 6 hour time-zones, all these factors allow us to have such a mode of the church organization when some decisions might be made on the regional provost level. This approach corresponds to legislature of Russian Federation, according to which, parishes are independent juridical organizations. However, constantly growing state requirements, connected to annual reports, introduction of new forms of reports creates before parishes such tasks, which they cannot overcome independently. Constant reduction of Central Office staff makes the individual support for every parish impossible. That is why provosts may become an instrument to provide support and care of every parish. Strengthening of provost regions implies:

- strengthening of the provost position as a person delegated by Bishop and a representative of Consistorial Board, providing a provost the controlling authority
- delegating a provost an ability to have monitoring of the provost region situation and relevant informing of the Central Office of ELCIR about possible conflicts and difficulties, so that Central Office might make preventing decisions
- commissioning a provost a representative functions:
- represent Church on the level of local authority
- represent Church on the level of social local event and inter-church initiatives
- formation of provost funds, which will allow provost administrations and provide financial support to parishes
- usage of provost administrations to quickly inform parishes concerning church and state events, rules of reporting etc.
- organization courses and seminars in provost regions.

2. Improvement of the Central Office work

Consistorial Board of ELCIR made a decision to form ad hoc commission, which is obliged to consider and suggest further steps concerning the improvement of Central Office work. It includes:

- reorganization of responsibilities among employees of Central Office
- structural changes
- suggestion concerning rational usage of Central Office rooms
- transfer of some Central Office functions to the local level (decentralization)

3. Cooperation with universities and state authorities

Cooperation of ELCIR with universities and participation in the research academic projects allows us:

- to distribute positive information about church and its social position
- to organize disputations of church important items
- to participate in the strengthening of tolerance in society
- to participate in programs, organized by state authorities
- to strengthen social status of church

The church of Ingria keeps to traditional Lutheran theology, which is based on the unchanging truth of Holy Scripture and makes stress on the biblical approach to the understanding of the pastoral ministry.

At the same time the church of Ingria has got rather active dialog with other Christian churches, and remains a member of the World Lutheran Federation, International Lutheran Committee, and Conference of the European churches. The church has warm relations with Russian Orthodox Church and other protestant churches of Russian Federation.

It is worth to pay attention to the long time traditions of the fraternal collaboration between the church of Ingria and the Evangelical-Lutheran church in Russia, Ukraine, Kazakhstan, and middle Asia. These two churches have got a lot in common, since they are related not only by history but their geographical ministry.

Alex Prilutskii

Dr., Rev., General Secretary

The Evangelical-Lutheran Church of Ingria

Russia

CBSS Expert Group on maritime policy – towards better coherence among actors in the Baltic Sea region

By Ilya Ermakov

The Council of the Baltic Sea States (CBSS) has defined for itself five long-term, broad priority areas: Environment, Economic Development, Energy, Education and Culture, Civil Security and the Human Dimension. It was decided that the aforementioned priorities will be implemented by expert groups, including governmental and non-governmental experts, and CBSS Expert Group on Maritime Policy (EGMP) was established in 2009. EGMP Chairmanship follows the CBSS Presidency.

The current Finnish Presidency is being carried out under the theme "Clean, safe and smart Baltic Sea". The three principles guiding the work are coherence, cooperation and continuity.

Finland will continue to promote better coherence among different actors in the Baltic Sea Region. The maritime issues will be taken forward in the framework of the Expert group on maritime policy under the theme "Clean, safe and smart shipping in the Baltic Sea". The Presidency will seek to cooperate closely with other actors in the Baltic Sea Region, especially with HELCOM. Bringing together the work done in the framework of the Northern Dimension Partnership on Transport and Logistics and the EU Strategy for the Baltic Sea Region with the cooperation with our partners is also of importance.

A special emphasis will be put on the cooperation between the public and private sectors, building also on the St. Petersburg Initiative, which was agreed at the Baltic Sea Forum in St. Petersburg in April 2013.

Finland will take further steps in the development of the Baltic Sea as a model maritime region. Special attention will be paid to promotion of clean shipping and the use of alternative fuels.

Cooperation around mutual interests and regional priorities could be intensified by focusing more systematically on common action.

Finland started its EGMP chairmanship by inviting the Baltic Sea partner organisations - Baltic Sea Parliamentary Conference (BSPC), Baltic Sea States Subregional Cooperation (BSSSC), Helsinki Commission (HELCOM), Visions and Strategies around the Baltic (VASAB), Joint Baltic Sea Research and Development Programme (BONUS), Baltic Sea Forum, Northern Dimension Partnership on Transport and Logistics (NDPTL), Baltic Development Forum (BDF), EU Strategy for the Baltic Sea Region (Priority Area Ship and PA Safety and Security) - to workshop for continued maritime dialogue in the Baltic Sea Region within maritime conference "Baltic Sea between Blue Growth and Green Limits" during the 23rd Hanse Sail in Rostock, Germany 8 August 2013.

In the discussions on concrete issues that could be tackled together the issues highlighted at the Conference were also referred to, namely the challenges for the shipping industry due to the new stricter environmental rules, especially in the context of the Baltic Sea and the North Sea Sulphur Emission Control Area coming into force 1 January 2015, and difficult lending markets due to the uncertainties in the global economy and the overcapacity of ships. Concerns raised by the industry at the Conference related especially to the fuel market after 2015. The price for low sulphur fuel, such as marine gas oil (MGO) is significantly higher than the price of heavy fuel oil (HFO) due to the production costs. Uncertainty in availability of MGO is also a concern for the shipping industry. The alternatives to the use of low sulphur fuel are the use of liquefied natural gas (LNG) or HFO together with exhaust gas cleaners, so called scrubbers. Concerns were also raised in respect of LNG pricing, due to the producers view to link LNG to the oil price. At the same time the shipping industry is facing lower charter and freight rates, and funds accessibility from the credit market is getting worse for the maritime sector when it is needed most. Public funding both from national states and international programmes seems to be insufficient. Within the EU, the EU Commission considers that the challenges should mostly be met by private investments, though TEN-T funding could be used, as well as the cohesion or structural funds and European Investment Bank loans.

There was a general agreement that financial issues need to be addressed to assist the industry to fulfill its obligations. Two frameworks to address this issue were discussed at the workshop.

One platform could be the St. Petersburg Initiative - an initiative to engage all levels of society to work for the ecological balance of the Baltic Sea.

Secondly, HELCOM informed about its intention to work towards the creation of a joint "Green Technology and Alternative Fuels Platform for Shipping" together with other regional actors in the Baltic Sea. The Finnish CBBS Presidency has also engaged in activities in promoting clean shipping and together with HELCOM and with BDF participation is organizing a "Green Technology and Alternative Fuels" event 16-17 January 2014 on board the LNG fuelled passenger ship Viking Grace. The aim is to bring together policy makers and administrations, business and research community in the BSR to draw up a "roadmap" how to promote the development and use of clean and green technology and alternative fuels in the region.

The participants found the Rostock workshop most useful and decided to continue the dialogue and also the preparations for a joint event at the European Maritime Day 2014 in Bremen, as they had had in Gdansk in 2011 and in Gothenburg in 2012.

Ilya Ermakov

Senior Adviser: Economic Cooperation, Maritime Policy, Energy

Council of the Baltic Sea States (CBSS)

Cooperation with Russia benefits Eastern Finland

By Janne Laine

Savonlinna is a historical Finnish city, which was once split by the first border between Sweden and the ancient Russian state of Novgorod. When I'm driving over the Kyrönsalmi Bridge, I tell my daughter that if it was 1323, we would be crossing over the border from Sweden to Russia. Finland didn't exist at the time. We were a part of Sweden and its power politics, locked in a battle over the mastery of the Baltic Sea. The role of Finland, or Österland – the eastern land – was to give its all for Sweden against Russia. The best of Finnish men fell in battle to expand the Swedish realm, and the lot of the eastern land was to become poor in these wars fought for Sweden. Savonlinna was burnt down and destroyed in the hostilities several times.

Savonlinna became a part of the Russian Empire in 1743, as did the whole of Finland in 1809. During the period of autonomy, the Finnish language gained equal status with Swedish, the national identity emerged, and education, transport connections and the industry were developed strongly. Finland began to prosper now that resources were no longer spent on warfare. During that time, Savonlinna also developed strongly and was a growth centre in its region.

After the Second World War, trade with the Soviet Union brought prosperity to Finland, creating a basis for the most developed and equal welfare society in the world. Savonlinna became the most industrialised city in Eastern Finland, and its growth was very strong thanks to exports to the east. Then, in the early 1990s, everything came crashing down.

Today in Eastern Finland, Lappeenranta has become a sturdy regional growth centre thanks to the strong economic development in Russia. Last year, Russian travellers brought over €1.1 billion into Finland, and Russia has once again become Finland's largest trading partner. There are more than 200,000 Russian-speaking people living in Finland, and over three million Russian travellers have visited the country last year.

The town strategy of Savonlinna made the opportunities offered by Russia the primary issue in 2007. The strengths of the city were defined as Saimaa, the forests, and a return to the large historical arc where the city benefits from the endless opportunities offered by Russia. Developing connections to Russia in transport, education, expertise and business life were defined as important lines of action.

A vital issue for Finland and Savonlinna is the smooth operation of border crossings. The return on investment from the project for the internationalisation of the Parikkala border crossing has been calculated as more than 40 per cent. The estimated number of crossings is 0.5–1 million.

The internationalisation of the border crossing would create a new development corridor for growth all the way from St. Petersburg to the west coast of Finland via the middle of Eastern and Central Finland. With it, Finland's largest cluster of mechanical forest industry in Savonlinna as well as the growing bioenergy and biomaterial industries could take advantage of the Russian forest resources.

It would also be possible to take advantage of the EU's longest eastern border as a location for logistics, international industry and tourism. There are already a large number of companies in Savonlinna operating successfully on both sides of the border, taking advantage of the strengths and opportunities of both sides.

Savonlinna is at the top of the most attractive locations for Russian tourists, and among the best three in Finnish studies. Last year, tourism grew by more than eight per cent, while in the whole of Finland it grew by less than two per cent. The investments in tourism in the Savonlinna region amount to a phenomenal €350 million, and half of the investment projects are funded by Russians. Visa-free travel would double the number of Russian tourists and bring 300 new jobs to the Savonlinna region.

Russia has always been a significant scientific and engineering country. In 2008, the town of Savonlinna made a cooperation agreement with St. Petersburg State Polytechnical University, one of the best in Russia. Now our technology park and its fibre laboratory cooperate with Russian laboratories and researchers from St. Petersburg, for example to improve the corrosion resistance of paper machines and soon also to develop new chemical products using wood as a raw material.

Similarly, the Centre for Tourism Studies of the University of Eastern Finland is developing the internationalisation of St. Petersburg, the Leningrad Oblast and Southeast Finland tourism towards China, Brazil and India. They have for example one project castle to castle financed by enpi-program and Russian and Finlands states.

The cooperation between companies and business life is being developed together with Northwest Russia's entrepreneur organisation Opora Russija in accordance with the cooperation agreement signed in 2009. In the Saimaa Summit seminar, Finnish and Russian companies and experts on Russia meet every year. The companies network together, and now even companies from third countries are interested in finding cooperation partners for developing business in Russia.

On the Finnish national level, it is time to understand the opportunities brought by Russia for our economy and for maintaining our welfare society after the enthusiasm over the EU, which of course is very important framework to us. We also need a new kind of ability to understand and to act wisely when new kinds of economic blocs are forming globally, and that safety is not built by creating images of the enemy – it is built by creating images of friendship. We must have good economical co-operation to EU area but also to Russia, USA and China and other areas. Home countries are not built through wars or conflicts – they are built on trade and friendly relationships. We finns have allways been very skillfull, pracmatical and good people in international businesslife.

Janne Laine

Mayor

Savonlinna

Finland

Innovation development of St. Petersburg

By Maksim Meyksin

Saint Petersburg is a city which has a stable economy and a high investment activity. Moreover, it is a heritage asset listed by the UNESCO and one of the economic centers of Russia.

St.Petersburg shows an upward trend in the economic expansion, while the main growing sectors are the industry and the commerce. It's worth mentioning that its foreign trade turnover keeps growing every year, and for example the commerce between St.Petersburg and Finland in 2012 amounted at 967 million US dollars (it grew by 43% if compared with year 2011). Thus, Finland is in the 3rd place among the trade partners of the city.

St.Petersburg is one of the major educational and scientific centers of Russia. The city houses over 10% of the Russian science, which means more than 350 scientific organizations. St.Petersburg is home to: over 60 bodies of the Russian Academy of Sciences and other state academies, over 250 state institutions, which carry on scientific research, 12 state scientific centers. About 40% of the gainfully employed population are university graduates, and among them over 9 000 persons are doctors of sciences and over 26 000 are candidates of sciences. It is noteworthy that the unemployment rate in St.Petersburg is one of the lowest in the world – only 0,4%.

The innovation potential of the city places it among the three main innovation centers of Russia. Moreover, by the results of II all-Russia CHALLENGE CUP-2013, St. Petersburg was recognized as the "Best innovative region of Russia". According to the innovation rating of the cities around the world "Innovation cities global rating" elaborated by the international innovation agency "2thinkNow" (Australia), St.Petersburg is in line 84 among the innovation cities of the world 2012-2013 (Moscow is in line 74). Its geopolitical advantages, congenial investment climate, its innovation policy program are destined to guarantee the leadership of St.Petersburg in the field of innovations.

According to the Decree of the Administration of St.Petersburg "On the concept of the social and economic development of St.Petersburg till year 2025", the development of innovations is one of the priorities for the city.

In order to implement the main guidelines of the innovation policy of the city, the Administration of St.Petersburg adopted the Complex programme "Science. Industry. Innovations" for 2012-2015. The main focus areas of the programme are the following: to promote the technological development and the modernization of enterprises and organizations, to develop the innovative infrastructure and territories, human resourcing of the innovation development of the economy of the city, to promote integration processes between the industries of St.Petersburg, its scientific and educational institutions, to commercialize the innovations, to protect the intellectual property rights, cost-effective use of resources and the improvement of energy performance of the St.Petersburg industry, to promote the popularity of science and the innovation products, to expand markets and contribute to the export of innovative goods, to promote the development of clusters in St.Petersburg. The total financing of the main items of this programme amounts at 3 643, 4 million RUB (82,8 million EURO).

The Administration of St.Petersburg is implementing a policy aimed at creating favourable conditions for the development of industry. The Ministry of economic development of the Russian Federation takes part in the creation of a technology development special economic zone. Such economic zones provide unique environment for an active development of innovative business, for the manufacturing of R&D deliverables and selling in the Russian and the international markets. What makes them attractive for the manufacturers of high-technology products is the combination of state preferences, qualified staff and the growing demand for the high technologies. Nowadays the development of the St.Petersburg special economic zone is in its active phase, and its residents are building the manufacturing facilities in the parcels of land leased in the special economic zone.

The city has infrastructure for supporting the innovations in different life-cycle phases. The Ingria Technopark is one of the key elements of the city's IT-cluster, it is jointly financed by the city budget and the private investors. In 2012 the residents of the Ingria business incubator attracted 459 million RUB (10,4 million EURO) as investment into their projects.

In order to support and develop projects at early stages the Administration of St.Petersburg has created the non-governmental organization "Preplant investment fund", which provides financing for innovation projects up to 5 million RUB. At the moment the investment portfolio of the Fund includes 14 companies.

The city itself is an important potential customer of such goods. On April, 2nd 2013 the Administration of St.Petersburg and the Infrastructure and educational programmes foundation signed a cooperation agreement and a plan for joint activities aimed at the stimulation of the demand for the innovative products in St.Petersburg in 2013-2016.

Many of the city's achievements and projects in the field of innovation have been presented this autumn at the St.Petersburg international innovations forum. The VI innovations forum was held under the motto "From innovating regions to innovating Russia". Great attention at Forum this year was paid to the international cooperation in this field and such issues as the technology transfer, world trends in the development of innovative manufacturing facilities and technologies, the competitive ability of the Russian provinces under the conditions imposed by the WTO.

This year Finland has taken an active part in the St.Petersburg International Innovation forum by presenting a range of events within the business programme. The neighboring region proposed such topics as "The role of the Northern growth corridor: Stockholm – Turku – Helsinki – St.Petersburg in the implementation of innovations", "Small and medium enterprises and start-ups as the engine of the innovation" and "InnoBus: international cooperation in business and innovations". What is more, the Finland delegation participated in the discussion of innovations applied to the medicine, and this topic was predominating during the second day of the forum. Thus, one of the priorities is the cooperation between Finland and Russia, as it will promote the commercialization the innovative R&D results in such fields as biopharmaceutics, diagnosting testing, as well as the innovative approach to the detection, treatment and prevention of infectious diseases, etc.

Maksim Meyksin

Chairman

Committee for Industrial Policy and Innovations

City of St. Petersburg

Russia

Territory available for investors

By Irina Gladysheva

Under present conditions investments are considered to be of critical importance. Attraction of investments to the regions makes their economic development more dynamic, thus improving social and economic indicators. A key factor for involvement of local enterprises in the processes of economic integration is improvement of the investment climate. Therefore development of efficient investment policy is one of the main tasks in the Strategy of social and economic development of the Arkhangelsk region. Priorities within production development gradually move towards private financing. Favorable conditions are created under the long-term targeted program «Improvement of investment attractiveness of the Arkhangelsk region for 2011-2013». It is mainly focused on development of a «transparent» system for working with private Russian and foreign companies coming to the region.

The regional authorities try heard to make business opportunities in the Arkhangelsk region comfortable and clear. Since 2010 a new Procedure for support of investment projects, which are being implemented or planned for implementation on the territory of the region. Openness and availability of information is not less important. Investors need to understand and see the trends for infrastructural development in the region, what kind of state support and benefits they can employ, and where they should apply for the necessary assistance. All the information is available online in Russian and in English on the investment portal of the Arkhangelsk region http://www.dvinainvest.ru.

Today there is a certain system of tax benefits available for investors working in the region. Depending on the total sum of investments a flexible profit tax rate can be applied. Starting from January 1, 2013 investors making capital investments in the reconstruction, technical re-equipment, upgrade and further equipment of production facilities according to the production improvement and upgrade program can also use a reduced corporate profit tax rate.

Cluster policy, important for creation of new conditions to provide sustainable economic development of the territories and transition to the principles of “polarized development”, is actively implemented in the Arkhangelsk region. The Ministry acts as an operator for implementation of cluster approaches in the region. A powerful mechanical engineering cluster has already been formed, it mostly involves shipbuilding. Shipbuilding industry is an important sector in the regional economy thanks to its well-developed professional competences and unique production facilities. The largest factories of the industry are JSC PO Sevmash and JSC SC Zvyozdochka. The shipyards have capacities and technologies for construction of offshore oil and gas platforms and necessary unique competences for construction of floating nuclear thermoelectric power stations. There is also infrastructure available for training of qualified personnel for the mechanical engineering industry. The region also has today one of the most powerful educational centers in the north-west of the country – Northern (Arctic) Federal University has been established, which is one of the 9 federal universities of the country.

The Concept for development of the regional external-economic relations up to 2015 was developed and implemented In the Arkhangelsk region. In 2012, enterprises and organizations of Arkhangelsk region maintain business contacts with 92 countries of the world. The leading positions in the foreign trade turnover belong to the Netherlands (36,03% of turnover), United Kingdom (equivalent to 22.95%), Germany (4,51%). As of 01 January 2013, 132 organizations with foreign capital were registered in the Arkhangelsk region. The Concept for development of the regional external-economic relations up to 2015 is aimed to provide the participants of the external-economic relations with all the infrastructure necessary for their activities – customs, financial, and transportation.

Transportation component is a crucially important element. Development of transportation and logistics infrastructure should in the long run lead to redirect of import and export of goods towards Arkhangelsk and become one of the most important drivers for the development of the regional economy. According to its geographical location Arkhangelsk seems to be the most convenient shipping terminal for both the Northern Sea Route, and for the construction of the logistics and distribution centre and the integrated logistic base for oil and gas projects.

Today Arkhangelsk is a platform for discussion of Arctic projects. In June 2013 Arkhangelsk was host a large business forum «Russian-Finnish Arctic Partnership». Among the topics to be discussed with the Finnish partners there is cooperation within cross-border transportation corridors and the Northern Sea Route, development of cooperation in the tourist sector, and development of new business-projects.

The first international forum “Arctic Projects – Today and Tomorrow” was held in Arkhangelsk in October 2013. The forum aims not only to tell about our capabilities and experience, but also to understand challenges oil and gas companies are facing, promote the use of regional services and supplies, organize effective cooperation with domestic and foreign fuel and energy companies, find ideas for future development and garner the support of major companies.

Irina Gladysheva

Minister of Economic Development and Competition Policy

The Arkhangelsk region

Russia

Vantaa – Finland's link with the world

By José Valanta

To an ever-increasing extent, cities' competitiveness depends on how well they are linked with the global network of cities and with global markets. Two terms—accessibility and connectivity—suffice to describe the two sides of the matter. Finland has been called an island because the country only has sea links to Northern and Central Europe, which is why flight connections to the rest of the world are crucial to the country.

Vantaa is a fast growing city in the Finnish metropolitan area neighboring Helsinki and Espoo. It is also Finland's gateway to the world at a time when air traffic keeps on growing and airfreight is a more and more natural way to transport products requiring top-level IT expertise all over the globe. In fact Vantaa is not anymore only gateway or link from Finland to the world. It is the best base for national and international business.

Vantaa's links, through air traffic to the global network provides the city with a unique strength on which the city's growth will anchor more and more intensively in the future. Connections to the growth conglomerates of the world economy offer Vantaa an unparalleled opportunity to offer the best infrastructure for global commerce in the Baltic Sea.

Our “harbor city” as people living in Vantaa like to call the Finnish capital Helsinki, connects us to the Baltic States through excellent and modern passenger and cargo harbors. Vuosaari harbor is a major port for Finnish foreign trade and it is one of the leading harbors of the Baltic Sea situated only 20 kilometers away from the Helsinki-Vantaa international airport and the City center of Vantaa.

The airport provides Vantaa with a unique competitive advantage

Vantaa has intensively specialized in building the airport city. For instance, the city's fully-owned Vantaa Innovation Institute has combined Finnish businesses specialized in airport technologies into the Airport Cluster Finland network. The network has collected knowhow in airport functions and construction, and its export market consists of the entire network of global airport cities.

The fast, direct and regular airline service attracts investments, businesses, competence and passengers to the city. The Helsinki-Vantaa International Airport—famous for its outstanding global passenger services—was awarded the prize of the best Nordic airport in spring 2013. Finavia, responsible for operating the airport, aims to further boost the airport's success in the near future. The number of passengers is projected to rise from the present 15 million to 20 million flight passengers by the end of the decade.

Besides the high-quality service provided to passengers, the competitiveness of our airport is based on its having the geographically shortest flight route between Asia and Europe. Global air-traffic growth estimates show that the significance of regional flight connections will further increase in the future, and airport regions will become more and more important growth motors.

In 2002, Vantaa began to systematically develop the future Aviapolis airport city around the international airport. The City of Vantaa and several construction companies started to build a regional concept according to which development of the area serves the needs of international businesses and makes their locating in Vantaa as easy as possible.

Since the beginning of the 2000s, Aviapolis has been the fastest growing business center in Finland. More than 10,000 new jobs—that is, 62% of the City of Vantaa's new jobs over the past 10 years—have been created in the region. In addition to international businesses' outlets, the area is home to trade and entertainment services such as hotels, spas and movie theaters. The success story of the Aviapolis area has been noticed both in Finland and abroad, and the aim is to further intensify global cooperation on developing airport cities.

The rising star of travel in between the East and the West

Viewed from the East, we are a gateway to the EU region, which can be fast and reliably accessed from here. Seen from the West, the Helsinki-Vantaa airport's direct regular flights—which are the fastest ones within the EU—are essential for the competitiveness of the entire country. The Government of Finland, the airport operator Finavia and the City of Vantaa have invested altogether €760 million in the cross-traffic rail, the Ring Rail Line, which will begin transport service in July 2015. The new rail connection links the airport not only to the center of Helsinki but also directly to the St. Petersburg rail connection. The vastly popular express-train connection with St. Petersburg makes the Russian markets available to rail traffic as well, which further enhances Vantaa's business opportunities.

Besides business and freight traffic, travel to Finland especially from Asia and Russia has greatly increased. Vantaa develops its air-traffic-related services in a systematic manner, so that this growth trend can continue undisturbed. One core goal of our new Vitality program is to turn Vantaa into the best business-travel location in Europe. Already at this point, Vantaa can offer high-quality travel-related services appreciated by business travelers. In the future, they will be complemented by new high-class service packages that further profile Vantaa as a rising travel city, which it already is in light of passenger statistics.

Info

Vantaa is a modern, international and multicultural city with more than 200,000 residents. Vantaa is home to people from more than 120 nationalities and speakers of more than 80 languages.

Vantaa's self-sufficiency in employment amounts to 105%, and more than 60,000 people from the Helsinki Metropolitan area commute to Vantaa daily. The number of jobs in Vantaa is projected to grow by 20% by 2020; the biggest growth in the entire Helsinki region.

José Valanta

Business Development Director

City of Vantaa

Finland

The Baltic is a challenge to trade

By Juhani Pekkala

The Baltic Sea is the sea of trade. It makes Finland effectively an "island". The Baltic region countries are both trading partners and competitors to Finland. E-commerce will eventually change this balance.

From the Finnish perspective, Russia is the key player in this scenario. Russia is – or at least has been – the only country in the region with substantial economic growth. While recent news from Russia has suggested that the growth is slowing down, it still offers great opportunities for Finnish commercial enterprises.

The retail markets in Russia are at an exciting stage with a great number of people climbing into the middle class with greater ability to spend. Purchasing power is on the rise. Stockmann launched its operations in Russia back in the 1980s, and now SOK and Kesko have followed suit with a notable presence in the market. Both chains are opening new supermarkets in St Petersburg and Kesko also in Moscow.

Finnish technical traders have also tapped into the potential offered by Russia. Several companies are selling raw materials, building materials and machinery and device parts in Russia. In fact Finns have been compelled to seek growth in Russia as industry in Finland is declining and production is steadily being shifted to countries with lower overheads. It would seem that the only country in the region where industry is growing to any significant degree is Russia.

The impact of Russia is also felt within Finland: Russia tourists are an important source of income in Finland. Currently more than four million border crossings are made each year from Russia into Finland, and Russian tourists spend more than a billion euros whilst in Finland. The sum is substantial enough to have importance for Finland's national economy – and even greater importance for regional economies.

According to a border interview survey conducted by the Finnish Commerce Federation and TAK research institute, the number of Russian tourists in Finland is growing by 7–8 percent in a year. The problem is that the median purchasing volume of the Russians is not growing.

There is stiff competition for the Russian spending power among the Baltic rim countries: Estonia, Latvia, Lithuania and Sweden. Estonia has been particularly successful in this competition recently. It has attracted more tourists from Russia thanks to its ability to offer flexible and fast border crossings and more services in Russian than Finns are able to provide.

Estonia has also been successful in attracting Finnish tourists. The biggest reason for this is the high tax on alcohol in Finland, which drives Finns to haul large amounts of alcohol across the Gulf of Finland. The amount of passenger alcohol imports is currently more than one and a half times higher than the amount of alcohol consumed in restaurants and bars.

The authorities have been reluctant to admit that the passenger imports from Estonia has got out of hand, but it remains a fact. Currently planned measures are unlikely to be effective in curbing the amount of imported alcohol. From this perspective, the Finnish state stands to lose substantial tax revenues.

It would appear that Finland is facing a future in which it will start losing tax revenues on services abroad, having first lost much of its industry.

Finland's three biggest trading partners are all within the Baltic region: Russia, Germany and Sweden. Traditionally, Finland has had long and solid trade relations with Sweden as well as with other Scandinavian countries.

Furthermore, Swedish retail business has taken a strong foothold in Finland. The public debate usually focuses on the centralisation of the Finnish grocery trade and at the same time fails to acknowledge that for example the Swedish retail business – fashion in particular – dominates a notable market share in Finland.

Few Finnish companies have entered Swedish markets with similar success. One positive example however is K-Rauta, and another is Stockmann, which bought its way to Sweden through the acquisition of Lindex.

Just like in most geographic regions, the next stage in the competition in the Baltic region will take place online. Finns are buying increasingly from foreign online shops, with German and Swedish ones being particularly popular.

The scale of competition will become European-wide and place great challenges for Finnish trade. The single digital market will open up and this may have an impact on the structure and focus of trade within the Baltic region.

The greatest challenge will be faced by specialised trade. German online businesses have already played a significant role in the bankruptcy of many Finnish and Swedish musical instrument shops.

Trade has always adjusted to the current competitive situation and aimed to achieve the best possible success in the prevailing circumstances. The Baltic region countries are a challenge to each other in terms of competition, while also creating a large market, which in turn promises better opportunities for success.

Juhani Pekkala

Managing Director

Finnish Commerce Federation

Finland

Finland welcomes foreign investors

By Kari Häyrinen

"Finland is a country where everything works." This comment can be often heard when international investors and business people are gathering.

It is true: when a foreign investor or a business manager needs detailed information about a specific issue the information can be rapidly brought. Or when an investor needs help to take care of paper work, experts can be found without extra efforts.

Foreign-owned companies can take advantage of Finland's well developed, efficient infrastructure, competitive operating costs and highly skilled workforce. In general, Finland treats all companies in the same equal way: foreign-owned companies are eligible for a wide range of national and EU incentives on an equal footing with Finnish companies.

In the beginning of 2014, Finland´s corporate tax will be lowered to 20 % that is a very competitive level in Europe. Finnish legislation is transparent and a secure basis for investments, and in the middle of global economic challenges, Finland is standing strong and solid: Standard & Poor´s, Moody´s and Fitch Ratings have all affirmed the best possible AAA rating for Finland´s long- and short-term foreign and local currency debt.

From the point of view of foreign direct investments, Finland is often related to knowledge-driven investments. According to the World Economy Forum, Finland is the best place in the world to benefit from new information and communication technologies (Global Information Technology Report 2013). Nowadays, Finland has several high-tech clusters with companies that have cutting-edge expertise in wireless and mobile solutions, game industry, cleantech, healthcare and life sciences, and new materials and processes.

In terms of innovation, dynamic entrepreneurship and growth companies, Finland is really blooming. This opinion is supported by surveys: Finland is the second best country in the world for dynamic businesses to flourish, according to the Grant Thornton Global Dynamism Index (GDI) 2012; and by Gartner, a technology research company, Finland is Europe's number one cluster for mobile professionals.

A fresh case of innovative dynamics comes from the Finnish game industry: Japanese SoftBank and GungHo announced an investment of USD 1.53 billion in Supercell, a fast-growing Finnish mobile game company that was founded only a couple of years ago. According to the Japanese investors, right now some of the most exciting companies and innovations are coming out of Finland. Supercell will continue its operations in Finland which shows Finland has gained an international reputation as an innovative hub of the game industry.

Investment decisions are increasingly shaped by issues of sustainability and responsibility. Finnish companies are delivering technologies for improved environmental and economic performance by making better use of raw material inputs, using less energy, consuming less water and other utilities, reducing emissions, and creating a safer operational and working environment. Finland has been repeatedly ranked at the top of international sustainable development indices.

The basis of Finland´s knowledge and competence is created at school: our comprehensive school teachers are highly educated with Master´s degrees, and the level of children´s school performance varies very little in different parts of the country. The Finnish school system gives equal assets to all children and teenagers regardless of their social background. Our success in OECD's PISA (Programme for Student Assessment) surveys that measure school children´s learning results in science, mathematics and literacy, has aroused global interest.

In addition, Finland has the third highest percentage of university degrees among population in OECD countries. We are also among the top countries globally in terms of R&D spending per capita, and R&D results are well protected: Finland ranked second in quality of protection of IPR, according to World Economic Forum 2011. The knowledge transfer between business and universities has been one of the key factors in Finland's track record of innovation and economic success.

For those who seek new markets, Finland has a strategic location in Northern Europe which is home to 80 million consumers; it is easy to expand business to east and west from Finland.

Forests – our Green Gold –, nearly 200,000 lakes inland, Europe´s largest archipelago, and mysteriously enchanting Lapland with the sun that either never rises or never goes down are perhaps the best known features of our nature. Experiencing space and tranquility is something that our international guests never forget.

A significant asset of Finland – that is underestimated by us Finns – are Finnish people. International investors or business leaders do not usually have a very structured impression or clear image of Finland in advance, but when they come to Finland, they become stunned: there are competent, well-educated people all over the country – not just in bigger cities – who speak fluent English, and even other languages as well.

We have other virtues, too: *"When a Finn promises to do something, he will definitely do it,"* stated an international investor who visited the start-up event SLUSH in Helsinki recently.

Kari Häyrinen

CEO and President

Finpro

Finland

Finnvera promotes the internationalisation of SMEs in Russia

By Timo Pietiläinen

Owned by the State of Finland, Finnvera is a specialised financing company, which is focusing more on the financing of internationalising and growing Finnish SMEs and Finnish export companies. Finnvera's headquarters are located in Helsinki and Kuopio, with 15 Regional Offices located throughout Finland. Finnvera is the official Export Credit Agency (ECA) of Finland.

Finnvera has a Representative Office in St. Petersburg and an office in Moscow. Operations in St. Petersburg were launched immediately after formation of the new Russian Federation in 1993, with the Moscow office opening in January of 2012. Previously, Finnvera's operating policy and level of activity in Russia varied according to economic fluctuations, but over the past six year Finnvera has invested in the development of its Russian operations.

Together with Team Finland actors

Finnvera is an integral part of Team Finland operations in Russia. Team Finland's core team in Russia consists of the Finnish Embassy in Moscow, the Consulate General of Finland in St. Petersburg, the Finnish-Russian Chamber of Commerce and Ministry of Employment and the Economy (TEM) agencies Finnvera, Finpro and Tekes. Finnvera's Representative Office in St. Petersburg is located in the Finland House, which is also home to other key TEM agencies. In Moscow, Finnvera's is located in the Finland Trade Center/Finpro Office.

Russia a key target country

In terms of Finnvera's export financing, Russia is the second most important target market after the United States. In Russia, outstanding commitments in export financing (measured in euros) more than tripled since 2007, currently accounting for approximately 12–15 per cent of all Finnvera's outstanding commitments in export financing.

About ten years ago, Finnvera was granted the right to finance Finnish SME establishment projects in Russia and other countries by means of internationalisation loans and guarantees. Internationalisation loans may be granted to Finnish parent companies, which can still finance their Russian subsidiaries with loans or venture capital investments.

It is also possible to apply for financial aid from Finnvera for prefeasibility studies, feasibility studies and post-establishment adviser or other expenses involving SME establishment projects in Russia. Over 200 such projects have been financed over the past ten years. The aid covers 50 per cent of the total project costs, but no more than EUR 60,000 per project phase.

Finnvera operating policy for SME projects in Russia

Finnvera generally serves as a co-investor on the Russian projects of Finnish SMEs. Other investors are, in most cases, a Nordic commercial bank and a public international, risk or development investor, usually NEFCO, Finnfund or Nopef. Recently, the European Bank for Reconstruction and Development (EBRD) has also been interested in co-investing in the Russian projects of Finnish SMEs.

In practice, 25-30% of an establishment project is financed by the company itself, with the remainder covered by other sources of financing. On smaller projects, Finnvera and a bank often provide financing in addition to the company's self-financed contribution. On larger projects, there are usually more investors involved to defray the risk.

Finnvera only provides financing for Russian projects being carried out by Finnish SMEs. In such cases, establishment in Russia is done to generate growth for the company abroad, in order to safeguard operations remaining in Finland.

Finnvera representatives in Russia advise Finnish SMEs on how to put together a financing package and assist Finnish companies in networking with Finnish companies and business leaders already operating in Russia. Some good examples of networking are joint gatherings of Nordic financiers operating in Russia, the Investment Group and the new Guild of Finnish Construction Companies, which began operation in the autumn of 2013 in St. Petersburg.. Mentorship activities for assisting companies establishing new operations will also be launched in early 2014, at the latest.

Challenges for Finnvera

Basically, internationalising Finnish SMEs receive financing for their internationalisation projects in Russia at a reasonable rate and a reasonable price. The prerequisites for receiving this type of financing is that the company's business in Finland has been profitable and the internationalisation project is sufficiently well prepared.

A second, post-establishment round of financing in Russia might prove problematic for an SME. A company might lose its status as an SME upon being established, because, in many cases, the number of group employees, at the very least, will exceed the SME limit after the first phase of a Russian investment. According to the current interpretation of the law, as Finnvera may only provide financing for SME internationalisation projects, it is excluded from participating in any further investments of its client companies in Russia. The problem is that companies exceeding the SME limit are, in many cases, still not large enough or financially strong enough to receive financing from the market.

In the future, it would be a good idea to determine whether it would be possible to grant Finnvera and equivalent specialised, state-owned financing companies in the EU the right to also provide financing for internationalising domestic companies that exceed the limit specified for SMEs. An appropriate increase might be to quadruple the current definition of what constitutes an SME, thus including companies with an annual turnover of no more than EUR 200 million, a balance sheet of EUR 150 million and a consolidated staff of no more than 1,000 employees.

Timo Pietiläinen

Head of Representative Office

Finnvera Plc, St. Petersburg

Russia

The joint global competitiveness – an ambitious goal of trade policy between Russia and Finland

By Yuri Piskulov

1. Topic of the round table in the Russian Trade Representation in Helsinki today is more than urgent; it is a priority for the Russian-Finnish relations. The process of globalization and regional integration in Europe, in the former Soviet Union is accompanied by increased competition, the continuation of the crisis and stagnation.

Compared to the pre-crisis period today there are increased economic trends such as the rise of new media research intensity (R&D expenditures), increased individualization of production of goods and services "for the consumer"; territorial cohesion of developers and manufacturers, the rise and dominance of intellectual property in the modern production, re-industrialization of the economy of developed countries , including through innovation in traditional industries, the return of financial assets and production in developing countries. All of this means new challenges and requirements for the competitiveness of enterprises and the country and for the means to achieve it. Among them – the union of the companies' assets, the creation of new alliances, which include former competitors, the use of the mechanisms of mergers and acquisitions. These requirements are taken into account by the trade policy, both at the multilateral (WTO) and national levels.

2. Transnational business reacts to the increased competition in different ways. Combining assets, acquisition and elimination of competitors are the most common ways. Thus, the purchase of "TNK-BP" by the state "Rosneft" has led to the creation of the world's largest mining and refining company. This is an example of a "friendly" merger of the assets, from which both sides have benefited.

To the "unfriendly "can be attributed, perhaps, the methods of retention of competiveness applied recently by TNK "Uralkali", which doubled "brought down" prices for their products (low cost of production allowed to do so) and thus eliminated its former partner and rival "Beloruskali" and a number of other suppliers of fertilizers. This behavior led to a sharp political reaction from the Belarusian leadership: the arrest of CEO of the Russian TNK in Minsk and declaring its major shareholder oligarch Kerimov wanted through Interpol.

A striking example of the "hostile" acquisitions, in our opinion, was the purchase by the American "Microsoft" of the "Nokia" company – brand number one in Finland. According to experts, this absorption is the result of a 3-year-rule of CEO of "Nokia" Elop – "Trojan horse" of the "Microsoft", who brought down the value of "Nokia" shares thrice, which was sold to "Microsoft" for just 5,4 billion euro. In fact one bureaucratic organization was absorbed by another (due to overconfidence of the top managers), which lost its leadership in its original field of mobile devices and skipped ahead its competitors "Apple" and "Samsung" including by reason of ignoring the Russian market offers to localize its production (RBC-daily 04.09.13). It is unlikely that trade and political authorities in Finland are related to this transaction. "I cannot like it – posted in Twitter Minister Alexander Stubb, – to sell so cheaply".

3. In addition to the above, the comparison of the dynamics of foreign trade in Russia and Finland given below substantiates the appropriateness of accounting of these trends in trade policy in both countries.

In 2012, Russia's foreign trade turnover amounted to 837 billion dollars, including the "foreign countries" (countries not members of the CIS) – 720 billion dollars. Positive trends are observed in comparison with the previous year both in exports and imports – share of non-CIS countries reached 85% of exports and 87% of imports.

During the same time, the physical volume of Finland's foreign trade fell by 1,2%, including exports by 0.1% and imports by 2,3%. Neither the export of Finland, 57 billion euro, nor imports, 59 billion euro, in 2012 reached the level of 2008 (or 60 billion euro and 62 billion euro). Most of all in 2012 the export share of machinery and equipment was reduced, from 44% to 21% and telecom equipment, from 13% to 2,9%. The negative trade balance of Finland reached 2,4 billion euro, the national debt was 53% of GDP (in Russia – 11%).

The above statistics indicate problems in Finnish exports and its competitiveness, the most important of which is an increase of comparative costs of production, especially in traditional industries. In this context, attempts of development of new approaches to modernize the economy and improve its competitiveness are clear, which are included into the program of action for the development of foreign economic relations of "Team of Finland", and strategies to attract foreign investment.

4. Against this background, the Russian-Finnish trade two years in a row shows good dynamics and the maximum share in the foreign trade of Finland: 15% (2008 – 12 %), although it has not yet reached pre-crisis volumes of cost. Worth noting is the fact that earlier this dynamic was noticed by few people, now the Finnish authorities and the business say that it is a neighboring Russia, with its growing market and economic potential and its membership in the WTO, which is playing an important role as a factor of sustainable economic growth in Finland, especially against the background of crisis and stagnation phenomena in the global economy and the euro area.

The priority areas of the Russian-Finnish economic cooperation in the light of tradition and experience accumulated by the parties, in our opinion, (which is shared by the Trade Representation of the Russian Federation) are:

Industrial and technological cooperation in the field of shipbuilding and marine equipment manufacturing, commercial and industrial and technological cooperation in the forestry sector, including modernization and the creation of new capacity pulp and paper production, and cooperation in the field of biotechnology, medicine and pharmaceuticals, industrial and technological cooperation in the field of energy and energy efficiency in information, telecommunications and clean technology , in the construction, transport and logistics, agriculture and agribusiness, the food industry, joint research, development and commercialization of innovation, using the Finnish experience and intellectual property in both countries.

More than 10 directions listed in many cases are already provided with a "roadmap", e.g. life length of business and government agencies, including the working groups of the Finnish-Russian Intergovernmental Commission. In nearly every direction production and technological cooperation and localization of production and R&D in Russia and in some cases – in Finland, is possible. This potential is also the potential of Russian-Finnish cooperation in the markets of the three countries, for example in the field of nuclear energy and shipbuilding.

The main thing that prevents the implementation of the directions listed above is the lack of "political will" that is agreed by the parties at the highest level of mutually beneficial trade policy, which includes measures of economic and legal assistance to business. There is also the question of why during the meetings of the leaders of our countries the strategy of the Finnish-Russian cooperation, including crisis and issues of joint global competitiveness, still has not been discussed. Obviously, it is hampered by the different interests of certain elite groups, the bureaucracy, the stereotypes and myths of the "cold war", which were successfully overcome by the Finnish and Russian politicians and businessmen in the era of the "Eastern trade" and the East-West confrontation.

5. In addition to the above arguments "for" the production of a joint strategy for the global competitiveness of our countries, we can give arguments, talking about the actual beginning of its implementation:

a) Shipbuilding and Marine Technology

Recommendations of the round table "The challenges in the maritime industry," ... of the Finnish-Russian business forum in Turku

27.03.13 speak directly about the "presence of the prospects of Russian-Finnish cooperation in the Arctic shipbuilding industry …, the formation of a joint maritime cluster, which is significant and internationally recognized, the creation of cross-border production chains and networks of subcontractors, cooperation of R&D of new conceptual directions in shipbuilding ... the creation of joint ventures in the maritime industry ... and modernization of the existing shipbuilding infrastructure and new infrastructure ... , interaction in the design and construction of vessels for offshore operations, platforms for drilling and production of oil and gas ...

Specific members of this interaction are named, first of all, this is Russian "United Shipbuilding Corporation" (USC) and "STX Finland".

Implementation of the forum's proposals will require large amount of financial resources, preferential treatment (tax and customs) and global approaches. President Putin at the meeting on the development of commercial shipbuilding in Vladivostok on 29.08.2013: – Russian companies, especially of oil and gas industry, form a large order for the period of 2030 to 6,5 trillion rubles (more than 500 vessels, 22 thousand units of marine equipment). For this we need not only to develop new types of ships, ordering them to domestic shipyards and using Russian technology of the world level, but also create alliances with foreign shipbuilders, including The Republic of Korea. The latter should understand that there will be no procurement of foreign equipment, if there is no cooperation and the localization of production in Russia (following the example of the automotive industry). According to D. Ragozin, cooperation with shipyards of defense department is at that possible.

The outcome of the meeting was the order on the establishment of the Far Eastern shipbuilding cluster, increasing the share of commercial shipbuilding, its funding and establishing objectives of "USC".

In our opinion, settlement of the tasks outlined by the President Putin in Vladivostok is closely linked with the recommendations of the business forum in Turku. Global approach might be to interact with shipbuilding and financial institutions of the Republic of Korea, which are directly related to shipbuilding in Finland.

b) Timber industry

What could be more natural for neighboring countries endowed with vast renewable forest resources than a large-scale cooperation in this sector? According to Dmitry Medvedev on the fourth "Forest Summit in Finland, "in some we are competitors, but, on the other hand, our markets are now open and we have to work: Russian companies – in Finland, Finnish companies – in Russia ... not to prevent displacement of the Finnish and Russian timber companies from the global markets .... Projects in the Russian timber industry will benefit from a special government support ".

However, compared with the period of the "Eastern trade" forest products and related investments occupy a modest place in the Russian-Finnish trade. Russian exports to this group (mainly raw wood) accounts for 4 % of their value, in import – 14% , and the share of accumulated Finnish investments in the branch is a few more than 1 billion euro. In the post-Soviet period in Russia there was built no single pulp and paper mill.

In contrast to such a "pure business" as power, in which Finnish companies ("Fortum", for example) like to invest, the development of timber industry in Russia is a laborious and thankless task. Our partners do not usually go further than processing primary forests and purchase of forest raw materials.

On what is needed to be done from both sides it was said and written a lot. In 2009 – 2011 particularly active was the Russian Chamber of Commerce (Working Group on international production cooperation), together with the Central Research Institute of this industry in Russia and the leaders of the South-East Finland, which account for over 50% of the country's wood processing products .

In 2010, it was prepared a joint project of the program of public-private partnerships in forestry in Russia and Finland, which was repeatedly directed to all possible levels – from ministers to the Prime Minister and the President of Russia. Proposals included measures to integrate resources of the parties to share access to foreign markets and investments in innovative development of the industry, particularly in the development of "bio-industry", to obtain qualitatively new types of products and value-added fuel. At the same time these proposals were of anti-crisis character, including loading the idle capacity of Finnish enterprises at preferential schemes with Russian raw materials and semi-finished products, as well as an assortment of exchange. A" start-up" was also provided – the sources of funding from the program "ENPi", (regional programs of EU, Finland and Russia).

However, the weakening of the global crisis and "aggravation" of the bureaucracy on both sides put out the activity of Russian and Finnish developers and supporters of this program. It was not even discussed at the meetings of the working groups of the Finnish-Russian intergovernmental commission.

From the above it can be concluded that the achievement of the joint global competitiveness of the businesses and industries of neighboring countries would be in the national interests of both Russia and Finland. The logic of competition and the development of the crisis are pushing the two sides to the realization of this task as a priority for the strategy of the Russian-Finnish relations. It's high time for trade, political and economic representations of the parties, including the intergovernmental commission, to review the preparation of the appropriate document and the measures for its implementation.

The author analyses the issues raised at the international round table in the trade mission of the Russian Federation in Helsinki (Finland) 18.09.2013 on the subject "Russian-Finnish relations in the context of modern integration processes".

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Russia

Responsible gaming system – the most efficient way to prevent money laundering

By Petri Lahesmaa

There is good reason to ask why some member states of the EU apply an exclusive rights system to gaming operations. Should not competition and a smoothly functioning internal market be the guiding principles of all economic activities in the EU?

In Finland, the gaming system is based on the Finnish Lotteries Act. It clearly defines that games can only be provided by three operators owned and controlled by the Finnish State. The member states' systems vary considerably. There are states where games are operated by a single state-owned monopoly firm. There are also member states like Malta, which has granted gaming licences to over four hundred operators on the web – which, however, are not allowed to operate in Malta. The aim of these companies is to disturb the gaming systems of other states, benefiting faceless tax evaders.

The member states' varied systems are based on the EU's decision to define gaming systems as falling under national discretion. The ECJ has demanded in several rulings that the systems shall be in harmony with the EC Treaty.

Many complaints have been lodged with the European Commission concerning the Finnish system. Since 2006, the Commission has had numerous open infringement proceedings against several member states, without any progress. At the end of November the Commission decided that there were no grounds to proceed with the infringement proceedings against Finland. Thus, the Finnish system was found to adhere to the principles of the EC Treaty.

Finland has an effective system

It is easy to see why foreign private gaming companies operating from tax havens find the Finnish national gaming market attractive. The Finnish gaming system generates one billion euros a year for the good causes. This amount is used to finance culture, arts, sports, grassroots sports, youth work, research by the Academy of Finland, war veterans, organizations of the disabled, health and social care associations, and many other core operators of civil society. For example, the public financing of the Finnish film industry is practically based on Veikkaus funds. This is also the case with sports. Thanks to the Finnish gaming system, we can support grassroots sports for children, young people, and special groups. Collecting these funds by commercial means would not be possible.

Gaming is no ordinary business. It is a special industry that requires regulation different from that of ordinary economic activities. This is why the normal internal market regulations are not applied to gaming. The need for special regulation has to do with the problems caused by gaming. Especially games offered on the web with a high event frequency can cause and do cause gaming addiction. The Finnish gaming operators have set strict limits on daily gaming. Players cannot transfer money to their game account in the nighttime. They can also only open one game account. The identification system on the web is secure and reliable. The treatment of gaming problems and the national supervision of the gaming system are covered by the three national operators out of their turnover. Private gaming firms operating from tax havens do not follow the same rules.

Money laundering and match fixing – growing threats

From a social perspective, money laundering and sports-related crime are growing threats. Match fixing is increasing. It is a phenomenon that threatens sports integrity more than doping. The Finnish gaming system is well prepared for fighting these threats. The payout percentages are lower than those offered by private bookmakers, making the games less attractive to money laundering criminals. However, neither player identification nor the daily gaming limits can protect us against money laundering or match fixing. Foreign operators are actively trying to get a foothold in Finnish sports. In February 2011, a Singaporean money laundering criminal was arrested for fixing matches of Rovaniemen Palloseura, a Finnish football club. He was sentenced to two years of unconditional imprisonment. Many players also got tough sentences. Rovaniemi is a town of 60 000 inhabitants in northern Finland, far away from Singapore. This case was just the tip of the iceberg. No state, no sports event is safe from crime that infiltrates sports. Strict gaming regulation and control are a necessity. Gaming is no ordinary business!

The Finnish gaming system has been approved by the Commission. It has been deemed to comply with the principles of the EC Treaty. Thus, Finland can continue to develop its own system. Its reliability, security, and the additional value it generates to society make it a good model even for other EU member states. Yet, the pressure on the Finnish gaming system will continue even after the Commission's decision. Although foreign operators are not allowed to offer games in Finland, they go on marketing their games on the web, blogs, and the social media. Many states have blocked companies operating without a licence. Access to websites and funds transactions have been blocked. Private operators with a fresh licence in a state with a multi-licence system are usually the first ones to demand such measures. Blocking websites is one way to limit illegal game provision. However, the best way is to make sure that the legal operators provide games that are clearly more reliable and secure than those provided by others.

Petri Lahesmaa

Director, EU Affairs

The Beneficiaries of Finnish Lottery

Belgium

Technology for the benefit of people and the environment

By Markku Kivikoski

New technology holds promise for addressing many of today's global challenges. Technically oriented universities play a key role in transferring knowledge, expertise and technology into industry and developing innovative technologies with the potential to achieve commercial success and deliver wider benefits to society. Groundbreaking advancements in the development of materials, automation systems and industrial processes provide a solid foundation for the sustainable growth of competitive industries.

Professor **Reijo Tuokko** from Tampere University of Technology (TUT) introduced the initiative called the Baltic Sea Region Manufacturing Belt at the Manufacture 2013 Conference that took place in Vilnius in October. Led by TUT, the initiative seeks to strengthen the competitiveness of the manufacturing industry in the countries that make up the Baltic Sea Region by promoting macro-regional smart specialization and attracting more private investments in research and innovation. As a major employer, the manufacturing industry has a substantial impact on the region's economy.

Commitment to pursuing new avenues of research and learning

TUT has a long tradition of fostering close ties with companies, universities and research institutions in Finland and abroad. Our extensive international networks provide an ongoing mechanism for the establishment of bold new research and educational initiatives. One example of successful collaboration is the Demola concept that originated in Tampere, Finland, and is currently driving the creation of new jobs and businesses and improving the quality of life in six regions around Europe.

The innovative and yet seemingly simple concept has won several awards: Demola brings students and companies together to find solutions to real-world industry problems. The partner companies take home new ideas for products, service concepts and social innovations. Students not only earn credits, but also gain hands-on experience and contribute to the development of future products and services.

The first Demola innovation hub was established in Tampere in 2008 by TUT, the University of Tampere and Tampere University of Applied Sciences. The concept has since spread to other parts of Finland, southern and eastern Sweden, Vilnius in Lithuania, and Budapest in Hungary.

Demola has been identified as the best practice for open innovation in BSR Stars, a flagship project within the EU Strategy for the Baltic Sea Region. In connection with and supported by BSR Stars, Demola has been benchmarked and promoted across the Baltic Sea Region. In June 2012, the concept was recognized with the Baltic Sea Innovation Award. InnoPlatforms is a new Demola-based initiative that is currently being promoted as a separate flagship project under BSR Stars in a bid to extend the Demola BSR network, develop interregional Demola activities and explore new funding opportunities in the upcoming EU funding period 2014–2020.

In addition, TUT participates in the FIRST Programme that promotes the reciprocal mobility of students and teachers between Finland and Russia and sponsors joint intensive courses. The majority of exchange students who come from the countries bordering the Baltic Sea to study at TUT are from Germany, Poland or Russia. The most popular exchange destinations for TUT's students and researchers are Sweden and Germany. The FIRST Programme aims to ensure that the numbers of incoming and outgoing exchange students are balanced.

Welfare through education and technological expertise

The building blocks of the Finnish welfare state are quality education, high-tech expertise and exports. Research and education have a significant impact on society, as demonstrated, for example, by the impressive results achieved by Finnish water education programmes. Many of the international graduates have gone on to raise the standards of water and sanitation in their home countries. Over the years, TUT has been actively involved in water management education and research both in the Baltic Sea Region and Africa. The Nordic-Baltic Research Network is currently pursuing a project titled Viable Water Management and Governance for Futures (VIWAFU). The network aims to generate knowledge about water management and governance to support decision-making in the Nordic and Baltic countries and the EU. TUT brings to the project its expertise in water resources management and sanitation. In 2012, our University was awarded the globally unique UNESCO Chair in Sustainable Water Services. The prestigious appointment will be held by Adjunct Professor **Tapio Katko**, who is also heading the VIWAFU project, from 2012 to 2016.

TUT has maintained active collaboration with the Tampere-based Baltic Institute of Finland (BIF) ever since the institute's establishment in 1994 and has a permanent seat on its Board. TUT has served as a partner or expert in dozens of BIF's projects that have explored, among others, new innovation systems, water and waste management solutions, and environmental management systems in the Baltic Sea Region. In 2009–2012, TUT was a key contributor to BIF's St. Petersburg Business Campus Project, whereby Finnish and Russian universities joined forces with Finnish companies operating in Russia to develop and pilot a new MBA level training programme on Russian business.

Signal processing, optics and photonics, intelligent machines, biomodelling and the built environment have been identified as TUT's leading-edge fields of research in the 2011 Research Assessment Exercise. We are continually seeking new avenues of research and education and aim to be recognized as one of the world's foremost research institutions in our leading-edge fields.

Markku Kivikoski

President

Tampere University of Technology

Finland

Role of advisory council in developing competitive technological universities

By Leonids Ribickis and Arturs Zeps

Nowadays technological Universities are more than facilitators of the study and research processes. They have an important role in creating a sustainable innovation environment, solving problems of technology transfer for new products and technological solutions for many different businesses. Thus it is important for Universities of technology to follow the most actual trends and industry demands to serve its needs.

Universities have always valued their autonomy that allows them to act independently from political and other influences. In some countries local governments have introduced a University management system that puts a Council consisting of politicians and other third party members, as a general decision body. On the contrary, Universities in Latvia have a possibility to decide independently on the need for an additional consultation body – Advisory council in addition to rector, Senate and Academic council. Some Universities in Latvia have expressed their free will defined in the Law and introduced Advisory councils.

So, one may ask – what is the benefit of having another consultation body in the structure of the University, which most likely knows better on its own how to manage the institution. Riga Technical University (RTU) is a good example. RTU is the largest Latvian technical University that has set its strategy to be an internationally recognized as the leading university of science and innovation in the Baltic States.

RTU has an active Advisory council that consists of 30 experienced managers of the largest Latvian manufacturing and utility companies as well as the leading scientific institutions. It comes together 4 times a year and helps to define priorities and solve problems that are important at the time being for the University. The Advisory council creates a strong bond with the direct consumers of the knowledge, research and innovation created within the University.

At first glance it might seem that such a consultation body cannot influence the University work and development directions. However, the impression is wrong since Advisory councils consist of the highest-level managers who are not ready to waste their time on plain talks about University. They expect numbers, clear plans and strategies that University wants to implement to provide their thoughts and suggestions. RTU's experience has proved that members of the Advisory council analyze available materials on all topics, ask questions and provide suggestions that allow seeing possible development plans from different angles.

Most important questions that are raised at the Advisory council are the budget and the Strategy of University. This provides opportunity for members of the council to influence the University's development plans and structure of expenditure for the next planning period. Thus the University decides together with the businesses industry on which way it will evolve and how it will invest funds available.

The Advisory council of RTU has the right not only to consult on existing and current resolutions, but also to come up with its own initiatives that later are forwarded to the Senate of the University for enforcement.

Though the Advisory council is more than just a consultation body, it works as a lobby protecting interests of the University. Members of the Advisory council often serve as experts in different working groups of the Ministry of Economy, the Ministry of Education and Science as well as the Ministry of Foreign Affairs and other institutions in such way representing the University.

Based on the existing experience in work with the Advisory council RTU has developed few suggestions on how to strengthen the cooperation with the council to gain the maximum benefit. To fulfill the improvements the Advisory council should be given the right to approve the annual budget, the Strategy of the University and structural changes within the University before they are approved in the Senate. As well the Advisory council should take part in the Rector's election process, by hearing out the candidates to the Rectors post and recommending the candidate for the Academic council.

Universities in Latvia can decide whether they need to introduce Advisory councils in their structure. Example of RTU shows many benefits of such act. This allows creating a stronger link with the industry and other businesses that demands specialists and consumes knowledge and innovations provided by the University. Since the Advisory council is not defined as a general decision making body, but just as a consulting one, the University keeps its autonomy and is not affected by any political parties as it is seen in many State owned companies in Latvia. Incorporating the Advisory council in strategic management like RTU did, and widening its functions other Universities as well could benefit from ideas and suggestions provided by the leading experts in the field.

Leonids Ribickis

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University of Jyväskylä – ahead of its time for 150 years

By Matti Manninen

The roots of the University of Jyväskylä lie on the first Finnish teacher training college founded 150 years ago, in 1863. The college was in many ways much ahead of its time. For the first time in the world, male and female teachers were educated in the same school. The director of the college, Uno Cygnaeus, also demanded that all teachers should have international experience and arranged scholarships for teacher students for studying abroad. This was at a time when there were no cars and the closest railroad station was 200 kilometres away from Jyväskylä. Cygnaeus himself had worked in Alaska and St. Petersburg and made a long trip to Sweden, Denmark, Germany and Switzerland to study different educational systems.

In the last century, the teachers' college grew to become a multidisciplinary university that now has seven faculties and more than 14,000 students. The University of Jyväskylä has several strong areas, for example, natural sciences and mathematics, humanities, social sciences and sport and health sciences. Nevertheless, the University is still most famous as Finland's leading expert in children education, teacher education and adult education, as well as the largest exporter of education in the country.

The University is also responsible for teacher education in the Kokkola University Consortium Chydenius, and it is the only provider of teacher education in Finnish sign language.

Nearly half of the 1,400 master's degrees awarded annually include teacher qualifications. Last year the University educated around 150 elementary school teachers, 55 special education teachers and 300 subject teachers in various fields. The Faculty of Education also provides an international master's degree programme with all teaching in English.

The University of Jyväskylä is exporting its expertise in teacher education through EduCluster Finland Ltd, a company in which the University is the main shareholder. The company now operates in more than twenty countries on four continents. It is perhaps a sign of globalization that only two of these countries, Russia and Poland, have shorelines along the Baltic Sea.

Internationalisation has played an important role during the history of the University of Jyväskylä. Today, all the research and teaching positions are advertised internationally and the number of foreign employees is increasing steadily, being now nearly 10% of the total personnel. We already have more than 1,000 foreign students from nearly 100 different countries. The University has bilateral agreements with 82 universities around the world. Only five of the universities are located in the Baltic region: Tallinn University, the University of Tartu and three universities in St. Petersburg.

The distant geographic location of Jyväskylä, way up north from Central Europe, intensifies the attraction of more distant universities and we may often overlook the possibilities provided by the neighbouring countries. In any case, the Baltic Sea Region is becoming more important for our student exchange. The total number of regular students from countries around the Baltic Sea at the University of Jyväskylä is already about 150. The student exchange program to the Baltic Sea countries is also intense: In 2012, we had 98 incoming students and 132 outgoing student within the Baltic Sea countries.

Ten years after the end of the Cold War, on 8 November 1999, the presidents of five Baltic countries, Finland, Estonia, Poland, Latvia, and Lithuania, met in Jyväskylä and discussed in a public meeting about the future of their own countries and Europe. This meeting was the beginning of the Martti Ahtisaari lecture series arranged in Jyväskylä every year. Many of the lectures have had a Baltic dimension. Last year Jyrki Katainen, the prime minister of Finland, spoke about "Opportunities and potential for cooperation in the Baltic Sea and Arctic regions". It is easy to agree with his conclusions that the expertise of snow, darkness and cold weather gives great prospects for Finland and the Baltic Sea region in research and economy related to the Arctic.

The University of Jyväskylä is collaborating globally – even in the most distant places of the world. At this point, it is good to take a look at countries close to us and increase international collaboration with our neighbours. A detail that may interest our collaborators who want to study Finnish: Jyväskylä is the place to learn the purest Finnish language. You are welcome here.

Matti Manninen

Rector

University of Jyväskylä

Finland

Petrozavodsk State University cooperation with the Finnish universities and organizations

By Anatoly Voronin

Petrozavodsk State University (PetrSU) as one of the leading universities of Russia in international cooperation actively expands contacts with foreign universities and international organizations. Due to the geographical position of the Republic of Karelia and its long common border with Finland cooperation with the Finnish institutions is significantly important for PetrSU. The main areas of PetrSU cross-border cooperation are educational and research activity and production cooperation.

For nearly two decades PetrSU has annually been sending its students and receiving students from Finland for training and internship for one or two terms according to the exchange programs within the framework of bilateral agreements. The exchange programs with the Universities of Helsinki, Turku, Oulu, Eastern Finland, Tampere, and Lappeenranta are being implemented most actively.

PetrSU students take an active part in the Finnish-Russian Student Exchange Program FIRST, short-term student exchange based on network cooperation between the Finnish and the Russian universities.

The university postgraduate students and young scientists participate in the programs of the Centre for International Mobility (CIMO) which allow postgraduate training, as well as practical training in various academic fields. Besides, CIMO provides significant assistance in international exchange of the students and lecturers of the Department of the Finnish Language and Literature of PetrSU.

Two cross-border universities, the Finnish-Russian Cross-Border University (FRCBU) and the Barents Cross-Border University (BCBU), hold a specific place in development of cooperation between PetrSU and Finland. The main aim of both projects is to develop and promote joint Master's programs in English, to raise the quality of students' training and mobility.

Annually, PetrSU implements more than 30 international projects, and the major part of them is carried out with the Finnish partners and is supported by the Finnish funds and programs. For instance, in collaboration with the University of Oulu and FRUCT Oy, PetrSU has been realizing three large Karelia ENPI CBC projects in the field of ICT, social sphere and tourism.

The essential component of PetrSU cooperation is joint activity with a number of the Finnish companies and research centres. Together with its Finnish partners, PetrSU performs research, training of students and specialists in the forestry sector (Finnish Forest Research Institute – METLA, Ponsse Plc.), as well as develops software (Metso Automation Inc., VTT Technical Research Centre of Finland, Nokia Research Centre, Outotec Oyj, FRUCT Oy).

Cooperation between Metso, the global supplier of sustainable technology and services for mining, construction, power generation, automation, recycling and the pulp and paper industries, and PetrSU has been successfully developing since 1993. Since 1994 PetrSU and Metso have been organizing the biennial international scientific and technical conference "New Information Technologies in the Pulp-and-Paper and Energy Industries", which is well-known to and is being visited by the representatives of all large pulp-and-paper mills of Russia. In 2002 this cooperation led to the establishment of joint PetrSU-Metso Automation Systems Center (PMASC). The software developed there is then delivered to customers all over the world. Since 2004, the Training Center for Metso, the only in Russia and one of 6 in the world, operates at PetrSU. By now, the training has been given to more than 500 specialists from more than 30 Russian companies, including the leading ones such as Norilsky Nickel, Surgutneftegas, Sibur. In 2009, a local branch office of the CJSC Metso Automation was established at PetrSU. This confirms the intention of both parties to continue and expand cooperation.

Since 2008, PetrSU has been collaborating with Outotec Oyj, the world leader in supply of technical solutions for the enterprises of mining and processing and metallurgic industries. For Outotec, PetrSU is conducting research and development of a new mathematical method and its software implementation for minimization of the Gibbs energy in the package of HSC Chemistry.

Cooperation between PetrSU and VTT began in 2005. The main directions of joint activity are scientific research, development of hardware, mathematical models and software for automation and control of industrial enterprises and factories, organization of conferences, seminars, training and expert exchange.

Cooperation between PetrSU and Nokia Research Center started in 2006. The partners' joint activities include development of software for mobile devices, training on Open Source Software, as well as scientific research and development of hardware and software for wireless sensor. Center of mobile and wireless technologies and applications was founded with the support of Nokia in PetrSU in 2008.

PetrSU cooperation with the Finnish universities and organizations opens new opportunities for joint activities. It is an effective factor for development and modernization of scientific educational institution and an important tool for training of highly qualified specialists who are able to work in the global economy conditions and are up to the challenge of innovative labor market.

Anatoly Voronin

Rector

Petrozavodsk State University

Russia

University of Turku – with research to better future

By Kalle-Antti Suominen

Smart specialization within a strong multidisciplinary frame is the concept that University of Turku applies to its future strategy. With its 20 000 students and 3 300 staff members our University is a key institute for higher education and top-level research in South-Western Finland. The geographic position puts Turku also on the growth corridor that spans from Stockholm to St. Petersburg via Turku and Helsinki, with excellent connections by air, land and sea. The regional influence and importance of the University of Turku spans also further north along the Finnish West Coast, up to Vaasa and even beyond.

International rankings of universities are a fashionable but also a much debated and also criticized method for considering the current status and past performance of higher education institutes. With over 10 000 universities existing worldwide, University of Turku is typically found among 200 to 500 "best" universities, which is a considerable achievement. For a multidisciplinary university it is a challenge to be at the top on all fields, which affects the overall ranking. On the other hand, a reasonably large size is often helpful since quality is often measured by quantity, and a broad spectrum of fields it can increase also the international visibility.

In many rankings life sciences and social sciences appear as the top fields at University of Turku, especially when one considers such topics as citations of scientific papers or international reputation. This is reflected in the current strategy of the university, which nominates six topics as the fields of strength: molecular biosciences, cardiovascular and metabolic research, ecological interactions and ecological genetics, research on learning and education, research on institutional design and social mechanisms, and futures research. In these fields the researchers in Turku, often with their local, national and international collaborators, have succeeded in obtaining funding from national sources as well as from EU funding instruments, including participation in past and present national Centres of Excellence.

In many research fields a key prerequisite is infrastructure. It starts with modern and functional working spaces but especially in hard sciences it is a question of laboratories and other facilities. University of Turku has been building its strength in life sciences for several decades, often jointly with Åbo Akademi University and the Turku University Hospital. Turku Centre for Biotechnology is an infrastructure and research facility shared by the two universities, and Turku PET Centre includes also the University Hospital. A recent strong arrival in life science infrastructure is the Auria Biobank, which is riding on the wave created by the new Finnish legislation that makes it possible to use the stored samples for research easier than e.g. in Sweden.

A major national exercise, the new Finnish Infrastructure Roadmap, will be officially published in March 2014. It will likely contain several pan-European ESFRI infrastructures in which Finland is participating as they are formed by distributed nodes. Among the important ones are Euro-Bioimaging, the Biobank network BBMRI and the translational medicine network EATRIS. University of Turku is a strong partner in these networks, which will act as two-way roads: while funding will be available for developing the local infrastructure further, it also opens that infrastructure for national and European use, creating a win-win situation for everyone. In other hard sciences, such as physics and astronomy, the University of Turku is strongly relying on international research facilities, such as the European Southern Observatory ESO and the Max-Lab synchrotron radiation facility in Lund, Sweden. In the latter there is a strong Baltic element as the new Max-IV source will contain a Finnish-Estonian beamline, with universities in Oulu, Tarto and Turku as main contributors.

An infrastructure is not always just technology. University of Turku is the Finnish coordinator for yet another ESFRI network, namely European Social Survey ESS, which is a large database of social data collected from European countries every second year since 2001. The initiatives of making any data collected or obtained by public funding available for open access will accelerate the buildup and utilization of databases in the future.

One of the important changes in Finland has been the establishment of proper graduate schools in the universities. University of Turku has been among the first universities to establish its own system of graduate schools, with 200 funded four-year positions. The schools will also include students that are funded by other sources (research funds, grants from foundations etc.). The doctoral students have always been a strong element in Finnish research, and the new system will bring further equality and clear structure to the training process.

Futures research has strong traditions in Turku. It is multidisciplinary by default, but also challenging to define. As our world is facing various grand challenges, recognised also in the content of the new European Union Horizon 2020 programme, a wider look will be needed. With well-established and high-quality research fields that are also closely connected to education, University of Turku is looking forward to the future.

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Finland

The future of business education in the Baltic Sea region

By Hannu Salmela

The first universities in Europe were characterized by international student and faculty mobility that current universities can only dream of. During the 20th Century, the growing need for educated labor force led to the birth of the regional universities. The faculty and students came from the same region, and the regional language became the language of instruction. Most business schools in the Baltic Sea region were established during the 20th century to serve the educational needs of their regions. When entering the 21st century, there are, however, many new trends that may change the position of the regional business schools.

Since the late 20th century, student mobility has been steadily increasing. Such mobility is partly explained by the quality of the business schools, but students are also looking for ways to enter more promising international job markets. Mainstream of this mobility has directed from developing countries to e.g. Europe, USA, and Australia. In the Nordic countries majority of students still stay in their regional business schools that are also well positioned to arrange international exchange and degree programs. But this may also change in the future.

Another change affecting business education is the gradually strengthening role of the English language in the business life across the world. Students accept and even expect the language of instruction to be English. An international business school means a school where the language of instruction is English. The winners are business schools in the English speaking countries: United Kingdom, Australia and the USA. Business schools in the Baltic Sea region need to balance between English language and their regional languages.

Multiple and/or joint degree programs offer a possibility for the regional business schools to ally with other business schools to provide international alternatives for students. Graduates from a multiple degree program get a degree diploma from several business schools, thus providing students with access to labor markets in several countries and regions. European Union has been actively promoting joint and multiple degree programs through its Erasmus Mundus scholarship program. Although multiple degree programs are still relatively few, they will offer an interesting alternative for the regional business schools in the future.

Massive open on-line courses provided by internationally recognized universities like MIT have received a lot of media attention. The actual transformation is, however, much wider. Combination of eLearning tools, the Internet, and new devices like iPads and tablets will challenge the old fashioned modes of teaching. In the regional business schools, student experience and learning have been based on in-class lectures, group exercises and on-campus student interaction. If technology enables young adults to learn the necessary business competences and skills over the internet, regional business schools will have to deal with much stronger international competition.

Although some European countries offer government subsidized degree programs, tuition fees constitute the primary funding model for business schools worldwide. Government funding naturally emphasizes the regional role of the business school, thus emphasizing the need to focus on the needs of the domestic students and companies. Free education may sound like a good way to attract also international students, but there is very little evidence that e.g. a free master's program would get any advantage in the competition of best students. The best students tend to aim at programs that have high tuition fee – simply because these are seen as high quality elite schools.

The two main accretions for business schools, the European EQUIS and the U.S. based AACSB both expect business schools to comply with specific requirements for business school operations and management. Quite naturally, they also expect the business school to be sufficiently international. Students applying to degree programs and companies recruiting graduates from these programs do not yet pay a lot of attention to accreditations, but this may also change in the future.

Despite the fact that the trends above do increase internationalization of business education, centralization of all business education into a few elite business schools is still a somewhat unlikely scenario. In many countries, vast majority of students still choose the local business school and companies are willing to recruit students from national schools. All business schools in the Baltic Sea region will, however, each need a conscious strategy on how to deal with the changes described above. Such a strategy must be sensitive to the needs of the students and the companies – both regional and international.

Hannu Salmela

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Finland

An oil company's perspective on operating in the Baltic Rim

By Matti Lievonen

Neste Oil was the first Western oil company to build a fuel distribution network in the former Soviet Union, and opened its first station in Estonia, which had only recently regained its independence, to the accompaniment of a brass band in 1991. Additional Neste stations soon followed in Estonia's Baltic neighbors, Latvia and Lithuania, and in St. Petersburg. Today we are among the top two or three station networks in all these countries. We also expanded into Poland, and only recently exited the market there, in spring 2013.

Neste Oil's approach has long been based on seeing the Baltic region as the company's home market. Our retail presence is the most obvious sign of our operations in the region, but we are also very active in the business-to-business area. Neste Oil sources the majority of its crude oil from Russia and supplies its refineries in Porvoo and Naantali by sea mainly via the terminal at Primorsk. We also sell a significant proportion of our output in the Baltic region. Sweden in particular is a major wholesale market for us.

Back in 2006, Neste Oil decided that it wanted to become the world's leading producer of renewable diesel. We succeeded in achieving this goal in terms of volume in 2012, and the business became a profitable part of our portfolio in 2013. We invested €1.5 billion between 2005 and 2011 in building 2 million tons of renewable diesel capacity. Around a fifth of this is based at our Porvoo refinery, which has become the leading advanced biofuel producer in Northern Europe.

Marine shipments are key to our operations

In addition to feeding our refineries with crude, tankers are key to how we supply our customers. Our export is totally dependent on marine transport, and around 70% of the petroleum products that Neste Oil supplies in Finland, in fact, are shipped by sea to coastal terminals. Although we recently announced that we are planning to exit the shipping business, marine shipments will continue to play a central role in our overall operations.

Safety at sea is important everywhere, and particularly so in the Baltic. Recognizing the fragile nature of the ecosystem in the Baltic, high safety standards have long been a priority for Neste Oil. The safety performance of our tankers and Neste Shipping as a whole has been highly rated by the authorities and international vetting agencies. We have been involved in a number of other projects aimed at improving safety at sea. One of these has been the Enhanced Navigation Support Information (ENSI) system launched by the John Nurminen Foundation and designed to improve tanker safety. The Finnish Transport Agency has now taken over responsibility for the system. We introduced it on all our tankers in 2013.

A rethink is needed on how Finland funds its oil spill response capabilities

Financial resources to maintain and enhance Finland's oil spill response capabilities are channeled through a special statutory fund outside the state budget. Known as the Finnish Oil Pollution Compensation Fund, this is financed through fees levied on oil imported or transferred through Finland. As Finland's only oil refiner, Neste Oil pays around 90% of the fees collected by the fund annually.

While a high standard of oil spill response capability is undoubtedly important, the current way of financing it in Finland is not completely fair in our opinion. The oil protection fees charged today are three times what they were just a few years ago, for example, even though Neste Oil's marine shipments in the Baltic have not increased over this period. The growth of Russia's terminals at Primorsk, Vysotsk, and Ust-Luga will see a continuing increase in the amount of oil being shipped via the Baltic, and oil spill response capabilities will need to expand to deal with this. Given this prospect and the importance of protecting the Baltic, it would make sense to begin funding these capabilities directly from the state budget, as happens virtually everywhere else.

LNG terminal is important

The EU's sulfur directive will require shipping in the Baltic to switch to cleaner solutions, and will probably see the majority of ships turning to using diesel as their bunker fuel. This could impact diesel prices, as there is already a shortage of diesel in Europe. Installing scrubbing systems for exhaust generated by existing bunker fuel is not as attractive an option as it may seem either, as the time required to pay back these investments would often be longer than the remaining service life of many of the ships concerned. When ordering new ships, LNG-powered vessels are a very strong alternative.

Finland needs an LNG terminal to service this new need and the needs of existing gas customers such as Neste Oil refineries. The LNG terminal should preferably feed gas also into the existing natural gas pipeline network. This would increase the gas supply, which usually lowers costs. For many industries the availability and price of gas are a major competitiveness factor.

Matti Lievonen

President & CEO

Neste Oil

Finland

Germany's energy policy – responsibility and chance for sustainable development

By Klaus Töpfer and Carolin Sperk

German Energy Policy in a short historical perspective

German energy policy supporting renewable energies started as early as the 1990s, with the electricity feed-in law from 1990, making it mandatory for electricity companies to buy electricity from renewable sources and feed it into the supply system. This law induced a development process for technologies for the production of electricity from renewable energy sources, which must not only be seen as a contribution cleaner energy production but rather as an important step towards options for sustainable development.

In the context of the early 1990s, in the aftermath of the Tchernobyl reactor catastrophe and already long-term societal discussions on the risks of nuclear power, one major concern was to open up alternatives to the then common idea, that nuclear power was the only option for power supply in growing economies under the impression of declining fossil fuels. Both, relying on fossil fuels and on nuclear energy seemed dead-ends in the long-run, and therefore we needed to find energy sources which would allow truly sustainable development with the perspective on long-term damages and costs that could be avoided by renewable energy sources. In the following years up until the final turn in 2011 the path was laid out for a new energy system, with new and updated regulations on feed-in tariffs for renewable energies such as the "Renewable Energies Act" (EEG) from 2001 which enabled and encouraged the establishment new modes of energy production.

The final turn – the "Energiewende" in 2011

Having come to a societal consensus in Germany that nuclear power generation should only bridge the gap to other forms of energy production, the "Energiewende" after the Fukushima disaster was therefore not an entirely new turn in German energy policy, but a logical consequence from a societal development and discussions that had been going on for nearly three decades. Of course the expansion of capacities, especially with solar PV and on-shore wind production, reaching a climax in the last year with an increase of nearly eight GW in PV alone, resulted from the governments increased support of renewables after 2011. Decentralization started to become an issue with this as well, leading to a significant rise in energy cooperatives run by citizens from around 70 in 2003 to more than 750 in 2013. This can be seen not only as an important element in the new energy system but it also constitutes an outstanding societal development.

With regard to the development and distribution of renewable energies, the system of feed-in tariffs has therefore proven successful in creating an environment for small-scale investors by keeping the capital risks reasonably low. This intense commitment contributed to economies of scale in the production of solar panels and wind power plants, resulting in sinking prices for electricity generation by those technologies, which now have reached nearly the production costs of conventional power plants.

Energiewende as contribution to global sustainable development

The payments which producers of electricity from renewable energy sources received over the years have thus been an essential investment in research and development of technologies, which now contribute significantly to sustainable development in many other countries in the world.

However, the challenge for the new government remains, to further build new capacities for electricity from renewable energies and in the meantime stabilize the costs for households by refinancing some of the costs of renewable energies via other funds, e.g. for research and technology development. This would not only be a contribution to a socially more balanced transition of the electricity system but also show internationally that energy production from renewable energies is not only for rich countries like Germany but also very reasonably affordable by less wealthy countries. It should be clear that this is a fundamental investment for the future, in a new infrastructure, which will bring strong benefits for industry and society. Today, Germany still imports fuels for about 80 – 90 billion € per year to satisfy our energy demand, which in the future can be saved.

Integration of energy and climate regulations, guidelines and policies on the national level

Other domestic challenges in energy policy which need to be tackled with high priority are energy efficiency, especially in the building sector and the integration of the existing regional German climate regulations into a national climate law, to name only the ones most at hand. At this stage all German Federal States have their own climate regulation, at least on a guideline level, as well as regional energy policies. Both of these need to be integrated on a national level in order to achieve the German national climate targets and to coordinate the transition of the energy system. This is also of relevance for European climate and energy policy, which needs to be addressed in a more integrated manner, if an emission reduction target of 80-95% until 2050 is to be reached, this can only be achieved by integration of local, regional and national policies. An important element to achieve major reductions in emissions and energy consumption is efficiency, particularly in the building sector, which has been neglected in the past years. This will have to be taken further with strong efforts, since the building sector is responsible for around 40% of the energy demand and 30% of CO2-Emissions. Here, even more than with the transition of the electricity system, social issues will play a major role.

Take on the European dimension

For the European dimension the grid infrastructure and the integration of the European electricity system are important in the technical regard. Despite a now reduced annual

growth rate of renewable energy capacity, of around 3,6 GW PV in 2013, which is projected to be the annual growth corridor for the next years, there will still be a considerably higher amount of electricity produced, with high fluctuations depending on the weather. This results in conflicts with electricity grids in the neighbouring countries such as Poland, Czech Republic and the Netherlands on the one hand and profits for countries such as Austria, who due to their hydropower capacities can make a good deal by taking up German electricity surplus and then reselling it at higher prices. Even if the latter case shows that the European energy system and markets are functioning in some respect, the German Energiewende should not have negative effects on other national systems like the aforementioned.

Altogether, the Energiewende has come a long way and is now on a track, where there is no return, significant changes in society and electricity system have already set on. However, the project needs unanimous coordination and implementation with the wider perspective on European integration.

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AREVA in a key position to support Baltic Rim countries in their future energy strategy

By Frank Apel

The European Commission's World Energy Technology Outlook (WETO) 2050 forecasts a significant growth in electricity demand of the member states which is expected to double by 2050 compared to 2010. Over the same period this region's carbon emissions from electricity production are expected to drop from about 1.6 billion to less than 1.5 billion tons. Growth can be reached jointly with a decrease in emissions only if there is a significant shift to low-carbon energy technologies.

AREVA's product portfolio – nuclear and renewable energy – is based on providing solutions that support this major trend. Through its technologies and projects, AREVA has created a strong local, positive impact for many countries around the Baltic Sea. AREVA understands the specific national contexts regarding environmental, political, economic and legal factors as well as local conditions like weather, natural resources and geographical situation. An understanding of the local context is critical to support the different energy supply strategies of the Baltic Rim countries.

Denmark's goal is to reach complete independency from oil and gas by 2050. Therefore it is focusing mainly on wind energy – onshore as well as offshore. To balance this weather dependent energy source, the country is looking to develop hydrogen storage technologies – a field of research that AREVA also pursues as part of its renewables activities.

This focus on wind energy is similar to Germany, where the coastal areas are becoming important for electricity production. The development of onshore and offshore wind plays a major role in the energy transition, known in German as "Energiewende", which includes among others the phase-out of nuclear by 2022. Although "Energiewende" creates challenges for AREVA's nuclear business, it also offers opportunities, particularly for growing activities in offshore wind and the upcoming decommissioning and dismantling of the nuclear power plants.

In contrast, neighboring Poland is planning to launch a nuclear energy program just as Germany is heading in the other direction. AREVA, in cooperation with EDF, is committed to supporting the Polish nuclear program by collaborations with the industry as well as universities and research facilities. In addition to nuclear, Poland is going to intensify the use of biomass and expand the use of natural gas. The country's overall objective is to diversify its mainly coal and lignite based electricity generation.

Russia plays a specific role in the energy supply of the Eastern Baltic region: the Eurasian giant is the main, and often only supplier, of energy commodities like oil and gas. The country is strengthening its position by also becoming a supplier of nuclear technology and fuel. Additionally, Russia is preparing to build a nuclear power plant in its exclave around Kaliningrad in order to market the electricity in the surrounding countries.

With regard to Russia's strong position, nations like Lithuania, Latvia, Estonia and Finland are seeking greater independence from Russian imports and look to diversify their energy sources. This includes ambitions to build a terminal for the import of liquefied natural gas (LNG). Now it is for Brussels to decide which of the competing projects of Finland, Latvia and Estonia should be supported under the upcoming European Union's financial framework.

Greater energy independence can also be achieved through another domestic resource: biomass. Lithuania, Latvia, Estonia, Poland and Finland are fostering that energy source, relying on their potential in the agricultural sector.

Nuclear is another domestic energy option. Despite setbacks Lithuania further develops its own new build project. Finland is ahead with the first AREVA EPR™ reactor under construction in the world and is pursuing two additional new build projects. Beyond new builds, AREVA supplies technologies for service and modernization of the existing nuclear power plants. Finland has also decided to strongly increase the share of renewable energy and is currently focused on biomass with other options for development like offshore wind. The country aspires to have an energy mix that includes 60 percent nuclear and 40 percent renewable energy.

Sweden already relies on a nearly completely low carbon electricity supply through a combination of nuclear and hydro energy. By 2020, the country wants to reach at least a 50 percent share of renewable energy. After a scheduled phase-out of nuclear during the 1980s, Sweden had dropped the decision in 2009. At the moment, the country is considering replacing installed units with new build projects. AREVA is highly active in the Swedish market, providing fuel and maintenance services to reactors, and assisting the operators for plant modernization and safety upgrade projects. AREVA is ready to take part in any new build projects when coming up. Through its local subsidiary Uddcomb, AREVA is also an employer on the Swedish nuclear market and engages to localize its activities when possible.

Overall, AREVA has a broad range of capabilities to support the Baltic Rim countries on their way to a stable, independent, affordable and low-carbon electricity supply through its complete portfolio of nuclear technology, a leading role in offshore wind and biomass markets, and its increasing R&D efforts in the field of energy storage. AREVA also has strong presence in the region, established industrial networks, and experience with national safety authorities as well as political systems.

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Towards a Northern Dimension electricity market?

By Jukka Ruusunen

History of electricity trade between Finland and Russia
Electricity trade between Finland and Russia has a long tradition. Finnish pulp and paper company Enso-Gutzeit started electricity imports from Svetogorsk to Imatra already in 1961. Cooperation between Northern Lapland and Russia (Soviet Union) started in 1965 when the local grid in the Finnish side was connected to the Soviet grid. Large scale electricity import from Soviet Union to Finland started in the beginning of 1980's as part of the economic agreement between the two countries thus making possible to postpone large electricity generation projects in Finland. The trade was based on bilateral agreements between Finnish and Soviet companies. Both sides benefitted from the trade.

Market opening in the Nordic countries changed the picture. When the old contracts expired, the independent transmission system operator Fingrid started to sell the transmission capacity in an open auction in 2001. Now it was possible for an independent trader to enter the cross-border trading market by buying transmission capacity from the auction, making a purchase contract in Russia and selling the electricity in Finland, which was part of the well-developed Nordic electricity market. Many players used this opportunity, but gradually only Russian companies were left.

Where are we today?
Today there is a functioning wholesale market on both sides of the border - and transparent electricity price. This is an excellent starting point for further development of cross-border trading between the countries: it is the electricity price that defines how electricity should flow across borders. However, EU and Russia have chosen a different market model for the electricity market. This complicates trading in EU-Russia borders.

Historically Finland has imported electricity from Russia as much as the transmission capacity has allowed. The average wholesale market price of electricity is still lower in Russia compared to the Finnish price. But a radical drop in the trading volumes took place in 2012 as a result of the introduction of capacity fees in Russia: this doubled the value of electricity in the Russian side during peak (morning and evening) hours of the weekdays. With current electricity prices and capacity fees, it is not profitable to export electricity from Russia to Finland during these peak hours.

Fingrid has been working already for some years in close cooperation with the Federal Grid Company of Russia (from the year 2013 also with JSC Russian Grids), Russian System Operator and the Russian Market Council to create possibilities for more efficient electricity trade in the Finnish-Russian border. Both sides have shown commitment to the development and in spite of the difficulties related to the differences in market models clear progress has been made. Real market also requires that there are many players in the market and that the entry barrier is low: InterRao has today a de facto monopoly in Russia in cross-border trading.

The main connection between Finland and Russia, Vyborg link, can transmit electricity only from Russia to Finland. Tests are now taking place to use the connection also to the other direction. Possibility for two-way trading is also included in the plans when Vyborg link is renovated - this renovation project is important as it creates better trading opportunities for the future.

The vision: 1000TWh Northern Dimension electricity market!
Electricity markets are developing both in the EU and in Russia. The fact that the market models are different is, of course, a challenge for efficient cross-border trading, but still a lot can be done. A necessary condition is that there are many players on both sides of the EU-Russia border (no export monopolies like today) and that the market rules allow efficient trading from one market to the other. Today's cross-border tariffs between Finland and Russia could then be replaced by explicit transmission capacity auctions. Similar principles could be applied in all EU-Russia borders which would be a necessary condition for an efficient international market.

Amount of transmission capacity naturally plays a key role when any electricity markets are integrated. As far as the Baltic Sea region and North West Russia are concerned, there will soon be enough transmission capacity for efficient trading. Strong links between Finland and Russia, and Baltic countries and Russia already exist. EstLink 2 between Finland and Estonia will serve the electricity market from the beginning of 2014 and NordBalt between Sweden and Lithuania from 2016. Adequacy of transmission capacity is thus not an obstacle for further market integration.

The conclusion is that there really is potential to develop the Northern Dimension electricity market consisting of the Baltic Sea regional market on the EU side and North West Russia. The potential volume of this market is huge: the size is about 1000 TWh! Total market size of EU is about 3000 TWh and Russian market is about 900 TWh. And what could we get: more efficiency, better security of supply and better environment.

Like in all international cooperation, politics and national interests play a key role in electricity market integration. Electricity price for local households and industry is important for every country. Many countries also have goals for self-sufficiency in generation. Building a level playing field that takes into account national goals is important if we want to see further development in the region. But at the same time we know the upside in market integration: more reliable and sustainable electricity at affordable prices to citizens and industry in the Northern Dimension region.

Jukka Ruusunen

President and CEO

Fingrid Oyj

Finland

Risks and opportunities analysis in the oil and gas industry of Russia

By Denis Kolchin

Investments in oil production in Russia lose attractiveness, the majority of fields are in the 3-4 stage of development, there is a high water content factor, new fields almost openly.

Depletion of oil reserves on land and approach to global peak production stimulates the oil companies to start active work on development of deposits on the shelf. This leads to the following key risks: reducing performance of projects, reducing the quality of forecasting projects, difficulties in emergency response, the change in the legislative framework, the complexity of the design.

Significant rise in offshore projects and increasing set of risks do not add to the investment attractiveness of Russian oil fields.

Statistics and forecasts exploration companies shows that in the next five years will reach the peak of world oil production, which could push oil prices higher, thus give impulse to the development of gas projects and alternative energy. In the next 5-10 years gas will be the main energy source in the world. Now the necessary part of the gas infrastructure already exists and ready to replace oil infrastructure, gas is much cheaper, the number of gas projects are increases, the problem of the universal gas transportation solved with the LNG technology. Gas now competes with oil.

Today U.S. and China are the main consumers of oil. U.S. reduces oil consumption by switching to natural gas and shale gas, car and power generating installations manufacturers are realize the fuel efficiency doctrine.

Past 30 years, China increased its oil consumption, in the coming years they will realize the benefits of switching to gas. Moreover, China is an owner of significant shale gas field.

In Europe, consumption is likely to remain at current levels, with a tendency to decrease and shift to gas and alternative energy sources. Relevant programs already found application.

In addition to gas projects, projects in the generation of energy from hydrogen (Brown's Generator) are actively developing, synthetic fuels, electric cars that will also help to reduce oil consumption in the world.

The economic slowdown in the world and the subsequent stagnation will contribute to slowing growth in oil consumption, search and move to cheaper energy.

Most manufacturers of power plants each year improve their performance to reduce fuel consumption, which in turn began to produce a 3% annual decline in consumption.

For Russia, the fall in oil consumption will reduce the export component and reduce the government income, all this will give an impulse to increase the taxation. Development of oil fields would become less attractive.

Model of Russian oil companies based on the growth of oil prices has exhausted itself.

Ways to increase the profitability of Russian oil companies

In addition to increasing the efficiency by standard methods, such as reducing production costs by using the best professionals, using unfrequented technologies, process optimization, organization processes optimization, output of non-core assets and the use of outsourcing is possible to increase profitability through the production of petro-chemicals and using of associated petroleum gas.

The associated petroleum gas can be used for electricity generation, petrochemical production, liquefied gas receiving (LNG technology).

Using these areas will partly make oil production more autonomy for the company, will also boost revenue by sales of new products.

Prospects in the gas industry of Russia

The main gas production in Russia is on the land, it has lower costs than the production on the shelf and in the oil production. Gas consumption in the world is growing and the trend continues, hence the growth in demand will increase and the price of gas. According to the forecasts of world gas production peak will be reached after 2020.

Modern technologies allow to expand the opportunities for gas and thereby increase the revenue and profitability of gas companies in Russia.

Today widely used technology for compressed gas transport and the market is growing.

Use of LNG technology for transport and getting electricity and heat in different regions will give a new impulse to the development of the gas industry and reduce its dependence on pipelines.

Gas processing technology allow to get plastic, cellophane, synthetic fuels, etc., the number of projects in this area increases.

In general, it should be noted that the prospects for the gas industry look more optimistic, not to mention the fact that the use of gas more eco-friendly.

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Russia

Oil production in Kaliningrad

By Artur Usanov and Alexander Kharin

Kaliningrad is not known in Russia as an oil province of any significance. Indeed, Kaliningrad's oil production is barely discernible if plotted as a part of Russia's total production – even in the best years of the last two decades its share has never exceeded 0.3%. However, even this small oil output has been important for Kaliningrad's economic development in the post-Soviet period.

The first oil fields were discovered in Kaliningrad in the late 1960s and commercial oil production started in 1975. By the middle of 1980s production already reached its peak of 1.5 million tonnes (Mt) of crude oil. This did not last long, however. In 1990s Kaliningrad's oil output was on a downward trajectory falling to 0.65 Mt in 1999 but after that it started to recover.

The largest boost came from offshore. Back in 1983 Soviet-Polish-East German joint venture, Petrobaltic, discovered the largest offshore oil field in the Baltic Sea, Kravtsovskoe or D-6, located approximately 20 km from the coast of Kaliningrad. Production from this field began in 2004 and quickly reached its peak, 0.88 Mt, in 2007. This helped to push total crude production in the province from 0.8 Mt in 2004 to more than 1.4 Mt in 2006-2008, almost to the level of the 1984 peak. However, since 2007 production from the Kravtsovskoe field has been declining by 9-11% each year and overall Kaliningrad's crude production fell to 1 Mt in 2012.

Kaliningrad does not have an oil refinery although discussions about the costs and benefits of building one periodically flare up. All crude oil produced in Kaliningrad has been exported and it has been Kaliningrad's main export commodity typically accounting for at least one quarter of all exports in 1990s and early 2000s. Its share increased substantially with the rapid growth in oil prices since 2003 but the presence of large transit flows counted as Kaliningrad's own export in official statistics makes precise estimation difficult.

The main oil producer in Kaliningrad is a local subsidiary of Lukoil, the second-largest (after Rosneft) Russian oil company. Lukoil entered the upstream business (i.e. exploration and production) in Kaliningrad in 1995 when it absorbed state-owned Kaliningrad-morneftegaz. The other existing oil producer is Kaliningradneft, which develops two small onshore fields and contributed less than 2% of all oil produced in Kaliningrad in 2012. The company was sold to U.S. investors in 2005.

How important was oil production for economic development of Kaliningrad in the post-Soviet period? A short answer to this question would be: quite important but not overly so. Official statistical data show that the share of the extractive industries in Kaliningrad's gross regional product (GRP) declined from 15% in 2005 to 6% in 2011. An alternative indicators is the ratio of total oil output in the province to the GRP. The total value of crude oil produced in Kaliningrad reached approximately US$1 billion in 2008 but then declined. It was about US$840 million in 2012. As a percentage of GDP it also fell but less drastically than the official data suggest: from 15% in 2005 to 11.4% in 2011. The difference between these measures might be potentially explained by increasing costs of production.

However, these two indicators are to some extent overestimating the impact of oil production on Kaliningrad's economy. The largest part of rent from oil produced in the province goes to the federal government (as various taxes) and to the head office of Lukoil (as profits). For example, in 2012 Lukoil's local subsidiary paid 5.5 billion RUB of taxes to the federal budget and only 1.4 billion to Kaliningrad's budget. Oil business is also not a labor intensive one: the number of employees in all extractive industries in Kaliningrad does not even add to 1% of the employed population. Still the importance of Lukoil in the regional economy is quite high. It accounts for a large share of all fixed investment in the province and employs a number of local companies as suppliers and subcontractors. It built an integrated oil terminal, which is also used for exporting oil from other Russian regions, and a steel-work plant, which manufactured an oil platform for the development of the Kravtsovskoe field as well as facilities for other Lukoil's fields.

What does the future hold for oil production in Kaliningrad? Kaliningrad is considered an "old" or mature oil province. It means that it is a well explored region and its oil fields have high depletion rates. Untapped onshore oil fields in Kaliningrad are quite small and will not be able to offset the fall in production due to the depletion of existing larger fields. Even optimistic forecasts suggest that onshore oil production will decrease to 0.2-0.3 Mt in the next decade. The hopes of reversing the fall in oil production are pinned on further exploration and development of offshore fields in the Baltic Sea. It has been reported that 36 Mt of oil resources in the Russian sector of the Baltic Sea is prepared for development. Their successful development might increase annual oil production in Kaliningrad to 2.5Mt (http://www.oilru.com/or/53/1140/).

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Financial markets and the threat for European security

By Jānis Bērziņš

The discipline of economics experiences ideological cycles that shape what is and what is not acceptable in terms of macroeconomic policy. Since the XIX century, it is possible to identify three main periods. The first, is the classic liberal period from the First Industrial Revolution until the 1930s, the second is the Keynesian period from the 1930s until the beginning of the 1970s, which was substituted by the Neoliberal period since then. In each case, changing from the established economic ideology to another was trigged by the necessity to cope with structural economic crisis, first by the Great Slump and second by stagflation forty years later.

Following Polanyi's idea that there is a pendulum sometimes pending to more state intervention and sometimes for less, in all three cases the main debate was about state versus market. However, the establishment of Neoliberalism as dominant economic ideology is not simply the result of the pendulum again pending to the market's side. Rather, it represents a structural change in the way the economic system reproduces itself. First, when the United States abandoned its commitment to the dollar-gold standard in 1971. Second, as a result of the process of financial deregulation that leveraged the financial system's capacity to create money disconnected from the real economy.

Both led to the establishment of an economic system that, notwithstanding the falsified narrative of free market often used by politicians, is not really free but rather strongly regulated by the state, at the same time being disconnected from the real world. To be more precise, data from the Bank for International Settlements shows that although in 2008 the world GDP (real sector) was around USD 60 trillion, the value of securities and derivatives was near USD 596 trillion. Most of this money has no counterpart in the real system, thus it only exists as accounting fiction. As a result, the entire economic system became extremely unstable.

The main problem is that this form of regulation is based on ideology and unreal philosophical presuppositions presented as econometric models to form its narrative. The most important are rational expectations and the idea that individual action based on self-interest always results in the best for society as a whole. These simple presuppositions would explain why a free market economy is more efficient than a planned one.

However, even if it is possible to accept that individuals are rational and have all available information to base their decisions on, empirical evidence shows that economic interests very often go against the interests of society. Therefore, the state regulates the economic system to limit the actions of the economic agents, and instead of a free economy as many like to believe, Neoliberalism is about regulating the economic system to artificially reproduce a situation of perfect competition, what is a contradiction in itself.

More, the result is that the state interferes where it should not, but does not interfere where it should. Nowadays the financial system's power to influence politics is such that politicians, thus the state apparatus, were convinced that some financial institutions are too big to fail. As these financial institutions captured the state, the market lost its mechanism to penalize failure. Instead, the state transfers the losses related to fictive money to the real sector, penalizing business, taxpayers, and those in need of social protection, as usually the first cuts are on the education, health, and social budget. This jeopardizes Europe's security both internally and externally.

On the internal side, it results in people losing their belief in democracy and in the democratic political process. Thus, it jeopardizes the legitimacy of the state as democratic institution as a direct result of rising unemployment combined with low social security. A concrete indicator of this trend, for example, is the significant rise of euroscepticism. Also, the increase in the popularity of nationalist and populist political parties with radical platforms. In the limit, there can be even increasing social unrest, as the six days of rioting in Stockholm in May 2013. It also undermines EU's soft-power, reducing its influence in the global arena.

On the external side, European countries have been forced to drastically cut their defense budget to bailout the financial system. For example, in Spain the € 41.4 billion bailout was equivalent to almost five years of the defense budget. In 2014, it will drop by 3.2%, including a reduction of 8.4% in new investments. One of the most dramatic cases is the United Kingdom. The bailout for the banking sector was equivalent to 21 years of the British defense budget, which is equivalent to the annual cost of servicing the public debt. France is expected to cut the defense budget by 10% over a five-year-period, including reducing its personnel in 12% until 2019, making nearly 34,000 persons unemployed.

The United States defense budget is being considerably cut because of sequestration. Since the US already pay for 75% of the NATO's budget, it is clear that Europe is expected to increase the responsibility for its own security. At the same time, at European borders terrorism is quickly spreading in the Maghreb; Russia has an ambitious program of military modernization; the Arctic question is raising serious concerns. The capture of the state by derivatives finance must end. This casino part of the financial system, the one that makes it too big to fail and is based on fictive money, is the biggest threat for NATO, Europe, and specially the Baltic region's security. That is why it is urgent to make investment banks being responsible for their mistakes, letting Adam Smith's invisible hand to act.

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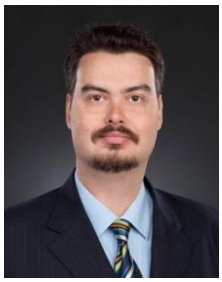

The Finnish Naval Academy – international cooperation

By Sakari Martimo

Training and education is the first and foremost task of the Finnish Naval Academy (FNA). Additionally, as a result of the ongoing Defence Reform of the Finnish Defence Forces, the FNA is establishing a Naval Research Centre (NRC) along with her other research organisation, namely the Navy Combat Centre (NCC). The FNA utilises international cooperation both in education and in R&D tasks.

The lowering military budgets together with raising materiel and personnel costs compel nations to work together in defence. Also, the prevailing common threat picture, like terrorism, creates a basis for joint efforts to tackle these problems. The forms of cooperation vary a lot. Every nation reflects her own goals and purposes when choosing the most suitable partners and projects to develop military capabilities.

The Finnish Navy has a long and fruitful tradition in international cooperation. Today there are no military activities where the international element would not be present. Nowadays NATO STANAGs define our military procedures and functions. EU laws and guidance reflect also on defence, for instance via directives on materiel purchases. UN, EU and NATO peace keeping missions are a vital part of our everyday duties.

Training and education

Finland adopted the European Bologna process in mid 2000 as the educational basis also for officer training. Legislatively the Art of War is today an equal science with other sciences in Finland which, by the way, is unique in Europe.

Due to nations' different contents of studies (resulting from different national defence doctrines) and language barriers, the Bologna-based student exchange occurs mainly on senior officer courses like the General Staff Officer Course arranged by the National Defence University (NDU). As the FNA educates only junior officers on bachelor and master levels, she very seldom hosts international students or sends students abroad. An exception from the near past is the training of quite a number of Estonian cadets in Finland in the 1990s after Estonians gained their independence.

However, the FNA participates in international exercises like the NATO BALTOPS in the Baltic Sea area. The FNA instructors participate also annually in several other bilateral or NATO/EU exercises.

The FNA's annual six-week Training Expedition typically covering the Baltic, the North and the Mediterranean Seas has to be mentioned even though the Expedition is not international training as such. However, during port visits the officer and Petty Officer students normally visit local Navy and other military facilities and simultaneously get to know logistic arrangements abroad.

A part of the bachelor education, namely the sport centred Nordic Cadet Meetings and Cadet Balls, contributes to international networking. Behind having fun lays the fact of exploiting the established relations later during officer careers.

Research & development

The NRC exploits the European Defence Agency's (EDA) projects. One of the success stories is the Maritime Surveillance System (MARSUR) where Finland has been the leading nation. Another interesting project worth mentioning is related to Unmanned Underwater Vehicles (UUV).

The NCC which concentrates on developing naval tactics and operations has set a member to NATO's Confined and Shallow Waters Warfare Centre of Excellence situated in Kiel, Germany.

Bilateral connections with for instance the U.S. and German Navies and Swedish R&D organisations help to tackle technical obstacles.

Other examples of cooperation

The EU Naval Academies' Commandants together with the U.S. colleague from Annapolis meet every second year. The theme for the previous meeting held in Norway was leadership education in Naval Academies. The briefings and lively discussions broadened participants' knowledge and gave fresh ideas of the topic.

Under the EU's Pooling and Sharing initiative, the Nordic defence cooperation NORDEFCO is steadily developing practical and generic forms of cooperation. This is shown, for instance, in the regular meetings of the Commandants of the Nordic Naval Academies when discussing about allocation of simulator slots and instructors between partners.

Last but not least, in 2013 the FNA hosted three naval visits, including the first ever Japanese Naval Visit to Finland. Some 350 Japanese sailors learned Finnish culture and history while executing joint training and maintaining their vessel.

The Finnish Naval Academy has a demanding responsibility when teaching young bright minds and being responsible for the Naval R&D process. The task is ever more interesting and fun when connecting the international and domestic information and military codes to an understandable and effective package.

Sakari Martimo

Capt (N)

Commandant

Finnish Naval Academy

Finland

Poland and prospects for defence cooperation with Nordic countries

By Tomasz Szatkowski

Parallel to the US "rebalancing" towards the Western Pacific, one could observe among European EU and NATO members, an increasing inactivity in terms of the security policy, which is conditioned partially by the financial situation, as well as a relative regionalization of threat perception. The Common Security and Defence Policy of the EU has never acquired much flesh, and the Battle Groups have never been used since their inception. NATO is increasingly split between those that are oriented more to the crisis management in the Mediterranean and Middle East, those who are preoccupied mostly with the Russian military assertiveness at the Eastern and Northern Frontiers of NATO and EU, and others who do not express much interest in any of the contingencies. That trend was conspicuous during the recent NATO drill Steadfest Jazz, that was held in Poland and the Baltic States, which saw only a very symbolic contribution of some of the Allies. On the other hand it was only a handful of countries that were active during the Libyan operation in 2011.

Concurrent to that is a process of creating clusters of defense cooperation in Europe. Lingering, within NATO there are unanswered questions on the overall impact of those forms of cooperation to the cohesion of the Alliance and on the way that non-allies could be included into such initiatives. Currently the nations discuss the concept of Framework nations, which are to possess a nearly full spectrum of capabilities and become capability generation hubs for their smaller partners.

In terms of the capability group where Poland fit in, it has quite an important and specific place. Because of cultural and historical affinity Poland fits well as a member or even a leader of the Visegrad Group (V4) encompassing also Czech Republic, Slovakia, and Hungary. However, this initiative has not brought much effect so far, the reason being differences of threat perception, little level of defence spending – in particular in Slovakia and Hungary as well as a relative inefficiency of the defense bureaucracies and interagency cooperation among V4 countries. Without addressing those problems, the progress is unlikely.

Poland is, however, situated also as a possible important participant of the Nordic-Baltic initiatives. So far Poland has not been active in this format being preoccupied more with reviving the Weimar Triangle (with Germany and France) and the V4. The "northern" direction offers however a greater potential of effects.

First reason is that there is a greater cohesion of threat perception – Finland, Sweden, the Baltic States and even Norway share Poland's concerns with the Russian military buildup. Secondly, the Nordic States are mature in terms of their experience on defense cooperation. They also possess the industrial base which is robust and modern enough, possesses a good access into most advanced markets, and is not overly big to pose a threat of complete domination of possible Polish counterparts. Moreover, developing that cooperation might lead to further integration of Sweden and Finland with the NATO structures. Closer cooperation with Finland and Sweden might also serve as a reassuring factor for Baltic countries. In turn it might help the countries of the region, to be active again in external contingencies.

Poland's role could be instrumental in transferring more mature practices of defense cooperation with Nordics to V 4 countries. Another possible important aspect for Poland would be to facilitate the US involvement in those initiatives. For instance, the US Rotational Air Detachment's to Poland could together with the Polish Air Force reach to robust air forces of Norway, Denmark, Sweden, Finland and Poland to cooperate in a wide spectrum of missions, including forming an out of area contingent.

Till recently there has been a discussion whether in developing cooperation with such partner countries NATO should impose a prerequisite of membership, at a certain stage. It seems however that the conclusion is, also in Washington D.C., that the advantages of deeper cooperation exceed the possible downsides. There is however an obstacle, on the Swedish, and even more on the Finnish side. The domestic public is still not favorable sufficiently to the NATO membership or to arrangements which put them into mutually dependent relation with regard to their security. Finland has been particularly worried that NATO membership might divert their defense resources to much out of their territorial defense task. A more active role of Poland, a country recently refocused on the territorial defense and serious about the security situation in its vicinity might help to assuage those concerns. The future is yet to prove, whether this arising opportunity will be taken advantage of by Nordic countries and Poland.

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Debating NATO in Finland and Sweden – some wind, less motion

By Kari Huhta

1. Debate on membership in the NATO Alliance will continue with varying degrees of intensity in both Finland and Sweden until they either join or the security situation in the Nordic-Baltic area changes significantly from the present. The debate is not in itself necessarily an indication of ongoing change in either country, but rather of the admirable resilience and determination of both the pro and anti NATO-membership constituencies.

The permanent nature of the discussion sometimes conceals underlying shifts. This has been the case during the past year 2013. Change was easiest to detect in Sweden, where arguments about NATO briefly became untypically loud. In Finland military alignment and defence policy were discussed with greater clarity than in the recent past. A new voice was added by Estonia, which chose to speak on behalf of both Finnish and Swedish NATO membership. Russia did its share by fuelling concerns about its increased military capabilities with a more assertive posture in the Baltic area.

These shifts merit a closer look, but it is good to keep in mind that the overall situation is unaltered. Both the Swedish and Finnish governments remain clear about not seeking membership in NATO at the present time. Opinion polls in both countries indicate that a majority remains opposed to membership. In Sweden support for membership rose from the previous year, but defence did not become a leading concern for Swedish voters. It was rarely mentioned in debates as Sweden's politicians geared up for national elections in September 2014.

2. The moderate increase in the volume and saliency of national defence as an issue in Sweden dates back to the turn of the year. In an interview with Mikael Holmström, the enterprising defence writer for the Stockholm daily Svenska Dagbladet, the Swedish defence chief, General Sverker Göranson estimated that the country could defend limited targets against an invader for one week.

"One week defence" became the rallying cry of Swedes dismayed by the conversion of the country's conscription based military into a primarily expeditionary professional force with little ground troops to speak of.

The dispute was inflamed by a mock run by a Russian bomber and fighter planes towards Swedish airspace during the Easter holidays, and particularly by the failure of the Swedish Air Force to scramble planes in defence. The strongest reminder of Russia's military presence came in September with the Zapad war games. According to western estimates the exercises were by far larger and more extensive than Russia had officially announced.

Throughout the year the Swedish defence debate was basically about Russia. According to the alarmed view Sweden had scrapped its capability for territorial defence, only to find that Russia remained a threat after all, and that Sweden was no longer protected by the US and NATO the way it had been during the cold war.

The Swedish government was not moved, but a parliamentary defence review did give more attention than previously to Russia and to Sweden's limited readiness to receive military assistance.

3. The Finnish and Swedish defence debates became more closely intertwined 2013 than they have ever been in modern times. Alongside the issue of NATO the countries were brought closer by increased Nordic defence cooperation, which gave rise to very differing expectations.

In early 2013 the atmosphere in Finland was not auspicious. The political opposition (the ascendant True Finns Party and the Centre Party) had challenged Finland's participation with Sweden in air surveillance exercises over Iceland, which they saw as a service entrance to NATO. Defence policy became a vehicle of domestic politics. Disagreements were felt also inside the broad coalition government

By summer the situation had largely cleared up.

First the parliamentary Foreign Affairs Committee unanimously approved the government's new White Book on Defence. The committee went further than the government in underlining the importance of international networks for credible deterrence and defence. The parliamentary report explicitly questions the feasibility of traditional military non alignment in the modern world.

The second significant event was a foreign policy forum convened by President Sauli Niinistö at his official summer residence in mid June. Two days of frank and informal discussion cleared the air in Finland's stagnant NATO debate, without doing much to the substance. Niinistö did not alter his own policy of not preparing for Finland's accession to NATO.

The two events did produce one concrete change: The True Finns, previously seen as isolationist due to their critical views on the EU, emerged as one of Finland's most pro-NATO parties.

4. In early autumn the Estonian International Centre for Defence Studies arranged a seminar focused on Finland's and Sweden's relations with NATO. The hosts made no secret of advocating membership, nor had they done so previously.

Since then both the Swedes and the Finns have in different ways communicated to Estonia, that they will make their own choices based on national interest. Seminars in Estonia can be useful, but will not determine the course of events.

Events will be determined by developments in Finland and Sweden. A potential game changer would be an election victory by Sweden's Social Democrats in September. In government the party can be more flexible on NATO membership than it has been in opposition. So far indications of a major change are weak.

One driving force will be growing defence cooperation between Finland and Sweden. Presently it is more policy than defence, and no alternative to NATO, but it can lay the groundwork for choices the countries will make in the future.

The primary outside force affecting those choices remains Russia.

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Northern Europe as a model region for agriculture

By Lauri Kontro

No very certain forecast exists for the rate of climate change or for all its consequences. However, it is known that the Earth's climate is undergoing change, the effects of which will affect the life of every citizen. The majority of scientists agree on this.

Global warming is also evident in Europe. The average temperature has risen, but at the same time seasonal fluctuations have increased. In Northern Europe, over the last few years, we have witnessed both warmer summers and colder winters. There has been a lot of snow in winter around the Baltic Sea. Also, storms have strengthened.

Climate change is expected to cause both widespread dryness and worsening floods in various parts of the world. In Europe, the Mediterranean area will lose part of its natural fertility, leading to a clear deterioration in the conditions for food production. In Finland, rising temperatures will mean that agriculture can be carried out more effectively throughout the country, including the most northern areas. Some scientists have calculated that, a few decades from now, grain crops might well be produced even as far north as Rovaniemi. Perhaps by then farmers will be growing grapes in Southern Finland.

In future, one of the strengths of Northern Europe may be the production of clean food. The Food and Agriculture Organization of the United Nations (FAO) estimates that, by 2050, food production will have to grow by up to 70 per cent from the current level in order to feed a total of nine billion people. In order to achieve this goal, the world should invest more than 80 billion dollars a year in agriculture. In addition, significantly increased resources must be channelled into agricultural research.

Achieving this goal will not necessarily be very easy. While the population continues to grow, the acreage available for cultivation will be reduced. In addition to climate change and erosion, land will be lost to rapidly growing cities and traffic routes. There is already increasing competition for the planet's two key factors in food production: land and water.

Besides land and water, the available fertilizers are critically important. The current population can only be fed with sufficiently large crops. High yields in turn require the secure availability of chemical fertilizers and energy supplies.

The world's known phosphorus reserves will last for about 40 years if their use continues to increase at the current rate. Even if new deposits were discovered, the price and availability of phosphorus would eventually become a growth-inhibiting factor. The nutrients required in cultivation must be obtainable by other means than digging them from the soil.

The solution is recycling, a transition to a closed nutrient cycle. There is a particular need for this in Northern Europe, since both population centres and agriculture constantly add an excessive burden of nutrients to the Baltic Sea. Instead of nutrients flowing into the sea, they must be returned to the fields and to food production.

However, the Baltic Sea region has a huge potential for the development of food production. Both climate change and the scarcity of raw materials will create more opportunities than problems. Northern Europe may become a growth area for food production, which utilizes the latest research and technology. This will allow for the more ecological production of better quality food.

Agriculture and the food industry are likely to remain the world's largest business sector. The demand for food is growing; after all, every human being in the world is hungry every day. Food has always been and will continue to be an important item in international trade.

Increasing food production is also an environmental challenge. The question is whether Earth's resources are adequate and whether our environment can withstand the increasing burden.

The answer can only be that we must produce more from less. Efficiency must be increased. This requires increasingly broad use of renewable energy sources, increased energy efficiency and nutrient recycling, and decreased food waste. Agriculture is an important field for the application of new environmental technologies.

Northern Europe could become a more important food producer, if we so wish. Traditionally, the Nordic countries and Germany have been in the forefront of agricultural technology. The Baltic countries and Poland are old agricultural countries, which are re-emerging as significant producers of agricultural products.

The possibilities are many. The use we make of them is up to us.

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Editor-in-Chief

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Investment climate of St. Petersburg in the mirror of media

By Anna Scherbakova

St. Petersburg, the second largest Russian city, is known as the window to Europe. With a population of about 5 million people and 310-year long history, it is not only a cultural capital but also an industry center and the main transportation hub in the North-West of Russia. In the last decade, it survived the investment boom that was caused by both economical and political factors.

In early 90s, St. Petersburg Mayor Anatoly Sobchak, and his deputy Vladimir Putin, had an idea of making the city financial capital of Russia. First foreign banks that operated in post-soviet Russia – BNP-Dresdner and Credit Lyonnais – were registered in St. Petersburg in 1993, as the resistance of Moscow banking lobby was too strong. But the next dozen of foreign financial institutions have since chosen Moscow for their headquarters instead.

About 80 percent of Russian financial resources are concentrated in Moscow, which is unfair Sobchak used to say back then.

Vladimir Putin, who has served as the Russian President since 2000 with a break in 2008-2012, named Sobchak, who died in 2000, his teacher. Putin's attempts to make St. Petersburg, his home-city, more famous and wealthy were well known and widely published. During his first presidential term, he used every possibility to invite his guests - foreign leaders to his hometown.

In 2001, the President's administration raised over $100 million from Russian businesses to restore Constantine Palace, the ruined residence of the Great Prince on the south coast of the Gulf of Finland. By 2003, when St. Petersburg celebrated its 300th anniversary, the palace turned into a state residence. It has hosted both G7 and G20 summits in 2006 and 2013 respectively. The Constitutional court moved from Moscow to St. Petersburg.

In order to fill the city budget authorities asked several big mostly state-owned companies including Gazprom's oil mining subsidiary to re-register in St. Petersburg. In its best years, the big taxpayers provided up to 10 percent of the city budget income. They also purchased historical buildings for their offices, which revived the real estate market.

Since 2004, the St. Petersburg economy has grown rapidly. Direct foreign investment has rocketed 12 times and totaled $1.4 billion in 2008. Obviously among the reasons was the low base. St. Petersburg's share in the direct foreign investment in Russia, that grew up 2.8 times in those years, did not exceeded 5 percent.

The money flowed to St. Petersburg not only due to administrative efforts but also due to market reasons. The city has an educated workforce, a good geographical position with an access to the sea and is a huge consumer market by itself. From 2007 to 2010, Toyota, GM, Nissan and Hyundai all launched production facilities in St. Petersburg as well as their suppliers. International consortium started construction of 1.2 billion euro new Pulkovo terminal for the city's airport. Housing construction also grew from 5 to 15 percent a year.

The economy slowdown coincided with political changes. Valentina Matvienko who served as St. Petersburg governor since 2003, left her position in 2011. Her successor Georgy Poltavchenko served as a KGB officer in 1979 – 1994 and as tax police chief in 1994-1999. It took governmental officials more than a year to deal with problems and to cancel several projects involving the money from the city budget. No new projects passed through the government during this time. Many prospective investors, feared by the uncertainity of the local rules, moved to the neighboring Leningrad region, whose government demonstrated its friendliness and claimed it approved a $800 million worth project within 35 days.

After the crisis, the income of the St. Petersburg budget decreased by approximately 10 percent. Its fame as a magnet for foreign investment is fading. In 2012, the city got $891 million direct foreign investment, which is 17 percent less than in 2011.In three quarters 2013 it grew by 50 percent to $1,1 billion. Leningrad region with population 1.7 million people increased foreign investment by 50 percent to $1 billion in 2012.

City's gate to possible investors is the Investment committee. Consisting of professional officials, the committee promotes itself as a consulting company that will help companies in planning their strategy, preparing a project or hire personal while businesses are looking for fast approving decisions, clear rules and possible support at negotiations with local energy supplier. In order to make façade more attractive it is to launch St.Petersburg investment brand. This autumn the committee issued four news releases on how this brand will look like but it doesn't report on negotiations with any investor.

St. Petersburg authorities have not announced their strategy towards the investment. The advances of the second largest city are not obvious. The competition between regions and countries is escalating. It's not enough to be President's home-city and the economy boom is over.

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German Baltic ports – forecast 2030

By Jürgen Sorgenfrei

In order to prepare the German Transport Master Plan 2015, a comprehensive traffic flow analysis for all German Baltic sea ports for the base year 2010 as well as a forecast of hinterland traffic into the most relevant NUTS 3 areas and port throughput 2030 has been elaborated. Major driver for port business is the expected growth of real GDP in all countries relevant for trade. A detailed European and Global trade analysis 2010 and a forecast 2030 of commodity flows between all relevant countries has been delivered as input. As typical for trade statistics, the data set was constructed on base of real value terms.

Key performance parameter for ports are usually not trade volumes that have been handled; measured in Euros or US-Dollars, but cargo data, measured in tons and/or TEU´s, clustered in categories like Dry Bulk, RoRo or Containers. So, a huge major task was the transition of value data in tons and TEU´s, as well as the transformation in typical cargo load units. This task was performed for the base year 2010. In addition to pure trade data, additional factors that influence port competition have been taken into consideration and have been included in a so called "port competition model". Major factors in this model with sustainable influence on typical Baltic traffic are new rail and road links, like the Fehmarnbelt link. In this study we assumed that this link will be ready in 2030, and that parts of the cargo flows will take this route. Other mega trends are e.g. direct vessel calls into the Baltic, competition from other ports or potential re-routings of central-European cargo volumes into the Mediterranean and via Med ports. But also new technologies like off shore wind energy have been analyzed in detail.

For Germany e.g. it is calculated that real GDP will grow with an average rate of 1.14% p.a. between 2010 and 2030, export will grow with 3.63% and import with 3.99% p.a.. The expected increase of port cargo throughput of all German Baltic ports will increase from 53 mill t (without transport unit loads; e.g. trailer chassis) in 2010 up to 79 mill t in 2030, respectively 2.1% p.a.. Total German port throughput will increase from 269 mill t up to 468 mill t; this puts the ranking of the Baltic ports into perspective.

The two most important German Baltic seaports are Rostock and Lübeck, handling cargo volumes in 2010 of 19.5 respectively 17.9 mill tons. The two ports grew between 2001 and 2010 with annual rates of 1.5% (Rostock) and 0.5%. Both ports together represent a market share of 70.9% of the German Baltic ports throughput in 2010. This eminent market share gives evidence to concentrate in the following on these two ports.

Forecast for 2030 shows that Lübeck will grow faster on a rate of 2.3% p.a., whereas Rostock is analyzed for an average annual growth of 1.2%. In cargo volume this will lead to a volume of 28.0 mill t in Lübeck and 24.8 mill t for Rostock. The already in 2010 existing predominance of imports in German Baltic ports will remain and is foreseen with a slightly increase as import are analyzed to grow with a rate of 2.1% until 2030, whereas exports will increase with 1.9%.

A major argument for stronger growth in Lübeck is the already established and quite well functioning hinterland access; this for relevant modes of transportation; i.e. rail and road. Relevant barge volumes do not exist in Lübeck or Rostock. Especially from an environmental point of view this is a common disadvantage of both ports. A second main argument for the difference in forecasted growth is the cargo structure. Lübeck and Rostock are not comparable with regard to the structure of cargoes transported via both ports. Rostock had had a larger share of bulk products in 2010, and it is forecasted that this will remain in future. Dry as well as liquid bulk cargoes are in all forecasts that exist not combined with over proportionally growth rates. It is more likely that typical consumer and investment goods will show higher growth. Trends in technological progress adduce evidence.

Already in 2010 Lübeck is by far the most important German Baltic port for Container trade, handling 153.2 thousand TEU (= TTEU). Forecast for 2030 shows a volume of 253.6 TTEU. Second largest German container port in the Baltic is Kiel with 24.9 TTEU in 2010 and expected 46.6 TTEU in 2030. Rostock handled 2.2 TTEU in 2010, and with forecasted 2.5 TTEU this volume is only slightly higher. Lübeck already is and will continue to be the German Baltic Container port.

In addition to the main scenario we calculated another more optimistic and third more pessimistic scenario as sensitivity analysis. Results show that the main scenario is quite robust and that only slight variations will occur, but no substantial changes.

Few details of the forecast as well as of hinterland relations of the German Baltic seaports are already published and are available on the server of the German Ministry of Transport (www.bmvbs.de). More details will be published in mid 2014.

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High North – high stakes: maritime activities in the Arctic

By Sturla Henriksen

Maybe nowhere else in the world are the consequences of global climate changes more apparent and dramatic than in the Arctic region. Over the past three decades, more than two thirds of the volume of Arctic summer ice has disappeared. Our children will be the first generation in modern history to experience an entirely new ocean opening up.

The Arctic is covering one sixth of the surface of the Earth. Once a frozen, remote front during the cold war, the melting Arctic has generated a paradigm shift in geopolitics. Over the past years, eleven countries have appointed "*Arctic ambassadors*" to coordinate and promote their national interests in this region.

As the polar ice cap recedes, vast amounts of natural resources are uncovered. New regional and global trade routes are opening up, generating a powerful new impetus to major changes in the global pattern of trade and production. These developments open up vast opportunities for increased maritime activities:

- *Offshore oil and gas production:* More than one tenth of the world's undiscovered oil resources, and one third of the gas, is located in this region. Already, there are significant offshore activities in the Barents Sea, and the formal agreement on a delimitation line signed two years ago between Russia and Norway has further spurred exploration.
- *Arctic destination sailings:* The polar ocean floor and the circumpolar land areas are rich on rare earth minerals, and the Polar Sea is home to some of the world's richest fishing grounds. Cruise ships are venturing into the area in growing numbers.
- To the general public, access to new sea lanes – *transarctic sailings* – has generated most attention and interest so far. By sending ships through the Polar Sea, sailing distances between Asian and European ports would be cut by one third.

Despite these intriguing prospects for increased commercial activities in the Arctic, our approach should be sober and our enthusiasm tempered. The general backdrop of global warming and the effects on the Arctic region should be of major concern to us all.

The general operational conditions facing the industry in this region are more complex and demanding than, maybe, anywhere else in the world. The Arctic is a cold place. The climate is hostile and the weather is violent and extreme. Drifting ice and sudden icing of vessels constitute constant threats. The region is enshrouded in darkness half of the year. Distances are vast. The region is very sparsely populated and remote from large population centers and basic infrastructures.

And last, but not least, the environment in this region is extremely fragile, as are the livelihoods and cultures of indigenous people living here.

Therefore, exploring and expanding current boundaries to commercial activities in the Arctic require a stepwise, precautionary approach based on sound scientific, industrial and hard-won practical knowledge.

The international business community itself should assume a truly responsible approach to exploiting the commercial opportunities in the Arctic. The overlying consideration, of course, being the one we must have for our global community. But also, from a more pragmatic perspective - it will be in the business community's own, genuine self-interest to maintain "the license to operate" in these areas. A major accident or oil spill may not only severely damage the environment, but also the legitimacy of commercial activities in the entire Arctic. In order to raise awareness and encourage discussions on these aspects within the international business community, the NSA has launched the initiative of an Arctic Business Council.

At the NSA, we have recommended three types of initiatives we believe will be crucial to underpin increasing commercial activities, and to ensure safe and sustainable maritime operations:

- Firstly, there is an urgent need for a relevant *regulatory framework* – a "Polar Code" – based on the relevant conventions of the UN International Maritime Organization. The process going on in the IMO is very important. We urge all member countries to do their utmost to secure an agreement, and to avoid a situation where "*the ice is retreating faster than negotiations are progressing*"!
- Secondly, there is a need for extensive developments of *relevant infrastructures* for navigation, communication, weather forecasts, monitoring of drifting ice and icing conditions, contingency, search and rescue, maintenance and supply.
- Thirdly, there is a need to develop adequate *industrial standards* for Arctic operations. Harsh climate technology, winterization of vessels, rigs and equipment, enhanced operational procedures, indoor environment for sensitive parts of the operations are but some aspects of this.

Underlying this should be an overall recognition: *That there are fundamental values to be protected. That there are extensive challenges to be overcome. That our task is to master, not to conquer, the nature of the Arctic – one of the most pristine and least explored places on Earth.*

Sturla Henriksen

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The Arctic as a manifestation of international transformation

By Stephen Blank

Apart from death and taxes the only constant in international affairs is change. And the emergence of the Arctic as an important factor in world politics with a fundamentally different strategic agenda than was the case during the Cold War is, in itself, a manifestation of several types of change that have an impact on world affairs. At the same time the future importance of the Arctic is also subject to change due to other equally dynamic factors lying beyond it. The primary reason for the emergence of the Arctic in its new strategic aspect, i.e. as a potential center of large-scale energy exploration and much more international commerce is clearly climate change. Climate change makes it possible to expand the use of the Arctic and the seasonal duration of that use and thus makes the Arctic Ocean a more practical trade route than has previously been the case. Indeed, it already is the case that the amount of trade traversing the Arctic Ocean has increased steadily since 2010 even if it remains at a relatively low level.

That same factor also makes it possible to contemplate much more seriously the exploitation of the Arctic territories and waters for energy, especially as the US Geological survey of 2006, the only truly scientific recent estimate and the basis for all subsequent ones, made clear that huge amounts of hydrocarbons and minerals lie in those territories and waters. This last factor is of particular significance to Russia which has driven Arctic developments since 2007 because of its large Arctic endowment and huge and unchanging dependence on energy. But the rush to demarcate boundaries Exclusive Economic Zones (EEZ's) also stems from another force making for inadvertent but clearly significant change in the Arctic, namely the UN. By requesting signatories of the UN Convention on the Law of the Sea (UNCLOS) to state their claims the UN invited Russia to make the extensive territorial claims to the territories and waters of the Arctic, including the lands under those waters to include the entire Lomonosov Ridge and other territories. The spectacular and militarized form in which Russia made its claim and its subsequent and continuing militarization of the Arctic, even as it professes its pacific intentions, has added a new dynamic here.

Whereas in the Cold War the Arctic's exclusive importance was as a potential naval nuclear battlefield or naval base for the Soviet naval nuclear force and for Western counterattacks or equivalent naval bases, now a multilateral "scramble for the Arctic" is underway. In addition to the well-established interest of the US, Denmark, Norway, Sweden, and Finland as well as Russia, the Arctic's enhanced accessibility has begun to fire China's imagination. Although China has not yet proclaimed a formal Arctic policy it and other Asian nations have now gained entrée as observers to the Arctic council and are preparing to increase their exposure in the Arctic and utilization of it for commercial purposes. This list of Asian actors includes China, India, Japan, South Korea, and Singapore. But by acting to a greater or lesser degree to display a robust interest in the Arctic these actors have brought some of the quandaries of Asia's international agenda into play here.

Thus in addition to the factors of climate change, enhanced demand for hydrocarbons, Un action, both European and Asian great power politics are now impinging on the Arctic which is no longer isolated from these competing tides of international affairs. Issues of EEZ's, maritime boundaries, etc. are now issues to be decided in the Arctic just as they must be resolved in contested areas – also reported to have high degrees of hydrocarbons – like the South China Sea. And just as those issues take place in the South China Sea and are stimulated primarily by the rise of China in the context of the other changes, demand for energy, etc. we see this happening in the Arctic as well.

Just as the surge in global demand for access to oil and gas has profoundly altered many aspects of world politics, changes in energy are affecting geopolitical struggles like those now occurring with regard to the Arctic. It is not merely the case that European states are acquiring weapons, e.g. Norway seeking F-35 fighters or British Defense Secretary Hammond ensuring that the Royal NAVY and British forces will have an Arctic capability. Russia has taken a series of consistent steps, consonant with its threat assessment that other states, primarily NATO want to seize its territories or deny its access to energy. President Putin said as much on February 27, 2013 in directing this ongoing militarization and Russia's Ministry of Regions in November, 2013 publicly cited a growing conflict potential in the international Arctic that obliges Russia to bring its forces up to date. Thus Russia is "returning to the Arctic" including such remote outposts on the Asian side as New Siberian Islands (Novosibirskie Ostrova).

It is not only concern for energy that drives such moves but, though Russia will not say so, anxiety over China. China's shipping of commercial cargoes through the Arctic and its navy's circumnavigation of the Soya Straits and Japan this summer to threaten Japan have triggered Russian anxiety as well as Japanese anxiety about Chinese claims in the Arctic. As one Japanese official told this author, the Sea of Japan is no longer a bilateral lake but now a potential multilateral Asian and Arctic naval theater of operations due to such actions. In other words, Asia's strategic geography, thank in part to Arctic developments, has now changed in a fundamental way affecting all the actors in northeast Asia. And given Russia's obsession with defense of its energy, a military buildup makes sense as a warning to china and fully comports with the enduring threat assessment going back to Soviet times, concerning the Arctic.

But at the same time and finally change it the energy equation may also confound Russia even as it originally stimulated its activity here. Current shale and LNG prices in the US, due to the American surge in these gases are now 20-25% of global prices, leading to pressure on the US to export large quantities of these fuels and pressure on European and Asian firms to invest in terminals and other relevant infrastructure in the US. Despite Russian official proclamations, the Russian press has recently reported in comprehensive detail just how expensive it still is to extract energy from the Arctic. Moreover, even if Russia builds a new infrastructure there, the changing climactic conditions necessitate a new and different infrastructure, not the one familiar to previous generations. It may yet turn out to be the case – based on signs like the postponement of the Stockman field's exploitation – that Russia's Arctic energy will either not be accessible at break-even prices or simply noncompetitive with LNG and shale. In that case Russia's Arctic adventure will fall under its own weight and billions of

rubles will have been spent, not for the first or last time, on a reckless, ill-conceived gamble. The change to shale and LNG may thus have reverberations in energy economics and world affairs beyond what can be already discerned, and not least in the Arctic.

In other words, just as fundamental climactic and political changes made Arctic exploration possible, it is all too possible that fundamental technological and political change in the future may make Arctic exploration much less rewarding than has recently been expected to be the case. And then what will happen given the buildup of military forces in an area whose strategic importance has been oversold? Just as the constancy of change created the Arctic "boom" it may yet create an Arctic "bust" and that, phenomenon, in turn, will usher in a new series of changes as the Arctic now becomes a permanent feature of world affairs and will be acted upon as much as it is a subject in world affairs.

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Shipping as a strategic enabler for Finnish industry

By Ulrika Larpes

Finland, being an island nation, is dependant on the sea and on shipping.

The Finnish Shipping of today is mainly focused on the short sea shipping in the Baltic Sea Region. The import and export products of metal, forest, energy, environmental and chemical from and to the Finnish industry are transported through the western and northern as well as the ports around the area of the Gulf of Finland.

The logistics chain

In the field of logistics within the shipping industry, we find the transport chain actors, i.e. the ports, the marine transports with their shippers, shipping companies with their employees, operators, insurers and authorities.

The challenges of the Finnish sea carriers i.e. the shipping companies operating their vessels in and/or from Finland, can be said in few words; to increase the competitiveness and the co-operation with the other actors in the logistics chain. This can be done when responding in a constructive manner to the environmental challenges the Baltic Sea is facing, when being cost-efficient and coming forward the expectations the industry, i.e. the clients, have.

Therefore, it is important to recognise the connections and common interests between the industry and shipping as well as the maritime technical construction industry.

The future success

The most important task for a company is to safeguard the future of the company. The same goes, obviously, for a shipping company. This fact obviously presupposes an understanding of the control of costs and expenses throughout the marine transport chain. And in order to survive, there is not much room for sloppiness. And consequently, the shipping companies in Finland have amended and developed their business activities in order to survive these, so much less profitable, times.

The level of efficiency and the increase of the same needs, however, to be combined with the future possibilities for growth as well as with the development of skills and knowledge. When focusing on efficiency one should also have a non-fear attitude to re-amend the business concept and commitment to implement new ideas in order to develop the business due to the trends and challenges within shipping. And sometimes, the management has to have the guts to invest and test new ideas also during uncertain economical times, such as new technical innovations in order to respond to environmental regulations coming up or to look for new ways of finding financial means in order to be able to make orders for newbuildings. Why?

Because there is also the need to secure the competitiveness and the possibilities for growth in the future. And one way of doing it, is by creating a constructive dialogue with others in the logistics chain, including the customers and their needs.

The Finnish Economy

The future possibilities for growth are dependant on most of all that the Finnish economy would grow. If the economy grows, it is due to the increase of the industrial production. And thus, the increase of the trade volumes (export), hopefully, leads to increasing freight transport volumes.

So the need to secure the competiveness requires a constructive dialogue with the industry sector in order to be able to provide even more efficient solutions on how to carry out the maritime transport.

What follows after 2015?

In addition to the dialogue with the industry and the other players in the maritime field, one of the challenges of today is to be prepared to the environmental challenges the Baltic Sea is facing from 1 January 2015 and 2016. From January 2015 the fuel sulphur content has to be below 0,1% and from January 2016 the concept of the Energy Efficiency Design Index has to be followed. And the question remains how many vessels will be there after a few years? Will the price of the marine gas oil (MGO) rise and if it does, to what level? To how many shipowners an exhaust gas scrubber, or any scrubber, is an appropriate technical choice in order to meet the requirement of the fuel sulphur content? And is it obvious, that the clients, needing their goods to be transported, will pay the price for the effects of the implementation of these environmental regulations?

Subsidies – investments

Regarding the financial support in form of subsidies, the shipping companies are put in a tuff position; government subsidies of whatever nature may be reduced as the costs of the public sector in Finland today constitute 57% of the total production. Further, the banks are not showing great interest to financing newbuildings. Instead, the possibilities to state guarantees could be an option when investments and newbuildings are considered.

Challenges of the maritime transport from a Finnish Shipping – point of view

The future success of the Shipping in Finland requires, in addition to the control of costs and the constructive dialogue with employees, also investments and development of skills and knowledge as well as to be regarded by the decision makers in Finland as an important asset and as a tool to promote the Finnish Economy.

Thus, the development of the maritime transport services gives the Finnish Shipping society the tool to be the business partner of the Finnish industry and furthermore to compete on an European and global level.

Ulrika Larpes

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Representative for the Shipowners´ Foundation

Finland

Lower emissions from ships in the light of provisions of "sulphur directive" adopted by the European Union

By Beata Madejska

1. Background

The main sources of air pollution are transport, industry, agriculture, and heating. All these sectors emit a variety of air pollutants – sulphur dioxide, nitrogen oxides, carbon dioxide and particulate matter. Shipping is a large and growing source of different kinds of atmospheric emissions.

2. International legislation (IMO)

The MARPOL Convention is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidential causes. It is a combination of two treaties adopted in 1973 and 1978 respectively and also includes the Protocol of 1997 (Annex VI).

The International Convention for the Prevention from Ships (MARPOL) was adopted on 2nd November 1973 at IMO and covered pollution by oil, chemicals, harmful substances in packaged form, sewage and garbage.

Annex VI Prevention of Air Pollution from Ships entered into force 19th May 2005. The revision of Annex VI was adopted in October 2008 and entered into force 1st July 2010.

Annex VI contains provisions allowing for special Sulphur Emission Control Areas (SECAs) to be established with more stringent controls on sulphur emissions. In these areas, the sulphur content of fuel oil used onboard ships must not exceed 1.5 % by mass.

The Baltic Sea Area is designated as a Sulphur Emission Control Area in the Protocol. The North Sea was adopted as Sulphur Emission Control Area in July 2005.

3. European legal provisions concerning reducing ship emissions

At the European Union level there have been subsequent steps to regulate sulphur content in liquid fuels to reduce its emissions in the atmosphere during the past twenty years.

Historically, the sulphur content of certain liquid fuels was regulated by Directive 93/12/EC, adopted in 1993 (*Council Directive 93/12/EEC of 23 March 1993 relating to the sulphur content of certain liquid fuels,*), which placed restrictions on the marketing of diesel fuels used in road vehicles and gas oil used for off-road transport.

In the following years it has been deemed important to lay down limits for the sulphur content of other liquid fuels, in particular marine gas oils and gas oils, in view of the regulation in Annex VI on sulphur content of marine fuel in the IMO's MARPOL Protocol of 1997. The result was the Sulphur Content of Liquid Fuels Directive No 32 adopted on 26 April 1999 (*Council Directive 1999/32/EC of 26 April 1999 relating to a reduction in the sulphur content of certain liquid fuels and amending Directive 93/12/EEC*).

It established limits for sulphur content in heavy fuel oil (1.0 % after 1st January 2003) and gas oil, including marine gas oil (0.2 % after 1st January 2000 and 0.1 % after 1st January 2008). Member States were obliged to transpose the Directive into national legislation before 1st June 2000.

Following the entry into force of MARPOL Annex VI in May 2005 a new Directive 2005/33/EC (*Directive 2005/33/EC of the European Parliament and of the Council of 6 July 2005 amending Directive 1999/32/EC, OJ L 191, 22.7.2005*), was promulgated in July 2005, amending Directive No 32 adopted in 1999.

The Directive 2005/33/EC of the European Parliament and of the Council of 6th July 2005, amending the Sulphur Directive, introduced, inter alia, the IMO concept of Sulphur Emission Control Areas (SECAs) and the associated stricter fuel standards. The maximum sulphur content of marine fuels was limited to a maximum of 1.5 % for ships operating in the Baltic Sea as from 2006 and in the North Sea and the English Channel as from 2007. Member States were obliged to transpose the Directive into national legislation by 11 August 2006.

The latest significant revision of the Sulphur Directive arises from the amendments to MARPOL Annex VI done in 2008, which included more stringent limits of sulphur content on fuels which are to be used in the Emission Control Areas. The EU rendered mandatory IMO rules on marine fuels through the Directive no 12, effective as of 17th December 2012, amending Sulphur Directive No 32 adopted in 1999 (*Directive 2012/33/EU of the European Parliament and of the Council of 21 November 2012 amending Council Directive 1999/32/EC as regards the sulphur content of marine fuels*). The key elements of the new directive are:

- the sulphur limit in the Emission Control Areas (ECAs) is now 1.0 % falling to 0.10 % in 2015;
- a 0.50 % sulphur limit will be implemented in all EU waters (outside Emission Control Areas (ECAs) by 2020, even if the IMO decides to delay the global limit;
- passenger ships operating outside ECAs but on regular service between EU ports continue to be subject to a 1.50 % sulphur limit until 2020, when the EU-wide 0.50 % sulphur limit applies;
- ships at berth in EU ports are required to use only fuels with a maximum 0.1 % sulphur content.

By 18th June 2014 at the latest, Member States will have to amend their existing legislation on the quality of marine fuels to align it with the new Directive. From 2015 onwards, Member States are asked to ensure that ships use fuels with a sulphur content of not more than 0.10 % in the Baltic Sea and the North Sea including English Channel. From 2020 onwards, ships operating in all other European Sea areas will have to use fuels with sulphur content of 0.50 % or less.

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The power of personal and genuine encounters – the key to the success of fairs

By Jaakko Mäkikalli

The history of the exhibition and fair industry in Finland is fairly young as the first modern type of exhibition – a general industrial exhibition – was organized in Helsinki Kaivopuisto Park in 1876. This exhibition was a great success lasting 77 days and attracting 93.000 visitors with Czar Alexander II amongst them. However, it took several decades before the organized exhibition business started first in Helsinki and later in Turku and other bigger cities in Finland.

Founded in 1959 as Turku Fair Cooperative and today known as Turku Fair & Congress Center the company is one of Finland's largest fair organizers and it is a diverse setting for fairs, meetings, congresses and grand public events. Every year about 240.000 guests visit a total number of nearly 200 various events making Turku Fair & Congress Center one of the leading exhibition and congress centers in Finland. Turku Fair & Congress Center is well known for its wide range of annual fairs especially for the consumer sector such as Caravan Show, Top Dog Show, Construction & Interior Design, Turku Art and Antique Fair, Handicraft Fair, Turku Garden Fair, Turku Boat Fair, Turku Fair, International Cat Fair, Skilled Women, Turku International Book Fair and Turku Food & Wine Fair to name a few. Turku Fair & Congress Center has also been the location for various trade fairs such as Nordic Stone, GlassExpo, NaviGate and Infratech. The major shareholder of the company is Turku Chamber of Commerce.

But what makes these and many other exhibitions and fairs still successful in today's rapidly changing world where more and more companies are increasing their marketing and sales efforts in the digital media and the consumers are as well spending more and more time and means in social media and online stores and the overall marketing field is widely splintered? What are the characteristics of the fair as a medium that enable exhibitors as well as the fair visitors to excel?

The answer is the same as it was already over a hundred years ago. The success of the fair industry is based on the effectiveness and power of personal and genuine encounters. As a medium, fairs are both social and personal. In genuine encounters, people are present through all their senses and even with the development of modern technology no other medium can provide a similar platform. Fairs enable companies to meet a large number of contacts in a short period of time and the value of the face to face encounter in a fair is far greater than in any other environment as the exhibitioner and the potential client both meet voluntarily in a neutral environment. Exhibiting at a fair brings inquiries, contacts, requests for quotes and orders and the impact of the fair can last very long and can be seen in sales months after the actual fair.

However, as a medium, fairs are surely not the easiest one and to make sure that the exhibitor gets the best possible result the following guidelines should be followed: get to know different fairs and choose your own; know your target group and decide who you need to reach; define your fair targets as clearly as possible; make a realistic budget and stick to it; choose a competent stand designer and fair constructor; select and train your fair team well; meet you customers and be bold, active and interesting and remember the follow-up and collect the results of your work after the fair. The fact not to be forgotten is also that fairs are not separate from other channels of communication. Aligned with other marketing channels the impact of the fair participation will last much longer.

Exhibitions and fairs provide also an excellent opportunity for b-to-b networking both between the actual exhibiting companies as well as between other interest groups related to the exhibition theme. One upcoming example of such is the Construction & Interior Design Fair in Turku on 31.1.-2.2.2014 which will host a workshop on *Sustainable and energy efficient renovation.* This workshop will be organized by Turku University of Applied Sciences in co-operation with Centrum Balticum. The workshop is a part of the PreKNIGHT project (Preparatory Actions Towards the Knowledge Network in Green Housing Technologies in the Baltic cities) in which Finnish, Russian and German project partners come to together with their expertise to create an extensive network of specialists for energy efficient and sustainable building. The main themes of the workshop will be energy saving, renewable energy sources and life cycle models in renovation.

What are the future trends in the fair business in Turku? The effect of the generally challenging economic cycle has so far been reasonably mild in the fair business. The number of exhibiting companies as well as fair visitors has actually slightly increased during the past three years in the fairs that have been organized by Turku Fair & Congress Center. However, the challenge is to create new events and thus Turku Fair & Congress Center is actively searching for new partners for organizing conferences, meetings and fairs in Turku for both consumer and trade fair sector. As one result of this search and development process Turku Fair & Congress Center will launch a new trade fair in November 2014. NaviGate 2014 will invite the suppliers of maritime industry, shipping industry, logistics, port operations, public and third sector and research and educational institutions to Turku for a new kind of international forum for networking and developing new business opportunities. See you at the fair!

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Will the boom in Japan-Russia economic relations continue?

By Shinichiro Tabata

In the first decade of this century, especially since the mid-2000s, trade between Japan and Russia has increased at an unprecedented rate. While in 2006 the volume of that trade exceeded $10 billion for the first time in the history of the two countries' bilateral trade, in the following year, it reached $20 billion, and in 2011, it surpassed $30 billion. It is safe to say that at present Japan-Russia economic relations have reached their most developed stage ever, despite the limited progress in political relations, marred by the unresolved disagreement over the so-called northern territorial issue.

There are two factors supporting the immense increase in Japan-Russia bilateral trade in the 2000s: automobile exports from Japan to Russia and oil and gas imports to Japan from Russia. During the period from 2002 to 2008, Japanese car exports to Russia skyrocketed. This was due to the oil-fueled economic boom in Russia, characterized by increasing household expenditure, almost half of which is traced to imports. Russia's imports in passenger cars increased from $1.3 billion in 2002 to $30.3 billion in 2008, of which those from Japan grew from $0.3 billion to $11.5 billion over the same period. Japan's share of Russia's passenger car imports increased from 20.3 percent in 2002 to 37.9 percent in 2008. While the automobile industry is the most important and competitive sector in Japanese manufacturing, the significance of Russia as a market for Japanese cars is growing. As Russia became the second-largest market for new passenger cars in Europe, Russia ranked second (its share was 9.0 percent) behind only the United States as a passenger car importer from Japan in 2012.

The rapid increase in Japan's imports from Russia is mainly due to imports of oil and gas. While the share of oil, petroleum products, and liquefied natural gas (LNG) in Japan's imports from Russia was only 5.2 percent in 2004, it reached 68.7 percent in 2012. It should be noted that Russian oil and gas development has shifted further toward the east. The Russian government embarked on development of Sakhalin's oil and gas, construction of the East Siberia-Pacific Ocean (ESPO) pipeline, and exploitation of oil fields in East Siberia. As a result, the share of East Siberia and the Far East in Russian oil production grew from 1.2 percent (3.9 million tons) in 2000 to 9.6 percent (49.4 million tons) in 2012. With respect to oil exports, the sum of those to Japan, China, and South Korea rose from 1.5 million tons in 2000 to 39.0 million tons in 2012. Their share in Russia's oil exports rose from 1.1 percent to 16.2 percent over the same period.

The share of Russia in Japan's oil imports grew from 0.7 percent in 2005 to 7.2 percent in 2010. This share was 4.6 percent in 2012, of which 63.4 percent was imported from Koz'mino, an export terminal on the ESPO pipeline near Vladivostok, and 34.8 percent was transported from Sakhalin. With respect to LNG imports from Russia, they only started in 2009 after the opening of Russia's first LNG plant in Prigorodnoye, located at the southern end of Sakhalin Island. In 2012, Japan imported 8.3 million tons of LNG from this plant and the share of Russia in Japan's imports of LNG amounted to 9.5 percent. Russia already ranked fourth in Japan's LNG imports after Australia, Qatar, and Malaysia.

Given the March 2011 earthquake, tsunami, and closure of the Fukushima nuclear power plant, Japanese demand for Russia's oil and gas is forecasted to increase, since as a consequence of the disaster Japan will inevitably reduce its dependence on atomic energy. In 2010, the share of atomic power in Japan's production of electricity was 30.8 percent, followed by LNG (27.2 percent), coal (23.8 percent), hydropower (8.7 percent), and oil (8.3 percent). In addition, considering the increasing risk entailed in reliance on oil and gas imports from the Middle East (its share in Japan's oil imports was 83.4 percent in 2012), imports from the adjacent Russian Far East will increase in importance in light of Japan's energy security.

While Japan's imports from Russia are certain to increase further at least in the near future, the prospect of Japan's exports, i.e., Japanese car exports, to Russia depends on several factors. Among others, it depends on the continued expansion of household consumption in Russia. In 2013, for example, although relatively high income growth continues, high interest rates of consumer loans, caused by a high inflation rate (about 6 percent), may restrict the growth of passenger car imports. Another factor is that Toyota, Nissan, and other Japanese companies are increasing their production in Russia, as is the case for the automobile companies of other countries. This, together with imports of Japanese cars produced in third countries, may decrease their imports directly from Japan. Nonetheless, the sum of bilateral trade, or we should say overall economic relations, between Japan and Russia, including the activities of Japanese companies in Russia, will undoubtedly expand further in the decade to come.

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Large Finnish companies' international business strategies – an outlook

By Henrikki Tikkanen

The changing business strategies of large Finnish companies following the post-shock years after the economic meltdown of 2008 are of great interest to researchers and practitioners alike. It has been argued that traditional 'corporate Finland' is facing one of its greatest transformation challenges in our economic history.

My research team at Aalto University and at the Nordic Institute of Business & Society think tank conducted a survey to the top management of 250 largest Finnish companies in the autumn of 2012 and 2013, respectively. 96 companies responded in 2012, and 106 in 2013. The following brief observations and interpretations about the corporations' international business strategies are based on this data.

Finnish corporations are facing ever fiercer competition in the international markets. The number of corporations that characterize competition in international markets as 'fierce' has increased from 80 % to almost 90 % over 2012-2013. International price competition also seems to have increased: 80 % of the companies report it as especially fierce in 2013 (75 % in 2012).

It also seems that the strategic self-confidence of many Finnish corporations has begun to erode: international competitors are seen to be in a stronger competitive position vis-à-vis the own corporation. International competitors are more active in conducting their competitive actions: in 2013, 58 % of the corporations reported to face novel competitive moves of their rivals almost every day. In 2013, however, 76 % (71 % in 2012) of the respondent companies felt that the main competitors had also suffered from the economic downturn.

The most important areas of strategic corporate development have remained the same in 2013 as in 2012: 'improving organizational efficiency and effectiveness', 94 % (97 % in 2012), 'being more effective than key competitors', 93 % (97 % in 2012), and ' improving the quality of leadership in the corporation', 93 % (92 % in 2012). The dominant strategic focus on organizational efficiency and effectiveness in understandable under strong international price competition and the related cost pressure. However, at the same time investments in developing markets and customer relationships receive less attention. For instance, only 49 % (51 % in 2012) of the corporations see 'creating novel less competitive markets' (vide the Blue Ocean strategy) as a central strategic development objective. The same figure is 55 % for 'developing a broader offering portfolio than key competitors' (70 % in 2012).

As a whole, the investments of Finnish corporations in marketing and sales have decreased significantly from 2012 to 2013. Despite the fact that there were many corporations that increased their marketing investments, the general trend is downward. Bearing mind that in general, the corporations felt that their international competitive position had eroded significantly over only one year, they still did not increase their investments in marketing and sales, not to mention new offering development. This might be a sign of increased trouble in the future. The recent focus on operational efficiency and effectiveness will not be enough even to retain competitiveness, not to mention gaining competitive advantage.

When customer-related investments are made, they are made more and more abroad. For instance, in acquiring novel reference customers and/or projects, 26 % of the corporations reported to make more than half of their investments abroad (17 5%in 2012).

However, the competitive pressure to move industrial production from Finland overseas seems to be slackening: 18 % of the corporations think they will move more production overseas in the future (17 % in 2012). What is more, 22 % of the respondents even reported that they will relocate production in Finland in the future (18 % in 2012).

The role of Russia as a base for Finnish corporations' manufacturing operations is still strong: 22 % of the corporations plan to increase their production there (27 % in 2012). The same figures for the Asian countries (mainly China and India) are 19 % and 22 %, respectively. Interestingly, North America has gained more attention in the manufacturing strategies of Finnish corporations: 10 % of the respondents reported they will increase their operations in the US or Canada (5 % in 2012).

When it comes to sales and customer relationships, the role of the Russian market continues to be central: 40 % of the respondents see that Russia will increase its importance as a target market in the future (43 % in 2012). The respective figures are 23 % for North America (17 % in 2012), 20 % for South America (15 % in 2012), and 15 % for Africa (8 % in 2012). Thus, Finnish corporations' business in Europe and Asia is not seen to grow as fast as it used to vis-à-vis other key markets.

As a whole, it is more or less clear that once successful business models of Finnish corporations have been eroded by the economic downturn and increasing global competition. Novel strategies and approaches to international operations, perhaps entirely novel business models, are more and more necessary to succeed in the future.

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Maternity health – political issue in 18th century Finland and Sweden

By Kirsi Vainio-Korhonen

The oldest regulations related to midwifery originated in the medieval German cities of Regensburg, Munich, Strasbourg, Frankfurt and Nuremberg. In France, the midwifery profession was regulated from the year 1578. Professional midwives were expected to know how to read and write, and professional literature in the vernacular was written for them from the 16th century (university-taught physicians published and read only in Greek and Latin).

Germany was the first country to start training midwives in maternity clinics (1589), followed by the Hôtel-Dieu hospital in Paris in 1630. This practice was only adopted in the rest of Europe in the 18th century, the Age of Enlightenment, also referred to as the Age of Reason or the Age of Utility, when the learning of "useful" skills was also considered to be of benefit to women. It was widely believed that the problem of high infant and maternal mortality in Europe could be tackled through improved training for midwives. Throughout Continental Europe, new ideas emerged at surprisingly the same time.

In the kingdom of Sweden (and in Finland as the part of the Swedish realm), The Collegium Medicum, established in 1663 in Stockholm, had its task to train and supervise surgeons and pharmacists, as well as midwives. In the early 18th century, the Government of the Kingdom of Sweden encouraged city authorities, in particular, to send able women to learn the midwifery profession in Stockholm, where a new guild for the profession had been established at the beginning of the century.

The archives of the Collegium Medicum, kept in Stockholm, include information about the trained midwives who practiced their profession in Sweden and Finland. The information includes the name of the midwife, the profession of her husband, the midwife's age, examination date and locality where she practiced her profession. According to the matriculation book, there were trained midwives all over Finland during the 18th century, from the northern city of Oulu to the city of Loviisa nearby the Russian border. Midwifery as a profession was an urban phenomena.

Those who sought training had to be literate and know how to write. The studies included practical training under a master midwife, the reading of textbooks, anatomy lessons by the professor of surgery, as well as assisting at the autopsies of female bodies in the anatomy theatre of the Surgical Society in Stockholm. To complete their studies, the women took the midwife exam and the oath for midwives, first in front of Stockholm city administrative court and later, from 1761, the Collegium Medicum.

As elsewhere in Europe, Finnish professional midwifes worked under official responsibility, and besides assisting in childbirths, their tasks included legal and religious duties. They had to perform investigations and give testimonies in legal cases involving infanticide, rape or premarital pregnancy. According to the law, performing emergency baptisms was also part of their duties. All this shows us that early modern women could act as professionals and even authorities in spite of their female sex.

In the 18th century Finland, one in five children born alive died before their first birthday. Neonatal mortality was slightly less frequent in the southernmost Finland whereas at least every third child in the Ostrobothnia region died during infancy. Child mortality, and mortality and morbidity rates in general, were even higher in towns than in the rural areas.

Women's deaths due to childbirth complications became a growing concern in a society looking for ways to promote population growth. The mother was the most natural carer for the new-born, and if she died, the child's life was also in danger. Towards the end of the Swedish reign, i.e., the first years of the 19th century, one Finnish woman out of a hundred died in childbirth or in childbed fever. In big cities, maternal mortality rate was particularly elevated.

The training of Swedish and Finnish midwifes became increasingly professional during the 18th century. What was the impact of this training investment made by the government on the health of the mothers or new-borns? Although the population data from that era is not complete and partly fully lost, parish archives provide some answers. I have studied the urban recordings related to births, stillborn children and infant deaths as well as to mothers who died at childbirth in Helsinki, Hämeenlinna and Pietarsaari as well as in Loviisa for certain years. In each of these cities and towns, infant and mother mortality took a clear downward turn when the first trained midwife was hired during the latter half of the 18th century.

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Positive and negative market forces in university life

By Jukka Korpela

Universities are becoming increasingly dependent on market forces. Money is coming from the private sector, because traditional public funding no longer covers all costs and the state authorities distribute their resources for research and development through open competition. Within a few years what is now known as additional funding will become the main source of university income. The Ministry of Education has even developed a calculation formula which channels state funds into universities. The formula tries to simulate the behaviour of clients and markets.

As regards degree production and teaching the calculation formula is, however, no better than any socialist planning instrument has ever been, starting from the USSR's Gosplan. It has nothing to do with the real markets, because the formula reflects only the wishes of the imaginary clients who are mental constructions of the ministry staff. The formula makes the ministry the client of the universities!

The real client is the one who channels the resources for the activities concerned. In the case of teaching, this is the student. Let him or her fund the teaching! Of course all students are not rich enough and although we could demand that all future lawyers take a bank loan for their studies, because they can afford to pay back this investment, we cannot expect this of every social worker. Their future salaries are low, but society still needs them. Therefore the state can give a voucher to every undergraduate for one university master's degree. She or he can choose the institution to which to bring the voucher as payment for the studies. The level of teaching, its labour market relevance and the graduate employment rate surely all play a major role in the eyes of a young undergraduate. Thus institutions start to compete for students due to their resource impact, and this encourages universities to improve their work.

This real client relationship is also socially fair, because all students can afford it. It is reasonable, too, because it cuts administrative costs; the Ministry of Education can close the Department for Higher Education and Science Policy after it has become useless. Finally it opens universities to real markets for degree export. Thus positive market forces may improve the whole of university life and liberate it from the arbitrariness of educational bureaucrats.

The involvement of real markets has further impacts on the university life. It transforms the whole idea of universities from places of discussion and inquiry into production units. When individual scholars and units are searching for funding they must meet the requirements of the financing bodies. Not only individual firms but also state institutions, independent foundations and scientific academies direct their competition calls for funding to the exact fields of study in which they are seeking results and impact.

A compulsory part of modern funding applications is the description of "the expected results". The idea is that the funding body has expectations, wishes and desires for results, because they expect a return on their investment. This is logical from the market perspective but totally disastrous for the theory of free scholarship which has been at the heart of universities for the last thousand years.

An invention is something that nobody had known beforehand, despite the Latin root of the English word, which misguides us to understand the pre-existence of the invention. This is, however, only a matter of medieval philosophy and language history. A real invention is something which was unknown for everybody and in any case something that a private enterprise or administrative body could never even think about. If we limit scientific and scholarly work to focus areas and "expected results", we exclude all "unexpected results", i.e. real new things and inventions, and are restricted to product development.

A modern market university is hardly the place for suspicion of facts or conventional ways of thinking and a home for revolutions. It is merely a place where director or rector sets scientists and scholars to work on products for imaginary and non-imaginary academic markets guided by business people, politicians and bureaucrats.

I am afraid that this development will result in rules that deny real social, cultural, political and economic criticism as sacrilege, because it may insult the financing bodies and the brand of the university, a popular concept of Chamber of Commerce rhetoric which is currently being smuggled into universities. In this atmosphere, scientific truth is less important than the yearly financial outcome and economic results of the university and its institutions. These negative markets are a real challenge for the entire existence of the free Western university.

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Sport in modern society – reflections on the eve of the Olympic Games in Sochi

By Yuri Mazurov

In modern world sport is often considered as professional sport, as sport of records. But nobody would question the importance of amateur sport and such an enormous part of social life as physical culture in all its forms and manifestations.

Sport in human history

The view on sport as a part of physical culture and consequently as a part of culture in general dates back to protosports manifestations of the remote past, including ancient Greece. Namely in Greece the civilized principle *"A person is uncultured if he cannot read and swim"* was formulated and it is still topical and up-to-date. This definition gives the idea of culture as the result of harmonious synthesis of spiritual and physical development of a person.

Sport in most respects is a phenomenon of culture and at the same time – its direct source both in ancient and our days. That's why sport in its nature is not just cult of strength, stamina, dexterity and other physical characteristics; it is culture of their harmony combined with spiritual merits of individuality.

Sport is first of all the traditions of supporting in the society the best human qualities, such as persistence, determination, responsibility, justice. These traditions are thousands years of age, they accompany practically all the history of mankind. They weaken in the worst times of history and conversely. It is known that people all over the world highly appreciate them, consider them to be their own, protect from oblivion, support by all means available, strive to multiply them. All these enable us to identify the nature of sport, interpreting it as the phenomenon of heritage.

Sport as a historical heritage

Humankind de facto accepts sport as a phenomenon of world heritage in the forms of: monuments of sports history and their ensembles, memorial places connected with sports historical events, sports games and holidays, memorial races, outstanding achievements of some athletes and sports teams and others.

It is important to stress that not only tangible objects but nontangible phenomena as well are regarded as heritage. Half-remembered Russian *"lapta"* (bat), not very popular nowadays *"gorodki"* and other Russian national games could be examples of such heritage. There is no need to specify that such customs, games and festivals are intrinsic to all nations of Russia and other countries. They are known to ethnologists and historians. But quite often they, as well as different memorial competitions, are not understood in public consciousness as cultural heritage. Officially, at the moment neither in Russia nor in another countries many valuable sports venues and phenomena are not accepted as a heritage. This contradicts ideology and tendencies of development of world politics in the area of heritage.

Therefore, we suppose that it is high time to initiate the discussion of the question on preparing and accepting the relevant international regulation about world sports heritage, with the world Olympic heritage being the core of it. It seems logical that this regulation should be the convention of UNESCO or International Olympic Committee (IOC) or their joint convention. Other forms of such a regulation are possible. As palliative a new category in the structure of UNESCO World heritage list is also possible. Russia could provide the drafts of such documents, drawing on the considerations of experts from relevant academic and special institutions. Anyway this work should be started with professional discussion of the problem conducted by experts from UNESCO, IOC and other structures. Baltic region – with its brilliant stories of many important sporting events including the Olympics (Helsinki, Stockholm, Oslo, Lilehammer, Tallinn), is perfectly suited for this.

The adoption of international convention on sports human heritage and the list of guarded properties and phenomena of this heritage will encourage sports as a phenomenon of global universal culture to get the right social status in the world community. In this case sport becomes even more fundamental factor of social development, the factor of sustainable development of mankind.

Sport and sustainable development

In fact, sport as a part of physical culture is, as it was specified above, cultural heritage of humankind. As heritage, sport in fact is an important factor of sustainable development (SD). However the phenomenon of sport, ironically, is not officially accepted as a factor of SD. In the final document of the UN Conference "Rio+20" sport is never mentioned, neither directly nor implicitly. In the materials of other UN conferences on SD there is no sport, physical culture or their derivatives. The situation is quite strange, to say the least of it.

It is the case when arguments for integrating sport into the ideology of SD seem superfluous as these notions are definitely interconnected and interdependent. It appears, it's time the representatives of sports sphere and ideologists of SD made steps towards cooperation at the global level. It really corresponds to the mutual interests of both spheres. And the contrary situation: to procrastinate the acceptance of importance to integrate sport into SD means to lose opportunities.

Russia seems to understand it earlier than others. The first pilot workshop *"Mega-projects in sport: potential of space sustainable development"* prepared and carried with participation of leading world experts in pre-olympic Sochi is really indicative of this tendency.

Conclusion

Sport professionalization and commercialization are usually called the most characteristic trends in the development of modern sport. No doubt, there trends do not always encourage the growth of mass involvement, its manifestation as physical culture. The development of sport as an essential part of universal spiritual culture, as an integral part of historical cultural heritage can change the situation for the better for the benefit of people, countries and the world. It was the direction given at the end of the XIX century by Pierre de Coubertin.

Having accepted how significant and up-to-date the ideas of a great sports enthusiast were, we promote and encourage the development of sport as an integral phenomenon of physical and spiritual culture, as a factor of sustainable development of humankind.

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Karelia in the Finnish-Russian relations

By Petri Minkkinen

After the Winter War (1939-1940) and the Continuation War (1941-1944) between Finland and the Soviet Union, the USSR annexed areas belonging to independent Finland, as agreed in the Peace Treaty of Tartu (1920) between Finland and the Soviet Russia; including areas in the Isthmus of Karelia and Karelia of Laatokka (*Luadogu*, Ladoga), inhabited by the Finno-Ugric and Baltic-Finnic ancient Karelians for thousands of years.

Both of these wars, which can also be seen as a continuity of the same war, began as a result of an illegal Soviet aggression, as the USSR attacked against Finland in 30 November 1939 and again in 22 June 1941.

In 1932 Finland and the USSR signed a Treaty of Non-Aggression and Pacific Settlement of Disputes. This treaty was renewed in 1934, to be valid until 1945. Despite of these treaties, the USSR of Stalin demanded territorial concessions, supposedly for the defense of Leningrad (St. Petersburg), founded by the Tsar Peter I in 1703 to the area inhabited by the Baltic-Finnic Ingrians.

The Soviets claimed that the border set in Tartu was too close to Leningrad and demanded areas in the Isthmus of Karelia and the Gulf of Finland Islands. The Finns and the Soviets negotiated during the autumn of 1939. In November 1939 the USSR falsified the Shelling of Mainila and accused the Finns of an aggression.

Justifying his action by this counterfactual claim, Vyacheslav Molotov, the People's Commissariat for Foreign Affairs of the USSR, renounced the Non-Aggression Treaty. Soon after in 30.11.1939, the Soviets began an illegal military invasion against Finland, condemned also by the League of Nations.

The Molotov-Ribbentrop Treaty and its Secret Additional Protocol, signed in 23 August 1939 between the USSR and the Nazi-Germany, placed Finland and the Baltic countries into the Soviet sphere of influence. In September 1939 these aggressors divided Poland. Therefore, when the USSR attacked against Finland in 30.11.1939, the USSR was an ally of the Nazi-Germany.

The Soviet war planners never thought that the Finns would attack against the USSR. Finland was always conceived as a special case, a possible threat only if used as platform of the attack by a Western third party. The Soviets, for their part, represented by Josef Unschlicht of the Revolutionary Military Council, envisioned a partial conquest of the South-East Finland (up to River Kymi) already in 1927.

The Soviets (Stalin, Molotov and Zhdanov) planned to conquest whole Finland, which had become a part of the Russian Empire during the Napoleonic wars in 1809, and obtained its independence in 1917, amidst the Great War (1914-1918) and the Russian Revolutions.

After the Winter War, when the USSR had annexed parts of Finland, Molotov informed his ally Adolf Hitler in November 1940 that the Soviets aim at resolving their affairs with Finland in accordance with the Molotov-Ribbentrop Treaty. Hitler however forbade that. This and other pressure by the USSR clearly indicated their intention to continue with the conquest of Finland.

In 22 June 1941, when the war between the USSR and Nazi-Germany began, the USSR attacked again against Finland. In the beginning of the Continuation War the Finns were able to push the Soviet invaders back and advanced also to the Eastern Karelia. However, in 1944, after the all-out attack of the Red Army in June 1944 (contained after initial losses), Finland decided to make peace with the USSR.

Finland was forced to cede territory to the aggressor USSR, in the Karelia's of Isthmus and Laatokka, various Gulf of Finland Islands and Salla-Kuusamo area and Petsamo (*Peäccam,* Pechenga) in Northern Finland. These annexations were dictated also in the Paris peace negotiations, which ignored the Finnish point of view, and confirmed by the Paris Peace Treaty of 1947.

This annexation represented yet another division of the land of the Karelians. The areas, which later formed Finland, had been inhabited for thousands of years by the Baltic-Finns and the Finno-Ugric Sámi people, became targets of the Germanic and Slavic expansion about a 1000 years ago. This expansion was legitimized by the competitive Christianization of the Swedes (and partly the Danes and the Baltic Germans), representing the Church of Rome and the Novgorodians, representing the Church of Bizancio.

These invaders succeeded in taming the Finnic resistance by the end of 13th century and in the 1323 Peace Treaty of Pähkinäsaari (Nöteborg/Oreshek) took place the first formal division of Karelia, implemented by Sweden and Novgorod. The location of the border has ever since periodically changed.

When the USSR dissolved, the Baltic countries regained their independence and the Eastern European countries their sovereignty. However, though parts of the Paris Peace Treaty were annulled and the Russians indicated their willingness to discuss the matter in serious manner, Karelia and other areas annexed by the USSR after the war of 1939-1944 were not restituted to Finland.

However, as I demonstrated in my book "Karelia in the Finnish-Russian Relations" (2012, in Spanish and in Finnish), the transformation of the world order, i.e. the emergence of a post-Eurocentric world order, together with the world economic crisis, are opening an era, when it is increasingly in the interest of both Finland and Russia to restitute the annexed territories to Finland and effectively to revalidate the pre-1939 aggression border set by the Peace of Tartu.

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Russian cooperation in Finnish universities of applied sciences

By Kirsti Virtanen

In Finland, the higher education system is a dual system in which the two higher education sectors complement each other. Universities and universities of applied sciences have different kinds of profiles and missions. Universities of applied sciences are mainly multidisciplinary and regional institutions of higher education which focus on interacting with working life and regional development.

In all Finnish universities of applied sciences the international perspective is nowadays self-evident and integrated into all activities. This guarantees that students and staff have the intercultural skills needed in today's multicultural working life. International activities include: student and staff mobility, international co-operation in curriculum development, international research, development and innovation projects, and, most recently, the export of education.

Scandinavia, the countries in the Baltic Sea area and Europe at large are the main focus areas of international co-operation for most of the Finnish higher education institutions. At a strategic level, Russia is often stated as one of the most important countries for the development of international cooperation. In practice, the activities are not always so plentiful and diverse as one would hope.

There are many reasons for the current situation; insufficient financing is one of the most important obstacles. Very often the only programme promoting the mobility of higher education students and teachers between Finland and Russia is the nationally funded FIRST programme (Finnish-Russian Student and Teacher Exchange)

There are also bureaucratic obstacles and limitations (e.g. visas), language problems and lack of interest among students and staff. Sometimes it seems that all the far away countries are much more interesting than those in the neighbouring area.

However, there are also significant opportunities to increase and strengthen cooperation:

- Good understanding of the importance and benefits of Russian cooperation, both in education institutions and in work life organisations - Russia being among the three most important trade partners for Finland
- Relatively close location - especially with the northwestern part of Russia
- The increase in the number of courses taught in English in Russian universities enabling the growth of mobility and collaboration in curriculum development
- New sources of financing in the new EU financial framework.

In order to motivate students to go on study exchanges in Russia, it is extremely important that the mobility of teachers and other university staff is active. Also, close cooperation with work life is crucial; this could enable students to find internship and project possibilities in Russia.

Development of cooperation with Russian institutions of higher education – case TUAS

TUAS – Turku University of Applied Sciences is a state-recognised and accredited multidisciplinary institution of higher education with some 10,000 students and 800 experts.

The core task of TUAS is to ensure a high quality of working-life-based youth education. Based on the division of labour between universities and universities of applied sciences, TUAS is responsible for professional higher education that provides experts for labour and business needs in Southwest Finland.

The objectives of the international operations of Turku University of Applied Sciences are to strengthen the readiness of students and staff to work in an international environment, diversify education and applied research and development, and promote the internationalisation of Southwest Finland.

As in many other universities of applied sciences – especially in the southwestern part of Finland, the cooperation at TUAS with Russian institutions has not developed according to expectations. As there is a clear aim to increase overall cooperation with Russia, it became necessary to start coordinating Russian activities at the institutional level. At the beginning of 2013, a working group at TUAS was established and all interested staff members were invited to participate in the development of Russian cooperation. Many teachers, researchers and international staff members joined the group. Many of them have experience in business and industry, including Russian trade. The target of the group was to deepen and diversify cooperation in Russia, especially in the St. Petersburg area.

As a result, many new initiatives have been started during the year and new project applications have been prepared within the framework of different programmes such as the Nordic-Russian Cooperation Programme and the EU Tempus programme.

At TUAS, training in Russian language and culture is offered to both students and staff. Recently, both groups have been more active in starting new courses.

A new focus in Russian cooperation is education export. Education, training and consulting services will be offered to clients in both the private and public sectors. This will be done together with other education institutions in Turku, within the framework of the recently launched FinnWayLearning consortium (www.finnwaylearning.fi) and hopefully also with our Russian partners.

Turku and St. Petersburg celebrate 60 years as twin cities

Turku and St. Petersburg have been twin cities for 60 years, and their long-standing cooperation in many diverse issues, such as the environment, education, economy and culture, is set to continue into the future. To celebrate their twin city friendship, Turku and St. Petersburg have marked 2013 with a variety of events.

To honour the year of celebration, Turku University of Applied Sciences organised in September a gathering for its higher education colleagues in St. Petersburg. The seminar was organised at Finland House in cooperation with St. Petersburg's Turku Centre.

TUAS representatives from each educational field presented their teaching and learning activities, and services to over ten Russian partner universities and other organisations. The aim was to widen and deepen already existing cooperation, exchange experiences and best

practices, to make new contacts, and to enhance project cooperation. Turku University of Applied Sciences supports the industrial and growth strategy of the Turku sub-region in enhancing the Northern Growth Corridor. The most important factors are continuous and diverse interaction, teacher and student exchanges, RDI cooperation and education export carried out in cooperation with Russian partners.

To summarise the results of the development activities at TUAS during 2013, it can be stated that the cooperation between TUAS and its Russian partners has become much more active, new staff members have become acquainted with their Russian colleagues and new projects and other initiatives have been started. The new EU financial framework will hopefully give more support to activities between EU countries and Russia and here in the north we should not forget the possibilities that the EU strategy for the Baltic Sea region can offer us.

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Urban development cooperation in the Baltic region

By Dmitry Gudimenko

The last decade of economic development in the Baltic Sea Region was very uncertain. The periods of growth are still being changed by the decreases in Baltic economies. These economic changes have driven almost all the Baltic Sea Region countries to the understanding of the need of closer practical cooperation with their neighbours as the way for the common sustainable development.

This understanding has turned to preparation and adoption of the macroregional EU Strategy, growing role of the regional organizations, projects and instruments with active participation of Russian Federation, such as Turku-process.

The cooperation on Baltics became more visible. Its results can be seen from the success of Baltic events such as Baltic Sea Summit that is organized every year on the higher level than before. The high level meetings in St. Petersburg in 2013 will turn to even higher level meetings in Turku in 2014, that will host a number of Baltic events at the same time – meeting of prime-ministers of the Baltic Sea states, where Russian prime-minister is expected, and also Baltic Strategy annual meeting by EU authorities, and Baltic Development Forum.

Meanwhile the political level of cooperation has been formed during last years, the Baltic authorities and decision makers raised their efforts to renew and develop cooperation on the practical level. The existing practical cooperation covers certain sectors of economy, but space for development is enormous. Baltic resources allow to do much more then it is done today.

Cooperation in the city development and in real estate sector is among top areas that have to be developed. Baltic cities are the pillars for the Baltic sustainable development. Cities concentrate the majority of regional resources and they always reflect the overall economic condition. Further development of cities will bring efficiency to their management processes, growth to local economies and the comfort of living for people in the Baltic Region.

The treasure and basis for interregional urban projects is the history of XX's century. It has formed a lot of differences to the Cities of the Region. Every Baltic city has its own way of living, own problems and own approaches to the living habits and development. Different solutions and know-how, utilised by urban developers as state as private, may become a starting point of common city development, based on the share of knowledge between cities and businesses involved.

Development of transport infrastructure, redevelopment of industrial areas and objects, renovation of old residential and downtown areas, projects aimed to preserve the cultural heritage and new green & innovative urban projects – these are the latest regional trends of urban development.

Big metropolises of the region as St. Petersburg brings wide range of opportunities and creates a big market for utilisation of modern effective decisions.

The Concept of social and economic development of St. Petersburg determines St. Petersburg as the tourism centre and cultural capital, and also as the most influential city of the northern Europe. In this sense, development of the modern city and preserving the cultural heritage become the most important task for Russian Northern Capital. Development of better living conditions and transport infrastructure are in the top 5 targets mentioned in the Concept. Only in residential sector City during next 5 years is going to get 2,5 million of new square meters of residential real estate. This intensive growth will definitely affect the residential environment that could be created using available good practices of the Baltic cities.

The annual budgets of running city development projects are counted in billions of euros and the solutions, making these projects more effective are able to have good economical impact as for the City as for companies involved. The program of renovation of historical and central city areas of St. Petersburg planned for 2013-2018 is estimated with 87 bn rubles of investments and needs the experience available in the region. First attempts towards the renovation and preservation of historical city has been made already in 70s during the Soviet period, but no success has been reached so far. City community is still searching for acceptable general concept, and program itself needs good decisions that can be applied.

Among other examples of St.Petersburg we can name transport projects in St. Petersburg, development of city airport Pulkovo with 1,2 bn euro investments, and construction of Western High-Speed Diameter with 212 bn rubles investments, where 108 bn are private investments (one of the first projects in Russia created as public-private partnership).

The examples of cross-national involvement of companies to real estate market already exist, but in a smaller scale that it would be possible. The sharing of experiences between cities and construction companies is able to bring more predictability to city planning & development, as well as decrease financial and time resources and increase profitability of that projects.

We can see already today the positive experience of interregional projects in the development of wastewater treatment in St. Petersburg. But the broader cooperation in urban development processes in its wide meaning is very important.

Projects of city development involve many sectors of economy as traditional as innovative. New interregional urban projects will influence all businesses that are involved in construction sector – planning institutions, innovative companies, materials and equipment suppliers, real estate management companies, workers and many others. The influence is even able to cover industries that are out of the current real estate market - cross-industrial projects, as utilisation of technologies applied in shipbuilding industry in the real estate sector has very big opportunity today and able to open a whole new markets. The regional real estate development is able to develop regional financial market and instruments.

The constant dialogue over the existing legislation and construction norms is also important. Good practices can be taken and utilised by authorities to create clear and fast ways for developers on the national and international level. And even if the total unification of rules is barely possible, the dialogue in this sector is able to give very positive results, simplify the entering of the market and create new projects.

Real estate and urban development is able to become the top field for practical cooperation in next 10-15 years and form the basis for sustainable living in the region for next 30 years at least. And the new regional urban developers could successfully operate and compete on the global market bringing even more value to the Baltic Sea Region.

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Third party in the EU EaP Programme

By Tomas Janeliūnas

The meeting of the EU Eastern Partnership (EaP) Summit was the most significant event in Vilnius during Lithuanian Presidency of the Council of the European Union in the second half of 2013. As the Summit was getting closer (it took place in Vilnius on 28–29 November 2013), the issue of the importance of the Eastern Partnership has suddenly found itself in the spotlight. This happened not because of the activeness of the EU or the Eastern Partnership programme's countries, but because of Russia's actions. Paradoxical as it may sound, Russia, being the third party, made the most significant impact on the results of the Summit and more general perspectives of the EU EaP. Expectations that during the Summit the Association Agreement between the EU and Ukraine might be signed has been broken by aggressive trade sanctions from the Russian side to Ukraine (and to lesser extent to other countries – Moldova and Lithuania). The Ukrainian government just a week before the Summit has made a statement that it need a pause because of difficult economic situation.

For quite a long period time, the Eastern Partnership programme hadn't been considered significantly successful and effective. Those goals that were set at the start of the Eastern Partnership programme in 2009 weren't actually met. Democratisation, the reforms of the free market, and the strengthening of human rights – all these processes didn't gravitate the programme towards the positive side.

Even on the contrary – because of Ukraine's actions against opposition's leaders, the EU suspended the process of signing an association agreement and added new conditions which would prove that Ukraine still followed democratic principles, the rule of law and didn't administer selective justice. Out of six members of the Eastern Partnership three – Belarus, Azerbaijan, and Armenia – have basically dropped out of the programme and remain only formally. The chances of these countries signing an association agreement with the EU and joining the free trade area are very slim.

It may sound like a paradox, but Russia attracted more attention even from the EU to the Eastern Partnership programme. Russia's over sensitivity to this programme forced the country into making inadequate actions. Russia is seeking actively to include the Eastern Partnership programme's countries into the Customs Union and, perhaps, – Eurasian Union. For Russia, this may be the last chance to save its authority as a regional power and the perspectives of managing the matters of at least a major part of Europe.

Russia's rough pressure on Ukraine (chocolate wars, threats to change tariffs), the blockade of Moldovan wine, hindrance of Lithuanian carriers at Russian customs offices, and the halt of dairy import created a reaction which became a wake up call of sorts. For a while it seemed Russia's aggression may help to unify Ukraine's politicians and led them to decide to maintain national self-esteem and not give in to Russia's blackmail.

For a long period of time, Ukraine's possibilities to sign an association agreement had depended on a purely political decision – will former Prime Minister, Yulia Tymoshenko and the other opponents of the current Government get released from prison. For the EU, this looked as a matter of core values – it had to show whether or not Ukraine was European country, upheld human rights, and didn't administer selective justice when dealing with political opponents. For Ukrainian President, Viktor Yanukovych, it looked like a stubborn repetition of a principle, forcing to defend his position. The prestige of the Ukrainian President and the Government in their own country depended on it. Some may even say – the maintenance of authority in the society and political perspectives.

The Vilnius Summit did not come with a expected signing of the Association Agreement. But this does not mean Ukraine is turning back towards Russia. Ukrainian people, gathering in streets and squares and demanding to continue integration towards the EU, created a tremendous pressure on Ukrainian government and it will have to take this into account.

The EU politicians is showing more resentment towards Russia's economic sanctions. When the competition is obvious, a wish to gear up and win arises. Rejecting Ukraine's association agreement wouldn't just mean seeing Ukraine as having failed to meet the requirements. It would mean the demise of the EU Eastern Partnership programme and the defeat of the EU's soft power.

The instigated soft power conflict between the EU and Russia will most probably increase the gap of differences between the two even more; i.e. the differences in values, trade systems, and political behaviour. Unfortunately, this will not increase safety and stability in the Eastern European region. Neither will it help Russia to solve its domestic problems, but maybe it will become a pretext to allocate effort to external competition, instead of dealing with Russia's social and economic issues.

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International relations of Ternopil National Economic University and Baltic Rim universities

By Ihor Lishchynskyy

Ternopil National Economic University (TNEU) is one of the leading economic universities in western Ukraine, where more than 17000 students are studied.

Talking about cooperation of Ternopil National Economic University with Baltic Rim countries, two main areas should be marked among others:

- Cooperation with Kaunas University of Technology (Lithuania);
- Collaboration with the Aarhus University (Denmark).

Agreement for cooperation between Ternopil National Economic University and Kaunas Technological was signed in 2005. The Agreement was extended till 2014 and includes cooperation in the academic, scientific and cultural fields.

As a result of years of collaboration the number of mutual research visits of specialists from TNEU Faculty of Computer Information Technologies and Kaunas University of Technology has been made.

In 2005-2006 scientists from both sides carried out joint research in the frames of the project "Development of methods and devices for improving mobile robots' navigation in non-structured environment."

In 2009-2010, the research continued in the direction of "Development of methods for 3D localization for autonomous robot navigation". The project was funded by the Ministry of Education and Science of Ukraine and the Ministry of Education and Science of the Republic of Lithuania.

In 2013 partners applied for the research tender supported by the State Agency for Science Innovation and Informatization of Ukraine and Ministry of Education and Science of the Republic of Lithuania. Scope of the project: "Development of an improved perception-based image processing in 3D space". The main idea of the project is to develop methods and algorithms for computer vision, their software and hardware implementation for enhanced control and identification of products in the production process, which will improve product quality, reduce time for its production, reduce the number of parts rejected by visual inspection and 3D image processing techniques, a knowledge base of expert opinion.

In 2001 TNEU signed a cooperation Agreement with the Aarhus University (Denmark). Every 5 years the Agreement is revised and extended. The Agreement provides good conditions for mutual visits of researchers and administrative managers; ensures opportunities for bilateral exchange of students on the basis of exchange programs and in special cases with the consent of the parties; establishes a framework for the exchange of scientific information that will facilitate the implementation of joint research projects; publication of scientific articles in journals, newsletters, and other forms of academic publications on both sides.

As a part of the Agreement 2-3 students from TNEU are studying each year for a semester in Aarhus University, as well as teachers from TNEU conducts there their scientific training.

Teachers and students from Aarhus University are actively involved in the annual International Conference of Young Scientists and Students held in TNEU "Innovative processes in economic, social and cultural development: national and international experience".

In addition professors from Aarhus University annually participate in the learning process, particularly in TNEU Ukrainian-Dutch Faculty of Economics and Management. Active work of Professors with young scientists from TNEU deserved Special attention for their joint preparation of papers for their publication in world recognized professional journals.

Also in November 2013 a student delegation from Denmark consisting of twelve Master-students from Aalborg University in speciality "Management of Information Technology" visited Ternopil National Economic University as part of the study-tour. Together with the students of the Faculty of Computer Information Technologies and Ukrainian-Dutch Faculty of Economics and Management they have been acquainted with the work of Danish company Conscensia in Lviv, specializing in IT outsourcing. Also in Ternopil the meetings were held with the staff of the companies Eleks and MagneticOne.

In December 2010 Ternopil National Economic University hosts the Extraordinary and Plenipotentiary Ambassador of Finland in Ukraine Christer Mickelson. During the visit, he willingly met with students of the first and third years and delivered the lecture about cooperation of the EU, Finland and Ukraine.

Summing up the abovementioned, it should be noted that despite the relatively small number of partners from the Baltic Rim, TNEU still maintains a very active joint work in this vector. The plans are to expand bilateral and multilateral cooperation with countries of the region, joint implementation of research projects, common involving in educational, social and cultural initiatives.

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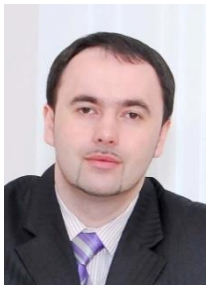

Anglo-Nordic relations – past, present, future

By Matthew Broad

It has often been said that Britain has a 'special relationship' with the Nordic countries. They are, for all their differences, considered to be part of a European periphery that is somehow detached from 'continental' European states. This of course is based not only on a reading of their national histories as unique and geographic locations as isolated, but also on an apparently distinctive set of morals and values, of shared preferences and similar conceptions of themselves and the world around them. They are supposedly bound together by their universal support for free trade, likeminded notions of the state and of democracy, a commitment to equality and social justice, and support for functional cooperation abroad – not least with regard to European integration. London, the story goes, has far more in common with Copenhagen, Helsinki, Oslo, Reykjavik and Stockholm than it has ever done with Berlin, Brussels or Paris.

Past

Certainly the countries have traditionally been close. A recurring theme in the early twentieth century was the idea that the Nordic countries formed a sort of northern outpost in Britain's 'informal Empire'. The British extracted a high economic price in return for its presence in the area, but in the process helped foster intimate financial and trading networks between the countries. Even as late as 1959, the British Labour Party considered proposing that the three Scandinavian countries join the Commonwealth.

In reality of course the amity was nowhere near as 'special' as is often claimed. There were, it is true, obvious security and military ties between Britain and its Nordic partners at times of international tension. Economic links between the countries were close in the first two decades after the Second World War, underlined by membership of the European Free Trade Association (EFTA). And arguably countries like Norway have had some sort of 'special' link with Britain. But few other examples exist to suggest that such kinship was any more unique than it was with other states. Germany and Russia could with some justification claim to have had a more significant role in Nordic affairs. The idea of a 'special relationship' between Britain and the Nordic countries as a whole, then, is largely an illusion.

Present

This is not to say that relations today are irrelevant. Leaving aside culture and sports, trade is a notable link between the two. Based on 2012 figures, Sweden, Norway, Denmark and Finland together constituted an export market for British goods worth about €3.6 billion more than equivalent trade with China. On the other side, Britain is a huge market for well-known Nordic brand names like IKEA. Danske Bank is now a prominent feature on the high streets of Northern Ireland. The UK, not to forget, is among the biggest importers of Norwegian gas in the world.

Recently, however, politics, not economics, has taken centre stage. Soon after coming to office in May 2010, David Cameron established the Northern Future Forum (NFF), a grouping of nine countries designed to discuss growth, economic reform and sustainable business ideas. From the start, Cameron seemed keen to dispense with official niceties and concentrate on genuinely interacting with his Nordic and Baltic colleagues. As he suggested in the first NFF meeting in London in January 2011, Britain 'has to learn from other countries'. Anglo-Nordic relations are, it seems, thriving.

Future

This offers, to my mind at least, a huge opportunity for the Nordic countries. Whether special or not, the relationship between Britain and its Nordic counterparts has often been considered unequal. Certainly in times of peace, the link between the two was no doubt driven by smaller states heavily dependent on a larger, if somewhat wounded, power. There were doubtless times when Britain actively sought to utilise what political capital it had with the Nordic states for its own benefits – urging Denmark and Norway to join NATO instantly springs to mind. But even here, the emphasis has been on how much sway Britain had over the Nordics. It is almost as though, in a world dominated by the superpowers, they had perilously few other choices than to take on the role of junior partner.

This, I would suggest, has certainly not always been the case – even if the Nordic countries did not fully recognise the situation as such. As my own research strives to prove, Jens Otto Krag was certainly able to exert considerable influence over British European policy in the 1960s. In recent times, too, the Nordic countries have, among a whole array of issues, proved more than diligent in taking Britain to task over emissions from the Sellafield nuclear plant in the north of England.

And neither does it need to be the case in the future. For, as the outgoing British Ambassador to Finland recently proclaimed, the Nordics have 'substantial', albeit 'quiet', influence over Britain. But this is only really effective when they use their collective weight to the full. Much criticism has been levelled against Cameron for hoping to turn the NFF into an 'awkward bloc' inside the European Union (EU), quite to the detriment of the Nordic powers. By working together, however, the Nordics could instead build the NFF into a nostrum, an important yet informal channel of communication in which they can directly access the British Prime Minister and exert a combined influence. Used effectively, this could be a vital arena to lobby Britain on EU matters. In the future, then, the relationship, although by no means special, is likely to remain close. If the Nordic countries take notice of their combined strength, Britain could well get far more than it bargained for.

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