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## Article

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## Perspectives on Eco Economics. Circular Economy and Smart Economy

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**Abstract** *The implementation of sustainable development principles in contemporary economic thinking has generated the conceptual remodeling that expresses the new mechanisms of the economy. Thus, the concept of circular economy meet the theoretical representation of an economic system oriented towards the re-use of waste as raw materials and limiting the production of waste that cannot come back into the economic circuit. Circular economy is one that involves even its concept of operation, recovery and regeneration, as much as possible of resources, aiming to preserve, at the highest level, the value and usefulness of products, components and raw materials, distinguishing between technical and biological cycles. In this way, we can find solutions for two major issues affecting today's economy: the limited nature of resources and the pollution generated by the waste resulting from economic activities.*

**Key words** Eco economy, circular economy, biological cycles, utility

**JEL Codes:** I25, I31

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### 1. Introduction

Currently, as a result of structural mutations in the labour market, combined with changes in education, as a result of the scientific progress, of the advance of scientific research, there should be considered new ways of addressing the economy in direct compatibility with the consumer expectations, manufacturers' requirements, and the trends of the global markets. Any act of economic production and consumption must be related to the concept of efficiency in the sense of making rational use of economic resources, and the concept of utility, namely the selection of a good which meet the needs of such a consumer, by taking into account the preference-budget report.

For this reason, the individual, through his actions, constitutes an economic Act, which implies that education is becoming a prerequisite for welfare levels that can be achieved, as a result of the following factors: educational, cultural, economic, environmental, social and regional policies etc. Through eco economy and such concepts as circular economy or smart economy, the individual will correct a number of issues that interfere with the (medium) human-material-natural report through the use of resources under conditions of economic sustainability.

The necessity of studying economics is not a problem or an end only of economists or practitioners in economics. To make the economy is a constant of daily life, whether we choose to consume goods, whether they make family budgets or budgets of a productive society. To save resources actually represents a method that an individual use to integrate himself into the society, to manage effectively the resources for its wellbeing, and on the way, and the welfare of their fellows, and the community.

The problems resided in society, generated by a high consumption, the identification of solutions to remedy certain defects in order to improve the quality and eco-efficiency of good, resolve fundamental questions in Economics: For whom do we produce? What do we produce? Under what conditions do we produce? With what means do we produce?

The answer comes from the analysis on the rational administration of the economic resources, the use of environmentally-friendly technologies that are compatible with the principles of sustainability, the free fluctuation of supply and demand, in particular, the design of prices according to the absorption capacity of the products and their competitiveness. An important role in this process is played by the economic actors, the State, businesses, households and the foreign environment.

### 2. Literature review

In *The circular economy- a wealth of flows*, Ken Webster (Webster, 2015) shows that the economic reality of the 21st century requires a shift from the paradigm of 'take-make and dispose', appropriate to economic mechanisms of the 19th century, to the business models of organisation specific to a regenerative economy that reflects feedback- rich flows. At this point, human civilization is faced with the need to address more responsibly the issue of waste generated by economic activities; these must be reattached to the economic flows and become, finally, a growth factor. It outlines a new vision of economic advantage which is oriented both towards the design of waste as well as the streamlining access to those who hold them. Besides, a circular economy entails changes in the occupational structure of the human resources and requires

compulsorily a new fiscal policy, both at the Community level and at the global level. A measure whereby the factual borders become irrelevant for the virtual user and the time resource is reasonable, is the implementation of the concept of the smart economy at the level of the global economy.

By implementing the concept of smart economy, the time can be taken as an economic value, from its rational use benefitting the producer or the user, its value consisting of smart products that it makes, or are likely to be achieved.

Thus, creativity and innovation are essential attributes characterizing the 'smart economy' through which the economic environment wins due to the progress of science, skills enhancement and the performances of each individual in the working process, the completion of a function between the competencies and performance through correlation with science and technology.

Transferring knowledge from concept to reality is achieved through the creation of smart city that deserves the modern individual needs for development, user of knowledge, conceptual and thinking freedom, rational, follower of the principles of sustainability and durability. Smart city is not just an efficient information system, catalyst of energies and intelligent solutions, but a projection of what designates the future on the individual by reference to the resources and the knowledge economy.

### 3. Methodology of research

This paper presents a comprehensive approach of the new economic concepts, referring to the special context that underlines the new perspectives of economic debates. The paper is based on an exhaustive research of the scientific papers that preceded the chosen topic, on the identification of some cause-type correlations that underlie the structural dimension of the circular economy content. The conceptual correlations between the principles deriving from economics, eco-economics, bio-economics confer the circular character of the acute economic behavior in the sense that the causal relationships between these concepts create deterministic legality.

### 4. Data analysis

#### 4.1. Dealing with the role of the economic stakeholders

Through actions centred on human development and entrepreneurship, society will provide a potential of generating some rational economic behaviours, based on efficient use of resources, awareness of resource depletion on the danger and the possibility of market expansion. The economic process should be based on the reproduction ability of certain pre-existent economic factors, with limited length of use, implying also a limited stock of ecological capital.

The issue of the economy is how exactly it will capitalize on this ecological capital stock. For this purpose, the whole attention is focused on the production process and the distribution of revenues to support operations in the production of economic wellbeing. The following aspects are taken into account:

- producing economic goods allocated by the market, aiming to intensive use of economic resources;
- generating revenues to ensure economic prerequisites for a decent standard of living;
- the definition of the term 'decent' and identify those boundaries allowing maintenance of the expected levels of economic utility at various levels of income fluctuations;
- imposing a certain institutional threshold to the income as a result of the tax rates;
- the strengthens of the real economy, generating taxable incomes, of the passive beneficiaries, as part of a nominal economy, as a whole. It is also taken into account the fact that a sustainable use of the economic resources is tightly linked to the process of involving in the economic activity all the labour resources, thus generating an active, creative and participative behaviour.
- the transferability of the economic resources, inclusively at the level of the local economy, which triggers a certain approach of the economy on the basis of relative benefits, efficient capitalization of the productive potential, increase of the complimentary degree between the economic areas and the nomination of the market relations considering strictly the competitiveness criteria.
- imposition of a certain institutional sizes generated by the income tax levels;
- the degree of supportability of the real economy, generating taxable income, passive beneficiaries, as part of the nominal economy as a whole. It is also considered the fact that the use of sustainable economic resources involves the process of training in the economic activity of all labour resources, generating an active, creative, and participatory behaviour.
- the transferability of economic resources, including the local economy, which means addressing the economy on the principle of relative advantages, an efficient use of the productive potential, enhancing the complementarities between economic regions, the establishment of market relations strictly on grounds of competitiveness

As we well know, the State is an economic actor whose functions are tightly related to the goals such as wealth achievement, improvement of the living standards, assistance and protection for the population with low incomes, assurance of a balance in terms of social equity and social justice. The most important objective, with major implications for overall economic mechanism, is the function of the orientation of economic activity through economic policies, outlining a particular trend of economic growth and development in line with the state's political doctrine. Economic policies influence economic mechanism through a system of levers and tools, both directly and indirectly that, through mutual and systemic interaction ratios, and give or not consistency to the economical Act.

In the Romanian post revolution economy, the lack of systemic approach of the economic politics compounded with the political doctrines of the governments that were not compatible with the liberal economic doctrine, specified to the market economy, led to a fragile economic mechanism that is not competitive with the mechanism of the E.U. The causes, on the one hand, could be the low productivity of the production factories, and, on the other hand, the existence of an unfavourable competitive environment.

- transferability of economic resources, including the local economy, which means addressing the economy on the principle of relative advantages, an efficient use of the productive potential, enhancing the complementarities between economic regions, the establishment of market relations strictly on grounds of competitiveness.

In our opinion, productivity growth occurs as a result of a sustained investment effort by those sectors and branches of the economy where there are relative advantages through the quality-price ratio on the local markets, as well as the regional or worldwide ones. An active economic policy must identify the sectors of the economy where there are such competitive advantages, and must intervene through fiscal and monetary levers designed to attract and preserve investments. Frequent changes of economic policy, either as a result of developments in the political environment, whether as a result of the influence of pressure groups, will cause investors' attitude to be labile, with direct repercussions on the level of production and hence the employment rate. Another element influencing productivity is procuring inputs, regarded both qualitatively and quantitatively. From a quantitative point of view, Romania has a high volume of production factors, what constituted and still constitute a comparative advantage.

If we look from the viewpoint of qualitative, the statistical data shows that the labour force is increasingly weakly qualified, with competencies that do not match in the current structure of workplaces with low motivation, which is a relative loss, with a direct effect on the decrease in productivity. In this sense, the economic policy of the State should take into account the social programmes of awareness of the population on the importance of education in the present society, prevention of school abandonment, whilst ensuring a minimal income per family.

As it is well known, the competition is the key to the success of an economy. Fiscal instability in Romania, transmitted to the business environment, as a result of a lack of budgetary foresight and rigid instruments of budgetary policy including the lack of transparency regarding the process of redistribution of budgetary incomes, and all these compounded with the high cost of credit in the economy, make the profitability and efficiency of the actions undertaken by private entrepreneurs to be low. This fact reinforces the conviction that Romania is not yet a functioning market economy, and that interest groups pressure creates huge failures in both resource allocation mechanism and the mechanism of redistribution of the benefits.

It's hardly shown who is at fault for the lack of competitiveness of Romania and for his inability to harness the resources of its own and borrowed in order to achieve an optimal level of well-being. One solution would be to intensify production and markets by promoting the economic potential of active. There are numerous opportunities for attraction of human capital for productive especially in agriculture, tourism, industry, craft industry, but I believe that labour from Romania lacks the ability, motivation and involvement especially coordination and organisation. Perhaps the anguish inherited since the Communist regime has not yet been overcome, or perhaps the high level of corruption in administration leads to lack of motivation and involvement, but Romania cannot develop economically and socially if imports most consumer products, if exports an important volume of raw materials and if running a limited number of economic operations corresponding to a Lohn production and then leaving the resources untapped and wasting the production factors.

Eco economy transforms the benefits of ecology and bio economics into economic policies which gives sense and rationality in economic activity, both at the level of consumption, as the defining act that supports a market economy, as well as at the level of the allocation, as a way to reduce societal inequalities.

The problems mankind is facing, from those related to the irrational use of natural resources, reaching their limits and generating increasing greenhouse gases, global warming, the intensification of natural disasters, to those generating economic crisis, prolonged recession, unemployment, structural deficits with repercussions on the quality of life, make necessary a rethinking of the economic system on the basis of rational, ethical, ecological. Naturally, Eco economy becomes an integrative concept which can manage unitarily environmental, social, economic, or ethical issues.

The allocation issue is obvious, especially for the fact that without effective allocation, production might lie more than the marginal cost, which would mean the waste of resources and energy etc. We believe that the allocation can be integrated into paradigms of development/growth and completely different from the traditional approach. The issue of allocation lies in

the size of the scale and intensity of the increase, which takes perverse effects on a finite ecosystem, as the Earth's ecosystem, which cannot support a continuous growth of savings through the introduction of new and new needs.

Eco economy is regarded as a further step towards a new economic science that should devise economic life and health values produced from the perspective of 'the health of the whole living', is strongly grounded in the principles of Economics and Bio-economics. Bio-economics uses soil and biological resources (growth), as well as waste as raw material for the production of *bio-products* (food, feed, energy, industrial and production).

It also includes the use of friendly environmental processes for sustainable industrial sectors (it is known that bio-waste have a considerable potential as an alternative to chemical fertilizers or for conversion into bio-energy and can contribute to the achievement of the 2 % of the EU objective of renewable energy).

## 5. Results

We think it is appropriate the active involvement of the State through social policies related to restructuring employment restructuring, attracting civil society and private interest for rethinking and reconfiguring the system market from Romania in order to create preconditions for the effective conservation and exploitation of domestic economic potential. Romania also needs to implement a policy mix of budgetary and monetary tax, which outlines an attractive business environment and stimulating action, in which interest groups aimed at adding value and only intensify internal and external competitiveness.

The circular economy combines the requirements of a profit-oriented economy with the need to protect the environment, under conditions of economic sustainability. Through circular economy, we ensure the completeness of needs and resources, in the most rational way of satisfying the concept of utility. Circular economy has as premise the rationality of individuals, the rationality of their decisions on production and consumption. At the same time, the circular economy is attached from a doctrinal point of view to the theory of economic cycles, in the sense that proactive behaviors lead to rational decisions regarding balancing the demand-supply ratio (<https://www.green-report.ro/>).

Basically Eco economy is a complex process, integrator, generator of wealth that sustains not only to meet the vital needs of the people but also incorporating, in the measures of improving the standard of living and the quality of life of those aspects pertaining to non-commensurable individual freedoms, safety, honesty, morality, equality of opportunity, respect, and honour. Hence, thanks to Eco economy there is a particular attention for emphasizing the human dimension of the development policies as well as the qualitative approach of the economic growth policies on ensuring the sustainability of development and strengthening the links of causality between economic growth, human development and the natural environment.

## 6. Conclusions

In essence, the factors that drive forward economic growth can be synthesized into those that support entrepreneurial development. Entrepreneurship aims to increase the level of income of the entrepreneur and of the society, which contributes to the growth and economic development. It's very interesting how the current society develops the entrepreneurial spirit and initiative, as decisive for achieving the economic goals of the primordial, such as employment and wealth creation.

Through entrepreneurship individuals create capacities for their creative energies in order to obtain sources of income for themselves and the community, become motivated to increase the quality of services offered to consumers, create economic goods to meet the needs of the application being forced toward the efficient use of resources precisely as a consequence of the necessity of providing reliable economic goods through the quality-price ratio, and are interested in their image on the market proliferated by the image of products existing on the market.

In fact the entrepreneur identifies with the community, is part of the system of local governance, generating community welfare and campaigning for a system of correct governing. It is, in this way, a promoter of the management system of the country.

The concept of economy is based on harmonizing the long-term sustainable development needs of humanity by optimizing resource consumption so as to scatter as little as possible and re-use it as much as possible. Improving the use of resources must reach such a threshold that the amount of natural resources consumed net (ie those extracted for the first time from the natural environment) will not jeopardize their natural recovery rate in sufficient quantities for future generations.

The circular economy provides multiple possibilities for understanding the relationships between phenomena and processes in relation to endogenous economic factors (needs, utility, and resources) and exogenous economic factors (commercial legal system, market complexity, globalization, social cohesion, distribution and redistribution). At the same time, at the level of the circular economy, decisive are the behaviors of the economic actors at the sessions in which the consumption, production decisions emphasize the dichotomy between the rational and the irrational character, between the rarity and the waste, as determinant in establishing the anticipatory conduct necessary for the formation of a law.

These trends poses new challenges to be answered by the organizational society: improve the economic resources required to manage the new models and tools for storage and data processing and question the creation and implementation of systems that ensure data protection.

## References

- Ayres, R., van den Bergh, J., Gowdy, J. (2000), "Viewpoint: Weak versus Strong Sustainability", <http://www.tinbergen.nl/discussionpapers/98103.pdf>.
- Bălăceanu, C. and Apostol, D. (2012), "Development and Eco-Efficiency in the Information Society", International Journal of Academic Research in Business and Social Sciences, October, Vol. 2, No. 10, <http://www.hrmars.com/admin/pics/1273.pdf>.
- Fournier, V. (2008), "Escaping from the economy: the politics of degrowth", IJSSP 28, [http://degrowth.org/wp-content/uploads/2011/05/Fournier\\_Escaping.pdf](http://degrowth.org/wp-content/uploads/2011/05/Fournier_Escaping.pdf).
- Gowdy, J.M. and Erickson, J.D. (2004), "The Approach of Ecological Economics", Rensselaer Working Paper in Economics No. 0402, February, <http://www.economics.rpi.edu/workingpapers/rpi0402.pdf>.
- Hartwick, J.M. (1977) "Intergenerational Equity and the Investment of Rents from Exhaustible Resources" American Economic Review, 67, December.
- Holling, C.S. (1996), "Surprise for Science, Resilience for Ecosystems and Incentives for People", Ecological Applications, Vol. 6, No.3.
- Neumayer, E., (2012). Human Development and Sustainability, Human Development Research Paper, 2012/05, [http://hdr.undp.org/en/reports/global/hdr2010/papers/HDRP\\_2010\\_05.pdf](http://hdr.undp.org/en/reports/global/hdr2010/papers/HDRP_2010_05.pdf) (accessed 21.08.2012).
- Pearce, D., Atkinson, G. (1998), "The concept of sustainable development: An evaluation of its usefulness ten years after Brundtland", Swiss Journal of Economics and Statistics, Vol.134 (3).
- Powell, M., Sutton, Ph., in *Ecological sustainability*, <http://www.green-innovations.asn.au/ecolsust.htm>
- Rădulescu, V., Cetina, I., Rădulescu, D.M. and Nora, M. (2009), "The Fundamental Right for Environment the Premise Of The Ecological Marketing", Metalurgia International, Vol. XIV, No.1, Special Issue.
- Schauer, T. (2002), "Internet Refusers. A Risk to the digital Economy?", from B. Stanford-Smith et al (eds), Challenges and Achievements in a E-business and E-Work (Part 1), IOS Press.
- Schneider, F. (2008), "Macroscopic rebound effects as argument for economic degrowth", <http://events.it-sudparis.eu/degrowthconference/themes/1First%20panels/Backgrounds/Schneider%20F%20Degrowth%20Paris%20april%202008%20paper.pdf>.
- Schneider, F. (2010), "Degrowth of Production and Consumption capacities for social justice, well-being and ecological sustainability", 2nd Conference on Economic Degrowth, Barcelona 26th-29th March, <http://www.barcelona.degrowth.org/fileadmin/content/documents/Proceedings/Schneider.pdf>.
- Webster, K. (2015). "The Circular Economy: A Wealth of Flows" <http://circulateneeds.org/2015/05/ken-webster-introduces-new-book-a-wealth-of-flows/>.