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Chapter 5.37



The Profession of Research Management and Administration in Portugal



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Abstract

This chapter addresses the profession of research management and administration (RMA) in Portugal. It starts with a brief outline of the national research and innovation (R&I) ecosystem that contextualises the development of the profession. The RMA community is characterised and the expectations for the future of the RMA profession are summarised using data collected through a national online survey. It is posited that RMA in Portugal is an emergent career having developed key traits of a profession, namely common interests and practices, a concern with deepening specialised knowledge and skills, the existence of an organised network of practitioners, the offer of academic qualifications and training in the area, and the integration in international RMA communities of practice. Nevertheless, future developments in the European Research Area (ERA) are identified as a critical milestone that will influence the development and formal legislative institutionalisation of the RMA profession in Portugal.

Keywords: Portugal; Research Management and Administration; PIC; SciComPT; RAAAP; BESTPRAC; EARMA; Profession; RMA

The Portuguese R&I Ecosystem

R&I Funding

The Portuguese R&I ecosystem results from a long process of change associated with both the expansion and diversification of its institutions and a significant increase in the number of graduates, researchers and scientific and technological production (Rodrigues & Heitor, 2015). The growth of public and private investment in research and development (R&D) went from 0.27% of gross domestic expenditure in 1982 to 0.72% in 2000, and 1.62% in 2021 (with 0.92% being business enterprise expenditure in 2022) (European Commission, 2022d).

These changes have been described to be driven by the so-called ‘knowledge economy’ and compelled higher education and science institutions (HEIs) to qualify human resources able to produce new goods and services and to contribute directly to the development of research leading to social and technological innovation (Ball, 2015; Ferreira, 2023). In this context, research and management units and their professionals, sitting at the interface of public and private institutions of higher education and science, industry, governmental bodies and society at large, become central actors in today’s R&I ecosystem (Santiago & Carvalho, 2016).

Despite the general growth of the Portuguese R&I ecosystem, the levels of Portugal’s expenditures in R&D are still well below the EU average in 2020 (2.3%) (World-Bank Data, 2020) and the 3.0% goal inscribed in the 2030 European Union agenda.¹ In addition, the diversification and widespread implementation of R&I organisations throughout the national territory was not accompanied by decentralisation of the governance and funding of the R&I ecosystem that kept on being a major responsibility of the national government. Such a hierarchical system, in a context where a considerable part of the public funding for R&I is directly dependent on European Structural

¹ https://ec.europa.eu/invest-in-research/index_en.htm

and Investment Funding, resulted in increased challenges in linking the different institutional, regional, and national actors of the R&I ecosystem. All considered, the urgent need for higher public and private investment in science and innovation needs to be accompanied by an articulation between national and regional needs, and an alignment of the diversified network of institutions in this ecosystem with the European Commission's smart specialisation approach² that aims for an innovation-driven socioeconomic development (OECD, 2019).

R&I Performing Organisations

Within the publicly financed R&I ecosystem, R&I activities are developed in HEIs, private (non-profit) foundations and state laboratories. Funding is directly allocated to R&I units through a competitive process organised by the national funding agency (*Fundação para a Ciência e a Tecnologia*, FCT³) and in which the evaluation process is carried out every 4–5 years by panels of international experts.

In the latest evaluation exercise, in 2017, there were 309 R&I units positively evaluated (FCT, 2021), some of which further comprise Associated Laboratories (AL), Collaborative Laboratories (CoLAB) or Technology and Innovation Centres (CTI), R&I organisational structures that respond to very specific challenges and can apply for additional public and private funds to fulfil such missions.

ALs are high-performing R&I units that work towards the attainment of specific objectives of national public policies to overcome scientific, health, social, environmental and economic challenges. By 2021, a total of 40 ALs (FCT, 2019) were recognised and funded by FCT.

CoLABs fulfil a different role, they respond to the challenge of intensifying the national position in terms of knowledge-based activities and consolidate collaborations between science, technology in HEIs and the wider economic and social fabric, including companies, health and cultural institutions, and other social organisations. To date, 35 CoLABs (ANI, FCT, PI, 2021) have been established in different scientific areas.

CTIs are dedicated to the production, dissemination and transmission of knowledge oriented towards companies and to the creation of economic value. These R&I structures directly contribute to the pursuit of public policy objectives within the national or regional priority areas of their specialisation. The latest evaluation of CTIs (ANI, n.d.) is ongoing, but so far 26 entities have been approved.

In the majority of these entities (R&I units) or associations of entities (LAs, CoLABs and CTIs) the need for and the importance of RMA have increased and with it, the required RMA profiles have been diversified as detailed in the following section of this chapter.

The RMA Profession in Portugal

Major Events That Have Contributed to the Promotion of RMA in Portugal

In Portugal, the growth and diversification of the national R&I ecosystem was accompanied by the emergence of RMA professional roles in its institutions. However, in the absence of a legal framework institutionalising a corresponding career, in 2016

²The smart specialisation approach was established by the European Commission to identify strategic or knowledge-based areas in a particular region. It is built on the analysis of the strengths and opportunities of the economy of that particular region and is expected to involve all stakeholders, including the R&I actors.

³<https://www.fct.pt/en/>

RMA themselves established the platform of professionals at the interface of science (PIC – *Plataforma de Interface à Ciência*⁴), arising from the national conference ‘From Challenge to Opportunity – Perspectives for the Research Managers in Portugal’ (Lisbon, 28 November 2016) that gathered around 320 attendees. Until then, there were no significant initiatives in Portugal focusing on professionals working in the RMA areas.

PIC is an informal Portuguese network to promote the profession and the professionals working at the interface of science, that is, the different profiles of RMAs within most R&I institutions (Agostinho et al., 2018). It integrates professionals with different levels of academic attainment who develop diverse research management activities including communication and dissemination, knowledge and technology transfer, valorisation and impact, science strategy and policy support, research funding, project management, among others.

Since its inception, PIC has focused its activity on four areas organised in specific thematic working groups: (1) professional characterisation; (2) professional visibility; (3) development and training; and (4) policy and benchmarking.

Relevant activities include the organisation of annual conferences, and the delivery of position papers and recommendations to formally legitimise the RMAs within the Portuguese R&D policy landscape. Since 2021, the ‘Let’s talk about science management’⁵ online initiative has been organised monthly to share experiences, ideas, challenges, and strategies among professionals.

A further national network targeting RMA is the SciComPT⁶ (the Portuguese Network of Communication of Science and Technology), which addresses a subset of RMA professionals involved in science communication, promoting initiatives such as congresses, online meetings, training workshops and awards for best science communications.

Several members of the RMA community have also been actively engaged in European RMA networks, working groups and similar initiatives (e.g., the COST Action BESTPRAC⁷ and the European Association of Research Managers and Administrators – EARMA⁸). The impact is remarkable within the community itself, supporting individual professional development and networking, but also at the level of other stakeholders of the R&I system, such as academic and research institutions, governance bodies and policy makers.

All these activities have been contributing to strengthening the recognition of these professionals in their institutions as well as at the national and international levels.

The RMA Community in Portugal

Given that no consolidated data regarding RMA professionals in Portugal was available, PIC conducted an online survey in 2018 to map the national RMA community. Respondents were contacted through the PIC and FCT mailing lists, with additional contacts established in RMA events. The survey was carried out from 5 February to 15 May 2018 and included 32 questions organised in six sections addressing: academic profile and qualifications; employment situation; work areas; perceived professional impact; skills; and sociobiographical characterization. A total of 577 responses were

⁴<https://sites.google.com/view/PIC-pt>

⁵<https://sites.google.com/view/pic-pt/iniciativas/vamos-falar-de-gestão-de-ciência>

⁶<https://scicom.pt/>

⁷<https://bestprac.eu/home/>

⁸<https://earma.org/>

received, with 518 responses validated and assessed, using quantitative techniques. The analysis excluded duplicate responses, responses from professionals working outside Portugal, and those denying consent. This methodology allowed for a thorough descriptive analysis of the RMA community in Portugal that is presented below.

Gender and Age

The respondents included 70.8% females and 29.2% males, following the feminine bias of this profession around the world (see Oliveira, Fischer, et al., 2023, Chapter 2.2). Regarding age, the most represented group was 30–39 years (41.7%), for both women and men. 73.7% of respondents were between 30 and 49 years old.

Academic Qualification and Background

Survey respondents have high to very high academic qualifications as 43.2% are PhD holders and a further 33.6% have a Master’s level degree (there was no statistically significant association between gender and qualification). While the overall percentage of Master’s degree holders is lower than the international data in the 2019 RAAAP-2 Survey (41.3% of $n = 4,317$) (Kerridge, Ajai-Ajagbe, et al., 2022), prevalence of PhD holders in the PIC survey was higher than in the global survey, where 30.7% finished a PhD before becoming an RMA, and 5.0% graduated during their time as RMA (Kerridge, Ajai-Ajagbe, et al., 2022). The very high academic qualifications of RMAs in Portugal may be partially associated with the higher presence of a STEM (science, technology, engineering and mathematics) academic background (56.9% in Portugal vs 34.6% elsewhere) (Kerridge, Ajai-Ajagbe, et al., 2022). Additionally, the majority of respondents of the PIC survey obtained their highest academic qualification in the area of Life Sciences (30.7%) followed by Social Sciences (17.8%), while only a minority of RMAs were trained in the fields of Science Management or Science Communication (6.4% and 5.6%, respectively) (Fig. 5.37.1). This might be explained by the recent organisational recognition of the RMA profession, and the unavailability of any national professional certification.

Main Roles Performed

In the survey performed in Portugal (2018), the activities developed by RMAs were quite diverse in the categories considered in the survey (pre- and post-award research management, communication and outreach, technology transfer, and others), with

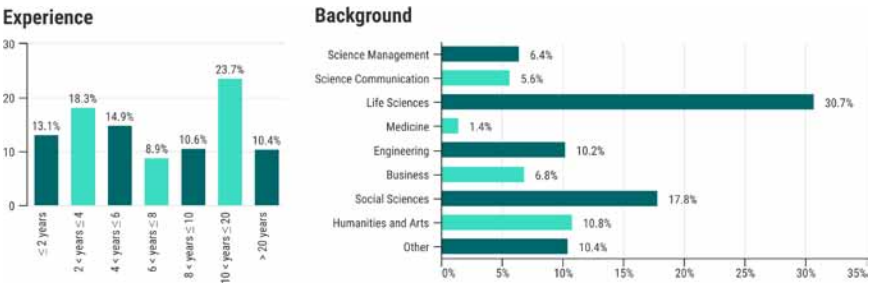


Fig. 5.37.1. Years of Experience and Background of the RMA Survey Respondents in Portugal.

a balanced division between different activities, showing the ‘non-specialisation’ of the RMA professionals at the time. Furthermore, 22.6% of these professionals were in leadership positions, 36.5% were managers, 33.8% were officers/administrators (mainly with assistance/supporting responsibility) and 3.5% were consultants. These data reflect the diverse positioning of RMAs within their institutions.

RMA as a Profession

The RMA community is characterised by a diverse range of professional maturity representing professionals in all levels of RMA experience; however, the majority (i.e., 55.2%) had less than eight years of experience revealing the recent emerging of the RMA community. Additionally, 69.4% of respondents reported having 1–2 previous jobs in the areas of science interface, which may be an indicator of institutional renewal and increasing interest and awareness of the RMA profession in Portugal. Note that 27.8% of the respondents were researchers before becoming RMAs.

Organisation and networking of the RMA community are also significant with about half of the respondents reporting to be part of a professional or informal association: 29.3% – PIC, 11.0% – SciComPT, 3.0% – COST Action BESTPRAC and 2.1% – EARMA.

Regarding RMA employers, 62.5% are employed at public institutions and 36.5% at private institutions (34.8% at non-profit and 1.7% at for-profit institutions). Furthermore, most RMAs worked at research institutions (38.9%) or universities, both in faculties, departments and research units (35.0%) or central services (8.5%). 8.3% of the respondents work at public administration institutions such as the main national funding body for R&I (FCT).

The vast majority (98.1%) of RMAs claimed to have an employment contract or a fellowship and to work full-time (97.1%). Although more than half of the respondents (53.6%) had a contract with their institutions (40.8% permanent and 12.8% temporary), there was still a high percentage of RMAs (44.5%) working under a fellowship. The length of temporary contracts varied widely, with 44.0% holding contracts from three months for up to three years.

Concerning their current annual remuneration, 62.5% of the participants reported an annual gross income of less than 20,000€, a value that is lower than the average annual income for higher-educated professionals in Portugal (25,946€ in 2018 (POR-DATA, 2022)). This is due to the high prevalence of fellowship contracts. For fellowship holders, the disadvantages of low income are further exacerbated by the very limited benefits of this type of contract (i.e., lack of access to unemployment benefits or holiday pay, among others).

When asked about the impact and role of RMAs, 44.5% of RMAs perceived that senior management (Directors, Heads of Faculty, Deans, etc.) acknowledge RMA professionals as a medium/high added value to their institutions, while 39.0% of RMAs report a similar recognition by the scientific community. This recognition is particularly relevant as these two groups are the main users of RMA services (23.5% and 43.2%, respectively). Additionally, RMAs acknowledged having an important contribution to the R&D development in Portugal (65.8%). The perceived high contribution of RMAs to their communities and institutions is also indicated as the main reason to work in this profession.

Prospects for the Future of the RMA Profession in Portugal

The evolution of the RMA profession in Portugal is intrinsically related to the following aspects: (i) its formal recognition by employers (research-performing organisations

and non-research-performing organisations, such as R&I funding agencies) and by relevant public authorities (in particular, the Ministry of Science, Technology and Higher Education⁹); (ii) consolidation of PIC; and (iii) increased involvement in international networks.

All of these factors have been crucial for the consolidation of the RMA professional identity and are expected to contribute to a formal legitimisation of an RMA professional career in Portugal. In this particular regard, mention must be made to the regulation of an RMA career at the University of Aveiro (UA) in 2020 (UA, 2020). This pioneering initiative in Portuguese HEIs represents a key milestone and was possible, from a legislative point of view, because UA is a private foundation. A following step would be to broaden this initiative to all public HEIs and other public organisations (e.g., FCT), a step that requires a legislative regulation of an RMA career.

The consolidation of PIC as the *de facto* national RMA network would benefit from the support of other networks already well-established at the international level, such as EARMA. This does not necessarily involve the setting up of a formal association. Actually, the decision to move on to a formal association was the subject of a dedicated working group at PIC, in 2019. The advantages and disadvantages of the various networking formats (informal, formal, etc.) were debated and PIC's board decided to maintain the informal format since it allowed for a more flexible *modus operandi*.

In what concerns the involvement of the Portuguese community in international RMA networks, an increasing number of Portuguese RMAs have been involved in EARMA's committees and other key groups (currently four professionals out of 52 Portuguese EARMA members, as of October 2022). Additionally, Universidade NOVA de Lisboa is a partner in the Horizon Europe RM ROADMAP¹⁰ project, headed by EARMA, aiming to create a roadmap for the future of research management in Europe and a community to support its delivery.

As for academic qualifications in RMA, mention must be made of the existence in Portugal of a post-graduation course since 2019 dedicated to 'science and technology management and policies', with the participation of PIC and delivered by a consortium of HEIs and research-performing organisations. A total of 64 students have graduated so far. Also, NOVA FCSH, with the participation of PIC in the Advisory Board, implemented the Erasmus+ foRMAtion¹¹ project, which resulted in the development of innovative modules on RMA that trained students in HEIs for a potential RMA professional trajectory.

The existence of advanced academic qualifications and a professional network, even if informally organised and with voluntary membership (Lewis, 2014), the systematic performance of certain tasks as 'constant and relentless achievement' of self-hood (Fragkiadaki et al., 2013) and the delivery of specialised training actions (Eason et al., 2018), make the case for the existence of an *actual* RMA profession in Portugal. Moreover, the Portuguese RMA community has been contributing to the international recognition of the profession, from both empirical evidence (e.g., Vidal et al., 2015), and conceptual perspectives (e.g., Agostinho et al., 2018; Santos et al., 2021a), namely in the pre-award (e.g., Vidal et al., 2015), and post-award areas (e.g., Santos, 2021).

It is expected that the Portuguese community will continue to develop RMA professional competencies and skills through academic qualifications, professional training, and

⁹ <https://www.portugal.gov.pt/en/gc23/ministries/science-technology-and-higher-education/about>

¹⁰ <https://www.rmroadmap.eu/>

¹¹ <https://www.formation-rma.eu/>

networking with peers (both at the national and international levels). Nevertheless, the future of the RMA profession in Portugal is inexorably linked with the evolution of the ERA.¹² For example, if the European Commission decides to adopt a framework for the research profession that includes RMA as a main occupational category contributing to the research endeavour, then it can be envisaged that the national context will mirror this decision. This would lead to a clarified professional framework for RMAs. The above-described RMA profile of Portuguese professionals is expected to evolve accordingly.

Conclusions

The complexification of the R&I ecosystem in Portugal led to the establishment of a diverse set of RMA units within the different R&I organisations and to the growth and differentiation of the RMA profession. These changes are well illustrated in the survey data showing that despite the diverse range of professional maturity of these professionals, the majority of RMA professionals are between 30 and 49 years old and in early career (<8 years of experience). Noticeable is also the extremely high level of academic qualifications of these professionals which are not built on a specialisation academic profile in their current area of expertise but rather based on diversified academic and professional trajectories. These trajectories, mostly developed within the academic context and lacking an RMA academic degree – only recently established in the Portuguese context – or a specific national professional certification – still unavailable in Portugal – give the RMA community a broad understanding of the R&I ecosystem and its actors. In an expanding and diversifying R&I system like the Portuguese one, RMAs with a broad profile are essential to establish the interface of the decision-taking actors, easing tensions and establishing bridges, and therefore being a key component to warrant the success of R&I initiatives. In recent years, these professionals have been very active and have developed different professional platforms and organised conferences and workshops, initiatives that have been central to the construction of their professional identity. In addition, RMA professionals have participated in major legislative initiatives regarding the R&I ecosystem, and have been involved in international associations, such as EARMA and international projects. All these activities are expected to result in a formal recognition of the professionalisation of Portuguese RMAs in the future.

Despite the evidence presented herein, the recognition for and visibility of the profession still needs to be expanded in Portugal and better articulated with international initiatives. The development of relevant EC frameworks in the ERA context is critical towards this end and the Portuguese RMA community, key stakeholders of the national R&I ecosystem must be involved in the transposition of these European frameworks into the national context.

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¹² https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/european-research-area_en

CIIMAR (UIDB/04423/2020, UIDP/04423/2020), CEECIND/01053/2017, IT (UIDB/50008/2020, UIDP/50008/2020), ALiCE (LA/P/0045/2020) and LEPABE (UIDB/00511/2020, UIDP/00511/2020).

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