The Development of the RMA Profession in Catalonia (Spain)

Cristina Borras^a and Aïda Díaz^b

^a ©0000-0002-4960-1339, Agency for Management of University and Research Grants (AGAUR), Catalonia, Spain; ^a Conceptualization, Formal Analysis, Project administration; Writing − original draft

Abstract

This chapter builds the historical overview of RMA in Catalonia and explores the detail of how research management and administration (RMA) has evolved, particularly in this northeast region, in Spain. It shows the specific conditions under which RMAs have become a community over time. This chapter includes major government support initiatives, and takes a closer look at the RMA's profiles, information on the evolution of their role, the possibilities for professional development, and their recognition. The results come from an open consultation carried out by AGAUR, the executive funding agency of the Government of Catalonia, addressed to RMAs of Research and Innovation (R&I) in Catalonia and published in a report in 2020. This is the second analysis carried out on the research management profession, and its recognition as a key player in attracting and managing competitive European (EU) and international funds.

Keywords: Catalonia; research management; professionalisation; recognition; CARMA; EARMA; RAAAP

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Research Ecosystem - Catalonia

Catalonia, in the northeast of Spain, occupies an area of 32,107 km² and is the second most populated region in Spain, with 7,671,252 people, 16% of the total population (Eurostat, 2021) and represents 1.5% of the total EU population. There are 12 universities in Catalonia, 7 of which are public; 57 research centres, of which 40 are from a network of excellence centres, named CERCA (n.d.)¹; and 3 large unique scientific and technical infrastructures. Overall, the system employees some 52,000 R&I staff, of whom 30,000 are researchers. It has around 217,000 undergraduate and more than 48,000 master's degree students, and close to 17,500 doctoral students in 2020.

The region's scientific capacity and further enhancement of the level of scientific excellence are an outcome of its R&I policies. The Statute of Autonomy of Catalonia (Article 158) establishes that the government has exclusive policy competences (Ministry of Research and Universities, 2021) over its own research centres and structures, and the projects it finances with its own funds as well as it has shared authority over the coordination of the Spanish research centres and structures located in Catalonia.

Catalonia has succeeded in boosting its competitive science base, with a leading position in attracting external competitive resources in the last decade, both from Spanish and EU funding sources. Catalonia publishes 3.7% of EU publications and its overall participation in the EU R&I Framework Programmes (FP), Horizon 2020, was more than double that of the region's 6th Framework Programme (FP6) participation. From the 1.2% of the overall EU funds allocated for FP6 and a low level of EU project leadership, Catalonia obtained a total of 2.2% of the total funding under FP7 and 2.5% of Horizon 2020 (with more than 3,000 projects, €1,700 million and 29.2% of the total funds raised by Spain as a whole). The success of Catalonia in attracting 3.1% of the overall ERC grants and 6.6% of the ERC Proof of Concept shows the impact of these programmes in the territory.

The Agency for Management of University and Research Grants (AGAUR) is a public research funding organisation located in Barcelona, established in 2001 under the Department of Research and Universities of the Government of Catalonia. With 20 years of experience, AGAUR (n.d.) supports the Catalan Government University and scientific policy (Ministry of Research and Universities, 2022) and strives for fair and competitive funding for university studies, scientific talent attraction and transfer of knowledge innovation programmes through open competitive calls.

Evolution

Fostering EU R&I funding attraction became a policy priority at the start of FP7, according to the region's research potential. The growing complexities of EU funding programmes and their requirements raised the need to train and recruit specialised R&I managers to manage both the diversity and complexity of the requirements, and to provide qualified support to researchers. Different incentives and services were promoted, through AGAUR from the year 2006, to raise the research management capacity and be able to fully capitalise on the region's range of external funding.

Initially, grants aimed at strengthening EU research offices or units by increasing the overall number of research management personnel and improving their skills. Specific grant programmes were published to recruit managers or to promote the projects' coordination by Catalan entities. Since 2010 AGAUR has supported an informal RMA

¹CERCA Centres of Excellence in Catalonia: https://cerca.cat/en/centres-cerca/.

network with access to free activities: networking and best practice exchange such as working groups, an annual conference, or preparing joint position papers; newsletters with relevant information on EU policies and calls; information days: around eight events per year on EU R&I funding opportunities in collaboration with the local entities and National Contact Points²; a set of short trainings adapted to RMA's needs; monitoring the Catalan participation as well as data analysis and preparation of reports; advice services on calls administrative procedures and programmes; elaboration of supporting documents on management issues. The annual conference (AGUAR, 2023b) brings together annually around 300 research managers in Catalonia to share experiences and good practices and create professional group cohesion and awareness.

As a result, the rise in the number of research managers has been matched by an increase in participation and attraction of EU R&I funds at the institutional level. This positive correlation between the rise of managers and the funding results is evidenced by the figures, as the number of the Research Managers Network members in Catalonia has multiplied almost 9 times in the past 10 years, and overall EU funding has multiplied by 1.6 in these years.

At the level of the Spanish State, there is no formal or informal network of Research Managers, even if there have been several initiatives to support the participation of academic institutions in the EU R&I FPs with National funds, such as the 'Eurociencia' programme from the EUROINGENIO 2010 initiative.³ With a total budget of €54.6 million for the period 2007–2013, it aimed at stimulating the active involvement of Universities and Public Research organisations and Technology Centres in the dissemination, information and assistance to researchers for submitting proposals to the FP calls. From 2014, the 'Redes y Gestores' (Networks and Managers)⁴ programme fosters to provide public and private research organisations with the necessary structure and knowledge for the proper preparation and management of EU projects, so that research organisations can improve their chances of increasing their participation as well as obtaining funding from Horizon 2020 and Horizon Europe.

Professionalisation

Building on the previous statements, AGAUR (2010) has been working on supporting a Community of Research Managers in Catalonia, through an informal network, identified as CARMA (AGAUR, 2023a), the Catalan Research Managers network. This network aims at tackling the need for boosting the research management capacity of Higher Education and research organisations in the region, which has currently evolved from supporting the establishment of offices and the recruitment of managers in the last decade to coordination activities and sharing experiences and best practices as well as increasing the RMA visibility and professional recognition.

The critical mass of research management professionals (RMAs) in the region has increased markedly, counting with around 1,000 members in 2022. They currently assume diverse responsibilities and complex tasks. According to AGAUR's 2020 Report on 'The International Research Manager in Catalonia' (Borrás et al., 2020), the trend is to move towards professionalism and a greater degree of specialisation

²The network of National Contact Points (NCPs) is the main structure to provide guidance, practical information and assistance on all aspects of participation in Horizon Europe.

³ https://ec.europa.eu/research-and-innovation/sites/default/files/rio/events/EUROINGE-NIO_Javier%2520Serrano_0.pdf

⁴ https://iaac.net/project/europa-redes-y-gestores/

on the new priorities of R&I policies and funding requirements (e.g. principles of Responsible Research and Innovation – RRI such as gender, open science and ethics), and at the same time take on more tasks related to the impact of the research results and to the transfer of knowledge to the market. Research manager career plans are very few, and the needs for competence-based external training is highlighted. The most relevant transversal competencies in this profile that stand out from the survey are proactivity, teamwork, organisational and communicative skills, and stress management. The opportunities to share information and good practices and do more networking are considered very positively.

From an institutional perspective, management structures or units have been adapted to changing needs. A large part is divided into pre-award and post-award projects, and some have gradually incorporated other tasks with competencies beyond the project management life cycle. They have undergone accelerated growth of international R&I project management structures, caused by the increase in obtaining projects and their requirements. In many cases, they are not well dimensioned, as they do not cover all the needs detected, due to both the lack of resources and adequate profiles. There is difficulty in finding trained professionals and the survey shows that staff turn-over is high, whereas working conditions are described to be non-competitive in some cases, and lacking stability. In this context, the 11th Research Management in Catalonia' with more than 400 participants.

Demographics

Catalonia's RMA network counts around 1,000 members. The vast majority are women (76%), between 35 and 45 years old (53%), and of Spanish nationality (88%). This profile is aligned with other international surveys in terms of gender, given that the data from the RAAAP-3 survey (Kerridge, Dutta, et al., 2022) confirms that RMA is a highly feminised profession with 79.4% (n = 3,489) being women, but perhaps younger than in Catalonia, with 37.2% (n = 3,461) aged 35–44 internationally. In terms of experience for RMAs in Catalonia, 28% have less than 5 years working as an RMA, 25% have at least 5 years and 47% have between 10 and 20 years of experience. The RAAAP-3 survey shows a similar trend internationally, as an average of 27.1% (n = 4,947) have less than 5 years of experience, 26.9% between 5 and 9 years, and 33.3% between 10 and 19 years.

There is a dominant profile, with more than 10 years of experience in this job (47%) and have gradually been consolidated in the institutions in which they work (60%). Most research managers work in academic institutions (84%) and a high number of them carry out their work in central services offices (66%); the rest work for research groups, units or departments.

The academic qualification also places Catalonia in line with international data, with the number of managers with a doctorate is increasing in recent years in Catalonia, differentiating between master's and doctorate holders, with the former being 45% and the latter 27%, while in the RAAAP-3 surveys 41.7% (n = 3,583) have master's degrees and 33.3% have a doctorate.

RMAs have diverse working backgrounds, many come from other management positions in the academia such as human resources or national funding management, among others (30%), some others from private companies (27%), or they have access as another step in their professional career (23%), while a few have accessed directly from a master's or a degree (11%). What best defines their entering into the profession

is a professional, sectoral or geographical change, with 42% stating this reason, 24% for a professional improvement, 16% due to an internal move within the entity and the other 16% as their first post-training professional opportunity.

Access to the profession is often considered accidental (not foreseen initially during their academic or professional career path), achieved either through a professional change (41%) or through a professional promotion (25%) from other positions in the institution. The survey indicates that 75% got into it due to a match in the skills required by the job or because of the availability of vacancies.

A large part of the RMAs in Catalonia work in the field of medical sciences and health (47%), directly related to the weight of research in this field in the Catalan R&I system, followed by the engineering field (31%), social sciences (19%), mathematics (19%), natural sciences (15%), and arts and humanities (9%).

Their academic background is not necessarily aligned with the scope of the scientific field of work. A quarter of those surveyed have studies in natural sciences, physics, chemistry, biology or mathematics (26%); followed by social sciences (21%); economics or business administration (18%); health sciences or medicine (12%); arts and humanities (9%); and engineering or computer science (9%).

Few RMAs have an official professional accreditation or certification in research management. The most common training is still through specific external courses with certificates of participation or through informal daily work learning by doing exercises. It is worth mentioning that more than half of the institutions offer appropriate training plans for their professional profile.

With regard to the training reported, 35% correspond to those organised by AGAUR and 65% to external specific courses (considering such courses run by consultancy firms or the National Contact points). Overall 16% of respondents indicate that they do not have any type of training accreditation in this field.

These data encompass an emerging profession that has been created in response to the needs of the R&I system.

Overall RMA in Catalonia is not a well-recognised profession, although there is a high demand for professionals and job offers. In general terms, RMAs in Catalonia feel professionally valued by their entities and they consider the type of work they perform to be of high added value although they are less satisfied when it comes to salary and professional progression.

Directions

Catalonia's R&I system is now under the governance of the National Agreement for the Knowledge Society (PN@SC, n.d.). An agreement that encompasses the conditions and needs of all levels of higher education, public and private research, and knowledge transfer and dissemination. It identifies that Catalonia's major challenge is to improve its capacity for innovation and make it one of the main drivers of its economy. A new model will be established to analyse the impact of research results that is more in line with what represents and improves society. A Catalan Science Law is planned by the end of 2022 or in 2023, which will identify the agents of the system and establish its mission, organisation and public responsibility. Additionally, among other things, it is meant to improve mobility, cooperation and scientific exchanges between the research and management staff of the various R&I agents, and will foster innovation and transfer of knowledge, internationalisation of the system, and growth of the private funding in R&I or co-funding of research through sponsorship, partnerships or collaboration.

Besides, there has been a big step towards recognition of RMAs in Spain, due to the new Spanish Science Law (Law 17/22), approved on 25 August 2022, which modifies Law 14/2011, of 1 June, on Science, Technology, and Innovation, which recognises the explicit inclusion of technical staff and staff carrying out management, administration and service tasks, as fundamental and essential elements of the R&I system.

Catalonia keeps working on the RMA's recognition as a key for its research system, far beyond the process of attracting and managing research funds.

Summary

The investment in different incentives and services to strengthen the research management capacity has had an impact on capitalising the Catalonia region's range of external funding. Initially, through grants to fostering research offices and to recruit capable research management support and strengthen their capacity through training programmes. Later by fostering networking and best practice and exchange activities, as well as community awareness through an informal network supported by the regional funding agency, aimed at tackling the need for boosting their professional and management capacity.

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