







Chapter 4.4

Professional Associations and Professional Development Frameworks

Valentina Romano^a, Adele Del Bello^b and Annalisa Albanesi^c

^a  0000-0002-1307-7854, Politecnico di Torino, Italy;  Conceptualization, Data curation, Investigation, Formal Analysis, Supervision, Methodology, Visualization, Writing – original draft preparation, Writing – review & editing

^b  0000-0001-6152-7461, University of Ferrara, Italy;  Conceptualization, Data curation, Formal Analysis, Investigation, Writing – original draft preparation Writing – review & editing

^c  0000-0002-9003-5543, University of Camerino, Italy;  Conceptualization, Data curation, Investigation, Methodology, Visualization, Writing – original draft preparation


Abstract

This chapter compares research management and administration (RMA) associations worldwide and the existing professional development frameworks (PDFs) for RMAs. The comparison is based on a study of 22 national, European Union (EU), and international RMA associations/networks which was carried out between April and June 2020 and revised in 2022; it aims at providing a comprehensive overview of skills and competences of RMAs as a profession to enable worldwide benchmarking and analysis.

The benchmarking analysis could provide useful information for those working on the development of professional frameworks training targeted at RMAs, or the recognition of RMA as a profession.

Keywords: Research management and administration; associations; professional development frameworks; professional development; skills; competences

The Emerald Handbook of Research Management and Administration Around the World, 355–372

 Copyright © 2024 by Valentina Romano, Adele Del Bello and Annalisa Albanesi. Published by Emerald Publishing Limited. These works are published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of these works (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

doi:[10.1108/978-1-80382-701-820231029](https://doi.org/10.1108/978-1-80382-701-820231029)

Methodology of the Analysis

In order to collect sufficient data for the benchmarking analysis, the authors compared most of the existing RMA associations worldwide. To start with the identification of these associations, the RAAAP project (Kerridge & Scott, 2018a) was taken into consideration, which led to the investigation of INORMS (Kulakowski, 2023, Chapter 1.7), member organisations, and associated bodies. Also BESTPRAC (2019), a COST¹ Targeted Network gathering administrative, financial, and legal staff at universities and research-driven institutions – was included in the benchmarking (www.bestprac.eu/home, see Table 4.4.1).

As a result, 15 RMA professional associations and the BESTPRAC network were finally selected for the survey based on the completeness of information collected from the websites and subsequent email correspondence.

The survey was first administered in February 2020 and revised in July 2022.

A summary of data collected is presented in Table 4.4.1; while further information is available on the associations' websites.

Benchmarking Analysis

This section will discuss the findings in detail.

Regarding the year of foundation, it can be seen that, except for NCURA and SRAI (founded respectively in 1959 and 1967), the majority of the associations were founded starting in the 1990s. Most, once established, remained simple informal networks, perhaps for a decade, turning into associations only later on and more often recently (Beasley, 2006; Chronister & Killoren, 2006; Poli, 2018a). Furthermore, most associations focus on a single country, with the main exception being the European Association of Research Managers and Administrators (EARMA). Many RMA Associations are engaged in international activities: NCURA, SRAI, the Australasian Research Management Society (ARMS), and the Southern African Research & Innovation Management Association (SARIMA), just to name a few. For example, SRAI has an active International Section that in 2022 promoted the first Virtual International Convention for Research Administrators (VICRA) an online event by design scheduled for universities and research organisations located from the West Atlantic to the East Pacific shores. So it can be seen that in recent years, there has been a considerable increase in the level of awareness of the RMA role both in the national and, more recently, in the international community.

With reference to the number of individual members, there is a great variation in size, ranging from NCURA, which is the biggest association (counting about 7,000 members), and to a few other supranational associations (SRAI with about 5,600; ARMS with about 3,000; and EARMA with about 1,500). Some others, such as ARMA (3,000) and CARA-ACAAR (1,000), represent quite large communities, with the remainder mostly counting between 300 and 500 members. Generally, numbers are growing, showing a rising awareness of the individual practitioners and an increasing level of the profession's maturity.

It is interesting to note that most of the associations analysed have a scope that covers both aspects related to research and to innovation (Stackhouse, 2008). This probably happens because there is no such clear distinction between research processes and innovation ones in daily operations and for this reason research and innovation

¹The European Cooperation in Science and Technology (COST) is a funding organisation for the creation of research networks (<https://www.cost.eu/>).

Table 4.4.1. Summary of Data Collected from RMA Associations and BESTPRAC.

Name and Country	Scope	Pdf	Training and Accreditation/ Recognition	Website
ARMA (UK)	Founded in 1991, has over 2,500 members from across the UK, from higher education institutions, research funders and charities	Yes, available on the website https://arma.ac.uk/professional-development/	Two certificates (Foundation and Advanced) accredited by Awards for Training and Higher Education (ATHE) https://arma.ac.uk/qualifications/ other than training events https://arma.ac.uk/events/	www.arma.ac.uk
ARMA-NL (the Netherlands)	Founded in 2018, after 10 years activity as an information network (Groeninx van Zoelen & Kanters, 2023, Chapter 5.35). It includes professionals active in advice, management, and administration of international as well as national financed research, innovation, and education projects	Under development	ARMA-NL is developing a programme of certified training courses and workshops. https://www.armanl.nl/professionals	https://www.armanl.nl/
ARMS (Australia, New Zealand, and Singapore)	Founded in 1999, involves more than 3,500 members from universities, independent research institutions, and government and health and research institutions	Yes, available on the website https://www.researchmanagement.org.au/professional-development	Two accreditation programmes (Foundation; Established and Advanced)	www.researchmanagement.org.au

(Continued)

Table 4.4.1. (*Continued*)

Name and Country	Scope	Pdf	Training and Accreditation/ Recognition	Website
CARA-ACAAR (Canada)	Provides a critical interface between all stakeholders in the management of the research enterprise. Has more than 1,000 members	Not formally defined	Two programmes (fellowship and mentorship) and one certificate in Research Administration in partnership with Mohawk College. Another certificate in progress https://cara-acaar.ca/ Programs/Professional Certification	www.cara-acaar.ca
DARMA (Denmark)	Open to individuals working as research and development managers or administrators, from all kinds of employers – universities, colleges, research institutes, hospitals, museums, companies, funders, agencies, or any organisation engaged in scientific research	Not formally defined	DARMA organises workshops, webinars, and courses	www.darma.dk
EARMA (Europe)	Founded in 1995, EARMA represents the community of research managers and administrators within Europe	EARMA has not developed a framework but builds on the ARMA one	Early Stage Research Administrators Masterclass, Certificate in Research Management (validated by ATHE), events and seminars for Leaders in Research Management https://earma.org/courses-and-training/	www.earma.org

<p>Finn-ARMA (Finland)</p>	<p>Founded in 2012 as a network of Finnish universities' research services, that support universities' research activities, including services, for example, in research funding, legal and contractual matters, innovation and entrepreneurship, and research administration. It has 500 members</p>	<p>Not formally defined</p>	<p>Organises professional training for its members</p>	<p>www.finn-arma.fi</p>
<p>FORTRAMA (Germany)</p>	<p>The network FORTRAMA is an affiliation of professionals working in the fields of research and innovation management at German universities and other German research institutions. Founded in 2003, turned into an association in 2018</p>	<p>Not formally defined but identified as a key task in FORTRAMA's statutes</p>	<p>Training for heads of research office and workshops</p>	<p>www.fortrama.net</p>
<p>Italian Research Managers Network (Italy)</p>	<p>A network of university research support offices is created within the CODAU (Association of General Directors of Italian Universities), established in 2014. Within it a working group established in 2020 creates a network of RMA professionals aimed at raising awareness and promoting training and recognition of the profession</p>	<p>Yes, info available on the website https://www.italianresea.rchmanagers.eu/wp-content/uploads/2022/09/Annex-IV-Framework-RMA_Italy2021.pdf</p>	<p>Organises workshops on specific issues related to funding programmes</p>	<p>www.codau.it www.italianresearchmanagers.eu</p>

(Continued)

Table 4.4.1. (*Continued*)

Name and Country	Scope	Pdf	Training and Accreditation/ Recognition	Website
NARMA (Norway)	Norwegian Network for Administration and Research Management was established in 2013 by Universities Norway (UHR) and has around 700 members	Yes, not public, more info is on the website https://narmano/professional-development-program/	One competence development programme (info on the main page of the website, link in the next column)	www.narmano.no/om-narmano/english-about-narmano-and-contact/
NCURA (USA)	The National Council of University Research Administrators (NCURA), founded in 1959, is an organisation of individuals with professional interests in the administration of sponsored programmes (research, education, and training), primarily at colleges and universities	Not formally defined	Online education opportunities ranging from live webinars to tutorials, workshops, and fellowship programmes https://www.ncura.edu/Education.aspx	www.ncura.edu
PIC-Plataforma de Interface à Ciência (Portugal)	Informal network of science interface professionals, created in 2016	Not formally defined	Provides a short training session during its annual meeting	https://sites.google.com/view/pic-pt/home?authuser=0
R-MAN J (Japan)	Professional association for those engaged in research management and administration. It aims to promote science, technology,	Info available in Japanese on the website: https://www.mext.go.jp/a_menu/jinzai/ura/detail/1349663.htm	Provides training opportunities for research managers and administrators in Japan	http://www.rman.jp/

<p>and future innovation in Japan through the enhancement of research capabilities of Japanese universities and research institutes. Founded in 2015</p>	<p>Yes, available on the website (developed in 2015–17) https://www.sarima.co.za/resources/research-management/#01</p>	<p>Three certificates in research management, accredited by the International Professional Recognition Council (IPRC) https://www.sarima.co.za/professionalisation/</p>	<p>www.sarima.co.za/about</p>
<p>SARIMA (South Africa)</p> <p>SARIMA is an organisation that brings together research and innovation management practitioners</p> <p>Society of Research Administrators International – SRAI (USA)</p> <p>Founded in 1967 in the USA, it evolved in 1998 when the word ‘International’ was added to the society’s name. It’s the premier global research management society providing education, professional development and the latest comprehensive information about research management to professionals from over 40 countries. It has 5,600 members from colleges and universities, research hospitals and institutes, government agencies, and non-profit funders of research and industry</p>	<p>Not formally defined</p>	<p>Ten certificate programmes (https://www.srainternational.org/meetings/certificate-programs), LevelUP https://www.srainternational.org/online-learning/levelup-main), trainings and conferences, webinars, true-fit training, coffee talks, continuing education credit</p>	<p>www.srainternational.org/home</p>

(Continued)

Table 4.4.1. (*Continued*)

Name and Country	Scope	Pdf	Training and Accreditation/ Recognition	Website
BESTPRAC (COST Project)	COST Targeted Network (2014–2019) that gathers administrative, financial, and legal staff at universities and research-driven institutions who are carrying out different tasks to support transnational external competition based (in particular EU funded) research projects. BESTPRAC is now an EARMA thematic group	Yes, available on the website and wiki page. Activities defined according to the Project Cycle Management Phases http://www.bestprac-wiki.eu/Main_Page	During the project lifetime some training courses for RMA were provided by partner's institutions. https://bestprac.eu/training/general-information/	www.bestprac.eu/home https://earma.org/bestprac/

Source: Authors' analysis of associations' websites and e-mail correspondence.

can be regarded as the two fundamental phases of the same process (Agostinho et al., 2018). This implies that RMA may need to be proficient in both these fields, even if at different levels, depending on their role. Indeed, the Association of Commonwealth Universities (2008) Global Research Management Network states that ‘Research management embraces anything that universities can do to maximise the impact of their research activity’. This breadth of scope, for both functions and profiles, maybe one of the reasons why this profession is hardly recognised at institutional level (Derrick & Nickson 2014; Kirkland, 2008). But it should be remembered that while RMAs predominantly to be found in research performing organisations they also appear in other parts of the research ecosystem, for example, working in research funding bodies (Santos et al., 2021a, 2023, Chapter 2.5).

Finally, with regard to training and accreditation processes, the situation is rather heterogeneous, but it is possible to identify a couple of experiences within the sample of associations investigated. Indeed, some associations offer *certificates or accreditation programmes*. In the USA (see Ritchie et al., 2023, Chapter 2.7), the accreditation body for continuous professional development is the Research Administrators Certification Council, formed in 1993 (<http://www.racc-cert.org>). ARMA has two certificates (Foundation and Advanced) accredited by ATHE; ARMS has two accreditation programmes (Foundation and Advanced); CARA-ACAAR has one certificate in Research Administration, while another certificate is in progress and two programmes (Fellowship and Mentorship) are ongoing; EARMA has one formally recognised certificate, one workshop for early stage RMA and a leadership programme; SARIMA has two certificates, accredited by the IPRC; and SRAI offers LevelUP and Certificate Programmes, Trainings and Conferences, Webinars, True-fit Training, Coffee Talks, and Continuing Education Credit. A further group of these associations is still *developing certified training programmes and/or offering workshops, webinars, courses, professional training, competence development programmes*.

The majority of the associations examined are, therefore, moving towards the development of certificates or accreditation programmes, sometimes in collaboration with national or international institutions.

Professional Development Frameworks

Every profession should have a structure to support it, strengthen it, and guide its development. In most cases, this structure is known as the PDF and is made up of all the elements required before an occupation can be considered a profession. In addition, many professions require participation in continuous education and ongoing learning, sometimes as a prerequisite for professionals to keep their job or to maintain their licence, designation, or certification. This is why PDFs are often set not just to help structure a profession, but also to help continuous education and career training for people who entered the workforce to develop new skills, stay up-to-date on current trends, and advance their career.

Advantages of Professional Frameworks (PDFs) for RMAs

In order to pave the way for the recognition of RMA as a profession, some RMA associations decided to set up their own framework, also taking advantage of established PDFs for other professionals. In the RMA field, PDFs are useful for various stakeholders:

Workers, to make choices on employment and learning: PDFs guide the professional development of research managers at various stages of their career. PDFs

usually identify functional areas or activities and levels – operational/administrator, management, or leadership. For each of them, the description of skills, knowledge, and behaviours can help to identify the suitable area for development. This means an RMA can identify relevant development opportunities within their current role. Being aware of the next level could help them understand how to reach it or plan their career progression.

To broaden the RMA experience or to move into a totally new area, it is important to understand what types of activities, skills, knowledge, and behaviours are involved. In some frameworks, requirements for different functional areas at different levels are introduced. Developing the right skills and knowledge might be useful to broaden experience or change direction.

Employers, to find people with the required skills: PDFs guide the institution to define job descriptions and hire skilled people. Since a formal recognition of the profession does not exist in most countries, a full description of the activities, knowledge, skills, and behaviours required by an individual who works in research management is a useful tool in the preparation of job descriptions and personal specifications.

Education/training institutions, to design curricula that provide skills required by the labour market:

PDFs lay the basis to identify training and development paths for university students and for those already into the profession: mapping existing skills and knowledge against the requirements of each activity can help universities/RMA associations and training providers to build anything from ad hoc training modules to master's degrees for students who are approaching the profession or professionals willing to improve their skills.

They can also help institutional staff developers to identify gaps in individuals, teams, or the entire research support office, and to deliver internal training courses and promote development plans.

Policymakers, to make evidence-based decisions when setting priorities or adapting education, employment, and other policy areas to future challenges:

The process of recognising a profession can take a long time and must usually go through a formal accreditation by competent bodies. Setting a PDF represents a starting point to discuss the accreditation process of the profession with policymakers. PDFs might thus pave the way for the formal recognition of the profession.

Associations with a Professional Framework

The RMA profession has become more visible and acknowledged in recent years, but there is still a long way to go, as the levels of heterogeneity in the individual RMA definitions are still high. Among the analysed associations, just six developed their own professional frameworks, levels, and services.

As shown in [Table 4.4.1](#), three associations have made their PDFs public on their website: ARMA, ARMS, and SARIMA. The case of the BESTPRAC project can be added to the previous ones because a framework has been developed according to the project cycle management and made available on the website and on a wiki ([BESTPRAC, 2017](#)). NARMA also developed its own framework and EARMA utilises the ARMA one. The Italian informal network of RMAs has recently built its own framework and made it available on the website. The Japanese Ministry of Education, Culture, Sports, Science and Technology in Japan (MEXT) is promoting the development of a national framework for RMAs that includes competences as well as the development of training programmes. Five further associations (ARMA-NL,

CARA-ACAAR, DARMA, Finn-ARMA, and FORTRAMA) are developing their own framework.

History and Contents of the Existing Professional Framework

In order to understand the origin of the PDF, to identify common traits, and to evaluate whether they could be considered as the basis or a step forward to the professionalisation of research management worldwide, a brief analysis of the history and contents of the six existing PDFs is provided below.

ARMA is the UK's professional association for research leadership, management, and administration. Founded in 1991, it has over 2,500 members from across the UK, from higher education institutions, research funders, and charities. The [ARMA \(2011\)](#) PDF was developed to help RMAs plan their professional development, assist in mapping their career pathway, and aid managers and institutional staff developers with providing professional development for research managers and administrators. The ARMA PDF was developed as the result of a 12-month project with input from over 100 ARMA members.

It comprises 21 different functions undertaken by administrators supporting the research agenda. These include developing proposals, managing project finance, knowledge exchange and business development, and supporting postgraduate researchers.

The functions are grouped under seven broader headings: developing proposals, project lifetime, translation, postgraduate researchers, policy and governance, management information and related functions, and service organisation and delivery. Each function is described from three different perspectives – operational, management, and leadership. Detailed pages outline the relevant activities, indicative skills, underpinning knowledge, and professional behaviour for each of the functions.

ARMA promotes two certificates (Foundation and Advanced) accredited by ATHE, a global awarding organisation regulated by the Office of Qualification and Examination Regulation (Ofqual) of the UK government and other UK and international regulators.

SARIMA is a stakeholder organisation formed in 2002 to a felt need by Southern African academics, research management practitioners and their institutions to associate around common research and innovation management concerns (Southern African Research and Innovation Management Association, 2022b).

With the financial support from the Department of Science and Technology, South Africa and the Special Programme for Research and Training in Tropical Diseases at the World Health Organisation SARIMA developed a professional competency framework (PCF) for research managers in Southern Africa, drawing a benchmark for its PCF from ARMA and one for innovation managers. The initial groundwork for the development of the PCF took place between 2010 and 2014 and incorporated surveys that allowed SARIMA to get a better understanding of the capacity needs and professionalisation preferences of the Southern African research management community. The PCF was adopted in 2016 (Williamson et al., 2020).

SARIMA's PCF consists of nine competency areas. The nine competencies are normally acquired progressively or are required from three hierarchical levels of work typically found in the research management environment, namely: (i) administrative/operational, (ii) management, and (iii) leadership/strategic. The framework also covers transferable (crosscutting) competencies which include, but are not limited to: interactive communication, conflict resolution, personal effectiveness, researcher focus, organisational awareness, diversity valuation, technology leverage, and nurturing innovation.

SARIMA promotes three certificates for RMAs: Research Administrator Professional, Research Management Professional (RMP), and Senior RMP (SRMP), accredited by the IPRC, an autonomous body that operates virtually and aims at awarding professional recognition to research managers in Africa.

ARMS is the Australasian association of RMPs. Founded in 1999, the ARMS network involves more than 3,500 members from universities, independent research institutions, and government and health and research organisations from across the Australasian region including Australia, New Zealand, and Singapore (Australasian Research Management Society, 2022). The ARMS PDF aims to identify the knowledge base required to be an effective RMP in the Australasian region, and to map ARMS's range of programmes available or needed to provide this knowledge.

The PDF identifies six core areas of knowledge and three levels for knowledge enhancement – foundation, management, and leadership. Progressing from one knowledge level to another would usually assume familiarity with knowledge at the previous level. Each cell of the framework describes the broad learning outcomes relevant to that core area and knowledge level.

ARMS has three accreditation programmes (Foundation, Established, Advanced) and a Continuing Professional Development.

The Italian RMA network is born within the CODAU (Association of General Directors of Italian Universities), established in 2014. Within this network a Working Group on 'The professional role of RMAs in Italy' was established at the end of 2019. The overall aim of the working group was to endorse the professional role of the RMA profession and community in Italy, in particular through the creation of a model professional framework, which identifies and maps the skills, areas of activity, and training needs of Italian RMAs. A PDF was created in 2021 based on a benchmarking analysis of the above-mentioned PDFs and a survey submitted to the Italian RMA community in 2020 (Romano & Albanesi, 2021). Six key areas of activities of RMAs in universities are identified. Each key area is subsequently divided into tasks/activities and assigned to three different levels as assessed in the existing international RMAs frameworks (leader, manager, and administrator). The framework is available on the network website (Italian Research Managers, 2022b).

NARMA was established in 2013 by UHR, recognising the need for research managers and administrators to have a forum to meet, network, and share their experiences. Its mission is to enhance the profession of research management and administration and give access to professional networks (Norwegian Network for Administration and Research Management, 2022). The network contributes to skills development, career development, and quality within higher education institutions' research administrative services. NARMA currently has 700 active participants.

The NARMA PDF is characterised by a competence development programme for three RMAs target groups: early-career, experienced, and leaders. The programme emphasises skills development (with a focus on soft skills), career development, and quality within higher education institutions' research administrative services. This programme originated, in 2016, from a project aimed at competence development for research administrators. The project was called 'The Path to EU Excellence', and its aim was to develop a collective national Professional Development Programme primarily for Norwegian Research Administrators.

The program's PDF was developed by actors from the NFR (The Norwegian Research Council), NARMA/UHR, FFA (The Norwegian Research Institute's cooperative body), and Innovation Norway. In 2017, NARMA/UHR, NFR, and the University of Agder formed a 2.5-year project to map out, develop, and coordinate

competence development activities and measures throughout Norwegian universities, colleges, and research institutes that can be included as a part of the Professional Development Programme. This Professional Development Programme is not publicly available on the website, nor is a public description of the activities characterising the RMAs profession, but it is possible to contact the Association to receive information.

BESTPRAC was started in 2014 as a COST Targeted Network that gathers administrative, financial, and legal staff at universities and research-driven institutions who are carrying out different tasks to support transnational external competition based (in particular EU funded) research projects. Even though the COST funding ended in October 2019, BESTPRAC is still active and is now a thematic group of EARMA. The network serves as a platform for exchanging experiences, sharing, and developing best practices, encouraging knowledge sharing, knowledge transfer, and increasing efficiency in these fields. That is why active participation of its members is expected and valued greatly in the BESTPRAC community.

With regard to its PDF (BESTPRAC Research Support Staff – RSS – Framework), the framework is structured according to the lifecycle of a project and discriminates between the phase before the preparation of a proposal, the proposal preparation phase, the grant preparation phase and the project phase. Main areas in which, according to BESTPRAC, an RMA is engaged are specifically: administration, finance, and legal. Professional levels are not defined as such. Rather, three types of staff are identified based on the research support offered: Research Administrator, Funding Advisor/Liaison Manager, and Project Manager. Finally, skills and competences are defined, according to the tasks associated with each stage of the project. This information is publicly available both on the website and on wiki.

Table 4.4.2 summarises the information available on the six PDFs analysed.

From analysing these PDF, we see some common traits but also there are many different features among them.

Among the common traits we find:

- All PDFs have been created to contribute to a better understanding of the research support activities.
- All of them identified a set of broad areas of activity, to be considered as the core ones for RMAs. Activity areas in most cases have key and sub-areas. Key or sub-areas are described from different perspective, according to the professional levels.
- All refer to three professional levels: ‘Operational/Administrator’, ‘Management’ and ‘Leadership’. However there is not a common vision about the belonging to each level. Some refers to the numbers of years of experience and other to the role and activities performed.
- Soft skills are considered very important for each professional level.
- PDFs help identifying learning outcomes for training courses and workshops.

Among the different features are:

- In some cases their creation was sponsored by policymakers, such as Ministries or Funding Authorities, in other cases they have been developed upon the initiative of the RMA community itself. Commitment by policymakers is likely to ensure the further development of PDFs, to be used as a reference for the recognition of the profession.
- Key activity areas are slightly different: ARMA, ARMS, and SARIMA key areas are quite broad, spanning from research strategy to project management and

Table 4.4.2. Overview of Six RMA PDFs.

PDF			
Name and Country	Activity Areas	Professional Levels	Soft Skills
ARMA (UK)	<ol style="list-style-type: none"> 1. Developing proposals 2. Project lifetime 3. Translation 4. Postgraduate Researchers 5. Policy and governance 6. Management information and related functions service 7. Organisation and delivery <p>Each area has sub-key areas</p>	<ol style="list-style-type: none"> 1. Operational 2. Management 3. Leadership 	For each sub-key area and professional level skills, knowledge and examples of behaviours which underpin effective performance are provided
ARMS (AU)	<ol style="list-style-type: none"> 1. Contextual knowledge (relational and technical) 2. The research funding cycle 3. Higher degree by research candidature cycle 4. Ethics and integrity 5. Data and information Management 6. Engagement and impact 	<ol style="list-style-type: none"> 1. Foundation 2. Management 3. Leadership 	
SARIMA (ZA)	<ol style="list-style-type: none"> 1. Organisation and delivery of a research management services 2. Research planning, strategy and policy development 3. Researcher development 4. Partnerships and collaboration 5. Research funding 6. Research ethics and integrity 7. Managing funded research 8. Research data and research information management 9. Research uptake, utilisation, and impact. <p>Each area has sub-key areas</p>	<ol style="list-style-type: none"> 1. Administrative/operational level 2. Managerial level 3. Leadership level 	Transferable competencies are provided for each level, other than general transferable competences across all three levels

Italian PDF (IT)	<ol style="list-style-type: none"> 1. Organisation, management, and monitoring of the research management service 2. Planning and development of research strategies and policies 3. Pre-award phase: partnership, collaborations, fund raising, and research planning 4. Post-award phase: management of funded research projects 5. Open and citizens science 6. Evaluation of research <p>Each area has sub-key areas</p>	<ol style="list-style-type: none"> 1. Administrators 2. Managers 3. Leaders 	Activities, technical, and soft skills are provided for each key area
NARMA (NO)	<ol style="list-style-type: none"> 1. Identify funding opportunities and mobilisation 2. Proposal development 3. Project implementation 	<ol style="list-style-type: none"> 1. Research administration 2. Research management 3. Leadership in research administration 	
BESTPRAC (COST Action)	<ol style="list-style-type: none"> 1. Before the proposal 2. Proposal 3. Grant preparation 4. Project 	<ol style="list-style-type: none"> 1. Research Administrator 2. Funding Advisor/Liaison Manager 3. Project Manager 	

Source: Authors' elaboration.

organisation. The Italian PDF, that is mainly based on these frameworks, also covers a large number of key areas. BESTPRAC and NARMA frameworks are connected to the different phases of the lifecycle of funded research projects, therefore they specifically focus on the activities related to the projects' support and management.

Reasons for such different approaches could be manifold and could depend on the existence of structured national RMA associations, the rising of RMA communities, the need for job requirements for new professionals, and/or to organise training for early stage or experienced RMAs.

Final Considerations

In light of the analysis of professional associations worldwide carried out, it is possible to make some general reflections.

The path towards the professionalism of research managers worldwide has begun, but there is still not a common approach to the development of the profession. The existing PDFs lay the basis for a better understanding of the research support activities in their countries, but since a clear description of tasks, skills, and competences worldwide is still lacking, job profiles could be heterogeneous within and between countries. Moreover, career development opportunities are not available or are limited.

Steps towards a shared understanding of the profession are undergoing, at least at the EU level. The European Commission is indeed becoming aware of the uneven distribution of research management communities and expertise across the European Research Area (ERA) and the lack of recognition of the profession of research managers, as compared to other policy sectors and the constantly evolving need for new skills. The Commission announced in the European Skills Agenda (European Commission, 2022e) a plan to develop science management curricula, in close cooperation with stakeholders and Member States. The Council in its Conclusions on the new ERA (1 December 2020) recognised the need for the professionalisation of science management at research performing and funding organisations. The ERA policy agenda introduced in Action 17 the Research Management Initiative in order to contribute to improve the European R&I system across the entire ERA (European Commission, 2021a) and several projects have been launched at the national and EU level (e.g. foRMAtion, RM ROADMAP, CARDEA, and EURESTMA²).

Additionally, the EC recently developed the European Competence Framework for Researchers to be used as a shared conceptual model that all players in the field of research can refer to (European Commission, 2022c). It should create a shared understanding of the knowledge, skills, and attitudes that researchers need for a successful research career, both inside and outside academia. By making visible what competences researchers need and how these competences could evolve from a foundational to an expert level, competence frameworks provide a valuable tool for researchers' career development. This framework identifies a set of seven competence areas that researchers need for a successful research career. All of them are connected to tasks that according to the above-mentioned PDFs are usually carried out or supported by RMAs. This highlights the importance of the research support staff in contributing to

²<https://www.formation-rma.eu/>; <https://earma.org/roadmap/>; <https://www.ucc.ie/en/hr/research/university-humanresources-research/cardea/>; and https://www.kowi.de/en/desktopdefault.aspx/tabid-36/1812_read-8197/.

researchers' career and enhancing the strategic capacity of Europe's research performing and funding organisations.

Along with the researcher's competence framework a unique competence framework for RMAs worldwide could help contributing to the advance of the RMA as a profession. The development of this framework can build on existing competence frameworks. Therefore, key observations regarding a set of best practices should be discussed before the conceptual model for the framework is developed. Scope, target groups, success in terms of content, and applicability of the existing frameworks should be considered. Common traits should be harmonised. Possible connections among different features should be investigated.

The framework should have a bridging function for the sector-specific, national and institutional frameworks, providing a common language to a wide variety of actors across the continent and beyond. Considering the various levels of maturity of the profession in different countries, the framework should also leave freedom and flexibility to national institutions to decide how to use it. Finally, as RMA activities are evolving over time, skills, and competencies need constant updates: the framework will thus need to be adapted over time to reflect those changes.

In her 2022 State of the Union speech, the European Commission President von der Leyen proposed to make 2023 the European Year of Skills³ so the RMA community should take advantage of it and set the common framework as a future priority.

References

- Agostinho, M., Moniz Alves, C., Aresta, S., Borrego, F., Borlido-Santos, J., Cortez, J., Lima Costa, T., Lopes, J. A., Moreira, S., Santos, J., Trindade, M., Varela, C., & Vidal, S. (2018). The interface of science: The case for a broader definition of research management. *Perspectives: Policy and Practice in Higher Education*, 24(1), 19–27.
- ARMA. (2011). *A professional development framework for research managers and administrators*. Association of Research Managers and Administrators. Retrieved October 26, 2022, from <https://arma.ac.uk/wp-content/uploads/2018/11/PDF-Final.docx>
- Association of Commonwealth Universities. (2008). *Research management staff survey*. Global Research Management Network. Retrieved October 26, 2022, from <https://www.acu.ac.uk/>
- Australasian Research Management Society. (2022). *Enabling Global Research Excellence*. Retrieved October 26, 2022, from <https://www.researchmanagement.org.au/>
- Beasley, K. L. (2006). The history of research administration. In E. C. Kulakowski & L. U. Chronister (Eds.), *Research administration and management* (pp. 9–29). Jones and Bartlett.
- BESTPRAC. (2017). *Welcome to the BESTPRAC-WIKI*. Retrieved October 26, 2022, from http://www.bestprac-wiki.eu/Main_Page
- BESTPRAC. (2019). *Cost targeted network TN1302. Report 2014–2019. Excellent research requires top research support!* Retrieved October 26, 2022, from https://bestprac.eu/fileadmin/mediapool-bestprac/documents/Outputs/Communication_materials/BESTPRAC_booklet_2014-2019.pdf
- Chronister, L. U., & Killoren, R. (2006). The organization of the research enterprise. In E. C. Kulakowski & L. U. Chronister (Eds.), *Research administration and management* (pp. 41–61). Jones and Bartlett.
- Derrick, G., & Nickson, A. (2014). Invisible intermediaries: A systematic review into the role of research management in university and institutional research processes. *Journal of Research Administration*, 45(2), 11–45.

³2022 State of the Union Address by President von der Leyen: https://ec.europa.eu/commission/presscorner/detail/ov/SPEECH_22_5493.

- European Commission. (2011, July 21). *Towards a European framework for research careers*. Retrieved from https://era.gv.at/public/documents/2309/Towards_a_European_Framework_for_Research_Careers_final.pdf
- European Commission. (2021a). *European research area policy agenda – Overview of actions for the period 2022–2024*. Publications Office of the European Union. Retrieved from https://ec.europa.eu/info/sites/default/files/research_and_innovation/strategy_on_research_and_innovation/documents/ec_rtd_era-policy-agenda-2021.pdf
- European Commission. (2022e, October 26). *Understanding skills*. Retrieved from <https://ec.europa.eu/social/main.jsp?catId=1215&langId=en>
- European Commission. (2022c). *Knowledge ecosystems in the new ERA. Using a competence-based approach for career development in academia and beyond*. Publications Office of the European Union. Retrieved November 27, 2022, from <https://data.europa.eu/doi/10.2777/150763>
- Groeninx van Zoelen, A., & Kanters, E. (2023). The profession of research management and administration in the Netherlands. In S. Kerridge, S. Poli, & M. Yang-Yoshihara (Eds.), *The Emerald handbook of research management and administration around the world* (pp. 715–721). Emerald Publishing.
- Italian Research Managers. (2022b). *Homepage*. Retrieved October 26, 2022, from <https://www.italianresearchmanagers.eu/>
- Kerridge, S., & Scott, S. F. (2018a). Research administration around the world. *Research Management Review*, 23(1), 1–34.
- Kirkland, J. (2008). University research management: An emerging profession in the developing world. *Technology Analysis & Strategic Management*, 20(6), 717–726.
- Kulakowski, E. (2023). The establishment and history of the international network of research management societies. In S. Kerridge, S. Poli, & M. Yang-Yoshihara (Eds.), *The Emerald handbook of research management and administration around the world* (pp. 83–95). Emerald Publishing.
- Norwegian Network for Administration and Research Management. (2022, October 26). *Homepage*. <https://narma.no/om-narma/english-about-narma-and-contact/>
- Poli, S. (2018a). Who are today's research managers? Roles, professional development, and evolution of the profession. In J. Andersen, K. Toom, S. Poli, & P. F. Miller (Eds.), *Research management: Europe and beyond* (pp. 1–29). Academic Press.
- Ritchie, J., Lythgoe, E., & Donovan, D. (2023). RMA education, training and professional development in North America and Europe. In S. Kerridge, S. Poli, & M. Yang-Yoshihara (Eds.), *The Emerald handbook of research management and administration around the world* (pp. 177–186). Emerald Publishing.
- Romano, V., & Albanesi, A. (2021). *The role of the research manager and administrator – RMA, in Italy: Professional framework and training needs 2020 activity report*. CODAU Research Working Group. Zenodo. <https://doi.org/10.5281/zenodo.5513738>
- Santos, J. M. R. C. A., Varela, C., & Kerridge, S. (2021a). Professionals at the interface of science: Is there more than meets the eye? *Perspectives: Policy and Practice in Higher Education*, 25(3), 100–105.
- Santos, J. M. R. C. A., Varela, C., Kerridge, S., & Fischer, M. (2023). Where do RMAs work? In S. Kerridge, S. Poli, & M. Yang-Yoshihara (Eds.), *The Emerald handbook of research management and administration around the world* (pp. 155–166). Emerald Publishing.
- Southern African Research and Innovation Management Association (SARIMA). (2022b, October 26). *A handbook for Southern African research management offices*. <https://www.sarima.co.za/wp-content/uploads/2019/04/Research-Management-Manual.pdf>
- Stackhouse, J. (2008). Profiling the profession. *Research Global*, 19, 8–9, 22.
- Williamson, C., Dyason K., & Jackson, J. (2020). Scaling up professionalisation of research management in Southern Africa. *Journal of the Society of Research Administrators. Society of Research Administrators*, 51(1), 46–72.