HÉTFA
RESEARCH INSTITUTE
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AND SOCIAL ANALYSIS

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# Research Management and Administration: the relevance of specific education and training programmes

HETFA Working Paper
Budapest, March 2020

# RESEARCH MANAGEMENT AND ADMINISTRATION: THE RELEVANCE OF SPECIFIC EDUCATION AND TRAINING PROGRAMMES

Budapest, March 2020

ISSN 2062-378X

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HÉTFA Working Paper Series has been sponsored by the Pallas Athéné Domus Educationis Foundation.

Graphic design: **Kriszta Parádi**

Proofreader: **Andrea Vinkler**

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# 1. EXECUTIVE SUMMARY

## 1.1. AIM AND RELEVANCE

The aim of the working paper is two-fold: first, **to identify those conditions, skills and competences that are necessary for the preparation and implementation of excellent European educational and research projects**; second, to gather **empirical information on training and education needs and existing opportunities** to prove the relevance of specifically developed programs.

The relevance of the research derives from various aspects. Firstly, **available literature is scarce** on the topic of research management and administration, especially apart from the Anglo-Saxon world. Secondly, there are also **differences in the recognition of the profession, educational and training opportunities** as well as possible carrier paths even among EU Member States. While in the Anglo-Saxon countries and in North-Western European countries there is a broad scale of opportunities available for people working in this field, in many other countries even their position is not clearly defined.

Thirdly, the role of **Research Managers and Administrators (RMAs) and/or Funding Advisors is getting more and more important due to the increasing competition** in the field of research, innovation and educational funds. EU-13 countries having joined the EU since 2004 are still lagging behind in regard to their participation in EU funded framework programmes whereas their budgets are continuously increasing (2014-2020: Horizon 2020's budget was around 70 billion euros, 2021-2027: Horizon Europe's budget will be around 100 billion euros).

## 1.2. FINDINGS BASED ON THE EXISTING LITERATURE

**Research management and administration has a relatively short history.** It can strongly be linked to the increased requirements of research funding agencies in the field of reporting, regulation (Campbell, 2010) and demonstrating the impact of state-funded research.

Three **main developments necessitating effective research management** are described by Schützenmeister (2010) which include the **scarcity of resources for research**, the **complexity of scientific problems and projects**, as well as the **necessity of complex infrastructures**.

Wedekind & Philby (2018) demonstrates the current importance of research management and administration proven by the fact that **EU funded research and innovation grants are generally oversubscribed and only the best with the highest levels of excellence are awarded by EU grants**.

Shelley (2010) underlines that **RMAs nowadays play a critical part** in the research process: from the most senior research managers providing support in the coordination and leading of their university's research policies to the more junior ones being mainly responsible for collecting data and finding out information.

According to Tauginiene (2009) the research administrator's explicit responsibility is to promote research at the university. Research administrators present an integral part of the university research culture, working with faculties directly as well as indirectly.

Literature based on empirical research never forget to point out that **RMA as a profession lacks visibility and in many cases recognition** especially by researchers and other part of the organizations they work in. Even in the Anglo-Saxon world problems arise since RMAs perceive that their work is often to be done in a **stressful environment with little recognition from their non-administrative colleagues** to whom they are providing a service (Shambrook & Roberts, 2011).

**Roles, responsibilities, powers of RMAs are diverse and depend largely on institutional set-up and hierarchy** (Tauginiene, 2009; Shelley, 2010). Green & Langley (2009) and Schützenmeister (2010) **confirm the variety of research managers' responsibilities and the differences in their influence and responsibilities** among organizations whereas their carrier paths are not clear, and in some cases almost non-existent.

The literature unequivocally agrees regarding the fact that research managers and administrators need to have a **vast range of skills and knowledge** (Green & Langley, 2009) which is necessary for high quality research support. Successful professionals have to be **multi-talented and mission-dedicated** (Shambrook & Roberts, 2009).

Tauginiene (2009) differentiates between among 3 main qualities and skills that a research manager and administrator should possess: **1) generation, interpretation and dissemination of information:** being aware of the newest information, understanding and forwarding the information in all phases of grant preparation and management; **2) communication at many levels:** between researchers, researchers and RMAs, between RMAs, as well as other stakeholders; **3) problem solving** with high a level of honesty, integrity and ethics.

Moreover, the emergence of new challenges and opportunities have another effect on the RMA profession on which papers agree: this is the **necessity to accommodate to continuous change** (Shelley, 2010) and align the competences to reflect these changes (Tauginiene, 2009).

**Thus it must be noted that fundamental research management principles formulated in the past no longer satisfy the changing research environment of today.** These changes are caused by social, political and economic factors that influence the values and goals of higher education. Changes must therefore reflect **the essential principles of research management** (Tauginiene, 2009).

Still up to now, apart from the Anglo-Saxon world, there is **a huge lack of educational programs of RMAs** (Shelley, 2010). Existing available rograms are for post-graduates or for professionals already working in the field, whereas it is almost impossible to graduate as RMA.

Shelley (2010) also presents the **diversity of the employment backgrounds of newly employed research managers. Some had previously worked in business or industry** and brought with them flavours of those work cultures. **Others had worked in government research, for funding councils, or in accountancy.** There were also **disillusioned contract research academics** who wanted a more secure future. There were, however, **others with more than a decade of research support experience** who had achieved higher posts by moving universities, while others saw the role as one of the avenues in university administration.

## 1.3. FINDINGS

Based on the existing literature dealing with the situation, challenges, and background of RMAs in the Anglo-Saxon world, an online questionnaire was developed and circulated among European RMAs. Then a workshop was held to present and validate the first results for stakeholders (RMAs, researchers, experts and policy-makers). Finally, personal interviews were carried out among selected respondents of the survey.

136 respondents filled in the questionnaire, but only 89 completed it fully. **Respondents came from 31 different European countries.** 44.9% of respondents work in EU-15 countries, 31.4% in EU-13 countries and the rest 23.7% in countries which are not Member States of the European Union but are involved in EU funded educational, research and innovation programmes. Regarding geography 35.6% of respondents sit in Eastern-, 33.9% in Western-European countries, 23.7% in the Southern region and Northern countries represent the remaining 6.8%[1].

[1] Eastern countries include Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Macedonia, Poland, Romania, Slovenia, Serbia, Ukraine. Western countries include Austria, Belgium, France, Germany, Iceland, Ireland, the Netherlands, UK and Switzerland. Southern countries: Cyprus, Greece, Italy, Malta, Portugal and Spain. Northern countries: Denmark, Estonia, Finland, Latvia, Norway.

**Respondents have a rather clear gender and age profile:** 72.3% are female and 81.4% are 31-50 years old. Regarding their educational background, 91.6% have at least a master's degree, 29.7% hold a PhD. 10% of the respondents described themselves as a leader, 49.1% as managers, 18.2% as advisors, and 14.5% as administrators.

Their institutional background is either public (68.8%) or private non-profit (27.5%) only 3.7% said they work for a for-profit organisation. In 60.5% of the cases the working place is a university, 24.8% a research institute.

The semi-structured interviews were carried out with 9 RMAs come from different European countries, 5 from EU15, 3 from EU13, and 1 from a candidate country. Apart from two cases, interviewees spent more than 8 years in research management. Regarding their position, each case and job title was different.

Though the sample size was much too small to make any comparative analysis, **the answers suggest RMAs in Europe deal with very similar issues regardless of the region or country of work**. RMAs describe their job in surprisingly similar ways whether we go West or East, North or South within Europe. **Lack of recognition seems to be an unsolved problem even in Western and Northern countries** where the development of the RMA profession seems more advanced.

When they were asked to define the characteristics of an ideal RMA, the characteristics mentioned related to providing **support and understanding, and the ability to listen to and communicate with others. Trust and reliability** were also cited by some interviewees.

**RMAs are passionate about their job, although the profession is ill-defined, generally not recognized in any of the countries, and therefore not visible and understood by outsiders.** Thus there is still tension between the importance of the work and how other see it. Contradictions also emerge when respondents talk about the long years spent in the profession and the high uncertainty they feel regarding their job and carrier path.

**Becoming an RMA is rarely planned, many times it is rather a coincidence.** This means that research-performing **organizations face significant challenges in recruiting people** with the necessary knowledge and skills, thus they **have to invest a lot in training** the new-comers. This is a long process, thus there is a strong **need for a formal training considering the competitive, uncertain and volatile nature of the working environment**.

When RMAs were asked to give a summary on the **trainings they had attended** or led in recent years, it can be stated that **both the feature, the structure, the target group and the content of them were significantly diverse**. A few of them focused only on skill development, however, the majority of them were not practical trainings but directed on knowledge transfer and the sharing of experiences. These trainings were oriented towards various parts of the proposal and the management of research projects.

Therefore, they were useful to increase the knowledge of practitioners on certain important issues, such as impact, exploitation of research results, ethics, etc.

Trainings mentioned were held by various organization at various levels, starting from national agencies directed towards research and innovation funding or support, national associations of research managers, EU projects and European or international associations of research managers. The target group of the trainings mentioned differed: in some cases, they were specifically designed for research managers, but in other cases, they were designed for researchers.

For the formulation of the training we can say that **training at various levels** (undergraduate, postgraduate) **are considered useful**. Also, different educational backgrounds represent different advantages for future RMAs, including business & management, communication, public administration, international relations and legal studies. Being primarily a researcher might also entail advantages, however, RMAs need several skills, including **multitasking**.

Due to the continuously changing knowledge required in research management and administration, a **potential educational programme is supposed to focus primarily on the development of skills and competences**. Beyond **multitasking and English knowledge, problem solving, teamwork, interpersonal skills and information management** are considered of utmost importance among the required skills. As regards the necessary competences, **reliability, efficiency, flexibility and planning, strategic thinking, teambuilding and motivation building** were considered necessary for being a successful RMA.

The tremendous need for an educational programme is also underlined by the fact that a **very low ratio of respondents claimed to have any kind of professional accreditation or certification related to RMA**. Such an educational programme would bring much more people into the profession to ease the work of institutions in selecting the candidates.

Regarding the character of the educational programme, a **problem-oriented hands-on training with case studies and examples of possible challenges and their solutions would be useful**. Flexibility could be achieved by modules covering different parts of RMA works, which could be adjusted to the initial knowledge of the participants. The focus has to be put on skills and competence development. This programme should be supplemented by a mentorship programme, enabling participants to get into real life situations and receive tailor-made support from experienced mentors.

**The value of a certificate provided by a dedicated educational programme is also highly important:** it provides not only more visibility to the profession, but also recognition of the knowledge, skills and competences of RMAs, and ensures their possible carrier path development.

The **development of a dedicated educational programme can also contribute to standardizing the already high requirements of the profession** and make all participants (including institutions, researchers,

policy-makers) aware of what RMAs can offer and what their added value is. Further research is also needed to enhance the profession.

**Lastly, it is also important to note that existing associations of RMAs provide useful services** (including trainings, networking, job profiling, etc.) for their members in professional development. The existence or the lack of national association was tackled by almost all interviewees highlighting the advantages of personal connection, direct knowledge and experience exchange. One of the most significant outcomes of the listed trainings and associations is that they connect people who will later rely on these networks even in their everyday work: any time they face a new problem without any idea on how to overcome it, they have a group of people in mind who can be asked – and they give support almost immediately.

## 1.4. RECOMMENDATIONS

We can confirm the existing proposals of experts and amend it with specificities regarding the frame and character of the possibly developed educational programme. Besides, some more general recommendations are also formulated with regard to the profession and its possible development concerning recognition, visibility and networking.

1) **There is a strong need to develop an educational programme, either at undergraduate or postgraduate level,**
   a. to increase the visibility and people's awareness on the RMA profession,
   b. to make other actors understand the services that RMAs can provide,
   c. to enable potential experts to consciously prepare for the career,
   d. to facilitate recruitment of research performing organizations, and also to raise the excellence and preparedness of their support staff and to save resources dedicated to the training of new-comers and beginners;
   e. to set a high-level of service portfolio offered by RMAs.
2) **This educational programme shall cover all possible knowledge used by RMAs in their everyday work,** but more importantly, **shall focus on the improvement of necessary skills and competences.** Such a programme is supposed to
   a. gather and formalize all relevant knowledge and expertise in the field,
   b. provide a frame for various modules covering the different stages of RMA work (pre-grant, contracting, post-grant), expertise needed (legal, financial, administrative, communication, etc.) as well as various levels of the profession (administrator, manager, coordinator, head of unit, etc.),

c. rely on non-formal educational methodologies, including practical and hands-on exercises, group works, case studies, role games, peer learning, etc.,
d. be backed by a mentoring programme through which participants would be supported in their learning process by professionals,
e. pay attention to the needs of RMAs working in different institutional environments both in public and private spheres,
f. provide a certification which is acknowledged at EU or international level.

3) **The RMA profession as such needs recognition in European countries.** This recognition necessitates
a. the acknowledgement of RMA profession in these countries,
b. the enabling of the establishment and development of dedicated RMA offices within research performing organisations,
c. the support from national and EU funding agencies to provide regular information, training and knowledge exchange with and for RMAs,
d. the enabling of further networking and peer learning opportunities for RMAs both at national and EU levels to increase their own and their organizations' professionalism and preparedness.

# 2. INTRODUCTION

## 2.1. MAIN AIM

The aim of the working paper is two-fold: first, to identify those conditions, skills and competences that are necessary for the preparation and implementation of excellent European educational and research projects; second, to gather empirical information on training and education needs and existing opportunities to prove the relevance of specifically developed programs.

To do so, it provides a brief overview of the literature of dealing with research management and persons working in this profession. Then it analyses the survey circulated among research managers working on educational, research and innovation projects throughout Europe. The analysis is extended by the outcomes of the workshop and personal interviews. Based on these inputs it summarizes the findings and formulates recommendations for possible interventions at national and EU level.

## 2.2. RELEVANCE OF THE RESEARCH

It must be admitted that the literature is rather scarce on the topic of research management and administration, especially apart from the Anglo-Saxon world. There are also differences in the recognition of the profession, educational and training opportunities as well as possible carrier paths even among EU Member States. While in the Anglo-Saxon countries and in North western European countries there is a broad scale of opportunities available for people working in this field, in many other countries even their position is not clearly defined. Nevertheless, the role of Research Managers and Administrators (RMAs) and/or Funding Advisors is getting more and more important due to the increasing competitiveness in the field of research, innovation and educational funds.

The main criteria of successful participation in EU funded projects in research and innovation under Horizon 2020 is excellence. As the report on overcoming innovation gaps between EU-13 prepared for the

European Parliament highlights (European Parliament, 2018) projects at European level needs to be of the highest quality, produced in international collaboration and selected on a competitive basis.

However, EU-13 countries having joined the EU since 2004 are still lagging behind in regard to their participation in EU funded framework programmes. As the mid-term assessment of Horizon 2020 revealed (European Commission, 2017), EU-13 countries were able to absorb only 4.4 percent of the grants. In contrast, EU-15 countries absorbed 88.5 percent of the grants.

As regards the number of participants, EU-13 countries provide 8.5 percent of partners of funded projects, whereas EU-15 countries provide 82.6 percent. It is important to note that the ratio did not change significantly compared to the previous framework programme during which EU-13 countries absorbed 4.2 percent of the funds and provided 4.2 percent of participants.

The concentration of Horizon 2020 collaborative projects presents a similar picture: Germany, the UK, Spain, Italy and France are in the centre of the network, whereas EU-13 countries are in the periphery of the network (European Commission, 2017).

Apart from a few outstanding examples, Hungarian applicants, similarly to their counterparts from EU-13 countries, face important hindrances in the participation of EU funded research, innovation and educational programmes. The reasons behind are many-folded. The assessment prepared for the European Parliament lists the following obstacles:

- lower number of potential applicants in EU-13 countries,
- lower level of intensity in their involvement in EU programmes,
- lower level of excellence of projects submitted by EU-13 countries,
- weaker integration of potential applicants in EU wide R&I networks
- weaker performance of R&I system of EU-13 countries,
- a greater number of more easily accessible funds for R&I in EU-13 countries (coming mainly from cohesion funds) (European Parliament, 2018, pp. 28).

Among its recommendations, this paper also puts emphasis on the importance of improving excellence and the readiness of research entities for participation in FPs through increasing the quality of research management (European Parliament, 2018, p. 127).

Although at the moment we are not aware of the concrete budgetary plan for the upcoming Multiannual Financial Frame of the European Union starting from 2021, based on the current state of play it is already clear that policies and related funds distributed at EU level will increase. The expected budget of the successor of Horizon 2020, Horizon Europe, is about 100 billion EUR, representing an increase of 40%. The expected budget for Erasmus + from 2021 is about 30 billion EUR, representing an almost 100% increase.

In contrast, the budget of Cohesion Policy and Agricultural Policy is witnessing a decrease of 16-17% each. As a result, EU-13 countries must prepare themselves to be able to absorb direct EU-funds at a much higher ratio to secure the necessary funds for their development. Putting more focus on efficient and excellent research management and administration is only one slice of the strategy, however, as this study will reveal, its role cannot be underestimated.

## 2.3. DEFINITION

Both the literature and professionals working in the field have used slightly different phrases for the profession and the work. Campbell in his dissertation speaks about research administrators since in North America this is the most common way (Campbell, 2010), Kerridge uses the phase research management and administrators (Kerridge & Scott, 2018), whereas professionals of the BESTPRAC network uses the general phrase of research support staff, and it differentiates among three main functions, namely (1) Research Administrator, (2) Funding Advisor / Liaison Manager, and (3) Project Manager.[2] In this paper we will use the term Research Manager and Administrator (RMA).

The job profile of an RMA varies on a broad scale, however, its most important one is that it deals with developing, administering, accounting for and complying with requirements, guidelines and laws relating to research projects funded externally. This includes different phases of the research, innovation and educational grants, including

- before the proposal: identification and dissemination of funding opportunities, advising,
- pre-grant phase: proposal preparation and writing,
- contracting: going through the conclusion of grant contracts, partnership agreements,
- post-grant phase: administrative and financial management, communication and dissemination, reporting, liaising, etc.

In the current paper we are referring to EU funded research, innovation and educational projects funded by the EU Framework Programme for Research and Innovation (between 2014-2020 Horizon 2020, between 2021-27 Horizon Europe), the programme for the Competitiveness of Small and Medium Sized Enterprises (COSME), and the Erasmus + programme, since these funds represent the main part of externally funded research. However, it may happen that RMAs also deal with other funds, including EUROSTART, EEA Grant, Visegrad Fund, or bilateral science and technology funds.

[2] For more details see the BESTPRAC wiki site: http://www.bestprac-wiki.eu/Main_Page (2019.02.15.)

# 3. LITERATURE REVIEW

This chapter aims to provide an overview on the available literature dealing with research management and administration. Beside the necessary skills and competences as well as training programmes, we also strived to present an overview on the history of the profession, its importance, visibility, recognition, related roles and responsibilities, and the main challenges. Due to the relatively short existence of the profession and the differences regarding its recognition and training opportunities between the Anglo-Saxon world and continental Europe, we considered it important to provide such an overview to support the better understanding of the problem.

## 3.1. BRIEF HISTORY OF RESEARCH MANAGEMENT AND ADMINISTRATION

**Research management and administration has a relatively short history.** It can strongly be linked to the increased requirements of research funding agencies in the field of reporting, regulation (Campbell, 2010) and demonstrating the impact of state-funded research.

The profession of Research Manager and Administrator does not have a long history either. It has emerged in public research organizations and in higher educational institutions since the World War II, primarily in the Anglo-Saxon world.

In the US, professional societies began to organize themselves in the 1950s and 1960s to gather and support professionals. As Roberts and House highlighted (2006), formalization of the RMA profession was parallel to the establishment of the National Council of University Research Administrators (NCURA) in 1959 and then Society of Research Administrators (SRA). During the 1970s and 1980s, it became more and more apparent that researchers were unable to manage all the administrative and regulatory burdens alone and there is need for professionals in this field.

In the UK this process emerged in the Thatcher-era due to three main reasons: 1) external income became more and more important for universities, 2) such revenue was an indication of relevance and quality, and 3) with the advent of research assessment exercises, universities were required to report more actively on the performance of individual departments and staff (Kirkland, 2009). The increased range of customers for university research required more complicated and demanding agreements.

During the explosive growth of biomedical research, in the 1990's RMAs gained more and more importance and their specialization in different forms of administration also took place in the US. According to Kerridge (2016) through the development of the research policy landscape, funders started demanding more from the researchers than they funded: more collaboration, more demonstration of impact, more self-assessment, more governance, more transparency... more administrative burden. **Institutions have realised that having specialist research administrators is the most effective way forward.**

From 1984, in Europe, through the launch of the Framework Programmes for Research and Technological Development (FPs) supporting research and development by the European Commission also necessitated the existence of professionals supporting researchers striving for EC funded grants. This development primarily concerned Member States with potential beneficiaries of these grants, meaning that first in the 12, then the 15 Member States research performing organizations were urged to employ RMAs supporting their research staff. As a result, these changes in the research funding landscape led universities to increase their investment in the management of their research process. The number and variety of research support structures increased, and **research management and administration has become the key mechanism for delivering research goals**. Research administrator and manager roles are now very much sought after in higher education institutions (HEIs).[3]

**In the US, RMA as a profession became a stand-along and recognized profession** by peers, professionals and societies, and is considered as an important part of research. In many cases, law and policy often require the presence of an RMA before funds are awarded (Campbell, 2010).

Compared to this, in the enlarged EU, there are **hardly any countries in which RMA is a recognized profession by the law or institutional regulations. RMA professionals belong to various departments and types of support staff:** either to the administrative, financial, legal or international ones.

Associations at national levels gathering and supporting RMAs have been founded, but mainly in Western and Norther European countries, e.g. ARMA and Association of University Research and Industry Links (AURIL) in the UK, DARMA in Denmark, FINN-ARMA in Finland, ICE-ARMA in Iceland, AURAM in Austria, BAK in Germany, or the newly launched ARMA-NL in the Netherlands. Even in these countries, RMA is not recognized as a full-fledged profession, whereas the more and more complex research, innovation and

[2] See: https://researchcoordinatorblog.wordpress.com/2014/10/28/research-administrators-are-in-demand-so-how-do-you-become-one/ (2019.02.15.)

educational projects funded by the EU require continuous preparedness from the staff involved in their preparation and implementation. Similarly to the networks gathering RMAs at the EU level, i.e. EARMA (European Association of Research managers and Administrators) or the COST action BESTPRAC, national ARMAs aim to provide practical support and knowledge for their members recruited either on individual basis (ARMA-NL, DARMA, BESTPRAC) or on institutional basis (ARMA, AURAM, FINN-ARMA, EARMA).

**Services provided by the different ARMAs cover a wide range of activities**, such as networking, knowledge exchange, involvement in preparation of national positions on EU funded research, innovation and education programmes, study visits, job profiling, support for the recognition of the profession, etc. Important to see is that each association requires membership fees both at national or EU levels which are either paid by the person or the institution involved. It is only BESTPRAC which provides its events and training opportunities free of charge, which is a significant opportunity for Central Eastern European countries' RMA community.

As Campbell (2010) and other experts, such as Shelley (2010) confirmed, research management and administration is an under-researched area. Most works have been carried out in the Anglo-Saxon world, primarily in the US, where, as it was described above, the profession has started to become independent in the last 40-60 years. **The most important journals with related articles are published by US or Australian associations in the field**, such as Research Management Review by NCURA, NCURA Magazine, Journal of Research Administration by SRA International. Compared to this, in Europe, it is EARMA which publishes a magazine called Link on a yearly basis, but this magazine rarely contains scientific articles focusing on RMAs.

More interestingly, the evaluation of the research management work carried out under the previous EU funded research and innovation framework programme (FP7), experts (Jansen, Warmenhoven, Fikkers, & Poel, 2014) only underlined that good research management and project success goes hand in hand. Surprisingly, they barely touched upon the importance of RMAs supporting researchers in carrying out these projects. It was put only on the table during the articulation of the upcoming framework programme, Horizon Europe, that there is a need and relevance to support RMAs. For the time being, however, nothing concrete was proposed with that regard.

The first book published by European research managers and researchers on the topic was only published in 2018 by Andersen et al. (2018) entitled "Research Management: Europe and Beyond". The book aims to list the wide scale of tasks, skills and responsibilities related to research management and administration. The book includes narratives from practitioners to shed light on the profession, its complexity and its multiple character. It focuses on RMAs, their tasks and the environment they work in – but most specifically on higher education institutions.

The study published by Wedekind & Philby (2018) brings us to the next topic, that of the importance of research management and administration proven by the fact that **EU funded research and innovation grants are generally oversubscribed and only the best with the highest levels of excellence are awarded by EU grants**. Parallel to this, cuts in the EU Member States' research and innovation budgets increased the competition for funding at European level which will be aggregated by the cuts in Cohesion Policy funds in the upcoming period between 2021 and 2027. The increased competition yielded that even projects with the highest levels of excellence had to be ranked and in many cases only very few of them received the requested grant. This resulted in the fact that proposals were evaluated on a wide range of non-research related aspects too, such as the socio-economic impact and visibility of the envisaged project, the project and risk management processes, and competencies, ethics, data management, gender issues, etc., which in most cases cannot be solely drafted and carried out by researchers.

## 3.2. RESEARCH MANAGEMENT AND ADMINISTRATION AND ITS IMPORTANCE

Schützenmeister (2010) provides a brief summary of research management and administration: firstly, it differs from the traditional university administration since in many cases RMAs are involved both in the planning (pre-grant) and then the execution (post-grant) phases of the research projects. Second, RMAs deal with the social, organizational and political context of research and work always in complex project. As regards the role of RMAs, Schützenmeister differentiates between two important developments at US universities: the first is the growing interest of university administrations in research planning and specialization to sharpen the research profile of universities and to focus on promising fields that could generate income, prestige, and competitive advantages. The second originates from external funding sources, collaborations, and resources that need to be managed at different levels at universities.

Three main developments necessitating effective research management are also described by Schützenmeister which include the **scarcity of resources for research, the complexity of scientific problems and projects, as well as the necessity of complex infrastructures**.

Following a thorough series of interviews among UK universities, Green & Langley (2009) also confirmed that universities need research managers for the preparation and implementation of successful research projects.

As a result, the importance of RMAs, as individuals working in research management and administration having a complex understanding of the research and its environment, is continuously growing. The complex environment includes the current institutional research landscape and the forces shaping it. RMAs also have

skills to help manage that environment.[4] According to Kerridge (2016), it is like being **"a jack of all trades but master of none"**.

The research conducted by Shelley (2010) demonstrated that **RMAs nowadays play a critical part in the research process**: from the most senior research managers providing support in the coordination and leading of their university's research policies to the more junior ones being mainly responsible for collecting data and finding information. Both have duties that require them to ask academics to do things for them and this represents a major contrast from previous roles where they responded reactively to academic requests.

Similarly, Spencer & Scott (2017) defined **research management and administration as a process that has tasks which take place during the entire lifecycle of a research project**. Accordingly, "the research administrator is seen as a **'man in the middle'**, caught between the frequently conflicting goals of the research scientist and the research organization."

It also must be noted that the American and the European research managements are still very different, as highlighted by Bezecny (2017). Belonging to the RMA staff at a Czech university, he conducted a study visit to an American university. His impression is shared by many RMAs throughout Europe, especially from Central and Eastern Europe, where the importance of research management and its understanding is underestimated and undervalued not only in the majority of research institutions but also at a governmental level. This comes from the understanding and acceptance of research funding: Central Europe mainly relied on state funds, whereas their Western European or American counterparts got used to fighting for research money in competitive calls. Thus, RMAs are an important component in securing an award, spending money and closing up the project.

In his article, Porter (2007) provided an alternative way of demonstrating the importance of RMAs: he compared the different features of academic writing and grant writing. The paper pointed out the different goals, requirements of the audience, and the style of the project in which it shall be written. As a result, he highlighted that researchers, even if they are excellent at academic writing, have a different style thus they need help in writing grant proposals where the evaluation criteria are different from those of academic writing. This support is supposed to be provided by a proactive research management team or office.

[4] See: https://researchcoordinatorblog.wordpress.com/2014/10/28/research-administrators-are-in-demand-so-how-do-you-become-one/ (2019.02.15.)

# 3.3. LACK OF RECOGNITION & VISIBILITY

Although the importance of research management and administration has been proven by experts, practitioners and researchers, the literature based on empirical research never forget to point out that **RMA as a profession lacks visibility and in many cases recognition** especially by researchers and other part of the organizations they work in. Much of the literature on RMA deal with the problems of professional identity (Schützenmeister, 2010) and conflicts deriving from it.

Even in the Anglo-Saxon world problems arise since RMAs perceive that their work is often to be done in a **stressful environment with little recognition from their non-administrative colleagues** to whom they are providing a service (Shambrook & Roberts, 2010).

As it has been described above, the RMA profession is barely recognized by the law and employment regulations. The overview of Szekeres (2011) confirms that the **naming issue for professional RMAs is still a frustration** for them. Moreover, the lack of acknowledgement also includes the lack of career path for professionals (Shelley 2010). Compared to the Anglo-Saxon world, in most parts of Europe, but especially in the Central Eastern parts, the job of a research manager as a wider conception of an individual project manager has not been fully recognized (Bezecny, 2017), although it is much easier to work under standardized and predictable conditions than in a system where the procedure or the next step depends only on the discretion of an individual person.

Further on, it has to be underlined that in many cases they are considered as 'invisible workers' and being part of the administrative, non-academic, or support staff represents a certain kind of **degradation of their profession and their expertise** (Szekeres, 2011; Shelley, 2010).

The Delphi survey conducted by Cole (Cole, 2007) to identify the current state of the art and formulate recommendations on the cooperation and relationship of the faculty researchers and RMAs revealed that the **faculty researchers acknowledge the need of RMAs** in preparing proposals, budget and carrying out projects. However, there is a **mismatch between the approaches of researchers and RMAs**. It was also confirmed that researchers should provide more recognition towards RMA.

Nevertheless, changes in the requirements of research and innovation projects effectuate that more and more credentials are given to RMAs and they become more professionals. The challenge is to claim their space in research-performing organizations. But it must also be noted that research management and administration is not a unidirectional process and feedback is indispensable (Kerridge, 2016) for the development of professionals.

## 3.4. ILL-DEFINED ROLES AND RESPONSIBILITIES, LACK OF CAREER PATH

Generally, the essential function of the research manager and administrator consists mainly of rendering assistance to faculties in conducting research and representation of university interests (Tauginiene, 2009). Similarly, according to Tauginiene (2009) the research administrator's explicit responsibility is to promote research at the university. Research administrators present an integral part of the university research culture, working with faculties directly as well as indirectly.

But deriving from the fact that RMA is not an acknowledged profession in most European countries and professionals are not employed as RMAs but as administrative, financial, legal, or other categories of staff, **their roles, responsibilities, powers are diverse and depend largely on institutional set-up and hierarchy** (Tauginiene, 2009; Shelley, 2010). Green & Langley (2009) and Schützenmeister (2010) **confirm the variety of research managers' responsibilities and the differences in their influence and authority** among organizations while carrier path is not clear, and in some cases, almost inexistent. Concerning UK universities, Green and Langley also pointed out that in case of appointments for higher positions, institutions recruit from external experts instead of their staff, meaning that institutions face problems in developing and promoting their staff. Moreover, half of the sample felt that career development opportunities were very low or low.

Furthermore, research managers and administrators must assume **many roles, perform both complex and mundane functions, and act as a liaison** with both internal and external parties (Shambrook & Roberts, 2009). Empirical investigations underline the same: an online survey (Davis-Hamilton, 2016) carried out recently among subscribers of RESADM-L at the beginning of 2016 revealed that according to respondents, research administration is varied in its tasks (76%). The survey of Kerridge and Scott (2018) among RMAs worldwide presented similar results: the vast majority of respondents reported they had fulfilled one to three RMA jobs.

At universities, scientists often do not know what services new research managers provide or should provide. What makes the situation of RMAs even more difficult is that they have to balance **between the competing demands of funding agencies and over-worked academic researchers**. As a result, RMAs must assume many roles and liaise between internal and external parties (Shambrook & Roberts, 2010).

Nevertheless, regarding the main roles and responsibilities, there is an understanding within the literature. The list formulated by Kerridge (2016) and Tauginiene (2009) on **the multi-faceted nature of research management and administration** includes understanding the nature of the research, proposal development, searching for funding (pre-grant phase), contract negotiation, assisting researchers with managerial aspects of the awards, finance management, policy interpretation, ethics reviews, etc. (post-

grant phase).

In the case of universities, Shelley (2010) found that RMAs at faculties can have more specific roles in research support, whereas RMAs at central offices (rectorate) can have more general roles.

Therefore, it can be stated that **research support staff have important roles in supporting researchers in all phases of grant application, administration and management**. These roles may vary from minimal involvement to active involvement. **It is imperative that the academics, researchers and the research support staff have good working relationships.** Issues such as the kind of support that the academics and researchers would like and the kind of support that the research support staff can provide has to be clarified at the outset.[5]

Nevertheless, the variety of roles and responsibilities is wide. **RMAs also differ with regard to the power they have**; they have different cultural capital, research management knowledge, characteristics, work backgrounds, educational biographies and social capital (Shelley, 2010).

Lastly, it must be highlighted that due to the diverse roles RMAs fulfil and also the continuous changes of funding requirements and programme, the research managers and administrators must always possess up-to-date knowledge and provide information on grants, financial opportunities for research; distribute such information by various means; help researchers prepare proposals, budget drafts; resolve legal questions: **he or she must take on the roles of manager, lawyer, financier, or quasi researcher** (Tauginiene, 2009). The wide range of expectations and requirements leads us to the next topic: the skills, competences and knowledge RMAs are supposed to possess.

## 3.5. NEED FOR A WIDE VARIETY OF SKILLS, COMPETENCES AS WELL AS EXTENSIVE KNOWLEDGE

The literature agrees unequivocally regarding the fact that research managers and administrators need to have a **vast range of skills and knowledge** (Green & Langley, 2009) which is necessary for high quality research support. Successful professionals have to be **multi-talented and mission-dedicated** (Shambrook & Roberts, 2009).

Tauginiene (2009) differentiates among 3 main qualities and skills that a research manager and administrator should possess: **1) generation, interpretation and dissemination of information:** being aware of the newest information, understanding and forwarding the information in all phases of grant preparation and management; **2) communication at many levels:** between researchers, researchers and RMAs, between RMAs, as well as other stakeholders; and **3) problem solving** with high level of honesty, integrity and ethics.

[5] See: https://researchcoordinatorblog.wordpress.com/2014/10/28/research-administrators-are-in-demand-so-how-do-you-become-one/ (2019.02.15.)

However, as described above, due to the fact that research managers and administrators are involved in several roles and responsibilities in their organizations, they have to devote a considerable amount of time to encouraging submission of proposals, strengthening of the institutional research culture and introducing personnel to active research fields, policies and procedures. **Competence, as one of the main factors of RMAs, is always in need of improvement.** The research administrators must be updated and provide information on grants, financial opportunities for research; distribute such information by various means; help researchers prepare proposals, budget drafts; resolve legal questions. **The competences of the research administrator must also change** to reflect these transformations (Tauginiene, 2009).

Schützenmeister (2010) highlighted that **new roles are emerging in research management necessitating heterogeneous skills converge** that are essential for successful research. Moreover, many research managers developed indispensable expertise about the vast number of potential funding sources and the manifold requirements of many of them. These requirements include the need for partners, an interdisciplinary research design, the inclusion of stakeholders, and the integration of international partners. Based on this, Schützenmeister argues that **talented and well-connected manager-scientists are treasures for research organizations and often almost irreplaceable**.

This derives mainly form the fact that the competition for funding increases as early as the application stage: **a European research and innovation project entails the involvement of a wide range of nonrelated research roles**, e.g. cross-cutting issues, ethics, communication, dissemination and exploitation of research results, etc.. **Projects have become more complex so the skills and knowledge requirements to successfully complete a European grant application and project often exceed thematic scientific knowledge** (Wedekind & Philby, 2018). RMAs thus need to have a **vast range of skills and knowledge**, including costing and negotiation skills through to specialist knowledge of EU and other funders, Intellectual Property, and commercialisation.

Empirical investigations underline the same: an online survey (Davis-Hamilton, 2016) carried out recently among subscribers of RESADM-L at the beginning of 2016 reveals that according to respondents, RMAs need important qualities: **knowledge of rules and regulations, customer service and collegiality, attention to details, problem-solving skills, ability to handle pressure and to multitask, communication and organization skills, continuous learning**.

Beside the need of a great variety of skills, Melin-Rogovin (2013) has provided interesting examples of how RMAs can identify **a special skill which then becomes their Unique Selling Point (USP)**. This means that bearing a specific skill will make other colleagues look for his/her support with that regard; or the knowledge of one RMA might be considered really complicated or hard to learn though it can be easy and fun. It is the unique expertise one professional is known for.[6]

[6] See: https://researchcoordinatorblog.wordpress.com/2014/10/28/research-administrators-are-in-demand-so-how-do-you-become-one/ (2019.02.15.)

## 3.6. CONTINUOUS CHANGE

As it has already been referred to in the previous section, the increased competition for research funding, and the emergence of new challenges and opportunities have another effect on the RMA profession on which recently published papers agree: this is the **necessity to accommodate to continuous change** (Shelley, 2010) and **align the competences to reflect these changes** (Tauginiene, 2009).

**Thus, it must be noted that fundamental research management principles formulated in the past no longer satisfy the changing research environment of today.** These changes are affected by social, political and economic factors that influence the values and goals of higher education. Changes must therefore reflect **the essential principles of research management** (Tauginiene, 2009).

Regarding this issue, Green and Langley (2009) also confirmed the continuous change that RMAs have to face but they pointed out that it is a result of raising expectations from the academics as well as funding bodies. This phenomenon is backed by the increased complexity of contract, ethical issues, legal issues, and the efficient coordination of projects with international partners.

Empirical investigations also underline this phenomenon: an online survey (Davis-Hamilton, 2016) carried out at the beginning of 2016 revealed that according to respondents, research administration is constantly changing (86%), demanding, challenging, and complex (81%).

## 3.7. LACK OF SPECIFIC EDUCATIONAL PROGRAMS & HARD RECRUITMENT

Still up to now, apart from the Anglo-Saxon world, there is a huge lack of the educational programs of RMAs (Shelley, 2010). Existing available programs are for post-graduates or for professionals already working in the field, whereas it is almost impossible to graduate as RMA.

In the US the Certified Research Administrator (CRA) certificate has been available since 1993 and its benefits are confirmed (Ritchie, 2017). Shambrook & Roberts (2011) reported a 14.1% certification (CRA) level in the US in 2010, and the 2016 data collected here showed an increase to 31.6%, suggesting that certification is increasing in importance (Kerridge & Smith, 2018). In the UK, the ARMA-certified CRA has only been available since 2014.

The EARMA's European Certification Programme was developed in strong connection with the ARMA-certificate and has been validated by the UK Award for Training on Higher Education (ATHE). The European Certificate in Research Management is a mid-level certificate, designed for individuals with at least four years of experience in research management, gained in several of the areas covered by the units

covering international and European research environment, developing and managing project portfolio, gender and diversity, management information, etc.[7]

There are other initiatives, too, aiming to provide training and certification for RMAs, for instance Excellence-in-ReSTI project aiming at increasing employability and quality of Research, Social and Technological Innovation (ReSTI) projects in the Danube Region. ReSTI projects, again, provides training and the platform for professionals already working as RMAs.[8]

According to empirical research, proportions of RMAs possessing certificates in the regions increase over time. According to Kerridge & Smith (2018), a strong relation can be observed between the professional accreditation of RMAs at different levels of seniority. Links between professional certification and advancement within the RMA profession can be found, as stated by Smith & Shambrook (2015).

Even in the US, several educational certificate programs for research administrators have emerged over the past decades, however, for quite a long time no formal degree program in research administration or management was offered, although its importance and need was evident. Based on the empirical research carried out, even in the US it was important to emphasize the necessity of research to determine the curricula to be developed at university level in research management and administration (Roberts & House, 2006).

Green & Langley (2009) underlined **the demand** for a professional, respected and flexible mechanism for delivering high quality training in Research Management. Equally, n**one of the existing offerings available** for universities to choose from **were holistic enough** to develop the skills they wish for in their staff, nor do they have the right level of flexibility or availability.

Similarly, Campbell (2010) argued that n**o unified educational curriculum existed as a comprehensive research manager and administrator training program**. Nevertheless, the long-term success and sustainability of this profession necessitated steps forward in the field. He underlined that as a service profession, **research management and administration is more technical and solution-oriented than process based**. As a relatively new profession, research administration was not yet established the fundamental and universally accepted curriculum that is necessary to train future research administrators. Furthermore, as a result of research administration being solution driven, and in the absence of a unified educational model, the professional literature dedicated to the profession is extensively broad but does not address potential future issues that may face the profession. Thus, Campbell also highlighted the necessity of developing this and paving the way for a comprehensive training and education program requiring further background and empirical research.

[7] See: https://www.earma.org/earma-academy/certificate-in-research-management/ (2019. 02. 28.)
[8] See: http://www.interreg-danube.eu/approved-projects/excellence-in-resti (2019. 02. 28.)

Since then we have been able to observe some development in the US: new degrees for professionals offered by higher education institutions allowing RMAs to obtain master's degrees in research administration and the Certified Research Administrator (CRA) accreditation provide great opportunity for those looking to demonstrate professionalism to the field. The CRA is similar to other professional certifications, such as the Project Manager Professional (PMP), and requires continuing education credits to maintain (Spencer & Scott, 2017).

In his short article, Jeff Ritchie, member of the Research Administrators Certification Council in the US, also confirms the need for professional certification in RMA which could be recognized in more countries. Certification indicates a baseline level of professionalism and given the fact that RMA is not recognized in many countries, this would provide visibility and professional recognition for practitioners. Beside the three types of certificates of their organization, for NCURA it is challenging to launch a program which could be recognized world-wide (Ritchie, 2017).

Besides these efforts it is also general that RMA offices hold internal trainings for the employees, whereas official mentorship programmes are again scarcely available.

The empirical investigation of Green and Langley (2009) among UK universities found that two thirds of the institutions had a dedicated budget for staff training and development within the Research Office and almost the same amount indicated that they used external training provided by organisations such as the Association for Research Managers and Administrators (ARMA) or Praxis. However, the majority of training used across the sample was delivered internally and relied on the knowledge of existing staff.

Andersen (2011) suggests that most of these RMAs shaped their role by themselves, by equipping themselves with further skills and finding their own way to manage projects, despite not having had specialist training on it.

Assessment of an 18-month pilot program focusing on the leadership development of the next generation of RMAs in the State University of New York system (SUNY) was presented by Henderson-Harr et al. (2016). They examined the usefulness and impact of the combination of an assigned mentor with a professional development curriculum. According to their assessment, the pilot program led to greater collaboration among individuals and colleagues (council members, mentors, protégés, speakers, and logistical staff) and increased job satisfaction for protégés. The dedicated efforts toward a common goal (engaging mentors and protégés) built a strong community devoted to teaching and learning.

**Lastly, the lack of visibility of the RMA profession as well as the lack of educational programs and certificates result in the difficulties described by Green and Langley (2009) with regard to the recruitment of Research Managers and Administrators.** This, to some extent, is the consequence of trying to recruit into

an **ill-defined, inhomogeneous activity**, which does not have a unified definition even for those working inside. It is even more impossible to be captured and understood for outsiders. Thus, as experiences show, **many people "fall into the career"**, and **many others never identify it as an opportunity**.

Other authors confirm that outside people have scarce understanding on the profession and related job roles. In the survey carried out among research managers and administrators around the world, only 20 percent of respondents had aimed to become RMA during their studies. There are more important factors in becoming RMA: either a vacancy, skill match or move from research position (Kerridge & Scott, 2018).

## 3.8. EDUCATIONAL BACKGROUND OF RMAs

Bearing in mind the general lack of educational programs for training and educating RMAs many surveys focused on discovering their educational and graduation background.

Shelley (2010) presented the **diversity of the employment backgrounds of newly employed research managers. Some had previously worked in business or industry** and brought flavours of those work cultures with them. **Others had worked in government research, for funding councils, or in accountancy.** There were also **disillusioned contract research academics** who wanted a more secure future. There were, however, **others with more than a decade of research support experience** who had achieved higher posts by moving universities, while others saw the role as one of the avenues in university administration.

The 2008 Association of Commonwealth Universities (ACU) and Global Research Management Network (GRMN) survey found that staff came into Research Management from a variety of different backgrounds, including business, charities and the public sector, and not just academic or administrative experience in universities. Green and Langley (2009) found that in case of UK universities, RMAs are coming from a vast range of different institutions and spheres: university administration (18%), other positions in the academic sector (17%), public sector (13%), private sector (11%), civil sector (3%).

A comparison by Shambrook at al. (2015) demonstrates the tendencies appearing with regard to the educational level of RMAs. Accordingly, there is a considerable increase among RMAs having masters' degree (2005: 32%, 2015: 37.3%, 2015: 45.6%), however, compared to the early period of RMA profession in the US, it can be perceived that the ratio of RMAs having a PhD significantly decreased (1968: 26.7%, 2005: 12%, 2010: 10%, 2015: 8.5%).

The recent survey carried out by Kerridge and Scott (2018) found on a global scale that with regard to formal training and **highest degree earned**, RMAs are highly qualified, with 26.4% holding doctorates, 66.9% at least a master's degree, and all but 6.6% holding at least a bachelor's degree. Overall, the profession is academically highly qualified, with two-thirds of the respondents having a master's degree

or higher, and with RMA leaders more likely to have a doctorate than other RMAs. However, even at the operational level, more than a quarter of RMAs held doctorates, suggesting a close tie with the researcher profession. Indeed, 21.2% indicated that they had moved from research into becoming an RMA. As a result of the survey, it was also revealed that in Europe more researchers became RMAs than in the US, due to the fact that they also had to cover these types of activities and there was no one else taking care of them.

# 4. METHODOLOGY

## 4.1. SURVEY

An online questionnaire was developed and made available for distribution between 21 February and 13 March 2019. The questionnaire consisted of 35 questions, covering the topics of demographics, educational and professional background, place of work, advantages and disadvantages of the job, recruitment, skills and competencies and RMA-related trainings and associations.

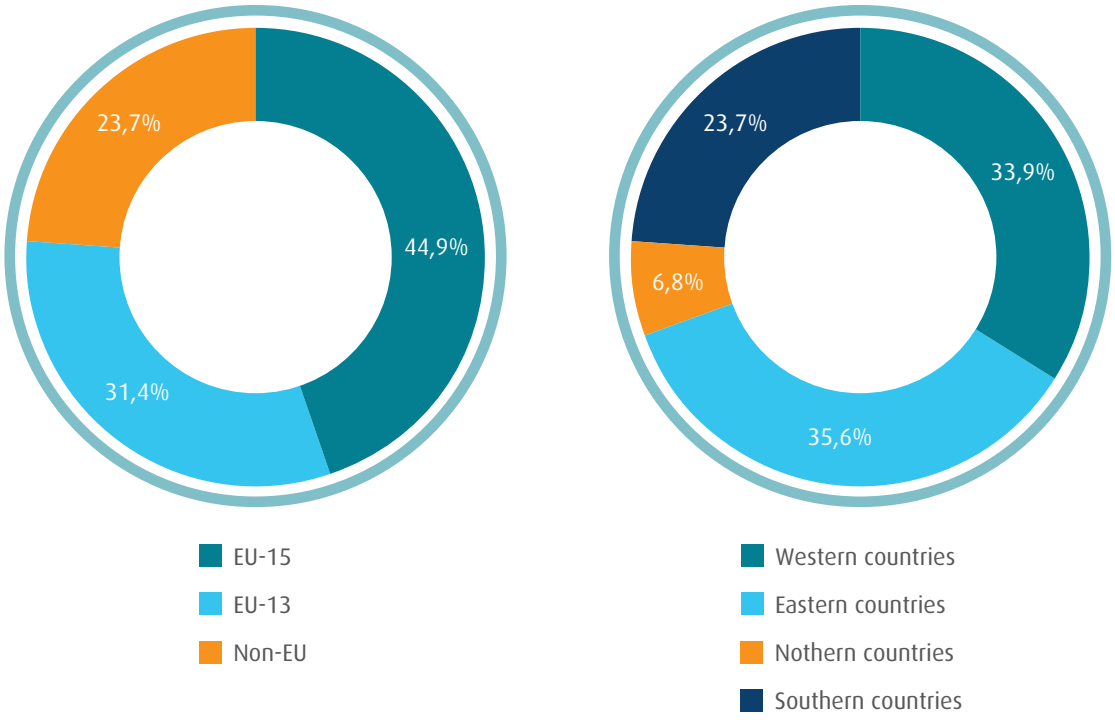
The survey was circulated through the BESTPRAC mailing list consisting of 600 recipients being part of the network and/or having attended any of its events and trainings. One e-mail reminder was sent before the closure of the questionnaire. In addition, the survey was promoted via Facebook and LinkedIn for professionals.

## 4.2. RESPONDENTS

136 respondents filled in the questionnaire, but only 89 completed it fully. Respondents came from 31 different European countries (country of work). There are only 5 EU Member States which are not represented at all: Czech Republic, Lithuania, Luxembourg, Slovakia and Sweden. 44.9% of respondents work in EU-15 countries, 31.4% in EU-13 countries and the remaining 23.7% in countries which are not Member States of the European Union but are involved in EU funded educational, research and innovation programmes. Regarding geography 35.6% of respondents sit in Eastern-, 33.9% in Western-European countries, 23.7% in the Southern region and Northern countries represent the remaining 6.8%[9] (see Figure 1). The country of origin is usually the same as the country of work, with the exceptions of Switzerland, Norway and Iceland: 12.7% of the respondents work in these three countries, but only 8.1% come from them.

[9] Eastern countries include Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Macedonia, Poland, Romania, Slovenia, Serbia, Ukraine. Western countries include Austria, Belgium, France, Germany, Iceland, Ireland, the Netherlands, UK and Switzerland. Southern countries: Cyprus, Greece, Italy, Malta, Portugal and Spain. Northern countries: Denmark, Estonia, Finland, Latvia, Norway.

Figure 1. **Distribution of respondents by country of work**




Respondents have rather clear gender and age profiles: 72.3% are female and 81.4% are 31-50 years old. Regarding their educational background, 91.6% have at least a master's degree, 29.7% hold a PhD. 10% of the respondents described themselves as a leader, 49.1% as manager, 18.2% as advisor, 14.5% as administrator and 8.2% were not sure about their current position.

Probably not independent from their age, respondents are experienced in the field of research management: 77% of them have at least 5 years of experience, while 38% have at least 10.

Their institutional background is either public (68.8%) or private non-profit (27.5%) only 3.7% said they work for a for-profit organisation. In 60.5% of the cases the working place is a university, in 24.8%, a research institute. Among the rest we find research funders, private companies, hospitals (also university hospitals) and civil associations.

## 4.3. WORKSHOP AND INTERVIEWS

Following the analysis of the results of the survey, additional empirical information was gathered through two methods: first, a workshop for Hungarian stakeholders was organized to present and validate the results of the survey; second, personal and online interviews were carried out with respondents of the survey selected along preliminary defined set of criteria.

The workshop was held in Budapest on 30 May 2019 with the participation of experts, RMAs, researchers and policy-makers. The audience formed a good mixture of practitioners working in the fields, researchers supported by the work of RMAs as well as experts and policy-makers responsible for the increase of excellence in the Hungarian research and innovation ecosystem. Following the detailed presentation of the results and the recommendations, discussion took place among the participants to suggest additional ideas and experiences to be taken into consideration and also to see the potential way of channelling in the results to policy-making.

Then personal interviews were carried out between 9 December 2019 and 10 February 2020. The aim was to conduct approximately 16 interviews, however, it proved to be unfeasible partly to the unavailability of respondents, partly due to the fact that valuable answers could only come from a small group of respondents. The selection criteria were the following: coming from different countries of work, and having participated in training dedicated to RMAs in the last 3 years.

As a result, 9 interviews were carried out online.

The interviews were semi-structured interviews, aiming to investigate the same aspects throughout the interviews, however, interviewees' answers and experiences shaped the way the questions were formulated. Information and experiences of interviewees were sought for on the trainings they took part in the recent years. Besides, it also consisted of questions with regard to the education and professional background, the way of becoming an RMA, the skills needed in the job, the trainings attended, their scope and structure, the certificates received, if any, and the views on the most suitable form, structure and timing of trainings for research managers.

The interviews lasted 45-60 minutes, taken the heavy workload of interviewees into account.

## 4.4. LIMITATIONS

We cannot say the questionnaire is representative of the RMA professionals working in European countries, so the following results are rather indicative. Besides that, the sample size is too low to make comparative analyses of any kind.

On the other hand, country coverage is satisfying, and the distribution of gender, age and educational background is rather similar to previous research done on a wider sample. Kerridge & Scott (2018) carried out a global research with 2691 respondents altogether (391 in Europe excluding UK, 453 in UK). Though their sample is not representative either, it shows similar rates to what we found: rate of women in RMA is 77.0% (in Europe 66.2%, in the UK 78.8%) and the biggest age groups are 35-44 and 45-54 (63.2% altogether, Europe is similar to the average, the UK has younger age profile). Regarding education, Kerridge

and Scott also found that in Europe (excl. the UK) more than 90% of RMAs hold at least a master's degree, while the share of those who hold a doctorate is close to 40%.

Similarly, the results of the workshop shall be understood in the context that it focused on the added value of the research in the Hungarian scene. However, at this level, it was considered as a unique and pioneering work to raise awareness on the importance of the topic.

The interviews were conducted again among a limited number of interviewees, however, they represented 10.11% of the respondents of the survey.

# 5. RESULTS OF THE SURVEY

## 5.1. ADVANTAGES AND DRAWBACKS OF THE RMA PROFESSION

Two open questions were asked regarding the advantages and drawbacks of the RMA profession: "Why would you recommend RMA as a profession? Please specify" and "What are the disadvantages of this profession, if any?" The majority of the respondents took the opportunity and answered these questions in detail. 72 open answers were collected both for the positive and negative aspects of this profession. The answers were coded and analysed qualitatively.

The first impression one would get going through the answers on the positive side is that **RMAs seem to be quite passionate about their work**. Most of them consider it to be a very interesting job, which is really diverse, requires a wide variety of skills, thus it is never boring. Each project is different, so there are continuous opportunities to learn and develop oneself. Connected to this, it is considered to be dynamic and full of challenges. Respondents also appreciate the opportunity to work in a multicultural environment, to travel, to get in touch with many different people and always make new and interesting professional acquaintances.

> *"It is a diversified profession as it holds a lot of different roles / functions and allows you to grow. You learn with every new project, funding programme, etc. As no project is like the one before, it is hardly ever boring. Depending on your position you get to travel a lot and you get in touch with a lot of people and interesting personalities. Finally, it is a great way to create your own professional network as you are in the center of many." (Respondent, Germany)*

Being part of research projects and working closely together with researchers is also considered to be an advantage by many. They also feel they make an important contribution. RMAs see their work as something impactful, meaningful and rewarding, this is a job with a potential to bring personal fulfilment.

*"It is a very stimulating and rewarding activity; gives me an opportunity to stay up to date with excellent science and research ideas and surrounded by fantastic researchers; on the contrast to performing research activity, research managers feel more as an integral part of institution, and part of something bigger and meaningful." (Respondent, Portugal)*

Regarding drawbacks, our results confirm the findings of previous researches, namely that **the biggest issue with RMA profession** is that it is not well-defined and not recognised as a profession. More than half of the respondents complained about the lack of professional identity or one of its consequences: (1) lack of understanding regarding their tasks and responsibilities, (2) lack of recognition and (3) lack of a clear carrier perspective. There is **tension between the importance of their work how they see it**, and how others see it. They feel undervalued and sometimes even invisible, which is also reflected both in professional relationships and in their salaries and bonuses. Some of the respondents phrased this the following ways:

*"In most countries RMA is not a profession. For this reason, there are many misunderstandings, salaries are not adequate for the skills and workload." (Respondent, Croatia)*

*"Undervalued and underappreciated. Invisible." (Respondent, Iceland)*

*"Its reputation (scientific staff might look down on you), salary (often not as much as it should be considering the amount of responsibility), hardly any training or knowledge that such a profession might exist, career opportunities limited." (Respondent, Germany)*

This also reveals the downside of working together with researchers, which was seen as an advantage by some, however, others consider this as an unequal situation, in which they are not respected enough.

The second biggest issue RMAs complain about is the **stress related to their work**. This includes the workload, but also the drawbacks of the great variety of projects which many times run parallel, resulting in (1) fluctuations in workload, (2) huge stress close to deadlines, (3) the pressure to keep their knowledge always up-to-date, and (4) the necessity of multitasking.

*"Peak periods of proposal submissions can be hard to manage! (but this is the nature for any job, with busy periods)" (Respondent, Spain)*

*"Deadline stress, huge fluctuations in workload." (Respondent, Switzerland)*

*"Constant need to be updated with the latest developments." (Respondent, Cyprus)*

As we see, there are some features which can be considered an advantage, like the opportunity to always learn new things and grow, but on the other hand it is also a burden. As Tauginiene (2009) found,

RMAs have to adapt to circumstances and expectations that are continuously changing. The price of an "always interesting, never boring" job is that they can never reach their comfort zone. **Multitasking** is a similar issue: it hugely depends on the respondent's personality if s/he considers it to be an advantage or disadvantage. One of the respondents put it this way:

> *"You can hardly ever concentrate on only one topic and delve into it. You have to be able to always have many balls juggling, set new priorities and leave something you just started behind." (Respondent, Austria)*

Besides the above, a considerable group of respondents also addressed the problem of uncertainty related to the job. Part of this uncertainty comes from the already mentioned missing carrier ladder, which makes the future a bit blurred in itself, as they cannot see a carrier path in front of them. An even bigger issue is when not only carrier and promotion but even job security is at risk.

> *"Dependent of external money flow and therefore the risk for unemployment/no permanent contract." (Respondent, the Netherlands)*

The result of third-party funding can result in short term contracts and the constant fear of unemployment, which is especially striking compared to the fact, that respondents have spent more than 8 years in research management in average so far. This shows that on the one hand, despite all fears their job remained, but on the other hand it may mean long years of constant uncertainty and stress in some cases.

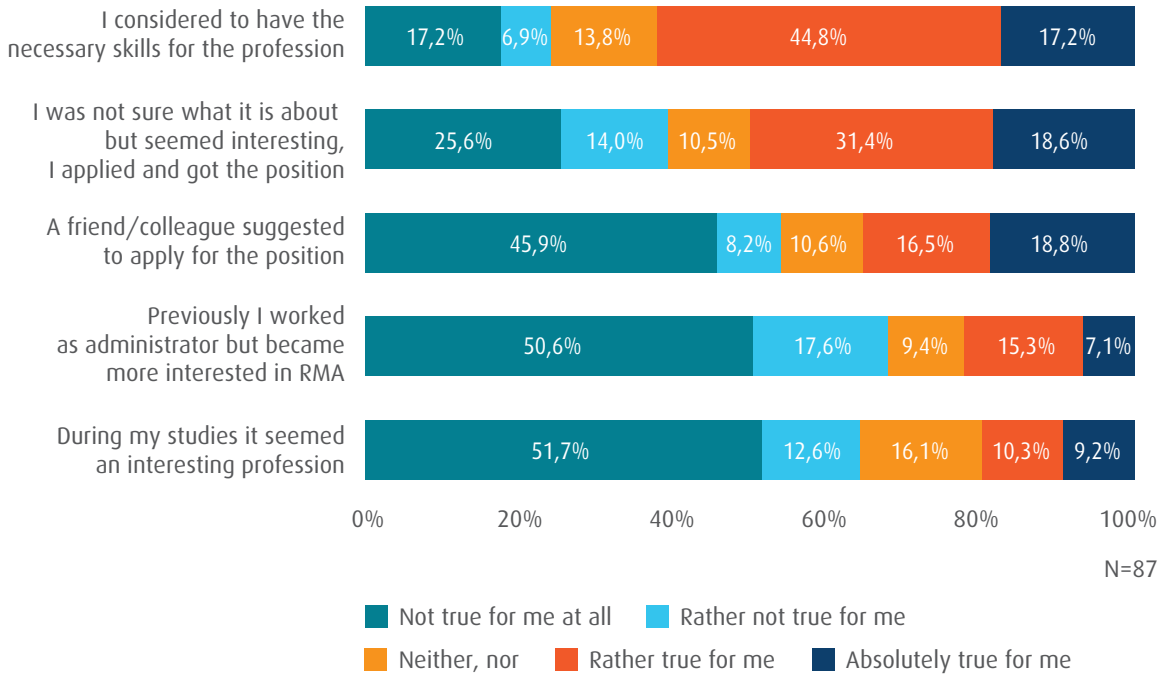
Though the sample size is way too small to make any comparative analysis, **the answers suggest RMAs in Europe deal with very similar issues regardless of the region or country of work. RMAs describe their job in surprisingly similar ways whether we go West or East, North or South. Lack of recognition, for example seems, to be an unsolved problem even in Western and Northern countries**.

## 5.2. THE WAY TO BECOME AN RMA

One of the consequences of a lack of professional identity and recognition is the **low awareness of RMA as a profession** as such. It happens very rarely that somebody considers it as a possibly interesting profession for him or herself during their studies: only 19.5% of respondents said this is true or absolutely true for them while 64.3% said it is not or absolutely not true for them. This is consistent with the results of Kerridge and Scott (2018) who found that the ratio of those who aimed to become RMAs already during their studies is 20%.

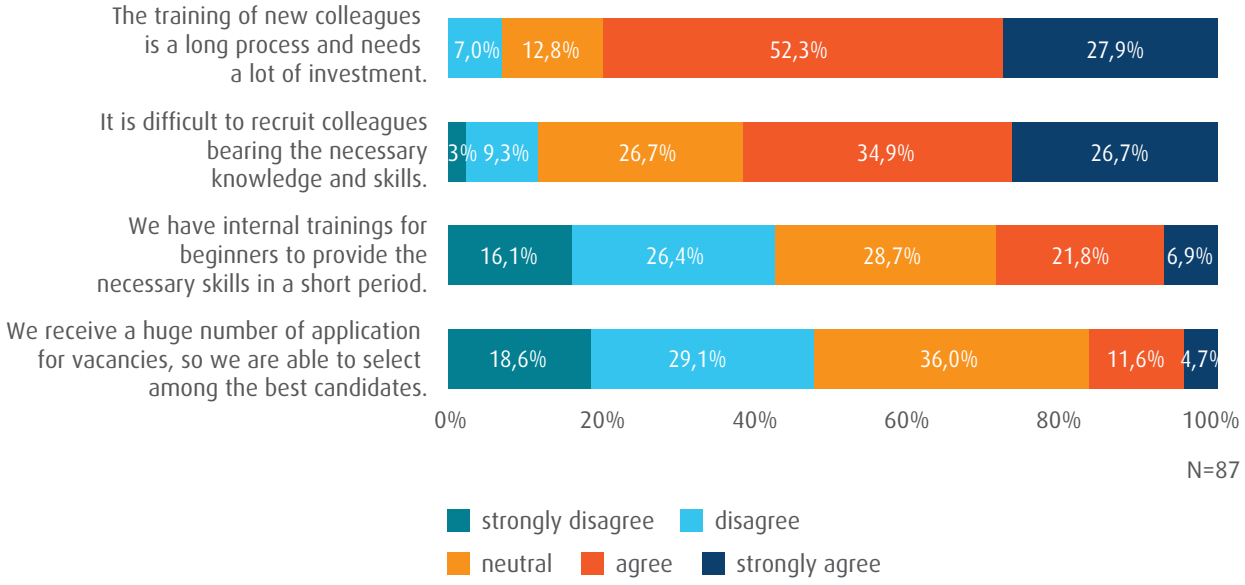
The carrier path of first being an administrator and then becoming a research manager is not evident either. The two statements most fitting with respondents carrier path were: "I considered to have the necessary skills for the profession" (true or absolutely true: 62%) and "I was not sure what it is but seemed interesting, I applied and got the position" (true or absolutely true 50%). These answers suggest that **becoming an RMA is rarely really planned, many times it is rather a coincidence** (see Figure 2) or as Green and Langley (2009) put it many people just "fall into the carrier".

Figure 2. **How did you become an RMA?**




The same pattern is reflected in the answers regarding recruitment (see Figure 3). Due to the lack of awareness and lack of clear professional profile as well as dedicated undergraduate educational programmes, many people never identify the RMA job as an opportunity (Green & Langley, 2009) which makes it **difficult to recruit colleagues bearing the necessary knowledge and skills** (61.6% agree or strongly agree), only a minority of respondents think there is a huge number of applications from which they can select the best candidates (16.3% agree or strongly agree). Because of this, and the wide variety of special skills and knowledge needed for the job, **the training of newcomers is a long process which needs a lot of investment** (80.2% agree or strongly agree) which shows **the strong need for a formal training especially considering the competitive, uncertain and volatile nature of the work environment**. Despite this, **even internal trainings are missing in many places** according to our respondents (see Figure 3.)

Figure 3. **Regarding the recruitment of RMA staff what are you experiences?**




# 5.3. ROLES & RESPONSIBILITIES

85.8% of respondents fulfilled **more than one job during the years** they spent in research administration and management. Modus is 3 (21,7%), and almost half of the respondents fulfilled at least 4 different kinds of RMA-related positions already. This shows a strong correlation with the findings of Kerridge & Scott (2018) who found that a large proportion of RMAs had been employed in between one to three RMA jobs. However, many reported four or more jobs.

As we included an open question on "how many job roles in total have you fulfilled during the years spent in research administration?" we had the opportunity to gather detailed answers on respondents RMA background which revealed in many cases a straightforward carrier path:

*"1) project preparation 2) project evaluation 3) project implementation 4) member of various committees 5) director of project management department". (Respondent, Latvia)*

*"1) Pre-award junior grant manager 2) Head of Research Management Unit 3) EU Grant Advisor". (Respondent, Germany)*

In other cases respondents had a more "complex history" in or beyond the profession:

*"- Research manager (as an individual in a University - learning by doing) - National Contact Point/ National Delegate FP7/H2020 (Portuguese nomination) - Head of Office in Pre-award & Tech Transfer (part of the University organization, coordination a team of 4 people) - Innovation Management*

*Coordinator (collaboration between 3 different research entities, supporting and submitting H2020 proposals)." (Respondent, Portugal)*

*"1. Administrator 2. Trainer 3. Funding specialist 4. Advisor 5. Public Relations Specialist 6. Event Manager 7. Legal Counsellor 8. Translator 9. Public Procurement Specialist 10. Accountant". (NA)*

These jobs cover **all phases of research management and administration**: horizon scanning, information search and dissemination, proposal writing, funding advising, ethics review, budget planning, (pre-grant), contract negotiation (contracting), project management, financial management, reporting and auditing, procurement, quality control, communication and dissemination, organizing events and trainings, (post-grant); and each level: administration, management, coordination and supervision, legal control, policy advising. Some jobs which are not core parts of research management and administration were also included, such as lecturer, professor, researcher, National Contact Point, accountant, technology transfer and innovation advisor.

## 5.4. NECESSARY SKILLS, COMPETENCIES AND KNOWLEDGE

As showed already, **our respondents** (as well as most probably European RMAs on average) **are highly qualified**. The majority holds at least a master's degree, many even a PhD. Regarding the field of education, they have a **colourful educational background**: 30.5% studied economics and business, 20.3% social sciences, 16.9% natural sciences and 16.1% humanities. The rest includes engineering, medical sciences, arts and legal studies. Social sciences mainly cover international relations but also sociology, pedagogy, management, psychology, political sciences and communication.

We also asked the respondents what kind of **educational background they consider to be useful** for this job. Most of them picked **business & management, then communication, public administration, international relations and legal studies**, but based on the open answers it is considered to be useful **to have a scientific background**. This corresponds with the findings of Tauginiene (2009) who pointed out that RMAs many times have to take on the roles of a manager, financier, lawyer and quasi-researcher as well. Previously being a researcher can help enormously in understanding researcher's needs and the nature of research, as one respondent put it:

*"A person loses professional career development if he/she worked earlier as researcher. If a person has the only MBA education he/she can't understand the researchers' real needs, problems and querries" (Respondent, Ukraine)*

But there is a contradiction between research as a useful background and the significantly different skills it requires. The ability to focus and drown in one topic is a must in research, and the ability to multitask and deal with different projects at the same time is a must in RMA. To master both of these skills is probably not very common. As a respondent in Belgium said: **"it [the RMA job] requires a set of skills that are only partially acquired as researcher", and one of the additional skills which is very much needed in research management is multitasking**:

> *"I would only recommend it [RMA job] to people with a particular set of soft skills, such as the ability to switch between tasks fast and efficiently; be extremely organized; work under deadlines; be a people-person; be a leader." (Respondent, Portugal)*

As said above, according to Tauginiene (2009) the three main skills and competencies needed in this job are (1) interpreting information, finding meaning in textual and numeric data, (2) communication and negotiation, translation between researchers and administrators and (3) problem solving. Our results reconfirm that the **most important skills (besides English knowledge) are soft skills like problem solving, teamwork, interpersonal skills and information management**. We also have to add multitasking to this, based on previous learnings. Information search and analytical skills are later in the rank, which is different from what Tauginiene found.

Among **competencies the most important ones are reliability, efficiency, flexibility, planning and strategic thinking, teambuilding and motivation building**. The last two is especially interesting considering the relatively low rate of leaders among respondents (10%) suggesting that these competencies were marked as important also by RMAs not in a leader role. The least important skills and competencies (with a weighted average score below 4 on a 1-5 scale) were IT skills, initiation, cultural and diversity skills and creativity. On the other hand, high rates of "rather important" and "very important" answers show that this **profession needs a wide variety of different skills and competencies** (see Figure 4 and 5) which is again in line with the statements of the literature.

Figure 4. **What skills do you consider necessary to fulfill RMA job?**

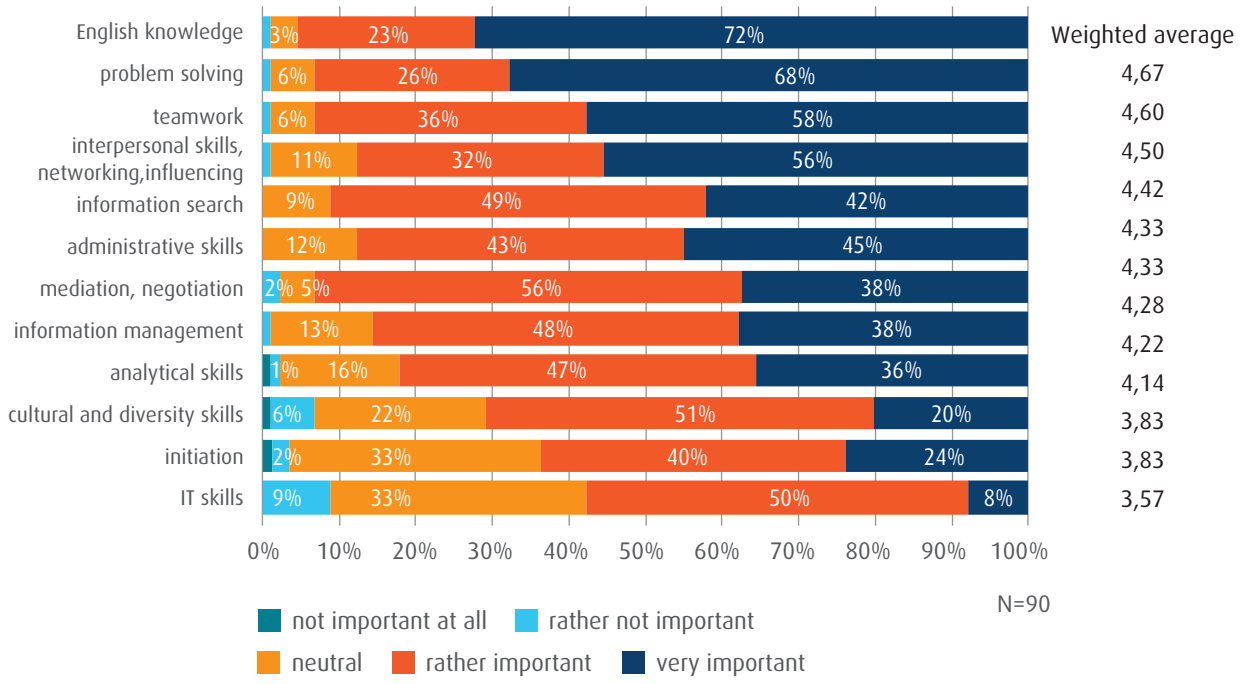
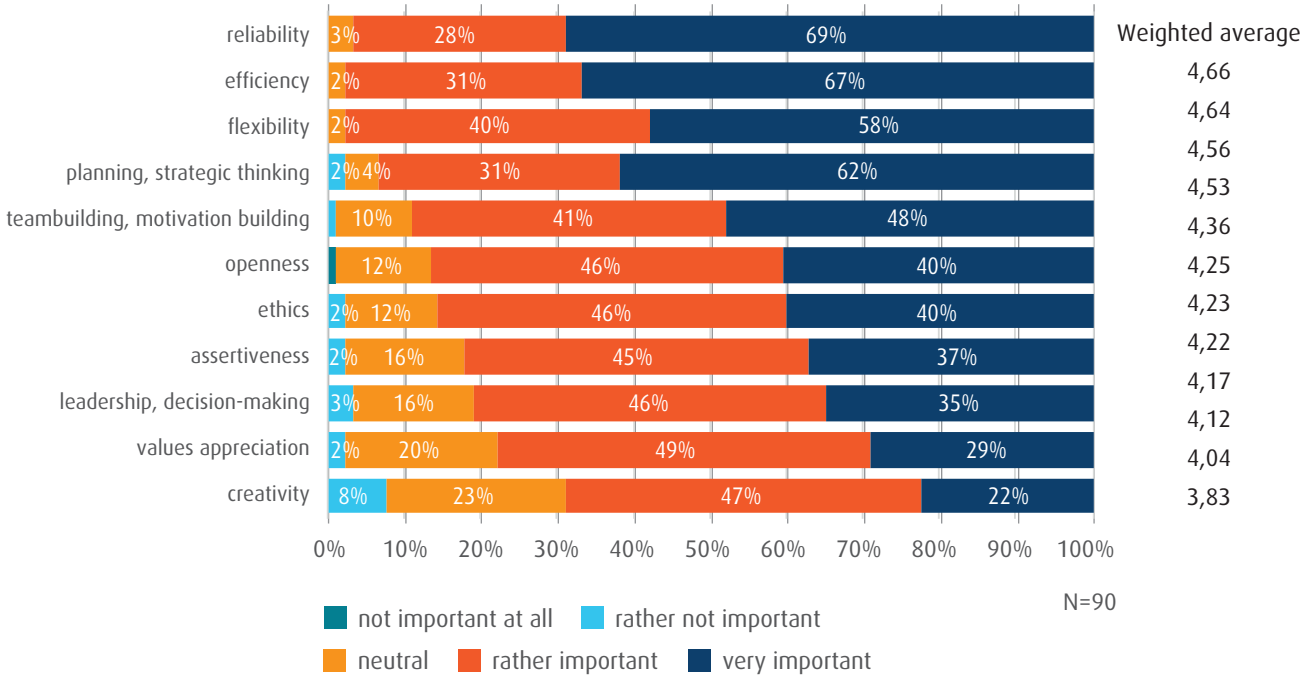



Figure 5. **What behavioural competencies do you consider necessary to fulfill your job?**



# 5.5. EDUCATION PROGRAMMES FOR RMAs

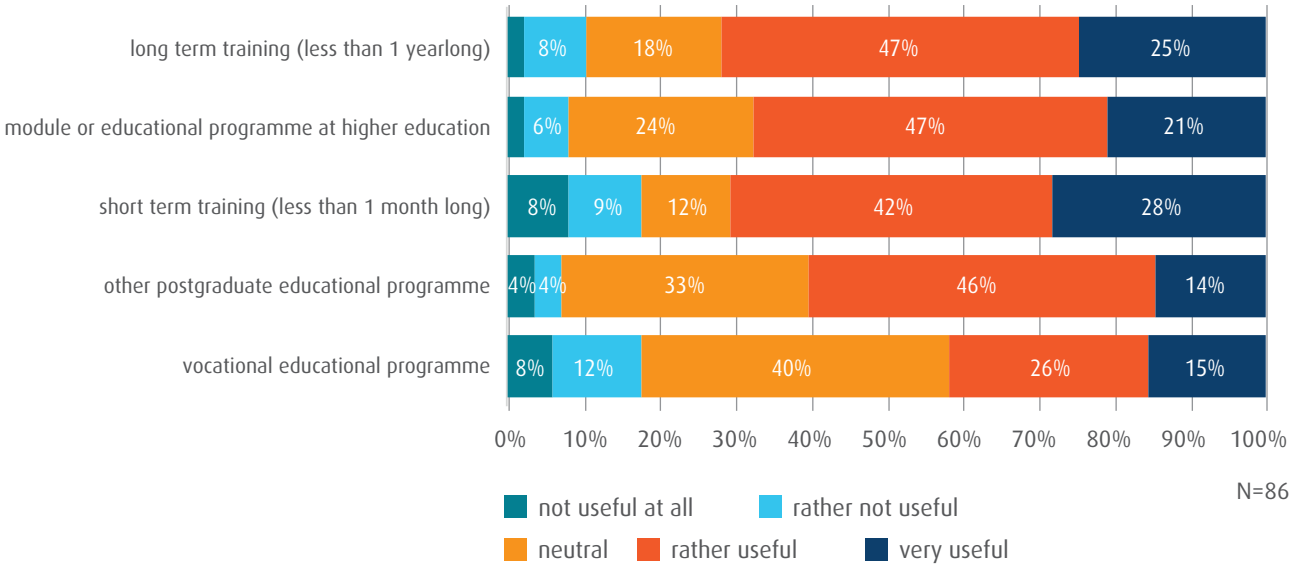
Only **6% of respondents claimed to have any kind of professional accreditation or certification related to RMA**. This is even lower than what Kerridge and Scott (2018) found: 16.4% in continental Europe and 9.5% in the UK claimed to have some kind of RMA certification – this difference might reflect the gap between the professionalization and education programmes of RMAs between Europe and the Anglo-Saxon world. In our research this special certificate either means project management, international or research and innovation project management, or Prince2 project management. 52.9% knows about some kind of program or certificate, these are usually programs offered by national or European ARMA organisations or BESTPRAC.

Only 36% of the respondents is a member of any associations. As described before, associations of RMAs do not exist in all European countries, but even in these countries not everybody is a member. Those who are members usually use the services of the organisation, but regarding the issues analysed before, we cannot say they are not affected.

28% of respondents is a member of EARMA or one of the national ARMAs, and 8% claimed to be a member of BESTPRAC. The majority of these respondents work in EU-15 or other Western or Northern countries.

**It is clear from the above, that the RMA profession is in need of a formal training.** According to Campbell (2010) it is a critical component of the long-term sustainability of RMA as a profession. **The education programme could contribute to clarify and strengthen the RMA professional identity, raise awareness about the existence of the profession, set the expectations about the job, enhance talent pool and reduce the investment needed in newcomers regarding time and energy.** So the question is, what kind of training would be the most adequate one?

Figure 6. **What kind of training or education is useful for becoming RMA?**



We asked the respondents what kind of training or education would be useful for becoming an RMA. They could select multiple options from a list, and we offered them the option of an open answer as well. It seems that vocational education is considered to be the least adequate one, but regarding the rest of options the picture is not clear (see Figure 6), so data should be interpreted together with the open answers.

These answers show that opinions regarding a possible education programme vary on a broad scale, which reflects **the problematic nature of setting a formal training for an ill-defined and fast changing job**. Though some respondents pointed out that any training is better than no training, all in all they seem to be rather sceptical about the content of it:

- Many think the best way **to learn is on-the-job**.
- They feel the content and lengths of a training should depend on the educational and professional background of the candidate, as well as the institution they work for. As these circumstances differ a lot, it is very difficult to come up with a standardised training programme suitable for all.
- The other problem is that the necessary knowledge is changing very fast. As Campbell (2010) pointed out, RMA profession is rather solution-oriented than process-based.
- Many feel that **success in research management depends more on possessing the necessary soft skills, which are hard to get in a formal training**.

The following quotation shows this type of opinion well:

*"I actually haven't had any education specifically for RMA, but possess a number of skills that are useful for the job. I learn as I go and am the only project manager in my group. I know some project managers within our organisation who I could contact if I needed help, but most of the time I have to figure it out myself." (Respondent, the Netherlands)*

Some of the respondents consider formal training either not necessary, or not possible. They see that the best is to have some kind of scientific background and the necessary soft skills, while hard skills should rather be picked up on-the-job. They think what would really be useful is coaching and mentoring from a more senior colleague.

Those who can imagine a formal training also stress that the critical question is not length but rather flexibility and practicality. What they would consider **useful is a problem-oriented hands-on training with case studies, examples about possible challenges and their solutions. Flexibility could be achieved by modules, which could be adjusted to the initial knowledge of the participants**.

# 6. OUTCOMES OF THE WORKSHOP AND THE INTERVIEWS

## 6.1. STAKEHOLDERS WORKSHOP

The workshop organized with the participation of stakeholders representing RMAs, researchers, experts and policy-makers resulted in three main outcomes with regard to the necessity of a dedicated educational programme in research management.

Based on the feedback it is important to reflect on the difference between general project management and research management. The **specificities of the environment, institutional relations, processes and hierarchy concerning the everyday of RMAs as well as the special knowledge requested by EU funded projects and the research and innovation ecosystem** means the difference. All these aspects shall be integrated into any programmes designed specifically for the education of RMAs.

Second, it has to be taken into consideration that for practitioners working in this field there is already a number of trainings available. These training are provided either by national agencies, through the networks of National Contact Points, or by specialized companies. Experts and RMAs confirmed that to their knowledge there is **no educational programme available in the higher education sector** with the goal of training future research managers.

Thirdly, during the design of an education programme it should be considered whether it is worth dedicating a whole master's programme for the training of research managers. Probably a **programme with a shorter duration and based on a modular structure that can be adjusted to participants' existing knowledge** would be more appealing.

Participants agreed that such a programme is necessary for the better recognition and institutionalization of the professions. Hungary is lagging behind both in terms of participation in EU research and innovation projects and the optimal use of research management capacities. The **development of a dedicated educational programme can also contribute to standardizing the already high requirements of the profession** and make all participants (including institutions, researchers, policy makers) aware of what RMAs can offer, and what their added value is.

# 6.2. INTERVIEWS

The most important aim of the interviews was to get a more detailed understanding of what kind of training opportunities are available and used by RMAs. Their structure, their focus as well as experiences of interviewees were touched upon. Besides, views of the interviewees on the possibly elaborated educational programme and its features were accumulated.

**The table below summarizes the main information on interviewees:**

| | Country of work | Years spent as RMA | Gender |
|---|---|---|---|
| Interviewee A | Denmark | 22 | Male |
| Interviewee B | Germany | 3 | Female |
| Interviewee C | Portugal | 3 | Female |
| Interviewee D | Malta | 10 | Male |
| Interviewee E | the Netherlands | 16 | Female |
| Interviewee F | Ireland | 10 | Female |
| Interviewee G | Croatia | 16 | Female |
| Interviewee H | Serbia | 8 | Female |
| Interviewee I | Hungary | 13 | Female |

Table 1: Overview of interviewees

As Table 1 indicates, the nine interviewees come from different European countries, five from EU15, three from EU13, and 1 from a candidate country. Apart from two cases, interviewees spent more than eight years in research management. As regards their position, each case and job title was different. Nevertheless, three of them led a research support unit, four of them can be counted as senior experts, and two of them as experts.

The interviewees from Germany, Denmark, Croatia and Serbia started their career as research managers having different background (i.e. business consultancy, computer sciences, business management). The interviewees from Ireland, Portugal, Netherlands, Malta and Hungary had different background: three of them were PhD graduates, one accountant, one engineer. Before they entered the RMA profession, they had worked in other fields too. All this information can provide further hints when the answers gathered during the interviews are interpreted.

## 6.2.1. DESCRIBING THE JOB FOR AN OUTSIDER

Following some introductory questions, interviewees were asked to describe their jobs to someone who does not have any knowledge on research management. All the interviewees gave a compact definition for their job and for the RMA profession. Facilitating, supporting and understanding the work of researchers, compliance with and translation of requirements were the key phrases repeatedly coming up. The different ways of cooperation with researchers were highlighted in all cases.

*"...facilitate researchers to focus on what they should do." Interviewee, Denmark*

*"...facilitating research, consulting, searching for funding programmes and management projects." Interviewee, Germany*

*"Supporting researchers to attract funding, ensuring the compliance of proposals with eligibility criteria, improving projects to increase the chances to get the grant through various means" ... "spicing up the proposals." Interviewee, Portugal*

*"Understanding researchers, their needs and their attitudes" Interviewee, Malta*

*"Supporting those clever people with outstanding skills managing issues and complying with requirements." interviewee, Hungary*

The answers also revealed the different responsibilities of interviewees: whether their job is rather focused on one part of research management or they have to handle various tasks in the meantime (more frequent phenomenon in EU13 and candidate countries).

## 6.2.2. RMA PROTOTYPE

Interviews were asked to describe the ideal research manager and administrator. Based on this, the goal was to formulate the prototype of an RMA which can later provide support for the elaboration of the educational or training programmes but also for the identification of the best candidates for RMA positions.

Similarly to the previous question, the characteristics mentioned related to providing support and understanding, and the ability to listen to and communicate with others. Trust and reliability were also mentioned by some interviewees.

Accordingly, the ideal RMA is

*"...an open-minded networker who is listening to feedbacks." Interviewee, Germany;*

*"...a support person who is facilitating processes instead of analysing them." Interviewee, Denmark;*

*"...a reliable person knowing the information, not misleading others but guiding with questions." Interviewee, Portugal;*

*"...able to listen and then to communicate." interviewee, Malta;*

*"... who loves to be supportive, facilitator, coach." interviewee, the Netherlands;*

The interviewee from Germany, who had studied business consultancy, underlined that

*"business consulting mind-set is very important to ask the right questions from researchers, to think from the view of the researchers, to understand researchers (who do not understand the policy level, for instance), and to give the right feedbacks to them".*

Referring to the continuously changing environment the interviewees also highlighted the necessity of *"understanding new things coming up"* (Interviewee, Denmark), being aware of all *"the new regulations, requirements and issues related to research"* (Interviewee, Serbia).

Views were conflicting whether it is advantageous or not for postdocs to enter into research management and administration. Those who started their work as research managers argued that it is disadvantageous for the profession to have scientists having dropped out of their scientific career; however, those with scientific background confirmed that it is important for these people to stay close to science. It was also confirmed by them that having a scientific background can help in research management, although in teams it is also important to have colleagues with different backgrounds.

## 6.2.3. NECESSARY SKILLS AND COMPETENCIES

The interviewees were asked to list skills and competencies necessary for their work. Skills (e.g. communication, teamwork, interpersonal and social skills, negotiation) and competencies (e.g. flexibility, openness, assertiveness, leadership) measured by the survey and analysed in Figure 5 and 6 were listed by all the interviewees. Besides, specific management skills, such as time management, risk management, financial management were also mentioned.

Abilities such as understanding others, conflict resolution, managing responsibility, building trust and reliability were added. The fact that most of the interviewees emphasized reliability and trust might come from the fact that they were professionals having spent in most cases at least a decade in research management and managed to build a career path based on these assets.

Depending on the position they fulfilled, the ability of engaging stakeholders, and addressing their

needs also came up. Technical skills such as visualization, the use of various softwares for reporting and management were mentioned as well.

## 6.2.4. EXISTING TRAINING OPPORTUNITIES AND CERTIFICATES

More questions were directed to gather information on the trainings attended (or led) by interviewees. Each interviewee, except the ones from Croatia and Serbia, listed several ones they took part in the last 3 years.

When analysing them, it can be stated that both the feature, the structure, the target group and the content of them are significantly diverse. A few of them focused only on skill development; however, the majority of them were not practical trainings but directed at knowledge transfer and the sharing of experiences. These trainings were oriented towards various parts of the proposal and the management of research projects. Therefore, they were useful to increase the knowledge of practitioners on certain important issues, such as the impact and exploitation of research results, ethics, etc.

The trainings mentioned were held by various organization at various levels, starting from national agencies directed towards research and innovation funding or support, national associations of research managers, EU project and European or international associations of research managers. The target group of the trainings mentioned differed: in some cases, they were specifically designed for research managers, but in other cases, they were designed for researchers.

Due to the small number of interviews taking place, covering only 9 countries, a Europe-wide presentation of available trainings cannot be included. Nevertheless, some important lessons learnt from interviewees can be listed.

In most countries National Contact Points (NCPs) organize information sessions or trainings on current calls and issues of pre-grant and post-grant work. Their content, frequency and structure depend on the NCPs capacities of the given country. One outstanding example was mentioned by the interviewee from Hungary, who had recently learnt that the agency responsible for the NCP network subcontracted an experienced training company to offer training for 25 representatives of potential applicants from Hungary to raise their potential in preparing H2020 calls.

In Germany, compared to other countries covered by the interviews, a number of trainings are held by various German organizations both at the level of the federation and the level of the country aiming to support researchers and RMAs.

EARMA launched the EARMA Masterclass for early stage RMAs, which is held three times a year for professionals having less than two years of experience. It provides an overview of pre- and post-grant, and cross-cutting issues, and current hot topics.

In Portugal, a post-graduate programme has been launched in the 2019/2020 academic year developed by and for research managers. It lasts for 1.5 years and aims to provide additional knowledge and skills development for people already having experiences in the job.

Interviewees are active in a number of European or international association dedicated to RMAs by attending the event and trainings organized, e.g. BESTPRAC, EARMA, NCURA[10], INORMS[11], SRAI[12]. However, even if interviewees are familiar with most of these organizations, their opportunities to get involved in activities are limited due to financial capacities of their institutions (mentioned by interviewees based in Hungary, Serbia, Croatia) or only due to their limited opportunities to take some days off for the participation (mentioned by interviewee from Denmark).

Some interviewees perceived conference and working group meetings of associations/networks mentioned above as training opportunities. These conference programmes combine lectures and workshops (including skills development) each of them necessary for the development of professionals.

The existence or the lack of a national association was tackled by almost all interviewees highlighting the advantages of personal connection, and direct knowledge and experience exchange. There are no associations in Croatia, Hungary, Serbia, Malta for research managers at a national level, which is considered by the interviewees an important problem. One of the most significant outcomes of the listed trainings and associations is that they connect people who will later rely on these networks even in their everyday work: any time they face a new problem without any idea on how to overcome it, they have a group of people in mind who can be asked – and they give support almost immediately.

As regards the certificates, most of the trainings do not provide any, and if they do, it is a proof of attendance. Among the listed trainings, the EARMA certificate programme was mentioned as one which provides a certificate for accomplishing it.

In that regard, however, some interviewees added their doubts regarding whether it pays off to invest financially and time wise in the accomplishment of a training providing certificates when no one asks for it. In most cases it does not necessarily make an added value for the person already working in the profession.

As regards the timing of the training, interviewees agreed that trainings can be useful at any stage of the RMA profession. Especially due to the fact that otherwise everybody "makes the same mistakes", as confirmed by the interviewee from Denmark. For career entrants it is important to provide an overview on the RMA landscape, existing opportunities and the different stages of the work. Later on, for-professional, demand-driven, and specific trainings are considered useful.

[10] National Council of University Research Administrators, US
[11] International Network of Research Management Societies
[12] Society of Research Administrators International

Referring to existing in-house trainings, interviewees confirmed that even if these exist within their institution, there are no written rules and procedures for them. Newcomers can mainly learn from the talks or the trainings held by more experienced colleagues. However, the issue of the institutional hierarchy was also mentioned: in some cases, those people hold these internal trainings who have a certain position in the organization, whereas sometimes lacking concrete and practical knowledge on the topic of the training.

Strongly related to trainings, two issues were mentioned. Firstly, each of the interviewees learnt on-the-job when they started as a research manager or administrator. Everything was new for those who came from another professional background. According to the interviewee from Portugal, *"knowledge comes with experience."*

Secondly, the issue of self-development was raised. The necessity of being aware of existing opportunities, requirements and trends all the time is a must in research management. As it was put by the interviewee from the Netherlands, RMAs shall *"adopt the principle of life-long learning"*. Stated by the interviewee from Denmark, RMAs shall *"develop a strategy for self-development"* facing limited opportunities, time, and financial resources for trainings.

Another opportunity for professional development is to introduce mentorship or coaching between more and differently experienced colleagues, mentioned by the interviewee from the Netherlands. Such an intensive and tailor-made learning path cannot be replaced by any training or educational programme; however, mentorship could be added to the educational programme.

## 6.2.5. POSSIBLE FEATURE OF AN EDUCATIONAL PROGRAMME

Interviewees were not aware of any successful RMA programmes in higher education across Europe. In some countries, i.e. in Germany, Italy and the UK some initiatives exist but they confirmed that compared to the US, Europe does not have such a level of tradition.

Interviewees agreed that for career entrants any kind of training is useful. Besides the understanding of the general research management environment, skills development can be considered crucial. Thus the focus of such a programme should be very practical. Interviewees agreed that such a programme should not last for more than one year, and if possible, it should be shorter.

The German interviewee underlined that RMAs work not only in higher education but also in the business sphere. This feature shall be incorporated into the newly designed programme.

The need for such a qualification was emphasized by the fact that it can position the profession: namely stating the benefits and related requirements clearly. The interviewee from Malta added that this kind of educational programme would bring much more people into the profession to ease the work of institutions in selecting the candidates.

Furthermore, it can also be useful to provide some knowledge and hints on the profession for those interested to enable the decision of participants whether they wish to commit to this profession or to choose another field.

Having a bit broader view on the RMA profession, some of the interviewees confirmed that founders should be interested in funding such a programme/series of trainings to ensure that there are professionals who are able to meet the requirements of research and innovation funding programmes by writing and managing high level proposals and projects.

The interviewee from Malta also added that not only trainings and education programmes for RMAs can enhance the recognition of the profession but further research is also needed.

# 7. CONCLUSIONS

In our paper, we aimed to identify those conditions, skills and competences that are necessary for the preparation and implementation of excellent European educational and research projects. Training needs, possibly implemented through higher educational programmes supporting the training of future experts were also considered relevant during our examination.

Based on the existing literature which mainly deals with the situation, challenges, and background of RMAs in the Anglo-Saxon world, we elaborated a survey which was disseminated primarily among RMAs working in European research-oriented institutions. Following the presentation of the first results, a stakeholder workshop was organized in Budapest with the participation of RMA, researchers, experts and policy-makers. Then semi-structured interviews were conducted with selected respondents of the survey. Our findings can be summarized through the following points.

Though the sample size was much too small to make any comparative analysis, the answers suggest RMAs in Europe deal with very similar issues regardless of the region or country of work. RMAs describe their job in surprisingly similar ways whether we go West or East, North or South within Europe. Lack of recognition seems to be an unsolved problem even in Western and Northern countries.

When RMAs were asked to describe their job to an outsider, facilitating, supporting and understanding the work of researchers, compliance with and translation of requirements were the key phrases repeatedly coming up. When they were asked to define the characteristics of an ideal RMA, the characteristics mentioned related to providing support, understanding, the ability to listen and to communicate with others. Trust and reliability were also mentioned by some interviewees.

RMAs responding the questionnaire are passionate about their job, although the profession is ill-defined, generally not recognized in any of the countries, and therefore not visible and understood by outsiders. Thus we can confirm that there is still tension between the importance of the work and how others see it. Contradictions also emerge when respondents talk about the long years spent in the profession and the high level of uncertainty they feel regarding their job, carrier path and development.

Due to the lack of visibility and recognition of the profession it can be stated that becoming an RMA is rarely planned, many times it is rather a coincidence and the result of the interest and skills match of people. This means that research performing organizations face significant challenges in recruiting people with the necessary knowledge and skills, thus they have to invest a lot in training the newcomers. This is a long process, thus there is a strong need for a formal training considering the competitive, uncertain and volatile nature of the working environment.

When RMAs were asked to give a summary on the trainings they had attended or led in recent years, it can be stated that both the feature, the structure, the target group and the content of them are significantly diverse. A few of them focused only on skills development, however, the majority of them were not practical trainings but directed on knowledge transfer and the sharing of experiences. These trainings were oriented towards various parts of the proposal and the management of research projects. Therefore, they were useful to enlarge the knowledge of practitioners on certain important issues, such as impact, exploitation of research results, ethics, etc.

Trainings mentioned were held by various organizations at various levels, starting from national agencies directed towards research and innovation funding or support, national associations of research managers, EU projects and European or international associations of research managers. The target group of the trainings mentioned differed: in some cases, they were specifically designed for research managers, but in other cases, they were designed for researchers.

For the formulation of the training we can say that training at various levels (undergraduate, postgraduate) are considered useful – given the fact that currently RMAs are highly qualified, most of them having masters' degree or PhD. As regards the timing of the training, interviewees agreed that trainings can be useful at any stage of the RMA profession. Also, different educational backgrounds represent different advantages for future RMAs. According to the responses collected, business & management is supposed to be the best followed by communication, public administration, international relations and legal studies. Being primarily a researcher might also entail advantages, however, compared to the strong need for researchers to be able to focus on a relatively narrow scale of things, RMAs need several skills, including multitasking.

The most important outcome of the survey and interviews suggests that due to the continuously changing knowledge required in research management and administration, a potential educational programme is supposed to focus primarily on the development of skills and competences. Beyond multitasking and English knowledge, problem solving, teamwork, interpersonal skills and information management are considered of utmost importance among the required skills. As regards the necessary competences, reliability, efficiency, flexibility and planning, strategic thinking, teambuilding and motivation building were considered as conditions for being a successful RMA. An educational programme focusing on skills and

competence development would not only provide more visibility for the profession but could already select those who are have already been and/or are being able to develop themselves in these fields, and recruit those who cannot.

The tremendous need for an educational programme is also underlined by the fact that a very low ratio of respondents claimed to have any kind of professional accreditation or certification related to RMA. The education programme could also contribute to clarifying and strengthening the RMA professional identity, raise awareness about the existence of the profession, set the expectations about the job, enhance talent pool and reduce the investment needed in newcomers regarding time and energy. Such an educational programme would bring much more people into the profession to ease the work of institutions in selecting the candidates.

Regarding the character of the educational programme, based on respondents' view we can state that a problem-oriented hands-on training with case studies, examples about possible challenges and their solutions would be useful. Flexibility could be achieved by modules covering different parts of RMA works, which could be adjusted to the initial knowledge of the participants. The main focus has to be put on skills and competence development. This programme should be supplemented by a mentorship programme, enabling participants to get into real life situations and receive tailor-made support from experienced mentors.

The value of a certificate provided by a dedicated educational programme is also highly important: it does not only provide more visibility to the profession but recognition of the knowledge, skills and competences of RMAs and ensure their possible carrier path development.

The **development of a dedicated educational programme can also contribute to standardizing the already high requirements of the profession** and make all participants (including institutions, researchers, policy-makers) aware of what RMAs can offer and what their added value is. Further research is also needed to enhance the profession.

Lastly, it is also important to note that existing associations of RMAs provide useful services (including trainings, networking, job profiling, etc.) for their members in professional development. The existence or the lack of a national association was tackled by almost all interviewees highlighting the advantages of personal connection, direct knowledge and experience exchange. One of the most significant outcomes of the listed trainings and associations is that they connect people who will later rely on these networks even in their everyday work: any time they face a new problem without any idea on how to overcome it, they have a group of people in mind who can be asked – and they give support almost immediately.

# 8. RECOMMENDATIONS

Based on the findings, the existing proposals of experts in the field can be confirmed and amended with specificities coming from stakeholders and practitioners working in the field. As it is described beforehand its necessity derives from various factors, but most importantly from the continuous competition in the field of EU and other international funds for research, innovation and education. Besides, some more general recommendations are also formulated with regard to the profession and its possible development in terms of recognition, visibility and networking.

1) **There is a strong need to develop an educational programme, either at undergraduate or postgraduate level,**
    a. to increase the visibility and people's awareness on the professions of Research Managers and Administrators,
    b. to make other actors understand the services that RMAs can provide,
    c. to enable potential experts to consciously prepare for their future and not accidentally 'fall into the career',
    d. to facilitate recruitment of research-performing organizations, also to raise the excellence and preparedness of their support staff and to save resources dedicated to the training of newcomers and beginners,
    e. to set a high-level of service portfolio offered by RMAs.

2) **This educational programme shall cover all possible knowledge used by RMAs in their everyday work, but more importantly shall focus on the improvement of necessary skills and competences. Such a programme is supposed to**

   a. gather all relevant knowledge and expertise in the field to provide an overview on the RMA landscape, which does exist currently but even professionals are not aware of the type of knowledge they possess and do not train the beginners in a conscious manner, i.e. highlighting the best ways of getting access to new information due to the current changing requirements,
   b. provide a frame for various modules covering the different stages of RMA work (pre-grant, contracting, post-grant), expertise needed (legal, financial, administrative, communication, etc.) as well as various levels of the profession (administrator, manager, coordinator, head of unit, etc.). Through this, beginners should accomplish levels to get an understanding and preparedness for the job, but also professional RMAs working for a certain amount of period in this field could optionally choose in which modules they wish to develop their knowledge, competences and skills,
   c. rely on non-formal educational methodologies, including practical and hands-on exercises, group works, case studies, role games, peer learning, etc. to ensure the development of participants' skills and competences as much as possible,
   d. backed by a mentoring programme through which participants would be supported in their learning process by professionals from various research-performing organizations to share experiences, best practices, working strategies, networks, and to support peer learning,
   e. pay attention to the needs of RMAs working in different institutional environments both in public and private spheres
   f. provide a certification which is acknowledged at EU or international level to demonstrate the preparedness of the person holding it and also to raise the prestige of the RMA profession.

3) **The RMA profession as such needs recognition in European countries due to its significance in preparing and managing high quality research projects. This recognition necessitates**

   a. the acknowledgement of RMA profession in these countries,
   b. the enabling of the establishment and development of dedicated offices within research performing organisations,
   c. support from national and EU funding agencies to provide regular information, training and knowledge exchange with professionals who are responsible for meeting the requirements of funding agencies,

d. the enabling of further networking and peer learning opportunities for RMAs both at national and EU levels to increase their and their organizations' professionalism and preparedness. This shall include the launching of national associations of RMAs in countries where they do not exist at the moment and also supporting EU-wide networks either providing direct or indirect funding for these networks, i.e. by supporting the sustainability of BESTPRAC or covering the membership fees of EARMA.

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# 10. ANNEX: THE STRUCTURE OF THE ONLINE SURVEY

## GREETINGS

**Dear Colleague,**

Through this questionnaire our aim is to identify what skills and competences could be thought to higher education students who willing to start their carrier as Research Manager and/or Administrator (RMA). To do so, we consider it of utmost important to gather YOUR views and experiences working in the field as professional – either it is acknowledged in your country or not. We did our best to focus on the most important aspects and we do not require to waste your time on providing additional information. Nevertheless, by answering the questions and, if necessary, providing extra explanation will support our work immensely.

So thank you a lot in advance for completing the questionnaire and contributing to reach our aims.

Best wishes,

**International team of HETFA**

### Basic information

1. Country of work:

a. Austria

b. Belgium

c. Bulgaria

d. Croatia

e. Cyprus

f. Czech Republic

g. Denmark

h. Estonia

i. Finland

j. France

k. Germany

l. Greece

m. Hungary

n. Ireland

o. Italy

p. Latvia

q. Lithuania

r. Luxembourg

s. Malta

t. Netherlands

u. Poland

v. Portugal

w. Romania

x. Slovakia

y. Slovenia

z. Spain

aa. Sweden

bb. United Kingdom

cc. Other:

## 2. If other, please specify

## 3. Country of origin:

a. Austria

b. Belgium

c. Bulgaria

d. Croatia

e. Cyprus

f. Czech Republic

g. Denmark

h. Estonia

i. Finland

j. France

k. Germany

l. Greece

m. Hungary

n. Ireland

o. Italy

p. Latvia

q. Lithuania

r. Luxembourg

s. Malta

t. Netherlands

u. Poland

v. Portugal

w. Romania

x. Slovakia

y. Slovenia

z. Spain

aa. Sweden

bb. United Kingdom

cc. Other:

## 4. If other, please specify

## 5. Gender

a. Male

b. Female

## 6. Age

a. below 25

b. 25-30

c. 31-40

d. 41-50

e. 51-60

f. above 60

# EDUCATIONAL BACKGROUND

**7. What is your highest educational/academic attainment?**

a. A-level

b. Bachelor's degree

c. Master's degree

d. Postgraduate degree

e. Doctorate degree (PhD)

f. other:

**8. In which field did you graduate?**

a. natural sciences

b. social sciences

c. humanities

d. economics, business

e. engineering

f. medical sciences

g. arts

h. legal

i. other:

**9. If social sciences, please specify:**

**10. Do you have professional accreditation or certification related to RMA?**

a. Yes

b. No

**11. If yes, please specify:**

**12. Did you received this before or after you started as RMA?**

a. before

b. after

# INSTITUTIONAL BACKGROUND

**13. What is your current position?**

a. leader

b. manager

c. advisor

d. administrator

e. not sure

**14. How would you characterize your organization?**

a. public

b. private non profit

c. private for profit

d. other

**15. How do you define your organization?**

a. university

b. research institute

c. research funder

d. private company

e. hospital

f. civil association

g. government department or background institute

h. other:

**16. Approximately how many years in total have you been employed in the field of Research Management and Administration?**

**17. From your view, how many job roles in total have you fulfilled during the years spent in research administration? Please rank between 1 and 10.**

**18. Please describe your roles**

# RMA AS A PROFESSION

19. How did you become an RMA? Please mark to what extent the following statements are true for you!

| | Not true for me at all | Rather not true for me | Neither, nor | Rather true for me | Absolutely true for me |
|---|---|---|---|---|---|
| during my studies it seemed an interesting profession | | | | | |
| I considered to have the necessary skills for the profession | | | | | |
| I was not sure what it is about but seemed interesting, I applied and got the position | | | | | |
| a friend/colleague suggested to apply for the position | | | | | |
| previously I worked as researcher/professor but became more interested in RMA | | | | | |
| previously I worked as administrator but became more interested in RMA | | | | | |

20. Why would you recommend RMA as a profession? Please specify.

21. What are the disadvantages of this profession, if any?

22. Regarding the recruitment of RMA staff what are your experiences?

| | strongly disagree | disagree | neutral | agree | strongly agree |
|---|---|---|---|---|---|
| a. It is difficult to recruit colleagues bearing the necessary knowledge and skills. | | | | | |
| b. The training of new colleagues is a long process and needs a lot of investment. | | | | | |
| c. We receive a huge number of application for vacancies, so we are be able to select among the best. | | | | | |
| d. We have internal trainings for beginners to provide the necessary skills in a short period. | | | | | |

## 23. What skills do you consider necessary to fulfil RMA job?

| | not important at all | rather not important | neutral | rather important | very important |
|---|---|---|---|---|---|
| a. analytical skills | | | | | |
| b. mediation, negotiation | | | | | |
| c. information management | | | | | |
| d. information search | | | | | |
| e. IT skills | | | | | |
| f. interpersonal skills, networking, influencing | | | | | |
| g. teamwork | | | | | |
| h. problem solving | | | | | |
| i. administrative skills | | | | | |
| j. initiation | | | | | |
| k. cultural and diversity skills | | | | | |
| l. English knowledge | | | | | |

## 24. What behavioural competences do you consider necessary to fulfil your job?

| | not important at all | rather not important | neutral | rather important | very important |
|---|---|---|---|---|---|
| a. flexibility | | | | | |
| b. teambuilding, motivation building | | | | | |
| c. leadership, decision-making | | | | | |
| d. planning, strategic thinking | | | | | |
| e. assertiveness | | | | | |
| f. openness | | | | | |
| g. creativity | | | | | |
| h. efficiency | | | | | |
| i. reliability | | | | | |
| j. values appreciation | | | | | |
| k. ethics | | | | | |

# TRAINING AND NETWORKING OPPORTUNITIES OF RMAs

## 25. What kind of training or education is useful for becoming RMA?

| | not useful at all | rather not useful | neutral | rather useful | very useful |
|---|---|---|---|---|---|
| a. short term training (less than 1 month long) | | | | | |
| b. long term training (less than 1 yearlong) | | | | | |
| c. vocational educational programme | | | | | |
| d. module or educational programme at higher education | | | | | |
| e. other postgraduate educational programme | | | | | |

## 26. If you have any views to share with regard to the previous questions, please do so:

## 27. What fields of study do you consider the most useful for RMAs? (You can select more answers.)

a. international relations/studies

b. business and management

c. communication

d. legal studies

e. human resources

f. public administration

g. sociology

h. other

28. Are you aware of any training or educational programme for RMAs (either in your country or at European or international level) which is useful?

a. If yes, please specify:

b. No

29. Are you member of an association gathering and training RMAs?

a. Yes

b. No

30. If yes, which one(s)?

31. Do you use the services offered by these associations?

a. Yes

b. No

32. If yes, please specify which services you have already exploited:

| | more than 3 times in the last 3 years | 2-3 occasions in the last 3 years | 1 occasion in the last 3 years | not yet |
|---|---|---|---|---|
| a. job profiling opportunities (short term stay in another institute) | | | | |
| b. study trips to other institutions | | | | |
| c. workshops, events for information dissemination, knowledge exchange and networking | | | | |
| d. trainings supporting skill development, knowledge exchange | | | | |
| e. If other, please specify: | | | | |

# RESULTS

33. Are you interested in the analysis of the results of this survey?

a. Yes

b. No

34. If yes, please add your e-mail address. You can find more on our GDPR policy here: http://hetfa.eu/about-us/gdpr/