Methodological guide

Methodological guide & good practice collection for the elaboration of the foRMAtion international module

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INTELLECTUAL OUTPUT 1

This guide was developed in the framework of the project entitled 'Innovative and smart module for potential Research Managers and Administrators in higher education – foRMAtion', coordinated by HÉTFA Research Institute (HU).

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Contents

1. Executive Summary

Besides the background study[1] which has been prepared to analyse the necessity and possible set up of an educational programme for Research Managers and Administrators (RMAs), foRMAtion project finds it important to collect and analyse the existing practices in the field of RMA trainings (not specifically designed for HEI but mainly for professionals) and consider the transfer of existing know how, lessons learnt & possible failures. This guide will be a gap filler in the project-related field as such a comprehensive summary of the subject has never been done before.

For this purpose a short-term joint staff training event (JSTE) (C1) has been organised to bring together and analyse useful practices in education and training of RMAs. The outcome of this event supplemented by further desk research has provided the necessary input for this IO1 methodological guide & good practice collection. The methodological guide presents and assesses a comprehensive set of existing training programmes & methodologies for RMAs and check their usability. During conducting the research and collecting good practices, a special emphasis has been placed on those countries which perform better in EU-funded educational, research and innovation projects in order to identify truly proven practices and methods. The aim is to use their best practices as case studies to be transferred to low performing countries or in those countries where the RMA role is not well-recognized yet.

This output thereby will contribute to the creation of a truly innovative curriculum (IO2) and teaching method (IO3), other two fundamental outputs of the project.

The importance of this output is underlined by the fact that in a European context most trainings in the field are available for postgraduates or professionals while in HEIs only a very few programmes exist.

However, foRMAtion project considers it of utmost important to provide boost RMAs' capacities and knowledge working in private research organizations too, this is why they are part of the partnership and we also rely on their expertise and aims to build in their needs.

By engaging different stakeholders from all over Europe into the preparation of this output, its quality and transferability will be ensured. We expect that the sharing of knowledge, the exchange of good practices and the joint development of this innovative output can contribute effectively to the success of even more excellent EU-funded projects in partner countries and beyond.

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[1] HETFA Discussion Paper supporting the framing and conceptualization of an educational programme for Research Managers and Administrators, http://hetfa.eu/wp-content/uploads/2019/04/Research-managers_final_0408.pdf

The main focus of this output serving also as a methodological guide for subsequent outputs is the following:

- confirming the importance of training potential RMAs at HEIs through the lack of HEI educational programmes;
- identifying the knowledge and skills that these students should acquire based on the preliminary research and other experts' and professionals' experiences;
- highlighting RMA as a possible carrier path and attractive for HEI students. Also, it will provide recommendations for the construction of IO2 and IO3. The output will be prepared in English and translated to each partners' languages; thus, it will be easily transferable and adaptable.

The Intellectual Output 1 aims at collecting and analyzing the existing practices in the field of RMA trainings and consider the transfer of existing know how, lessons learnt and potential failures.

The implementation of the short-term joint staff training event (C1) has brought together and analyzed useful practices in education and training of RMAs; the outcomes of the event supplemented by further desk research provide the necessary input for the IO1 methodological guide and good practice collection.

1.1.   Expected Impact

The impact will be on different levels as this guide serves the most important input for IO2 and IO3:

- Students,
- higher education institutions,
- RMA associations and trainers,
- RMAs, professors and teachers

All the above listed categories will have the possibility to broaden their knowledge on the EU-funded projects mechanism and skills needed to undertake this career of research management. Teachers will also have the opportunity, through the implementation of the JSTE, to learn new strategies and methodologies about the RMA profession, share good and bad practices with other colleagues.

RMAs can improve and develop their soft skills, as well as build their network and contribute to increase the visibility and recognition of their profession in the long run.

At the same time, Higher Education Institutions can gain new techniques and materials, improve their training offers and teaching methodologies. Thanks to the involvement of research institutions, the curriculum is better aligned to the needs of the labour market and also the interaction is increased, creating the conditions for the cooperation in the long run.

2. Methodology

To get the result, the IO1 methodology combined a series of actions: desk analysis, questionnaire and interviews to experienced RMAs and grant offices, training activities for teachers and experts to share and discuss useful practices in education and training of RMAs.

2.1.   Process / Implementation

The IO1 methodology aims to identify and assess the existing training programmes, tools, good and bad practices for RMAs, also checking their usability. In the conclusions of the "Discussion Paper supporting the framing and conceptualization of an educational programme for RMA" elaborated by HETFA Research Institute, Coordinator of foRMAtion project, three main recommendations were highlighted:

1) There is a strong need to develop an educational programme, either at undergraduate or postgraduate level.
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.
3) RMA profession as such needs recognition in European countries due to its significance in preparing and managing high quality research projects.

In the process, we reached **out to experts, associations, organisations who deliver trainings, activities focused on the education and formation of such professional figures.** Specifically, we investigated what kind of trainings exist and how these trainings could be adopted at universities. Furthermore, we investigated in more depth the structure of these trainings, the length, the prerequisites to attend finally our objective was also to understand who are the trainers.

We contacted key players and stakeholders involved in RMAs activities such as:

Table 3 – key players and stakeholders involved in RMAs contacted for this Guide

ORGANISATION	ACRONYM	COUNTRY/REGION
Association of Research Managers and Administrators	ARMA	United Kingdom
Association of University Research and Industry Links	AURIL	United Kingdom
Danish Association of Research Managers and Administrators	DARMA	Denmark
Finnish Association of Research Managers and Administrators	FINN-ARMA	Finland

Icelandic Association of Research Managers and Administrators	ICE-ARMA	Iceland
Austrian Universities' Research Administrators and Managers	AURAM	Austria
Research and Transfer Management Network	FORTRAMA	Germany
Dutch Association of Research Managers and Administrators	ARMA-NL	Netherlands
Plataforma de Interface à Ciência	PIC-PT	Portugal
European Association of Research managers and Administrators	EARMA	Europe
BESTPRAC Project	BESTPRAC	Europe
Advisory Board of the Research Administration as a Profession Worldwide Project	RAAAP	Europe

2.2.   Timeline

According to our internal time planning APRE:

- Conduct a desk research, circulate questionnaires and make interviews by December 2019.
- Presentation of the first results of the survey during the Joint Staff Training Event (C1) in January 2020 in Oporto.
- Elaborated the first draft of the final methodological guide and good practice collection by February, the 15th.
- Quality assurance review with input from the partners by February, the 22nd.
- Final elaboration of the methodological guide and good practice collection by February, the 29th.

2.3.   Plan put in place for the collection of inputs

Table 4 – Communication to stakeholders and target audience

Who should be reached?	How did we reach them?	Comments (e.g. main messages?)
ARMA and AURIL DARMA FINN-ARMA ICE-ARMA AURAM	Questionnaires and interviews, direct mailing, phone call, skype interview.	It is important to collect and analyse the existing practices in the field of RMA trainings (not specifically designed for HEI but mainly for professionals) and

BAK ARMA-NL PIC-PT-Portugal EARMA BESTPRAC		consider the transfer of existing know how, lessons learnt & possible failures. This material would serve as a gap filler in the project-related field as no such comprehensive summary of the subject has ever been done.
Advisory Board RAAP Project	Questionnaires and interviews, direct mailing, phone call, skype interview.	

2.4. Target of the survey and the interviews

The target audience is composed by: RMAs, university teachers, interested researchers, students at HEIs.

The output can be used by the RMAs from all R&D organisations to identify existing good and bad practices about the current educational and training programmes, tools and methods for the empowerment of potential RMAs, as well as to identify the conditions, skills and competences potential RMAs need to acquire for the drafting and implementation of excellent European projects. All the information set out in the methodological guide and good practice collection can be useful to improve the training provided and the quality of the job performed by the RMAs.

As consequence, the students will increase their knowledge on the EU-funded projects mechanism and skills needed to undertake this career of research management.

APRE carried out the supplementary desk research. Extensive information has been gathered through a qualitative methodology: we reached out to 30 experts (24 by survey, 6 by email/phone interview) dealing with trainings for RMAs and asked them to give information on the composition and main features of these trainings. Then APRE contacted some experts with whom we carried out skype interviews to learn more on the methodology and impact of the training. The majority of the respondents, has more than 10 year experience in the field of RMAs. Below some figures about the years of experience in the field of RMA and their current role.

PART A: About you as RMA. How many years in total have you been employed in the field of RMA?

Table 5 – Communication to stakeholders and target audience
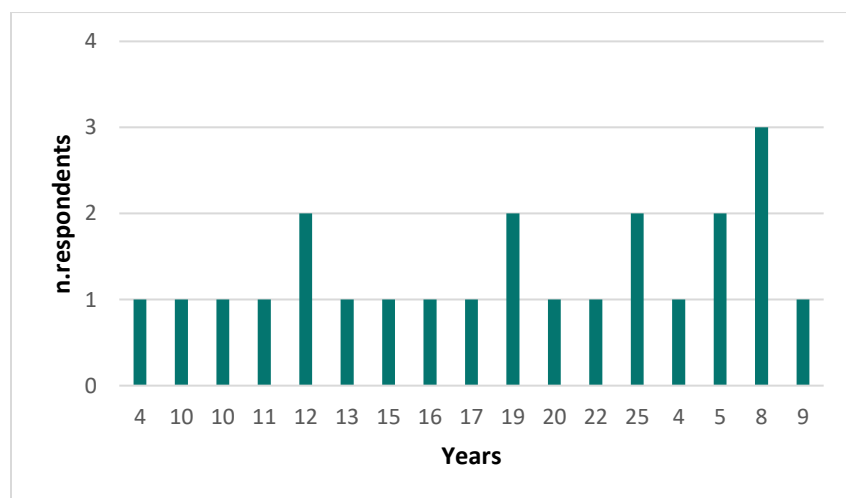
1.   How would you define your current role?

Table 6 – How would you define your current role?

🔵	Leader – head of office, or res…	11
🟠	Manager – subordinate to a le…	12
🟢	Operational – responsible for …	1

3. Introduction of the analysis

The management of research and development (R&D) and innovation has emerged as a specialized area within funding agencies, higher education institutions, companies, non-profit institutions, Research and Technology Organisations (RTOs). New modalities of research and innovation have evolved over the last 10 to 20 years against a backdrop of major changes in the tertiary education sector as a whole. Research management activities include: attracting funding, managing funds, liaising with funding bodies, project planning, implementation, monitoring and evaluation. All this comes on top of research activities such as producing publications, research dissemination and, in many cases, commercialisation.

The professionalisation of higher education administrations has affected finance departments, student admissions, and building and grounds management, particularly in countries where there have already been substantial increases in institutional autonomy and changes to the governance arrangements within institutions.

Moreover, higher education institutions are becoming increasingly dependent on research into the higher education system as a whole, for example to help them better understand the external environment, in order to construct relevant strategic plans. These changes can lead to some tensions between the priorities and strategies of the institution, as well as those of individual researchers. This may also impede participation in collaborative research within and across institutions. The systems of rewards for both institutions and individual academics are important. While a healthy tension between executive management and academic staff is inevitable, clear responsibilities and processes are required to ensure that the tension does not become counterproductive.

The sheer scale of many universities, requires highly competent managers and leaders. Research managers not only have responsibility for developing and implementing research policy at the institutional level, they also play a key role in ensuring that the researchers themselves have adequate skills in such areas as research grant writing, grant management, research team leadership, research student supervision, writing for publication and ethics. This has led to the development of an increasingly sophisticated range of training programmes and qualifications for research management and administration, as well as specialised associations for research administrators.

A further field where there has been considerable development is in the transformation of university-based research into innovation. This too requires expertise – from building collaborative links with business through to the more technical aspects of technology transfer.

This has also led to the development of specialised technology transfer training programmes, and groups supporting these activities. These programmes provide expertise on the complex set of

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knowledge and skills required by research policy makers and institutional research and innovation managers. They also provide training to improve the skills and knowledge of those operating in these important positions an important role. The challenge for development is to build the skills and expertise of the Research Managers and Administrators and of the research and innovation managers to help them ensure that the scarce research resources available to institutions are effectively deployed and managed. The role of this analysis was to categorise and analyse the requirements for effective research and innovation management in less-performing countries, at the policy and institutional level. It examines possible approaches for how to best support effective research management.

3.1. Typical activities in research management and administration

Leadership and management in research institutions involves a very wide range of responsibilities and functions. Increasing demands from global collaboration and the internationally competitive nature of research have led to greater attention being applied to understanding the full range of activities that underpin effective research institutions. The UK's Association for Research Managers and Administrators (ARMA) has a Professional Development Framework for their members, although only a high-level summary is publicly available. Another mention has to be done for the BESTPRAC project wiki page where publicly available division of tasks, roles, responsibilities as well as related skills and competences are available. It is based on different categories, which is again an issue that should be emphasized that there is no unified or standard approach on this issue.

The summary breaks down functions into "operational", "managing" and "leading" roles and has considerable overlap with the list of management and administrative tasks provided in the tables below.

Research leaders and managers are responsible for ensuring that these functions are adequately resourced and supported, along with any other institutional-specific research management functions. It is particularly important to ensure that there are appropriate and properly maintained information technology systems (hardware and software), as well as trained staff with operational and analytical skills to run these systems. It is increasingly important to record the data necessary to meet the requirements of national performance-based funding, research assessment exercises and national and international benchmarking. Naturally enough these data also find their way into international performance rankings of institutions. Research

organisations need staff with specialist skills and experience in areas such as bibliometrics and statistics are needed to administer these functions and analyse and interpret the data.

Research support

Table 7 – Research support

Primary activity	Related activity
Identification of funding opportunities	Advising potential applicants
Identification of collaborative opportunities	Advising researchers
Supporting research proposals	Mentoring, quality improvement, budget advice, compliance checking, identifying and liaising with partner organisations, providing seed funding to facilitate project development
Liaison with granting agencies	Advising on practicality and implementation of rules; responding to agency queries about active grants; communication on grant outcomes
Promoting regulatory accountability	Development and implementation of policies and procedures to assist researchers to meet regulatory requirements
Supporting regulatory compliance	Advising and assisting researchers with ethics approvals, safety requirements, compliance reports
Record keeping	Maintaining institutional databases of grants, publications, regulatory and ethics approvals, research outcomes, other recording requirements.
Milestone reporting (as required)	Ensuring contract requirements are met and reported
Supporting inter-institutional and international agreements for collaborative research and co-use of infrastructure	Developing, overseeing and recording documentation of agreements and their implementation and management
Supporting research communication strategies	Advising media and communications specialists on outcomes and achievements

Table 8 – Research translation/commercialisation

Primary activity	Related activity
Ensuring researchers are aware of opportunities and responsibilities for protection of intellectual property (IP)	Developing and providing information, policies and procedures; engaging and promulgating general advice on legal frameworks, including international obligations.
Identification and assessment of opportunities	Recording research activities, surveying commercialisation activities and opportunities, identifying potential funding streams and establishing strategies and time frames
Legal and commercial advice	Co-ordinate advice on intellectual property and commercial linkages and opportunities
Negotiation of agreements	
Establishment and implementation of options, binding agreements, spin-offs, license arrangements	

Financial management

Table 9 – Financial management

Primary activity	Related activity
Costing and pricing research proposals and agreements, negotiating budgets	Especially inter-institutional and international collaborative arrangements
Accounting for direct and indirect research costs	
Negotiating and checking contract agreements and commitments	
Financial administration of payments	Arranging international payments, advancing funds
Record keeping and financial reporting	Compliance requirements for grant acquittals, and data collection for institutional reports at operational and governance levels

Asset management

Primary activity	Related activity
Procurement and purchasing	
Managing and maintaining equipment and facilities	Developing and maintaining asset registers and maintenance schedules
Assessing equipment lifetimes and replacement schedules	Monitoring scheduled maintenance
Provision and maintenance of IT systems, access and data storage	Including access to off-site computing facilities
Provision and maintenance of information and knowledge sources	In conjunction with knowledge managers and online information repositories /libraries

Performance data recording and analysis

Primary activity	Related activity
Establishment and maintenance of publication databases	Recording and verification of publications data.
Establishment and maintenance of thesis databases	Recording and verification of thesis and awards data
Establishment and maintenance of research funding data and contracts	Liaison with financial management for performance reporting
Analysis of performance data	Reporting to executive on institutional, group and nindividual performance

The amount of activity under each of the headings in the tables will vary with the number of disciplines and the extent of activity by discipline across institutions, as well as between institutions. Requirements will also vary in accordance with various national policies and legislative requirements. Activities are likely to vary from time to time as priorities and circumstances change at institutional and national levels. The growth in national and international collaborations in research, and the increasingly interdisciplinary nature of that research, is affecting the balance of effort required in research administration.

One area of management operations that has particular relevance and importance in research is financial management. The rigour with which the typical accounting requirements of an institution and external funding agencies are met will have a large bearing on the reputation and credibility of the institution. The importance of such rigour cannot be overestimated. This applies in all areas of operations, but is particularly important when managing government funds and funds secured through charitable foundations, whether external charities or foundations associated with the institution itself. Only a really professional RMA can also avoid over-controlling and bureaucracy. Institutional foundations can offer institutions greater financial flexibility and autonomy, but establishing and managing them requires experience and special skills in communication with benefactors, financial management and investment.

During the Joint Staff Training Event (C1) held in January 2020 in Oporto an agreed list of skills was produced that will also be addressed in IO2 for the curriculum development.

Table 12 – PRE-GRANT (PROPOSAL WRITING)

PRE-GRANT (PROPOSAL WRITING)

ATTITUDE
- ethical
- supporting not leading
- "authoritative" (respected)
- proactive
- creative
- flexible
- confident
- engaging
- structure
- mediation / facilitation
- diplomacy
- timing
- take leadership

SKILLS
- concise writing
- ability to say "no" and ask hard questions
- story teller → selling / content
- time management
- attention to details
- advising skills
- sensitivity
- communication & cultural skills
- writing skills
- time efficiency
- stress management

KNOWLEDGE
- potential partners identification
- research policy
- team building / brokering
- funding instrument
- scientific insight
- institutional strategy
- funder strategy

COMPETENCIES
- English proficiency
- facilitator
- persuasiveness
- negotiator
- public relations
- EC language proficiency
- ability to work under pressure

Table 13 – POST-GRANT

POST-GRANT

ATTITUDE
- precision
- constructiveness
- respectfulness
- empowering others
- responsibility
- helpfulness / supportive behaviour
- availability
- authority

SKILLS
- (time) management
- tasks/administrative/people management
- problem solving
- flexibility
- attention to detail
- impact analysis
- translation of "results"

KNOWLEDGE
- audit
- mediation
- financial rules & reporting
- project management methods
- time management methods
- leadership styles
- conflict management methods
- problem solving techniques
- team life cycle
- open science / scholarly communication

COMPETENCIES
- defining priorities
- time management
- ability to motivate others
- managing visibility (in science & organization)
- research integrity

Table 14 – FINANCE

FINANCE

ATTITUDE
- collaborative
- patience
- proactive
- assertive
- "good cop"
- amicable
- dogmatic / pragmatic
- tough "bad cop"
- control (pre audit)
- sustainability
- foresight
- competent
- flexible

SKILLS
- analytical
- planning
- detail
- accuracy
- diplomacy
- negotiation
- team leader / player
- time management
- communication
- "translation" (numbers to words)
- IT skills
- numeracy skills

KNOWLEDGE
- finance
- accounting STDS
- accounting
- HR
- law
- understanding the purpose of research
- compliance (audit proof) – knowing what to do
- funding rules
- (financial) platforms
- intercultural competence

COMPETENCIES
- accurate project reporting on time
- compile financial calculation tables

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Table 15 – LEADER

LEADER

ATTITUDE

- integrity
- leadership
- flexibility
- openness
- work under pressure
- reliability
- decisiveness
- fairness
- charismatic
- inspiring
- empathy
- assertiveness
- honesty
- authentic
- approachable
- visionary
- daring
- kind
- humour

SKILLS

- self-motivation
- motivating others
- conflict management
- communication to all
- diplomacy
- organization
- negotiation
- monitoring
- sharing information with the team
- coaching / mentoring

COMPETENCIES

- team management & balancing
- time management
- networking
- staying on the mission
- delegating
- strategic and political acting

KNOWLEDGE

- funding framework
- administration
- scientific background
- of "profession" → develop others
- research & policy ecosystem
- of team + work
- institutional & department strategy

Table 16 – INFORMATION MANAGEMENT (GRANTS)

INFORMATION MANAGEMENT (GRANTS)

ATTITUDE
- ethical
- patience
- optimism
- integrity
- responsibility
- proactivity
- intrinsic motivation
- open-minded
- self-confidence

KNOWLEDGE
- institution/group policy/priority/strategy
- potential partners
- call documents
- RRI
- funding schemes
- project planning (project lifecycle)
- funding portals
- financial knowledge
- EC & other funder policy
- privacy (GDPR)
- data management
- science ecosystem: internal & external

SKILLS
- sharing good practice
- collaborative
- lobbying skills
- communication skills
- diplomacy
- negotiation
- facilitation
- persuasiveness
- sell ideas
- advanced IT skills
- stress management / resilient
- analytic skills / synthetic

COMPETENCIES
- funding / academic writing
- English language
- translate between sectors
- networking
- social media competences
- intersectoral knowledge

3.2.   Necessary skills for a RMA

Due to a number of evolving factors, the complexity of management and leadership of research and innovation is increasing, as is the setting of research and innovation policy at both government and institutional levels.

The purposes of this paragraph is:

- to synthetize the essential elements of existing and evolving knowledge and skills development programmes for leadership and management of research and innovation;

There are different approaches with regard to the typologies of knowledge and skills for leadership and management of research and innovation. The typologies can be collected in three main topics that reflect the range of requirements at different levels of research and innovation systems:

1. management to support leadership of research in public institutions.
2. management to support leadership of researchers.
3. personal behaviours and qualities of research leaders and managers.

Each of these topics has many elements that together comprise the requirements for strong leadership and achievement. The *leadership* topics consider the cultural and personal influences on the creativity of individuals and groups within research institutions. These influences apply as much to leaders in government as those in institutions. The *management* topics deal with the extensive procedural, financial, legal, compliance and reporting requirements that underpin the proper conduct of research and innovation. The final topic deals with the personal behaviours and qualities that leaders and managers must demonstrate in order maximise the productivity and creativity of the research and innovation staff under their care.

Effective leaders and managers who pay attention to these factors will have considerable opportunity to ensure that the future development of their societies can benefit from the intellectual and imaginative efforts of their populations. There is a requirement for improved levels of training and skills development for leaders in research and research management.

In recent years an increasingly sophisticated range of training programmes and qualifications for research management and administration have been developed, particularly in countries whose R&D productivity is already strong by world standards. More and more specialised associations for research administrators have become more prominent all over the world, not only in Europe. For example we can list some non-European associations such as:

- the Australian Research Management Society;

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- the US National Council of University Research Administrators, which issues the Research Management Review Journal;
- the Association of Commonwealth Universities;
- the Association of African Universities.

In less performing countries, there is an apparent gap in opportunities for leaders and potential leaders and administrators to build their knowledge and skills in the increasing globalised research endeavour. This is a critical issue because leadership in research and innovation management in developing countries, where resources and capacity are limited, is especially challenging.

With these challenges in mind, the first step is to review existing work in this area in order to identify the essential elements needed for skills development in research leadership and management. This information has then been combined into a typology for effective research and innovation leadership and management. The typology could be used as a basis for formulating the most effective programmes for leadership and management development across countries, and especially in those countries where there is an urgent need for assistance and reform. A basic list of required skills can be drafted:

- **Interpersonal** - understanding project brief, building rapport with researchers, - liaison with key staff, understand the needs of others, building relationships
- **Information search** - identifying funding opportunities, potential partners
- **Information management** - maintaining partner contacts
- **Communication –** preparing / commenting on proposal drafts, report writing, conveying information clearly, presentation
- **Analytical -** assessing funding eligibility, reviewing drafts, reviewing policies/systems
- **Project Management -** multi-partner working
- **Administrative -** chairing meetings, note-taking
- **Constructive Feedback –** on proposal drafts
- **Influencing -** including negotiation
- **Networking** - with funders
- **IT** - including contacts database; familiarity with funding body electronic grant submission portals
- **Self-Management –** working to tight deadlines, workload management
- **Training and development -** facilitation, coaching and mentoring, course design etc.
- **Numeracy –** monitoring costs and financial stability

To identify the best practices in terms of RMAs training, first it is necessary to have a clear view on the different functions that a RMA has to cover in their daily work. To do so, a table was drafted that comprises 21 different functions undertaken by administrators supporting the research agenda of a research institution. These include developing proposals, managing project finance, knowledge exchange and business development, and supporting postgraduate researchers.

The functions are grouped under seven broader headings: Developing Proposals, Project Lifetime, Translation, Postgraduate Researchers, Policy and Governance, Management Information and Related Functions, and Service Organisation and Delivery. Each function is described from three different perspectives – Operational, Management and Leadership.

The table shows how the 21 functions are organised under the seven broader headings. The individual cells on the matrix summarise each function and the necessary skills from the operational, management and leadership perspectives.

Table 17 – 21 functions

	OPERATIONAL	MANAGEMENT	LEADERSHIP
Developing Proposals			
Identifying Funding Sources and Customers	Target funding opportunities and disseminate information to relevant individuals	Build `intelligence' to help target funding opportunities and optimise the bidding process	Develop strategies to maximise research income and market research to potential funders
Preparing Proposals	Co-ordinate proposal preparation, which could include identifying research team members, preparing the budget and writing and reviewing text	Implement strategies and initiatives to maximise the institution's success in securing research funding	Develop targeted strategies to improve research funding outcomes
Costing, Pricing and Submitting Funding Proposals	Produce realistic project pricings, obtain `sign off' for and submit proposals	Maintain a financial overview of the research portfolio and oversee relevant staff resources, systems and	Develop costing and pricing strategies to maximise the institution's success in

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		processes to ensure that high-quality proposals are submitted	securing research funding
Project Lifetime			
Drafting, Negotiating and Accepting Contracts	Facilitate agreement and get sign-off of contracts	Monitor and manage regulatory and legal issues arising from the contract	Develop institutional strategies and approaches relating to contracts
Dealing with Project Finance	Monitor project spend and ensure compliance with funder's terms and conditions	Implement project finance systems and processes and monitor their effectiveness	Develop project finance systems and processes
Employing Staff on Research Contracts	Provide administrative support for the recruitment and appointment of research staff	Implement systems and processes relating to the employment of research staff	Develop systems and processes relating to the employment of research staff
Reports for Funders	Collect and collate data and ensure that the report is completed and submitted according to the funder's terms and conditions	Implement systems and processes to facilitate report preparation	Develop systems and processes that enable the institution to meet its reporting requirements
Translation			
Dissemination and Public Engagement	Collect data relating to research outputs and advise researchers on effective dissemination and public engagement channels	Support researchers to comply with funder's requirements and to utilise opportunities for research dissemination and public engagement	Maximise the impact of dissemination and public engagement activities
Knowledge Exchange and Business Development	Promote and support knowledge exchange and transfer activities	Develop an operational plan for implementing the knowledge exchange and transfer strategy and ensure	Develop strategy in relation to knowledge exchange and transfer

		that the institution meets legal/regulatory requirements	
Technology Transfer	Provide support for technology transfer activities such as identifying opportunities, brokering relationships, licensing IP, creating 'spin out' companies	Develop systems and processes to support technology transfer and ensure that the institution meets legal/ regulatory requirements	Develop strategy in relation to technology transfer
Career Management			
Supporting Researchers	Provide sound administrative support for researcher employment, progression, examination and graduation	Maintain oversight of provision and support for researchers and monitor in relation to the external policy environment	Provide strategic direction for researcher support and provision
Policy and Governance			
Contributing to Research Policy and Strategy	Support the implementation of research policy and strategy and gather intelligence to help develop research policy and strategy	Develop operational plans to implement research policy and strategy and ensure that the institution is meeting its legal and quality assurance obligations	Lead institutional research policy and strategy and promote the institutional research agenda
Supporting Research Ethics and Governance	Provide `up-to-date' information and help research staff and colleagues to comply with research ethics and governance requirements	Maintain oversight of institutional research ethics and governance processes and systems	Develop strategy in relation to research ethics and governance
Management Information and Related Functions			

Working with Information Systems	Collect and collate data and provide accessible reports to support institutional and local decision making	Monitor the effectiveness of institutional management information systems and initiate changes as required	Ensure that institutional decision making is built on sound management information
Supporting Audit	Provide administrative support for institutional audit	Devise systems to collect data for audit	Champion preparation for and participation in the audit and ensure that there is learning from issues identified
Making Statutory Returns	Collect and collate data and ensure that the return is complete and returned by the deadline	Oversee systems and staff to ensure that a high-quality return is produced	Ensure that the institution responds to issues arising from the statutory return process
Service Organisation and Delivery			
Managing a Research Support Service	Co-ordinate and develop staff and resources to provide an effective research support service	Develop systems and processes to implement the research support service strategy, and monitor Key Performance Indicators	Develop the research strategy and promote research support to the institution
Organising and Structuring a Research Support Service	Build a research support service structure that is cost-effective, `joined up' and `fit for purpose'	Achieve consistency in practice across the research support service structure	Maintain an effective, efficient and well-respected service
Mapping and Reviewing Research Support Service Functions	Help the institution to provide a research support service that is cost-effective, `joined up' and `fit for purpose'	Map and review research service support functions to help identify/address institutional risk factors	Champion the mapping and review process and initiate required changes

3.3. Experiences from Experts: The short-term joint staff training event - Skills

The event organized in the framework of foRMAtion project aimed to gather experts, representatives of associations of research managers and administrators (RMAs), teachers and professors dealing with education and training programmes of RMAs and funding advisors in order to collect good and bad practices, methods, tools, change experiences, access to state-of-the-art information. Outcomes of the training event backed by further desk research provided the necessary input for this methodological guide and good practice collection. 14 recognized experts in the field of RMAs training attended the event and shared many information regarding important skills needed for this type of activity. Chiara Rengo from the Research Services Office of the Università degli Studi di Milano in Italy, tried to answer to a very important question, "*What skills are crucial to Administrate Research?*". According to her opinion, there are 2 types of skills, one type regarding the know-how, one regarding the soft skills. In the know how, she included the following examples:

- Funders
- The art of Grantsmanship
- Institutions (benchmark)
- Local, National and European legislation
- Developing and costing a proposal
- Managing projects
- Research Ethics, Integrity and Governance
- Research Project Management
- Financial Management
- Contracts and Reporting
- Elements of Award Negotiation and Acceptance
- Research administration
- Pre-award
- Award negotiation and acceptance
- Post-award
- Internal rules

In the soft skills, she included the following examples:

- Team building
- Communication

- Empathy
- Creativity
- Time management
- Stress management
- Leadership
- Problem solving
- Lateral thinking
- Flexibility
- Public speaking

It is important to mention also the experience of Susana Moreira of the "Plataforma de Interface à Ciência" (PIC) according to whom, the most important soft skills are:

- interpersonal communication
- time management
- organisational skills
- proactivity
- attention to detail

while, the technical skills for a RMA are:

- communication
- foreign languages
- rules of different funding schemes

She also suggested not to use *soft skills* but *transversal/transferable skills.* Another important input came from Simon Kerridge of the UK Association of Research Managers and Administrators (ARMA) highlighting the fact that personal behaviours (e.g. taking personal responsibility, meeting deadlines, giving constructive feedback) are needed for the RMA work.

3.4. Good practices: Trainings

In this analysis we tried to collect information about good practices in trainings, especially related to the structure, length, if there are prerequisites for participants. One of the question we asked was about the decision process regarding the content and topics of the training. In the majority of the cases, the structure was decided through a consultation among across experienced RMAs who are in a position to recruit to their organization, also through an understanding of the current research environment and what skills, behaviors and competencies are required in a RMA. Another interesting approach identified is to discuss with the participants to get to know what they need. It is also very important to decide on the content on the basis of the target audience and the timing schedule. An interesting solution identified by one of the interviewed is that the topics and structures of the trainings are decided by a survey of participants, and what they think they most need in their job, as well as trying to mirror the international landscape and topics.

For the interviewees, the trainings they attended were very useful for hands on participation in case studies for a particular aspect of research administration, far more effective than straight lecture approaches. Besides of case studies, another good practice was listening to real experiences, the opportunity to understand working experience of people from different institutions, real life examples and the sharing of common problems. Another good practice is to allow the structure of training to be flexible enough to accommodate different understandings, and a bad practice is to keep things too rigid. It is important to understand the group and that they can be at different levels of knowledge and competences.

Some words must be spent about useful teaching methods. Almost all the participants of the interview agree that interactive workshops, with case-studies, are the best teaching methods for RMAs trainings. Also sharing good personal practices across the sector is felt like a very useful part of the training. All these elements are the key in helping having successful and most of all useful sessions.

Many respondents suggested possible specific tools for RMAs training:
- Dedicated webinars
- Immediate feedback tools such as anonymous poll based questions for the audience with real time results can let you know the level of understanding or confusion or differing opinions of your audience.
- A platform from where it is possible to create courses, manage users and track performance of online training.
- Videos and social media

- Mentorship programmes, one to one, experienced RMA with less experienced RMA
- Online project management tools such as Trello, Click-up, Monday.com, Microsoft Team, etc.
- Practical guides, "home-made" that help RMA master their tasks,
- Group training in a smaller context (20-25 attendants)
- Web based platform to exchange knowledge between and before courses

One of the problems related to the training of the RMA is that it is still something not very spread among research institutions. In the last years there has been an increase in the number of research institutions providing these trainings but still a lot of work has to be done in the internal implementation of trainings for RMAs. A common view among the interviewed is that the research departments should plan the annual training of RMAs.

Additional budget should be annually allocated for the training tools. If an organisation wants to develop a sound research management system, education and training of RMAs is crucial. However, research support offices in many countries are usually quite small, with a small number of people doing a little bit of everything, they are not specialized and due to a diverse number of tasks cannot commit only to supporting researchers in preparation and implementation of externally funded projects.

Thus, based on these outcomes it seems that the training of RMAs should be part of the standard list of courses at universities and at research institutions, and should also be available for RMAs and researchers as part of their training possible career development plan. Research institutions should be aware of their needs and the level of their staff and adopt and implement training according to that. This can be done through surveys or management meetings.

Concerning the content structure of the given training, what was the proportion of "research" related units (research theories, research and analysis methods, research planning etc.) and of "management" related units (related to e. g. financial, communication, application writing etc. skills), respondents had different previous experiences.

In some cases, the trainings they attended had all management related units. Others had different trainings where at least 50 % of the training is usually dedicated to legal, financial reporting and administrative rules: about 30% to proposal writing, 20% to research related units. On the other hand, there was not much focus on research planning and research and analysis methods. Other participants attended very specific trainings, where there were no research related units (70% of respondents), the training was aimed mostly at developing quality Horizon 2020 (Funding programme of the European Union for Research and Innovation) project proposals in terms of writing impact, addressing cross-cutting issues and planning communication and dissemination activities. In other experiences, the trainings in some research institutions were

mainly focused on soft skills, communication, strategy and project management. These cases related to trainings focused more on the management and administration than on methodology. Most trainers giving these trainings had a lot of experience in the methodology of research, but have little or no experience to the research management.

3.5. Experiences from Experts: The short-term joint staff training event - Trainings

During the event, Susana Moreira, from the Plataforma de Interface à Ciência (PIC), shared her opinion on what are most important training needs according to her experience:

- funding opportunities
- leadership and strategic skills
- proposal preparation
- project management
- Financial and accounting.

She highlighted the fact that there are no soft skills trainings and it is worth to emphasise that acquiring soft skills is important.

Interesting was the case of the Politecnico di Torino presented by Valentina Romano. The Italian University is developing trainings according to the different levels:

- early stage RMAs
- experienced RMAs
- leaders/managers.

Each one of the three levels participates to different tailored activities: **Table 18 – three levels**

Early stage RMAs	Experienced RMAs	Leaders/managers
- Internal staff training programme - Training by National Contact Point (NCP) - Ad-hoc training for RMA staff in Departments by the Central Administrative Offices	- Exchange of best practices with national, EU and extra-EU universities - Erasmus staff exchange - Advanced training by NCP - EARMA certificate in research management	- Exchange of best practices with EU and extra-EU university research managers - Training on leadership & project management - Specializing Master in university management - Participation to RMA international

	• EU and national working groups on specific subjects (i.e. ethics, open access, EU networks) • In-house training by external experts	conferences (EARMA, NCURA, INORMS)

According to the Politecnico di Torino case, both strengths and weaknesses in RMAs trainings were highlighted and shared with the participants:

Table 19 – Strengths and Weaknesses

Strengths

✓ Highly skilled staff

✓ Attitude to problem solving

✓ Proactive attitude

✓ Constant update on new trends

✓ Knowledge of international RMA environment

✓ Training on the job

✓ Networking

✓ Best practice exchange

Weaknesses

✓ Different legal framework at EU university level

✓ Difficult to organize training programmes if no recognized professional profile exists at national level

✓ No/very few Master's Degree for RMA in Italy

✓ International training certificates (i.e. EARMA) do not give formal qualification for RMA career development in Italian universities.

✓ Italian university system does not recognize the qualification of RMA professionals

✓ More attention to training on soft skills should be an asset

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4. Good examples of trainings and workshops for RMAs

Based on the answers we received and the necessities and needs identified by the participants, we identified some examples of good trainings and workshops for RMAs that could be used by research institutions to train their RMAs personnel. The following workshops were developed by ARMA UK, and shared by Nicole van der Westhuyzen from the UK Association.

1) Technical Knowledge Workshops
Technical Knowledge Workshops by ARMA focus on helping participants to acquire the knowledge and behaviours required to undertake particular aspects of their role. Participants can expect to hear from a recognised expert(s) in the topic area and can include individual and group activities and discussion.

2) Working with Political Institutions and Public Officials Good Practice Exchange Workshops
These events explore good practice across the sector on specific topics. They enable participants to hear from others working in this area and listen to good practice case studies from a range of institutions. They provide a chance to share experiences and expertise with colleagues in structured, small group discussions. The workshops are interactive, and delegates are expected to contribute and share in the discussions.

3) Executive Roundtables
Executive Roundtables are small, invite-only forums used as an opportunity for leaders to network and discuss key issues shaping the research landscape with colleagues across the sector.

4) Online Learning videos
ARMA currently offers a range of videos available online as part of training & development programme. The videos have the benefit of greater flexibility, allowing members and non-members to access training at a convenient time, as well as providing basic overviews to topics. The following videos are offered in various recorded presentation, webinar and video bite formats:
• Contract Law
• Full Economic Costing
• Introduction to Rankings and League Tables
• Introduction to Research Data Management

• Prevent Duty Requirements
• Research Integrity Concordat
• Social Media Strategy
• The UK Research Funding Landscape

5) Introduction to Research Contracts

The aim of the workshop is to provide research contracts professionals who are new to position with a broad overview of key aspects of the research contracts role. Most importantly, the workshop provides research contracts professionals with an appreciation of the context they work in, the core knowledge and skills required for the role and the training and development resources available to support their continued professional development.

By the end of the workshop participants gain:

- An overview of the research sector and funding landscape
- An understanding of the role of a research contracts professional and the work of a research contracts team
- An awareness of the typical internal and external stakeholders involved in the contract negotiation process
- Knowledge of key principles for contract negotiation
- Knowledge of key agreement types handled by research contracts teams and the key terms within those research and research related agreements
- An induction pack of resources to support their ongoing training and development journey
Target Audience

This one-day workshop is aimed at current or aspiring research contracts professionals with a maximum of 12 months experience in university schools, faculties, research centres /institutes and central offices.

Prior knowledge required

Attendees are not required to have any detailed prior knowledge before the session. Those new to the field will gain a good overview of the core elements of the role and those with some experience of the role will be able to consolidate their knowledge and further explore opportunities for development. Attendees will be provided with an induction pack of materials in advance of the session.

6) Supporting Research Proposals

This workshop is for those who wish to develop their skills and knowledge in supporting academics in the research proposal process. Building on the ARMA Induction Workshop, the sessions focus on costings, preparing a project budget, supporting academics in the writing of proposals, demand management and quality assurance processes. Other related issues such as risk management and ethics, submitting proposals and an overview of the peer review process are also considered. A mixture of presentations, case study and exercises/discussions, individually and in small groups with the opportunity for attendees to network with colleagues from other organisations are used.

By the end of the workshop participants:
· Have a clearer understanding of the role of research administrators when dealing with research proposals and quality assurance.
· Have an overview of how to deal with staff costs, indirect costs and estate costs.
· Know some of the issues associated with the other costs of carrying out research.
· Gain knowledge of processes for approvals, submission and peer review.

Target Audience
Designed for research administrators and departmental/faculty administrators who are involved in the preparation of research proposals, preferably with not more than two years' experience, or for those who wish to update their knowledge.

No prior knowledge required.

7) Induction
The aim of the workshop is to provide research administrators who are new to role with a broad overview of key aspects of the research administration role. Most importantly the workshop provides research administrators with an appreciation of the context they work in, both in terms of national research policy and how their role fits within their own institution.

By the end of the workshop participants:
• Have a clearer understanding of the relevant policy, legislative and funding frameworks relating to research and research administration
• Have an appreciation of the researcher's agenda in doing research
• Know where they fit in the research lifecycle and who they need to work with to get the job done

• Have a broad overview of the key aspects of the research administration role, especially in relation to developing and costing proposals, administering the project during its lifetime and participating in REF, audit and statutory returns.

• Be able to define 'research' and differentiate it from 'consultancy' Target Audience This one-day workshop is aimed at research administrators with a maximum of 12 months experience in university schools, faculties, research centres /institutes and central offices.

Prior Knowledge Required

Those new to research administration will gain a good overview of the core elements of research administration and will be equipped with the basic 'body of expertise' needed to carry out their roles. Those with a little more experience will be able to consolidate their knowledge and explore how different elements of research administration across the research lifecycle are linked.

8) Raising the Quality of Research Proposals

This workshop will provide information, advice, guidance and examples of good practice of improving the quality of research proposals. By looking at mechanisms to facilitate internal review, providing feedback on draft proposals and by understanding how funders make decisions. This workshop is for research managers and administrators who play a key role in helping academics to raise the quality of their research proposals. Research managers and administrators can play a key role in supporting academics in raising the quality of their research proposals by providing advice and guidance on how funders make funding decisions and by facilitating and contributing to internal review throughout the application process. Research funding is much more likely to be secured when the quality of the research application is demonstrable. Additionally Research Councils and other funders are increasingly urging universities to submit fewer research proposals of higher quality, with sanctions being put in place for those that don't comply!

By the end of the workshop, participants will:

• Understand why raising the quality of research proposals is important

• Appreciate the roles that the academic, research manager and administrator and the institution play in the process

• Have knowledge of several different approaches to internal peer review and feedback

• Have had the opportunity to discuss challenges and issues in their own institutional practice

Target Audience

This workshop is aimed at research managers who support the development of research proposals at either central or departmental / faculty level.

9) Post Award Finance

The aim of the workshop is to provide delegates with a specific and practical understanding of the processes for post-award financial administration within a university research management environment.

By the end of the workshop, participants:

• Have a broad understanding of the processes associated with financial administration of research accounts from start to finish
• Understand the importance of the work of financial administrators within the wider contexts of research administration and non-research finance.
• Have had an opportunity to network with peers in similar roles from across the sector

Target Audience

This is an introductory level course particularly suitable for those who are within the first 12 months of appointment in a post-award research administration role. The course may also be suitable for those who currently work in a pre-award or wider University setting and wish to gain greater insight into post-award administration. Prior Knowledge Required Participants will benefit from having basic accounts and administration experience in a university environment and an understanding of general financial terms.

10) Facilitation for Successful Collaboration

Nowadays there is increasing pressure on University Research Departments to initiate collaborations between diverse groups of academics, industry and community representatives to develop multidisciplinary and innovative research ideas, networks and projects. This course is designed to help research managers and administrators to develop the facilitation skills and plans to effectively manage the process of initiating such collaborations through short meetings. These skills enable participants to facilitate productive interactions that deliver creative ideas and the start of networks which ultimately result in innovative and successful research proposals. Trainers share with the participants their experience of facilitating collaborative workshops as well as the practical tools and techniques that used in workshops. This is based on a sound understanding of the importance of being as effective as possible within the short timescales available.

The course includes:
• Pre workshop questionnaire
• 1-day workshop
• Post -workshop guide – a summary of tools and techniques and a draft workshop planning template

By the end of the course participants have:
• Developed an awareness of how to influence and inspire people to engage and collaborate, using practical tools and methods.
• Experienced some well tested tools and strategies for engaging diverse type of groups and people.
• Explored the planning process and strategies for managing an effective short workshop The agenda will be tailored in response to the needs expressed in the pre course questionnaires. We will also ask you to bring to the workshop an idea for a collaborative event that you might want to facilitate.

Target Audience
This course is open to anyone who is responsible for bringing diverse groups of people together to collaborate.

11) Delivering Research Management and Administration
The workshop helps participants think through some of the challenges inherent in managing and leading a team or service to deliver high quality research management. Participants are encouraged to consider what high quality research management is in the context of their organisation. They then think through how they might lead the team or service through changes required to deliver that ideal, including considering what the possible options might be, understanding the change process, and bidding for and managing the required resources.

Learning Outcomes
By the end of the workshop participants:
• Understand the key contributors to high quality research management and administration
• Understand how to promote the value of high quality research management and administration within the organisation
• Understand how to manage change to deliver high quality research management and administration
• Understand how to resource change

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• Have exchanged ideas and experience with current Directors of Research Office and senior research managers

• Have begun to develop new networks

• This workshop is largely experiential and is delivered via case studies, group activity and discussion.

Target Audience

This one-day workshop is aimed at senior research managers who have, or are about to take on some responsibility for managing and delivering high quality research management at a team or a service level.

12) Leading Research Management and Administration

The aim of this workshop is to help new or aspiring senior research managers to develop their strategic planning and thinking skills in relation to the leadership of research management and administration, positioning research management and administration at their organisation within the broader local, national and international contexts.

Some of the topics to be covered during the two days include:

• Personal leadership style

• Values and vision

• Strategic insight

• Task focus

• Politicking and influence

• Leading proactively

• Change management

By the end of the workshop participants have:

• Begun to understand the context in which senior research managers operate

• Examined their role as an operational/strategic manager

• Identified their key stakeholders, partners and supporters

• Developed skills relevant to the senior manager role

• Increased their professional network

Target Audience

This workshop is for senior research managers within universities or funding organisations who have recently taken on new leadership responsibilities, or are aspiring to take on new responsibilities at a leadership level in the near future.

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13) Supporting Researchers with Research Data Management

This one day event provides an opportunity to share experience and expertise around how to establish a research data management service, how to provide support and training for researchers in different disciplines and how to manage the day to day challenges and issues of research data management.

By the end of the event participants:

• Understand the context in which Universities seek to provide support to research data management

• Have considered a case study of how to establish a research data management service

• Have considered how support needs may differ across academic disciplines

• Have considered different approaches to research data management training for researchers

• Have had the opportunity to discuss day to day challenges and issues in research data management

• Be aware of different approaches being taken by different organisations and have had the opportunity to discuss these and share information with colleagues from across the sector

• Have reflected on how they would apply their learning within their institution/context

14) Financial Planning & Reporting

As research funding become more competitive, organisations are continuing to diversify their research funding streams in order to develop a more balanced funding portfolio and to spread risk. This requires research managers to become more involved in planning and forecasting to ensure financial sustainability of the project portfolio over time.

The aim of this workshop is to provide delegates with a specific and practical understanding of post-award financial administration processes, within the context of managing a project portfolio. Topics covered will include:

- Post-award finance in context
- Institutional context
- Financial management
- Financial sustainability
- Reporting
- Planning and forecasting
- Ethics and governance

The workshop gives attendees the opportunity to meet and discuss financial topics in respect of research management with colleagues from across the sector.

By the end of the workshop, participants will be able to:
- Describe the key principles of managing project finance
- Assess how current political, environmental and social factors may influence development of the project portfolio
- Explain what an organisation should consider in order to maintain a balanced funding portfolio
- Understand how to use financial accounts to undertake a risk assessment across the funding portfolio
- Understand the role of the financial administrator within the broader organisational context

Target Audience
This is a management level course particularly suitable for those who have between two to five years' experience in a post-award research finance role.

Prior Knowledge Required
Participants are expected to have basic accounts experience in a university environment and understand financial terms such as ledger, journal and accrual.

15) Research Ethics: What you need to know
The workshop is an introduction to research ethics explaining its rationale and implementation in the context of research integrity and publication ethics. The aim is to provide research administrators an overall picture of the ethics process across the research life cycle.

By the end of the workshop participants:
• Have clearer understanding of research integrity and ethics
• Have a broad overview on the preparation of the ethics application
• Gained information on hot topics such as data sharing, deception, disclosure and research involving vulnerable groups
• Obtained practical insight into ethical issues with case studies
• Have an appreciation of the researcher's agenda in doing research and therefore will be more able to assist them
Target Audience

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This one-day workshop is aimed at research administrators with a maximum of 12 months experience in university schools, faculties, research centres /institutes and central offices. Prior knowledge required. Those new to research administration will gain a good overview of the core elements of research ethics and will be equipped with the basic 'body of expertise' needed to carry out their roles. Those with a little more experience will be able to consolidate their knowledge and explore how different elements of research and publication ethics across the research lifecycle are linked.

16) Developing Research Strategy

Research managers and administrators are increasingly involved in developing or contributing to the development of research strategy and either locally within their office, department or faculty, or at a university-wide level e.g. European/international strategy, open access, good research conduct, IP and commercialisation etc.

The aim of this one-day workshop is to provide research managers who have responsibility for or involvement in, research strategy development with:
• a 'step-by-step' guide to strategy development
• an insight into key factors for achieving strategy excellence
• Support from the peers in taking strategy forward

By the end of the day participants:
• understand the process for strategy
• have considered the key factors for strategy excellence, such as the type of language and structures that are used
• understand the importance of skills, including planning and organisation, written and verbal communication and influencing skills
• have had the opportunity to plan / reflect on a real-life example of strategy development from their own institution
• have shared experiences of strategy development with research managers from other institutions Participants will be asked to bring an example of strategy that they have been involved in developing or are about to develop, from their own institution.

Target Audience
This workshop is aimed at research managers who are responsible for the development of research strategy in their institution, at central, departmental or faculty level.

17) Developing Proposals: Identifying Funding Sources and Customers

Aim to:

• Ensure that all relevant individuals receive timely and accurate information on funding opportunities that have a close fit with individuals' and institutional research strengths and mission

• Gather 'intelligence' on trends in research and knowledge exchange funding to inform the institution's decision-making and research strategy, and alert individual researchers to upcoming changes and opportunities

• Build and maintain good working relationships with funders to ensure effective communication and flow of information

By:

• Understanding the institution's priority research and knowledge exchange areas

• Understanding groups' and individuals' priority research and knowledge exchange areas

• Clarifying researchers' objectives for seeking funding

• Disseminating information to researchers – email, newsletter, web pages, etc.

• Performing specific funding searches for researchers

• Assisting researchers to set up funding profiles and queries in web-based information systems

• Advising researchers on long-term funding strategies

• Interacting with funders to source/verify information

• Interpreting and helping researchers to understand funders' schemes

• Developing good relationships with key funders

• Organising information events (including funder visits)

• Identifying external trends in funding and feeding back to institution

• Building good working relationships with researchers on external funding/strategic panels to facilitate sharing of good practice

• Disseminate opportunities for researchers to apply for membership of strategic panels

• Briefing the senior management team on 'intelligence' gained from funders

• Delivering training on types of funding available for researchers at various points in their career

Indicative skills

- Information Search – identifying funding opportunities
- Information Management – sorting and disseminating
- Interpersonal – advising academics
- IT – web, content management

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- Training and Development – including event management
- Communication – keeping clear records, briefing colleagues
- Networking – to identify and share good practice
- Analytical – to understand funding policy

Previous knowledge required
- Funders' guidelines
- Individuals' and institution's priority research areas / areas of strength
- Web-based search packages
- Academics' funding histories
- Funding of research in the UK and overseas
- Recurrent schemes and opportunities
- Ad-hoc schemes and opportunities
- Awareness of potential areas for cross-disciplinary work
- Knowledge of funding policy context and legislative processes

Other good practices in RMA trainings can be found in the activities developed by BESTPRAC project. BESTPRAC is a COST Targeted Network that gathers administrative, financial and legal staff at universities and research-driven institutions who are carrying out different tasks to support transnational external competition based (in particular EU funded) research projects. The network serves as a platform for exchanging experiences, sharing and developing best practices, encouraging knowledge sharing, knowledge transfer and increasing efficiency in these fields. BESTPRAC activities can be divided into three groups: Working groups, Training schools and Short-term mobilities. Hereby we list some of the trainings organised in the framework of the project that can be used as a best practice also in other institutions.

1) **Training School: How to support successful grant proposals in FP9: from Cross-cutting Issues to Grant Writing**

The high complexity and competitivity of the current research and innovation ecosystem, with a growing diversity of funding sources associated with often complicated application processes, necessitates the support of research administrator experts in pre-award and, particularly in grant writing/grant revision. As such, research administrators play a key role in supporting both, research institutions and individual researchers getting competitive funding and improving successful rates, particularly in high competitive funding schemes as EU Framework Programmes for Research and Innovation.

The role of research administrators in institutions is now more important than ever, given the increasing need for external research funding. Securing science funding simply cannot perform without efficient processes running their engine. Scouting opportunities and support to proposal preparation, particularly in grant writing and revision, reinforced by a strong knowledge on EU funding programmes and its specificities are key to success.

Objectives

This training school is a three-day practical course designed for administrative staff who have been assigned to these tasks in pre-award, and who are familiar with the H2020 proposal preparation procedures, but have limited experience or training in grant writing/grant revision.

Topics
- R&D EU funding: from H2020 to FP9,
- Grant writing (focus on the Impact section),
- Cross-cutting issues (Ethics, Gender, Open access & Data management),
- Science communication.

2) Training School: Administration of research funding: dealing with several funding sources (for non-university research organisations in inclusiveness targeted countries)

Research organisations from COST inclusiveness target countries (Bosnia-Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Luxembourg, Malta, Montenegro, Poland, Portugal, Romania, Slovenia, Slovakia, the former Yugoslav Republic of Macedonia, Republic of Serbia and Turkey) have the possibility, but also the challenge to use several different funding sources for R&D and Innovation such as Structural Funds (INTERREG, ESF, EDRF, etc.) as well as Horizon 2020. Research administrators face several difficulties in this respect.

The BESTPRAC training school provides know-how and the possibility to discuss and exchange experiences. Furthermore, the training gives an input on the conditions of multi-project management with different funding sources from the points of view of project planning, implementation and reporting, audits, documentation requirements, etc.

The training school concentrates on practical examples, exercises and how to deal with multiple funding sources related to the financial administration.

Special attention will be given to:
- Session 1: *Project planning* (financial tools, budget calculations, cost categories, overheads, Consortium Agreement etc.)

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- Session 2: *Project implementation and reporting* (personnel costs and timesheets, other costs, financial controlling, amendments, internal and external communication and commitment etc.)
- Session 3: *Audits* (preparation and implementation for audits)
- "exchange mart" with bilateral meetings to encourage the participants to exchange their experiences and discuss challenges and best practices

3) Training School: Engaging Stakeholders throughout the Project Lifecycle – Personal Communication Skills for European Research Administrators

Objectives

Delivering research administration support for European-funded research projects can put communications skills to the test. Administration of intercultural and often virtual research teams in this context is highly characterized by facilitating interactions amongst diverse partners - while at the same time functioning as a gateway that defines the quality and efficiency of a project's lifecycle.

It is therefore paramount for Research Administrators to build trust and respect in order to maintain effective long-term working relationships. This holds true for the relationship with Principal Investigators (PIs) as well as for all other stakeholders involved in the project, such as project officers, internal service partners like Finance, HR and PR departments, and the general public.

To be a successful Research Administrator, one has to have excellent communication skills to work effectively, while maintaining their work-life-balance in this highly dynamic work environment.

Training School concept at a glance

The Training School on "Engaging Stakeholders throughout the Project Lifecycle – Personal Communication Skills for European Research Administrators" will equip Research Administrators with hands-on knowledge and personal strategies in order to be able to act as an effective communicator and facilitator for large European funded projects and their stakeholders.

This Training School is a blended learning training program. That means - in addition to the onsite training in Nuremberg – the participants will benefit from 4 preparatory **online modules** (for further details please see detailed announcement), offered via an online learning platform. Participation at the online phase is obligatory for participants of the training school. The online phase starts at April 20th and lasts until May 24th. Potential candidates are asked to make sure

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before applying, that they will be able to spend a minimum of 4 hours per week (5 weeks!) engaging themselves in group activities and processing tasks during the online phase. Log-In details will be distributed with the notification of acceptance.

Both, online and onsite trainings modules, contain shared information from the trainer team, group activities, simulations, and role plays that refer to European Research Administrator's specific work situations. The participants will receive in-depth individual feedback. Personal reflection time as well as fostering of knowledge exchange between participants.

5. Certifications

Analysing the replies to our question "**What was the certification levels of these trainings?**, 90% of replies were that no certification was issued after the training attended, only a declaration of participation in one case. Certification is still one of the main issues, even though some very good practices listed below are already put in place by different associations. Certification has found its way into almost every field of work for a reason: It helps advance the profession. Certification helps employers evaluate potential new hires, analyze job performance, evaluate employees, select contractors, market services, and motivate employees to enhance their skills and knowledge. Certificate holders benefit too. Certification gives recognition of competency, shows commitment to the profession, and helps with job advancement. Why certification is important? Why we think it could be an important asset for the figure and role of RMA profession? Professional certification might help to:

- Gain practical skills for the job, as it focuses on the knowledge and skills needed to perform real-world job responsibilities.
- Realize maximum benefit from a wide range of expertise areas.
- Learn all aspects of a specific type of career pursuit while also providing organization with a standard of assured excellence from these professionals
- Effectively integrate this career pursuits into one's specific work setting and environment.

We report here 3 examples:

1) ARMA:

The ARMA training aim to provide their students with flexible learning through either online or workshop supported pathways. The association issues two different types of certificates:

1. Certificate in Research Management: Foundation. This introductory certificate is aimed at those just starting out in their career and with no or limited experience in the sector. It

covers a broad range of topics required for an entry-level understanding of research management, including policy, funding, project management, culture, and impact. Duration: 6 months (online pathway).

2. Certificate in Research Management: Advanced. This certificate provides a deeper insight into the technical and professional skills needed in research management and looks in greater depth at the skills, roles and activities required to advance your career. Duration: 6 months (online pathway).

2) John Hopkins University:

1. Certificate in International Research Administration Management:

   The Master in Research Administration is designed to benefit research practitioners, including those currently working in higher education, government agencies, and independent foundations, as well as those who seek to begin a career in research administration. Students have to examine how the research enterprise is organized and led across the US, and internationally. Both the non-profit and for-profit sectors are examined to highlight any similarities and/or differences. Students also learn about the management of sponsored research programs in areas related to finance, information technology, and legal, ethical, regulatory, and compliance considerations.

   To foster career development, this program is designed to align with practitioner expectations, as well as with desirable outcomes identified by major associations, including the National Council for University Research Administration (NCURA), the National Grants Management Association (NGMA) and the Research Administrators Certification Council (RACC).

   This is a 12-course degree program, with classes offered online.

2. **Certificate in International Research Administration Management**

   Students pursuing a Master in Research Administration may obtain an additional credential by completing courses that lead to the Certificate in International Research Administration Management. This combined credential will prepare graduates for careers in the managing international sponsored projects and international contracting. Students can complete this program with only five additional courses, for a total of 17 courses to complete the Degree and the Certificate.

3) EARMA Research Management Certification:

EARMA's European Certification Programme is validated by the UK Award for Training on Higher Education (ATHE) in accordance with the Qualifications and Credit Framework (QCF) throughout

Europe. It has been developed in partnership with ARMA-UK who provide support services. The certificates are certified by the ATHE delivered in collaboration with ARMA(UK) on the following European Qualifications Framework (EQF) Level:

Certificate in Research Management (Europe) (EQF L5)

Who is this qualification for?

The Certificate in Research Management is a fully accredited professional qualification for professional research managers employed in Research Performing Organisations (RPOs) and Research Funding Organisations (RFOs).

How students benefit from the Certificate?

The Certificate in Research Management is designed to

- Improve your ability to support excellence in research across the research life-cycle and with different EU funding schemes.
- Support your development as an effective research manager, benefiting both you and your institution.
- Deliver opportunities for students to learn new skills and knowledge and enhance their ability to reflect on and plan improvements in their daily activity.
- Credit students for skills, knowledge and understanding obtained prior to undertaking the qualification as well as for those directly gained through participation in the qualification.
- Be appropriate for both full-time and part-time staff.
- Provide you formal recognition, by Ofqual, as a Research Manager which is regulated through the Qualifications and Credit framework (QCF) through Europe
- Assist students to build a network of professional colleagues in research management, both in Europe and beyond

Completion of the qualification involves up to 180 hours over 18 months of training.

References

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- A Professional Development Framework for Research Managers and Administrators, ARMA
- The Research Administration as a Profession (RAAAP) Survey – 2019, https://inorms.net/activities/raaap-taskforce/raaap-survey-2019/
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Annex 1

foRMAtion - Questionnaire

Introduction

We invite you to participate in the foRMAtion project by answering to this questionnaire. The filling of the questionnaire will take few minutes and the material collected will be analyzed in order to reach the following objective: Analyse the existing good practices about the current educational and training programmes, tools and methods for the empowerment of potential RMAs. The outcomes of the questionnaire will provide inputs for the implementation of a Methodological Guide and Good Practice Collection which will present and assess the existing training programmes and methodologies for RMAs, also checking their usability. The questions will be about your experience as RMA (Part A) and the training experiences, methods and practices encountered (Part B). Who are the RMAs? Research Managers and Administrators refer to the staff working on whose role is devoted to support some part of the research lifecycle, including, but not limited to: identifying funding sources and customers, preparing proposals, defining budget and submitting project proposals, drafting, negotiating and accepting contracts, dealing with project finance, employing staff on research contracts, reporting to funders, advising on research impact. Risks and confidentiality We believe that the risks associated with this research study are minimal; however, as with any online related activity the risk of breach of confidentiality is always possible. All responses are collected for scientific purposes only, within the scope of the project. Personal details will be processed and handled in accordance with European legislation including the General Data Protection Regulation (EU) 2016/679). Contacts for more information This questionnaire has been developed by a professional team with the ethical approval from APRE, the Agency for the Promotion of European Research, author of the document and from the entire foRMAtion consortium. Any questions or concerns should be directed to erasmusplus-formation@apre.it

1. PART A: About you as RMA. How many years in total have you been employed in the field of RMA?

2. How would you define your current role?
- ○ Leader – head of office, or responsible for leading strategic function(s)
- ○ Manager – subordinate to a leader but responsible for a team or functional area
- ○ Operational – responsible for undertaking specific duties, with no line management

3. PART B: Identification of good/bad practices Did you attend (as trainer or trainee) a specific training for the role of RMA?
- ○ Yes
- ○ No

4. If your answer was "Yes", can you give more details about the training? (structure, length, prerequisites for participants)? Who were the trainers?

5. Concerning the content structure of the given training, what was the proportion of "research" related units (research theories, research and analysis methods, research planning etc.) and of "management" related units (related to e. g. financial, communication, application writing etc. skills)?

6. What was the certification level of these trainings?

7. Do you implement training/coaching for RMAs?
- ○ Yes
- ○ No

8. If "yes" how did you decide the structure of the content, the topics of the training?

9. Mention a good and a bad practice you faced as trainee.

10. Mention a good and a bad practice you faced as trainer.

11. Please, share a useful teaching method for RMAs you experienced in the past.
12. Please, mention a specific supporting tool to train RMAs.

13. How these trainings should be adopted at research institutions?

14. Please, leave your contacts (name and surname, organisation, email address) if you would like to share more information about your experiences.

Annex 2

foRMAtion - Interview

Interviews were particularly useful for getting more into depth information about the good practices in terms of RMAs trainings. Interviews were also very useful as follow-up to certain respondents to the questionnaire, e.g., to further investigate their responses.

The first step was to clearly articulate what problem or need wass to be addressed using the information to be gathered by the interviews. This helped us keep clear focus on the intent of each question.

For the interview, we used the same question of the online questionnaire. It was easier to get info as we found this to be a faster and easier method compared to the online questionnaire, to get all the important info we needed.

Our objective was to define and analyse the possible adaptation of good practices in the field of training RMAs with a special regard to countries performing better in research, innovation and educational programmes. We explained that we were also circulating a survey, among training organisations working on EU educational and research projects, universities, experts for the identification of gaps and obstacles that RMAs have to face with, aiming at the identification of good practices.

It was a desk research on existing educational and training programmes, tools and methods for the empowerment of potential RMAs. We wanted to reach experts dealing with trainings for RMAs asking them about the composition and main features of these trainings, we wanted to learn more about the methodology and impact of the training.