

Intellectual Output 7

Guide and impact assessment for educating and training RMAs at HEIs backed by policy recommendations

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INTELLECTUAL OUTPUT 7

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List of abbreviations

EC	European Commission
FP	Framework Programme
HEI	Higher Education Institution
IO	Intellectual Output
KPI	Key Performance Indicator
NCP	National Contact Point
PoIS	Professionals on the Interface of Science
RMA	Research Management and Administration
RMAs	Research Managers and Administrators
RFO	Research Funding Organization
RPO	Research Performing Organization
RSO	Research Support Office
R&I	Research and Innovation
USP	Unique Selling Point
UVP	Unique Value Proposition

1. Executive Summary

foRMAtion aimed to support students in higher education as potential Research Managers and Administrators (RMAs) by reinforcing the high-level and transversal skills needed for developing and managing excellent European research, innovation and educational projects. For that reason, foRMAtion sought to achieve the following objectives:

- Collecting and evaluating good practices in the field of RMA training from different EU countries;
- Developing innovative tools, educational and training methods for the empowerment of potential students as RMAs among HEI students to acquire the necessary knowledge & skills (both soft & hard) as well as to support their career development;
- Making the profession of research management and administration attractive and raising awareness on the importance of RMAs, contributing to the preparation and implementation of excellent European educational and research projects.

One of the main goals of IO7 is to assess the outcomes, lessons learnt, short term results and impacts of foRMAtion. foRMAtion is a complex project to analyse because it includes several well-connected and interdependent parts. Thus, the impact of the project necessitated different approaches.

Methodology

First, a comprehensive initial impact assessment was carried out on the project, discussing potential outputs and the impact on the wider society. Then, parts of the project were analysed more thoroughly – following a sequential, exploratory mixed method design involving quantitative online pre- and post-surveys, in some cases followed by qualitative interviews. Finally, ex-post evaluation was conducted with the view of all the short terms results.

Units of analysis:

- the foRMAtion module at the partner HEIs,
- the foRMAtion international curriculum (IOs) and the teaching material (IO3) for courses,
- foRMAtion mentorship programme / blended learning mobility (C4-9) and the Methodological guide for the mentorship programme (IO4),
- Online foRMAtion textbook and self-development tool (IO6),
- RMA student seasonal school (C10).

Results of the Impact Assessment

The project implementation was successful: in most cases it went far beyond the original goals: foRMAtion became a flagship initiative within the RMA community and endorsed by the European Commission as well through ERA Action 17.¹

The project at large effectuated significant impact on various groups:

- participants, such as students, teachers, mentors, and RMAs from partner universities;
- organizations involved in the partnership;
- additional target groups, such as RMAs and RMA associations, HEIs beyond the partnership, policymakers and other stakeholders engaged.

foRMAtion Educational Module

The teaching of the foRMAtion module met the original expectations of students and provided them a better understanding of the activities of a research support office and the RMA profession. The course also contributed to clarifying whether it is a possible career choice for the students or not. By doing so, the module proved to be successful as it raised awareness towards the profession, motivated students and provided the necessary skills and competences to pursue this career option.

The courses also improved the knowledge of students on all targeted fields. Moreover, students became more conscious about their existing knowledge and skills relevant for RMA and they reported improvement in some area, including in the first semester: communication, teamwork, information search. For the second semester these areas were in particular: information search on specific topics, using digital tools for learning, written communication in general. With regard to these skills, students were asked to assess their original level of knowledge before the course and the current state after the course. Their self-estimation sometimes resulted in a decrease regarding certain skills or competencies which might be interpreted as a result of better understanding of the skill or the competence, its significance and the level at which students practice it. At large, it must be underlined that they could improve each of them, even if not at the level which was desired by the students.

Among the original plans, the knowledge improvement of teachers was also aimed at in the field of EU funded R&I programmes, project management methods, as well as of the use of innovative, digital, non-formal and high-quality tools and methods. All teachers confirmed self-improvement in most of these fields. Moreover, interviews with teachers confirmed the relevance of the module in every country but also the relevance of the international scope of the module which should be kept following the end of the project as well.

¹ Learn more about the action here: <https://earma.org/news/action-17/>

Moreover, the launching of the course raised awareness within the universities too. It not only extended the course offers but raised attention on the profession and the necessity of such professionals at institutional level too. All these short-term impacts can be considered of utmost important and fully in line with the original aims of the module and the project as such.

Following the second semester, difficulties related to the sustainability of the module exposed an important drawback: if the course is held by RMAs, it might be more challenging to get the necessary support to run it. This issue also came up when discussions started about the possible uptake of the module by entities beyond the partnership: even if RMAs were enthusiastic about it, to integrate the course in the university course offer, they needed the support of the academics and the leadership. This suggests, that the recognition of the profession and professionals still must overcome existing barriers within universities.

foRMAtion Mentorship Programme

In most cases, the self-assessment of students improved following the mentorship programme. Presumably, the intensive nature of the mentorship programme, the supporting environment secured by the mentors, and the successful accomplishment of the work plan not only motivated the students but also contributed to the more positive self-assessment of students. Slight decrease in the self-assessment of students was seen in punctuality, working with deadlines (or efficiency), and oral communication skills. Which was confirmed by the mentors as well: among weaknesses, if they listed anything, then it was time management, written communication skills, efficiency and critical thinking. This suggests that the mentorship as the first job experience of students revealed that these skills are extremely important and that they have not mastered these yet.

Students either strongly agreed or agreed that their mentor had an influence on them to acquire career in RMA. Moreover, five of out six students (83.3%) strongly agreed that their mentor acted as a role model during the programme. These results underline the relevance of such programmes in the promotion of the profession, as students had the opportunity to see RMAs in their real working environment, understand their work, their responsibilities and their potential impact. This may influence their career choice in a way that they might end up as RMAs or in similar jobs within the R&I ecosystem.

In addition, students highlighted the importance of real-life work environment: while during the classes they learnt about RMA in theory, now they could see the practical side of the profession. It was also underlined that having completed this programme students are better prepared to start working following their graduation, getting used to work culture and the atmosphere of a workplace.

foRMAtion Seasonal School

Based on their self-assessment, the seasonal school had a significant impact on students' knowledge on RMA as an activity. The most impressive positive change was measured in case of cultural and diversity skills, being good in communicating own ideas, team working, time management and information search on specific topics. This suggests that the activities of the seasonal school and the online learning resources could really effectuate positive impact on students.

The responses also suggest that once students get a broader overview and some practical knowledge in the field of RMA, at least half of them remains interested to the field – even if not as an RMA but using the knowledge and expertise in other future careers. Another important outcome is that almost everybody who gets insight into the daily life of research support staff (RMAs), start to appreciate them and recognize their expertise and profession. Based on this the importance of any programmes raising awareness on and giving introduction to Research Management and Administration has relevance on the long way leading to recognition of the profession.

Lessons learnt good practices and fields for improvement

Thanks to the structure of the project, during its lifetime, partners not only developed the outputs, but following the testing phase, they finalized these outputs based on the lessons learnt and feedbacks collected. The table below summarizes the identified good practices to be kept during the sustainability and possible pitfalls to be eliminated.

	Good practices	Fields for improvement
foRMAtion educational module	International class	Thorough explanation of assignments
	Invitation of guest speakers	Community of Teachers
	Wide variety and combination of offline and online tools	Change between or shift to online platforms
	Project Based Learning	
	Learning about job opportunities in the R&I ecosystem	
foRMAtion mentorship programme	Spending the mentorship abroad	Possible mid-term revision of the work plan
	Two mentors from different institutions or divisions	Community of Practitioners
	Remote Mentorship	Assessment of Mentors' Professional Improvement
	Specific assignment for students	

Seasonal school & online textbook	Learning about job opportunities in the R&I ecosystem	Certificate following the modular set-up of the textbook
	improving interpersonal and intercultural skills	
	Free-of-charge RMA certificate	

Target groups

The sustainability of project results and their potential uptake by organizations beyond the partnership created the need to identify the main target groups, channels to reach them and creating messages to address them. Project partners, therefore, invested significant efforts in mapping all possible target groups, understanding their needs and the best ways to make connections with them.

These target groups are the following:

- Higher Education Institutions,
- University Alliances and University Networks,
- Professional Organizations of RMAs,
- Networks and associations of researchers and/or teachers,
- Adult learning organizations,
- Research Funding Organizations,
- RMAs individually and research support offices of RPOs,
- Policymakers in research, innovation and education,
- For-profit companies active in research, innovation and education,
- National Contact Points.

For each of these target groups, tailor-made unique selling points (USPs) were developed. The most important aspects of these USPs are the following:

- Freely available materials,
- Flexible, innovative and unique approach,
- Easy adaptation to different learning environments,
- Answering labour market needs,
- Resulting in knowledge, skill & competence development,
- Supporting easier recruitment, easier training of newcomers,
- Contributing to more excellent & efficient Research Support,
- Contributing to increased competitiveness of RPOs.

Sustainability

The consortium put a strong emphasis on identifying the main components of sustainability, therefore each output was designed to allow long-term use by the partners, but also their adoption and adaptation by entities beyond the partnership if needed. Two main pathways were elaborated to ensure the further use of the project results. The first is the launching of the foRMAtion alliances, the second is the elaboration of potential projects based on the network, experiences and results of foRMAtion.

With the goal of establishing long-term cooperation among the foRMAtion partnership and research performing organizations willing to uptake either the educational module and/or the mentorship programme, during the autumn of 2022, the partnership launched the two alliances and published an open call to join these alliances. Beyond the adoption and possible adaptation of the project results, the partnership is willing to provide support in the field of methodologies and quality assurance for the organizations willing to join.

Moreover, the foRMAtion partnership assessed the feasibility of developing new projects in order to support the broader uptake and, possibly, the further development of the foRMAtion results. Two possible directions were identified: first, the elaboration of training and educational materials for the main target groups of foRMAtion, so for undergraduate students, or for PhD students or teachers. The second is to alter the target group and put RMAs in the focus of the next project. Lastly, the scheme of micro credentials which is still under elaboration by the European Commission aims to provide funding for initiatives developing the frames and best practices programmes. Further discussions are needed with stakeholders; however, foRMAtion results could be the catalyst of the education and professionalisation discussion in the field.

Recommendations

In favour of the sustainability of the project results and increased awareness on the profession, the following recommendations were formulated:

Research Managers and Administrators (RMAs) & Research Support Offices (RSOs)

Colleagues from all over Europe are recommended to

- to advocate the joining of the alliances and initiate the launching of the educational module and the mentorship programme in their RPO to make widespread the education & training of future RMAs,
- join the Community of Practitioners,
- to use the online learning resources to train newcomers or to develop specific trainings for colleagues working in research support or in researcher and teaching,

- to use the badges and logos, to promote the foRMAtion outputs and results to additional RPOs & contribute to reinforcing the foRMAtion brand,
- Seek the recognition of the specific skills and competences of RMAs.

Leadership and Management of Research Performing Organizations (RPOs)

Colleagues in leadership and management positions are recommended to

- acknowledge the specific skills and competences of RMAs,
- to give consent to join the Alliances,
- integrate the foRMAtion educational module and mentorship programme as such into the course offer of the universities and ensure that they are promoted adequately,
- extend the current educational programmes by integrating certain elements of RMA,
- enable in-house training of RMAs and possibly researchers or teachers, based on the foRMAtion online learning resources, to improve the competitiveness of the RPOs,
- promote the opportunity of doing internship / mentorship abroad for students to close the gap between the university offer and the labour market needs and to contribute to the awareness on the profession.

Research Funding Organizations (RFOs) and Policymakers

Together with professionals working in research support RFOs and policymakers are recommended to

- investigate the possibilities of funding for the education & trainings for future RMAs and RMAs already in the profession from different areas and levels,
- promote the Alliances among Research Funding Organizations to make widespread the education & training of future RMAs and to overcome the gap between the needs of the labour market & the offer of university education,
- continue to fund flagship projects that address the topics of RMA in their scope and activities,
- introduce foRMAtion as a reference point for training potential RMAs or newcomers in future calls and programme,
- create opportunities for networking, mobility, knowledge exchange at regional and national levels for RMAs, and acknowledge the specific skills and competences of RMAs,
- introduce legal frameworks for the recognition of the profession at institutional and national levels.

2. Introduction

The aim of the *Intellectual Output 7 (IO7) – Guide and impact assessment for educating and training RMAs at HEIs backed by policy recommendations* is threefold:

- to gather all lessons learnt, good practices identified and developed in the foRMAtion project.
- to measure the impact of IO2-IO6 and related project activities especially about students and teachers' skill and knowledge development, increase of creativity, digital skills, critical thinking, as well as their knowledge to become RMAs.
- to provide recommendations for the usage of project outputs (IO1-IO6) as well as for further advocacy of RMA education, training and acknowledgement – thus, to contribute to the sustainability of foRMAtion.

This guide starts with

1. the elaboration of the methodology of the impact assessment and
2. a summary of the results.
3. Identification of good practices and the possible areas for improvements.
4. the identification, characterization of the target groups,
5. the main messages of the project to address these target groups.
6. Measures and recommendations contributing to the sustainability and broad use of the project results.
7. deep dive into the details, the analysis and impact assessment of each project activity (annexes).

3. Methodology

3.1. Impact Assessment

One of the main goals of IO7 is to assess the outcomes, lessons learnt, short term results and impacts of foRMAtion. foRMAtion is a complex project to analyse and includes several well-connected and interdependent parts. Thus, the impact of the project necessitated different approaches. First, a comprehensive preliminary impact assessment was carried out on the project, discussing also potential outputs and the impacts on the wider society. Then, parts of the project were analysed – following a sequential, exploratory mixed method design involving quantitative online pre- and post-surveys followed by in some cases qualitative interviews. Finally, ex-post evaluation was conducted with the view of all the short terms results. The methodology of the impact assessment was elaborated by HETFAs and then the exercise was carried out by HETFAs as well. Contribution of project partners leading the analysed activities was also necessary: teachers circulated among students the preliminary and follow-up surveys, mentors supported the completion of the forms relevant for the mentorship programme, ISINNOVA & SPI developed and made available the surveys related to the online platform.

To assess the progress of the whole project, the quantitative and qualitative indicators defined in the Application Form and listed in Annex 5 were monitored. Information on quantitative indicators was collected from partners directly and assessed in line with the originally set target numbers. The assessment on the achievement of originally set qualitative indicators was carried out through qualitative methodologies, i.e., surveys and interviews.

As a general remark, it must be noted that the input of the foRMAtion Advisory Board members, bringing in important expertise from research and RMA, was strategically fed into the assessment of all intellectual outputs. They were invited to the foRMAtion events and activities and were constantly informed about the progress of the project (including the development of various outputs). With their active and continuous participation, the quality and the relevance of the professional materials were also guaranteed. This high quality was further strengthened by the external expert responsible for Quality Assurance who delivered throughout quality check both for the concept notes and the final versions of the outputs in two rounds.

During the different parts of the impact assessment the main target groups were put in focus, since most of the relevant impacts should be realized in relation to them.

Units of analysis:

- the foRMAtion module at the partner HEIs
- the foRMAtion international curriculum (IOs) and the teaching material (IO3) for courses

- foRMAtion mentorship programme / blended learning mobility (C4-9) and the Methodological guide for the mentorship programme (IO4)
- Online foRMAtion textbook and self-development tool (IO6)
- RMA student seasonal school (C10)

Target Groups:

- foRMAtion module
 - Teachers of the module
 - Students of the module
- Teaching material and international curriculum for courses
 - Teachers of the module
 - Participating Students of foRMAtion courses
- foRMAtion mentorship programme / blended learning mobility and the Methodological guide for the mentorship programme (IO4)
 - Participating Students
 - Mentors
- Online foRMAtion textbook and self-development tool (IO6)
 - Registered users of the online textbook
- RMA student seasonal school (C10)
 - Participants of the summer school

Impact assessment of the foRMAtion international module at partner universities

Impact assessment of the international module was implemented with the support of university partners (NOVA, Corvinus and Sapientia). The exact *impact* of the international module was assessed by using two sources of information:

- knowledge, motivation and skills of incoming student before the university semester, and at the end of the semester.
- teachers' evaluation on the progress of the class.

At the beginning of each semester an **online survey** was conducted with the **students** aiming at obtaining information about their knowledge, skills and motivation.² The survey consisted of questions about their existing experiences with research and its management. Skills and knowledge were measured with the self-declaration of students, using questions with 1-5 Likert scale. The same survey was repeated at the end of the semester as well. The completion of the

² The surveys are available at the following links: 1) first semester, preliminary survey:

<https://forms.gle/HT8JkLEongFv9YDb9>; 2) first semester, follow-up survey:

<https://forms.gle/guMbg43qJZ15bs5u6>; 3) second semester, preliminary survey:

<https://forms.gle/Vy3X9Je6otbx72UA8>; 4) second semester, follow-up survey: <https://tinyurl.com/2p85u7e3>.

survey was a mandatory extra-curricular task for students and a requirement to obtain ECTS credit after completing the course. Nevertheless, in case of the first semester, 19 students completed both surveys. During the second semester, 24 respondents completed both surveys.

Impact assessment of the foRMAtion international curriculum (IO2) and teaching material (IO3)

The curriculum was evaluated by processing the feedback of the teachers teaching the module at partner universities: one teacher from each university were interviewed at the end of each semester, so in total 6 structured interviews were conducted.³ Thus, they had the opportunity to provide detailed information about their experiences, including the extent of knowledge they have gained about research management and the RMA profession itself, their personal development during the teaching period, etc.

To apply a *cross-check method*, **students** were also required to give feedback on the structure and content of the curriculum via an **online questionnaire**. This questionnaire – which will provide opportunity to students to evaluate and give written feedback on the lessons – was the part of the survey circulated among the students at the end of the semester (see 1.1.).

Impact assessment of the foRMAtion mentorship programme / blended learning activity and the Methodological guide for the mentorship programme (IO4)

Six students and six mentors participating in the programme evaluated the mentorship itself through the pre-elaborated *Evaluation forms of IO4 Methodological guide of the foRMAtion Mentorship Programme*. Participants provided feedback on the quality, structure, implementation, impact and usefulness of the programme. In addition, at the end of the mentorship programme mentors assessed the practicality of the Methodological guide (IO4) pointing out its shortcomings and giving suggestions for its further improvement.

Impact on the improvement of students

Prior to the start of the blended mobility, Annex II of IO4 Checklist of skill and competences had to be completed by the students to assess their level of skills and competences necessary for RMA field. Following the end of the blended mobility the same document was completed by the students and reviewed by their mentor to analyse the improvement of the student as an impact of the blended learning mobility.

³ Link to the interview guide is available in Annex 6.

Unfortunately, tools for the assessment of the impact on mentors were not included in the methodology, although it would have been also useful to assess their personal and professional development.

Online foRMAtion textbook and self-development tool (IO6)

The online form of the textbook was designed in a way to operate and evaluate in an exact way, with real time data. For instance, **registration** was supposed to serve with a lot of useful information: number of interested persons, basic motivation and personal experiences in relation to RMA. Moreover, the webpage itself consisted of tools enabling the observation of the traffic and behaviour on the page.⁴ In addition, for those who finish the online curriculum, **a short ex-post survey** was arranged in line with the registration form to ensure the self-assessment of users of the online tool.⁵ However, due to the delayed publication of the different elements of the textbook and self-evaluation tools, in-depth assessment of users could not have taken place till the end of the project.

foRMAtion seasonal school (C10)

Entry surveys on the level of participants' skills and competences were completed before the seasonal school. The same **survey** was conducted with the students in the end of the short programme to assess their improvement and the impact of the activity.⁶ 10 participants completed both surveys, although it was a mandatory task for students. Recruited students also got opportunity to test the self-development tool (IO6). As the platform was further developed based on their feedback, it could really meet the needs of (future) users.

In addition, at the end of the seasonal school, participating students were asked to express their opinion and make suggestions regarding the organizational and professional features of the seasonal school via a pre-prepared questionnaire.

The figure below summarizes the different tools applied for the impact assessment of the different project activities and results.

⁴ The registration page can be found here: <https://it.surveymonkey.com/r/XJWCTRK>

⁵ The survey can be found here: <http://survey.spi.pt/index.php/228977?lang=en>

⁶ The preliminary survey can be access here: <https://forms.gle/ervSwk3czvcZrjcP9> and the follow-up survey is available here: <https://forms.gle/LYZJt168xc1KVfGc6>

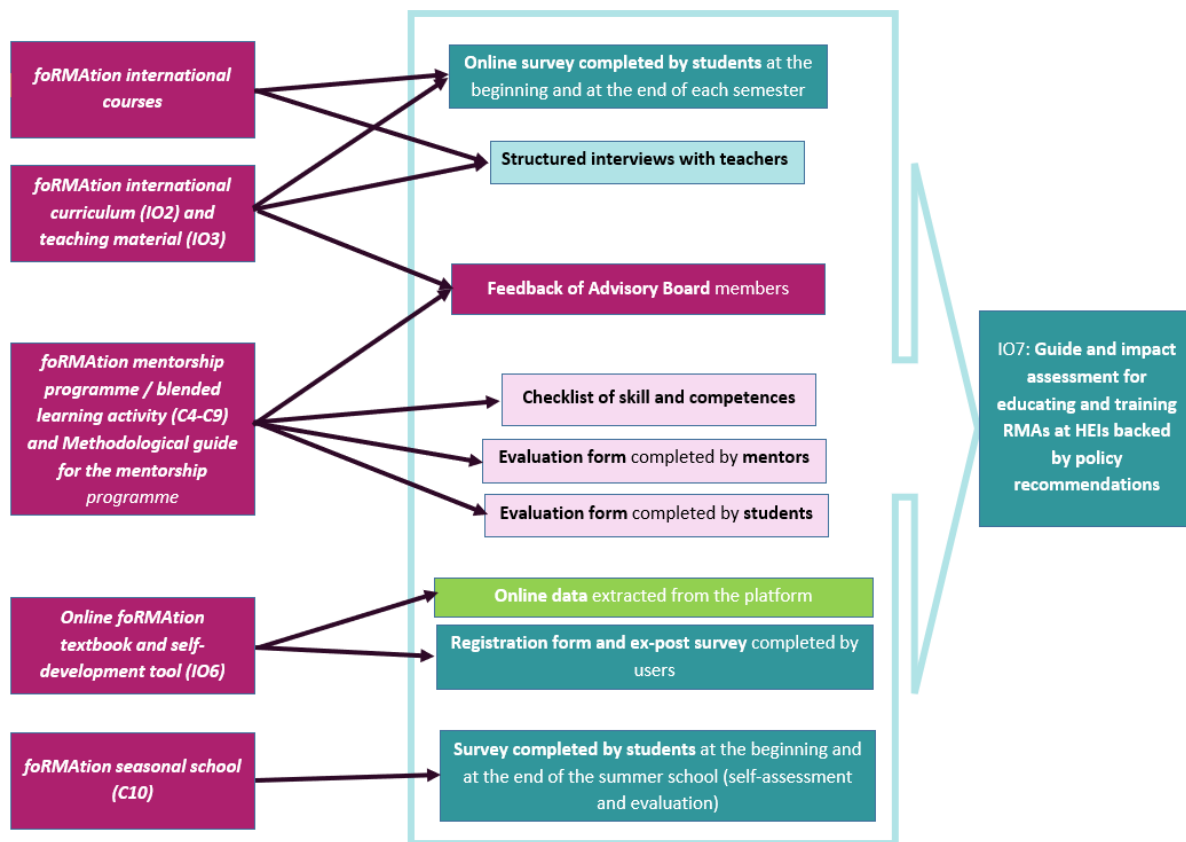


Figure 1 Subjects and tools of analysis

3.2. Gathering lessons learnt and formulating recommendations

In addition to the impact assessment, the objective of IO7 was to gather all lessons learnt, good practices identified and developed in the frame of foRMAtion project, furthermore to formulate recommendations for:

1. the usage of project outputs.
2. the channelling of project results into European research; as well as
3. further reinforcement of RMA education, training, professionalization and acknowledgement.

This goal was closely related to the endeavour of developing specific and realistic measures contributing to the sustainability of project outputs. To do so, findings of the impact assessment and lessons learnt concluded for IO7 provided the basis of the final update of IO2-IO6 ensuring these outputs' wide adoptability and transferability at European scale.

Continuous dialogue with the IO Leader Project Partners and the presentation of preliminary results of the impact assessment aimed to provide the platform to share their ideas and experiences. In addition, Advisory Board members and other involved RMA experts were asked to validate the formulated policy recommendations and provide further inputs.

The results and **feedback obtained through the communication and dissemination activities** (e.g., during the multiplier events and other events where project partners presented and promoted the Intellectual Outputs and project activities) were also used for gathering good practices. These events provided additional possibilities to reach and gain feedback from target groups beyond the participants of the project.



4. Impact Assessment

4.1. The project at large

The quality assurance and impact assessment of the project was an ongoing activity. From this view, it can be underlined that the project implementation was successful, in most cases it not only reached the original goals but went far beyond them. By building on a complex approach, developing innovative outputs and activities, after its first year, foRMAtion became a flagship initiative within the RMA community. The more professionals, teachers, students, institutions and associations become aware of the project, the more they wanted to get engaged. The extensive work of partners paired with their enthusiasm to develop high quality and broadly useable outputs raised significant attention from target groups and relevant stakeholders as soon as the first outputs were shared with the public.

Two major issues can be highlighted, however, having affected the project implementation in a negative manner, which necessitated additional efforts from the coordinator to ensure that the project reaches the original goals:

- COVID-19 pandemic: some activities were shifted online (teaching of the first semester of the foRMAtion module or the C3 Mentors Training) but some were postponed (C4-9 Mentorship Programme, C10 Seasonal school) half or one year later as the partnership insisted on keeping their originally planned format. This required, however, that the project was postponed by 4 months and contingency plans were developed constantly. Nevertheless, based on the feedbacks and the indicators collected, the postponement was reasonable and met the original expectations.
- BUDGET: The limited budget of Erasmus + KA2 projects, the fact that the project was approved with a decreased budget, as well as the lack of dedicated budget line for communication and dissemination required an important amount of additional investment from all partners, especially from the coordinator and the partner responsible for communication and dissemination.

Nevertheless, the project impacted significantly on various groups:

- direct participants of the project, such as students, teachers, mentors, and RMAs from partner universities,
- organizations involved in the partnership,
- additional target groups, such as RMAs and RMA associations, HEIs beyond the partnership, policy-makers and other stakeholders engaged.

Figure 2 and 3 presents the impacts of the foRMAtion module and the mentorship programme on the participants.

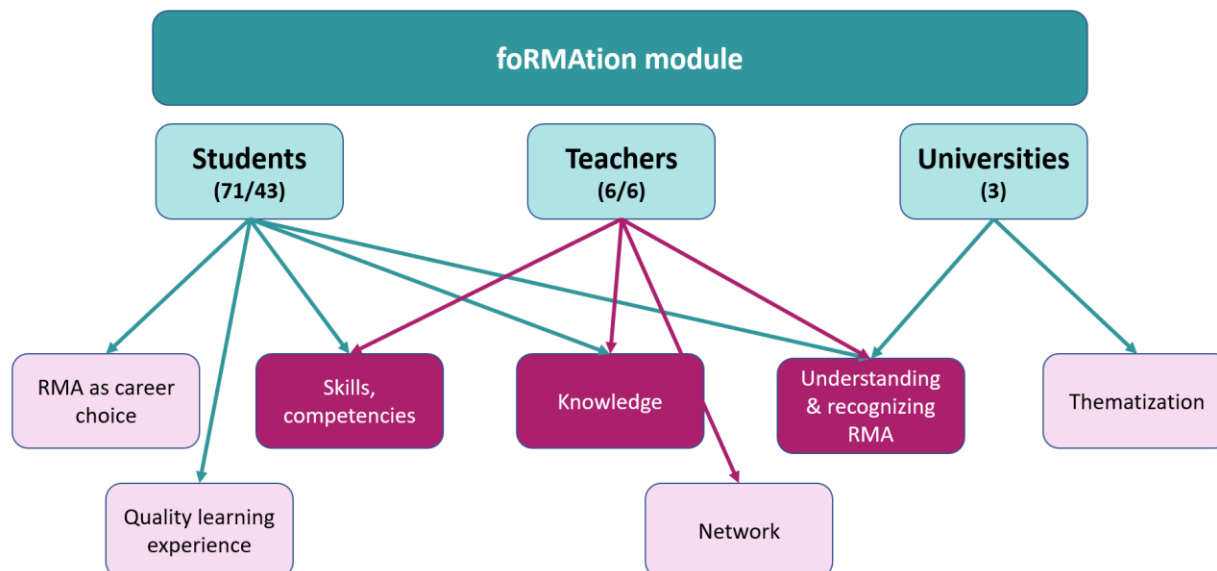


Figure 2: Impact of the foRMAtion module on participants

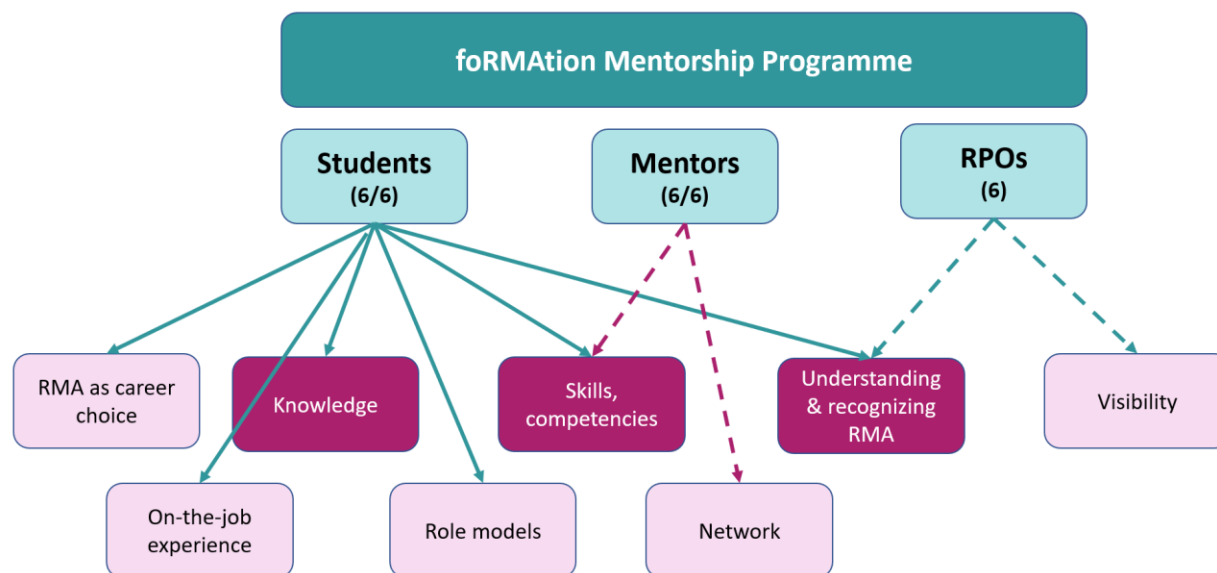


Figure 3: Impact of the foRMAtion mentorship programme on participants

As far as the qualitative indicators are concerned, the following table includes the originally planned and the realized KPIs.

	<i>Originally planned</i>	<i>Realized by 30 Dec 2022</i>
<i>No. of directly involved universities - partners</i>	3	3
<i>- including the universities having joined officially the foRMAtion Alliances</i>	<i>n.a.</i>	3
<i>No. of directly involved research organisations - partners</i>	5	5
<i>- including the RPOs having joined officially the foRMAtion Alliances</i>	<i>n.a.</i>	5
<i>No. of teachers involved in the teaching of the curriculum</i>	9	6
<i>No. of students taking part in the testing of the international module</i>	30	71
<i>No. of students participating in a blended learning mobility combined with mentorship programme</i>	6	6
<i>No. of students participating in the summer school</i>	12	12
<i>No. of involved mentors</i>	12	12
<i>No. of Advisory Board members</i>	7	7
<i>No. of involved policymakers</i>	40	46
<i>No. of involved experts</i>	40	123
<i>No. of joint trainings for staff - partners</i>	3	3
<i>- including staff of other RPOs participating at the two trainings organized for potential members of the Alliances</i>	<i>n.a.</i>	2
<i>No. of blended mobility of students</i>	7	7
<i>No. of multiplier events</i>	5	5
<i>No. of countries beyond the partnership reached out through multiplier events & dissemination activities</i>	16	42
<i>No. of reached Associations of Research Managers and Administrators (ARMAs)</i>	10	12+
<i>No. of monthly visitors of the blended learning platform</i>	50	<i>tbc</i>
<i>No. of followers of the final multiplier event (E5) through online broadcasting</i>	240	340
<i>No. of follow-up activities the project will generate</i>	12	12
<i>No. of certificates issued for students accomplishing the module</i>	30	71
<i>No. of certificates issued for students accomplishing the blended learning programme</i>	12	12
<i>No. of future co-operations between HEIs and research institutes through Erasmus+ Traineeship Mobility</i>	6	6
<i>No. of related events where foRMAtion will be presented & disseminated</i>	8	16

4.2. The first semester of the foRMAtion module⁷

Even if the curriculum was designed and announced to be open for any students from any scientific fields, based on the respondents of the preliminary and follow-up surveys, the majority of enrolled students came from international relations and European studies study programmes.

“This course has been the most modern course I have taken. Our professors tried to include new learning and teaching tools, making the whole course very practice oriented. In fact, during the whole semester we basically pretended to be professionals and implemented the gained skills and knowledge step by step into our projects. I am sure I have learnt things that will be useful in the future – one way or another.”

LILI MARÓTI, CORVINUS UNIVERSITY OF BUDAPEST

Responding students registered for the course because they wanted to learn something new and useful for their future studies and career; however, some of them found the RMA activity and profession interesting, wanted to enlarge their knowledge, related skills and competences, and there were students who considered it both before and after the course as a potential career opportunity.

The course met the original expectations of students and provided them a better understanding of the RMA activity and the profession. The course also contributed to clarifying whether it is an optional career choice for the students or not. By doing so, based on these first results, the module proved to be successful as it raised awareness towards the profession and motivated students having the necessary skills and competences to go for it.

The curriculum originally aimed to provide a general knowledge on the operation of EU funded educational, research and innovation projects and develop hard and soft skills, as well as digital skills of participating

“The foRMAtion course was also a great learning experience for me! The innovative nature of the teaching activities, based on Problem-based Learning with many online interactive tools, provided a very dynamic learning environment where students (and teachers!) had to really put their hands on the subject and solve many real-case tasks, providing a taste of the RMA profession. Also, getting to collaborate with many international RMA colleagues, to critically reflect and discuss the RMA activities that are my daily duties with the interesting questions and challenges put by my students... it was definitely hard work but very rewarding.”

Cristina Oliveira, NOVA University of Lisbon

⁷ The detailed assessment can be found in Annex 1.

students. The teaching material was planned to be interactive, involving various non-formal educational and digital skill development tools.

According to the responses, during the first semester, the course improved the knowledge of students on all targeted fields. Students also became more conscious about their existing knowledge and skills relevant for RMA and they reported improvement in some particular ones, including communication, teamwork, information search, and so on.

Among the original plans, the knowledge improvement of teachers was also aimed at in the field of EU funded R&I programmes, project management methods, as well as of the use of innovative, digital, non-formal and high-quality tools and methods. Based on the experiences of the first semester, all teachers confirmed self-improvement.

The enhanced understanding of the job roles of RMAs and researchers and the need of professionals for successful proposal writing and project management improved both among students and teachers. Moreover, the launching of the course raised awareness within the universities too. It not only extended the course offers but raised attention on the profession and the necessity of such professionals at institutional level. All these short-term impacts can be considered of utmost importance and fully in line with the original aims of the module and the project as such.

4.3. The second semester of the foRMAtion module⁸

In semester 2, the study backgrounds of enrolled students were more diverse: only 42% came from international studies or relations, 8% from European Studies. 17% were following communication and media studies, 13% business management and administration, as well, as 4% international business. Humanities were also represented by English teaching (8%).

Regarding the preliminary expectations, only a few students seemed to have a good understanding of the profession or describing it as a potential career choice. Different aspects of the course seemed to be appealing for the students; some emphasized the connection of the course to conduct research per se, others aimed to gather new knowledge or skills, whereas some aimed to get practical knowledge in domains related to their study background. Only two students referred to the increasing importance of the profession, even to the potential of making an impact.

Following the course, 87.5% confirmed that **they still found the RMA activity interesting and relevant**. Some of them reported that they got a better understanding on the profession and related activities, while others confirmed the importance of the activity and the related knowledge. Some answered yes but added that it might not be the potential career choice for

⁸ The detailed assessment can be found in Annex 2.

him or her. When the satisfaction of students was compared to their interest towards the profession, it seemed that those students were much more satisfied with the course who were interested in the profession.

Student being somewhat or very much satisfied with the course highlighted various aspects of the profession and the topics they learnt. The mentioned aspects, among others, were completely new compared to those mentioned in semester 1, as students referred to the opportunity of acquiring practical knowledge, especially through the discussions with experts; acquiring the knowledge and the possible impact of RMA profession; in-depth knowledge of research project management; career opportunities in science, etc.

Based on the survey, the students' knowledge related to the focal points of the course significantly improved. In the case of skills and competencies relevant for RMA, the picture is more diverse: positive improvement was reported in case of information search on specific topics, using digital tools for learning, written communication in general, whereas students gave lower degrees in their self-assessment in case of time management, oral

communication skills, and English knowledge. But it must be highlighted that even if in their self-estimation they indicated a decrease regarding certain skills or competencies it might be a result of better understanding of the skill or the competence, its significance and the level at which students practice it. But at large, it must be underlined that they could improve each of them, even if not at the level which was desired.

“Management is everything. Research is about development. The two combined are the future.”

NORBERT-SANDOR NAGY, Sapientia Hungarian University of Transylvania

“Research Manager as a profession in the EU ecosystem was a new, challenging and exiting course for the Corvinus University students. I wouldn't hesitate to consider it one of the best courses of my semester: I was eager to participate in it and did my home assignments, projects and group work with great pleasure. I was exposed to new and challenging information and equipped with important research tools that I have used to complete my other courses as well.”

YERKEZHAN MYRZAKHMETOVA, CORVINUS UNIVERSITY OF BUDAPEST

Interviews with teachers confirmed the relevance of the module in each country. Its flexibility even enabled the reflection on national circumstances and specificities. Each teacher confirmed the relevance of the international scope of the module which should be kept following the end of the project as well.

All interviewees agreed that through the course, their goal was to effectuate quality learning experience instead of going through the whole curriculum solely – this needed, however, preparation and constant reflection on students’ needs.

All teachers agreed that student could develop important transversal skills, competencies and attitudes. Students could also improve several interpersonal skills. Skills directed to their personal improvement were also increased. Moreover, student became familiar with their definition, significance and further opportunities to develop them.

The teaching of the foRMAtion module proved to be a continuous exploratory and learning experience for the teachers themselves as well. Beyond the teaching experience as such, two teachers underlined the opportunity of broadening their network thanks to the project and getting feedback from experienced experts thanks to the contact with the Advisory Board.

Two teachers highlighted that the teaching of the module provided a unique opportunity starting to thematize the issue of the RMA profession, which is important in all countries of participating universities as they are lagging not only in the recognition of the profession but even its existence.

Each of them confirmed that students became motivated and enthusiastic about the profession, they got an in-depth understanding on the RMA roles and the importance of the work carried out.

Following the second semester, difficulties related to the sustainability of the module revealed an important drawback: if the course is held by RMAs, it might be more challenging to get the necessary support to run it at the universities as their job description does not include teaching and to do so they should be employed as lecturers or teachers. This issue also came up when discussions started about the possible uptake of the module by entities beyond the partnership: even if RMAs were enthusiastic about it, to integrate the course in the university course offer, they needed the support of the academics and the leadership. This suggests, that the recognition of the profession and professionals still must overcome existing barriers within universities.

“The foRMAtion educational module is a gap filling initiative: it gives not only the theoretical knowledge necessary to work in research management, or in EU funded projects at large, but it also provides applicable and practical knowledge. Moreover, our students understood the significance and opportunities to develop their transversal skills and competencies.”

Ferenc Török, Sapientia Hungarian University of Transylvania

4.4. Mentorship Programme⁹

The foRMAtion mentorship programme was carried out in the form of a blended learning programme including international mobility. Six students were selected among those who accomplished the foRMAtion course at the 3 partners universities. Each of them was assigned to a mentor employed by one of the research performing organizations within the partnership – each from a different country than where the student followed the course. Due to the small number of participants, no major trends can be assessed regarding the programme; nevertheless, the results can showcase the changes at the individual level, which can be also important to see the possible impact.

In most cases, the self-estimation of students improved following the mentorship programme. This kind of positive impact is surprising, if we compare it with the assessment of the foRMAtion module. Presumably, the intensive feature of the mentorship programme, the supporting environment secured by the mentors, and the successful accomplishment of the work plan not only motivated the students but contributed to the more positive self-assessment of students. Slight decrease based on the self-assessment of students were tracked down regarding punctuality, working with deadlines (or efficiency), and oral communication skills. This was confirmed by the mentors as well: among weaknesses, if they listed anything, then it was time management, written communication skills, efficiency and critical thinking. This suggests that the mentorship as the first job experience of students revealed that they must develop in these fields.

Each mentor reported that students met the original expectations, or even added that they exceeded them. This suggests that the selection of students was well-prepared, their approach was made in line with the programme, and their initial knowledge on RMA was appropriate thanks to the accomplishment of the module. Among students' strengths, interpersonal skills, teamwork, analytical skills, flexibility and oral communication skills were mainly highlighted.

Students were overwhelmingly positive about their mentor. Each of them strongly agreed that the mentor helped them to understand their roles and responsibilities during the mentorship, informed them about the expectations towards their work, provided timely and constructive feedback and was an active listener. All these suggests that mentors were well-prepared for the programme and accomplished their role in an excellent manner.

Students were asked whether their mentor had an influence on them to pursue career in RMA. Three students strongly agreed, two agreed with the statement. Regarding the question “(s)he acted as role model” five students strongly agreed, only one was neutral. These results underline the relevance of such programmes in the promotion of the profession, as students had the

⁹ Detailed assessment of the Mentorship Programme can be found in Annex 3.

opportunity to see RMAs in a real working environment, understand their work, their responsibilities and their potential impact. This may influence their career choice in a way that they might end up as RMAs or in similar jobs within the R&I ecosystem.

Students also highlighted the importance of real-life work environment: while during the classes they learnt about RMA in theory, now they could see the practical side of the profession. It was also underlined that having completed this programme, students are better prepared to start working following their graduation, getting used to work culture and the atmosphere of a workplace. Among the main results of the mentorship, most students highlighted the improvement of several RMA related skills.

4.5. The seasonal school and the online textbook & self-development tool

The seasonal school was organized for 12 students at partner universities interested in RMA and having not accomplished the foRMAtion module. It took place in the form of blended mobility of learners, including online and physical learning and mobility parts: the latter lasting for 5 days.

“Cutting-edge teaching techniques, interactive and enriching classes, learning from experts, international experience, meeting new people...Couldn’t think of a better course!”

MARIANA NICOLAU, NOVA UNIVERSITY OF LISBON (SEASONAL SCHOOL)

As regards to their educational level of students completed both surveys (ten responses were collected out of twelve), seven students (70%) were following a bachelor study programme and three students (30%) were doing masters. Half of the students (50%) came from International Relations study programme, two from Science Communication (20%), one from Diplomacy and Intercultural Studies (10%) and one from History (10%).

Regarding the interest of students towards RMA as a profession, following the seasonal school, the proportion of positive answers increased by 20% decreasing the proportion of uncertain answers.

Based on their self-assessment, the C10 seasonal school had a significant impact on students’ knowledge on RMA as an activity. Only one student had previous knowledge on the topic. Following the seasonal school 80% confirmed that their knowledge improved very much.

Only a few responses were shared about the motivations and expectations of students: most of them aimed to get a better understanding of RMA that can be used later on, either in the academic or professional career.

Thanks to the seasonal school, the knowledge of students changed and was rated either as the highest or the second highest levels. When they were asked to share the most interesting topics, the answers are rather diverse, however, three aspects can be highlighted:

- 1) the opportunity to learn from professionals, referring to the RMAs of partner institutions contributing to the programme by sharing hands-on experiences and real-life examples,
- 2) budgeting, funding and financial issues,
- 3) working in teams (which were culturally diverse).

Both surveys required an estimation of students' knowledge and skills essential for doing Research Management and Administration. The most impressive positive change was measured in case of cultural and diversity skills (40% reported a better grade), being good in communicating own ideas, team working, time management and information search on specific topics (in each case 30% reported a better grade). This suggests that the activities of the seasonal school and the online learning resources could really effectuate positive impact on students.

"I recommend this course to everyone who is interested in society, providing value or increasing the knowledge in our society. Your background does not matter, nor if you, at the end, decide that RMA profession is not for you. This course can broaden your horizons, in terms of innovative learning and job offers! Besides, the international experience is more than a plus!"

ANAÍS GUERRA, NOVA UNIVERSITY OF LISBON
(SEASONAL SCHOOL)

These responses also suggest that once students get a broader overview and some practical knowledge in the field of RMA, at least half of them remains interested in the field – even if not as an RMA, but using the knowledge and expertise in their future careers. Another important outcome is that almost everybody who gets insight into the daily life of practitioners, start to appreciate them and recognize their expertise and profession. Based on this the importance of any programmes raising awareness on and giving introduction to Research Management and Administration has relevance on the long way leading to recognition.

5. Lessons learnt: good practices and fields for improvements

Thanks to the project structure, within the 40 months' long duration, partners not only developed the outputs, following the testing phase, they finalized these outputs based on the lessons learnt and feedbacks collected. This process supported by continuous quality assurance and reflections collected from the Advisory Board could ensure the broad usability of the outputs not only by project partners, but by any entities within Europe – paving the way for the long-term sustainability of the project results.

This chapter includes the lessons learnt gathered through the various methods of the impact assessment. These lessons learnt includes both good practices which can give a glimpse on the various innovative aspects of the outputs, and also addresses those issues which need more attention during the sustainability period.

5.1. *The foRMAtion module*

GOOD PRACTICES

1. International class

During the first semester, teachers from the three universities organized a joint (online) class with the participation of students following the foRMAtion courses. Teachers agreed jointly in advance on the topic and the exercises of the class where students had to work in mixed groups. Almost all students attended this international class and enjoyed the opportunity of meeting 'classmates' from different countries with different cultural and educational backgrounds. During the interviews, teachers confirmed that this international feature of the course should be maintained as it gives an additional added value to the whole learning experience.

2. Invitation of guest speakers to the classes

Based on the teaching methodology, teachers regularly invited guest speakers to the classes. The profile of the guest speaker depended on the topic: RMAs, experts specialized in certain topics, such as open science, ethics, public relations, researchers, or librarians were also participating for defined exercises. Students had to interview them based on previously formulated questions to gather first-hand information on a given topic. Students appreciated this opportunity; not only from the view of broadening their network but also for meeting real-life people with significant expertise in a friendly environment.

3. Wide variety and combination of online and offline tools

In principle, the course was tailored for in-person teaching including the use of a wide variety of innovative online tools, either for class work or for homework. However, due to the COVID-19 pandemic, the first semester of the course was taught entirely online, while the second in mixed set-ups based on the possibilities of the university: classes were held both in face-to-face and online formats. Based on students' and teachers' feedback, each version worked out well, even if in-advance preparations were needed by teachers.

4. Problem-Based Learning (PBL)

The main principle that guided the structure of the curriculum and the teaching methodology was the constructivist interpretation of the teaching-learning process, characterized by 1) a student-centred approach, 2) focused on the process and the result and 3) having as the main objective the development of skills, with the theoretical disciplinary content being understood as a tool to achieve this objective. To this end, Problem-Based Learning (PBL) was used as the main pedagogical approach, including interactive tools such as gamification and storyline methods, creating flexible learning opportunities with continuous feedback from the teachers. This approach was highly appreciated by students who mentioned several times in the feedback form that it was almost the only course during their university studies having those practical elements where they had to work on projects just as practitioners do.

5. Opportunity for students to learn about job opportunities related to science and take more conscious decisions

One of the ultimate goals of the project foRMAtion was to introduce Research Management and Administration as a possible career choice for students. Students accomplishing the course received a helicopter view not only on the profession itself, but also on the whole Research and Innovation ecosystem. Meeting and interviewing RMAs, working on real-life assignments and becoming aware of the skills and competencies they have and are needed for the profession, could help them to decide whether this profession is really a potential career for them, or not. In a few cases, students realized that they are rather researcher-type of persons, however getting knowledge about was also important for them. But in most cases, students became motivated towards the profession and could imagine themselves in the future as RMAs or other Professionals working on the Interface of Science.

FIELD FOR IMPROVEMENT

1. Thorough explanation of assignments

Both students' surveys and interviews with teachers highlighted that for each exercise thorough explanation had to be provided by the teachers to ensure that students understood it. Especially in case of group works, it is important if the time dedicated to the accomplishment of the exercise is not taken by lamenting on the possible understanding of the exercise.

2. Change between or shift to online platforms

As there are multiple exercises on various platforms included in each class, some difficulties were experienced by teachers. In the case of online teaching, sometimes it was challenging to change between different platforms (ending the use of whiteboard and starting mentimeter for instance) and ensure that all students could follow this step. The presence of two teachers, however, could easily overcome this issue as they divided the roles between themselves to make the change smooth. In the case of offline teaching, some teachers experienced that it was hard to get everyone online and complete the exercises there. Based on the experiences, these challenges can be easily overcome by preparations in advance.

3. Community of Teachers

To reinforce the opportunity of networking and exchange of experiences among teachers teaching the course at the three partner universities, a joint dropbox folder was set up and a few online meetings were organized. Despite these efforts, the share of materials and experiences remained limited, although at the end teachers confirmed that continuous communication and sharing experiences should be exploited in the future to raise the international feature of the module.

5.2. *The foRMAtion Mentorship Programme*

GOOD PRACTICES

1. Spending the mentorship in abroad

Students highly appreciated the opportunity of spending six weeks abroad while getting real-life job experience. Almost all students confirmed this in their report, that they enjoyed the programme both from the view of their career – getting a glimpse on RMA in a real research support office, being involved in the preparation or management of funded projects, getting

in touch with several professionals in a friendly working environment – and from their personal view as well – getting to know different working cultures, cities, countries and cultures– as well. As the project covered their costs it also gave opportunity for those students who previously could not have been involved in physical mobility programmes due to their limited resources. Fortunately, the Erasmus + programme can support similar stay in the frame of internship programme which can contribute to the sustainability of the mentorship programme.

2. Having two mentors in different divisions or institutions

Each student confirmed that the mentorship provided them a unique learning experience – which was amplified if they could get a glimpse on the work of different divisions or institutions of the hosting Research Performing Organization. So, in some cases, mentors shared their responsibility towards the mentee who could work with both. In this way the student got experience in even more diverse RMA (pre-award vs finances vs communication) or scientific fields (humanities vs natural sciences).

3. Remote Mentorship

The physical mobility part of the mentorship aimed to provide such a work experience for students when they could meet every day with their mentor, colleagues in the office – just as they were also employed by the host organization. However, as one partner organization is operating mainly in remote working, meaning that employees work primarily from home and go to the office occasionally. Consequently, the student spent the mentorship having mainly remote contact with the mentor; this worked out well, though it necessitated at least that much effort, if not more, from both sides starting with the establishment of the trustful relation through the professional guidance to realizing the social parts. Based on the feedbacks, it is doable, however, it also must be noted that the student missed interaction with other colleagues which could not have been realized in the way as they had been sitting in the office.

4. Specific assignment to meet RMAs from other departments or divisions

Beside the jointly elaborated work plan, one student received a specific assignment during the mentorship programme: (s)he had to prepare an overview on the research support services of the host organization by interviewing RMAs working at the different levels and departments. This task enabled the mentee to get an in-depth overview on the operation and

main challenges of RMAs and research support offices of the host organization. At the end of the programme, the student presented the findings to RMAs and the university management/leadership. Similar assignments could provide additional knowledge to mentees and could reinforce several skills starting with critical thinking, on the one hand; on the other hand, such an overview delivered by an external can benefit the organization itself.

FIELD FOR IMPROVEMENT

1. Definition of the work plan and possible mid-term revision

As a part of the online consultations preceding the physical mobility, a work plan had to be elaborated by the students defining the main learning goals for the programme. Mentors had to support the students to specify their own learning goals in line with the general learning goals and the overall aim of the mentorship programme. Following the programme, however, it turned out that due to the limited overview and knowledge of student in the field of Research Management and Administration and the services of the research support office(s) of the host organization, the work plan developed in the beginning of the programme might have to be revised and adjusted. If there are new areas which might be more interesting to students, they could be integrated into the work plan to enable students to take the most out of the programme.

2. Community of Practitioners

Similarly, to the case of the teachers, mentors were also invited to share knowledge and experiences before, during and following the mentorship programme. For that purpose, an e-mail list and a joint Dropbox folder were created, and a few meetings were organized. During the piloting of the programme, this community of mentors started to operate but with limited scale which was mainly the result of the fact that the programme was realized during the summer, meaning that it was quite hard to find an appropriate time doable for the participants. However, following the programme, fruitful discussions have started which should be followed up and continued in the frame of the alliance.

3. Assessment of Mentors' professional improvement

During the Mentorship Programme it turned out that it also has important effects on the professional development of the Mentors as well, not only that of students. However, the methodology of the impact assessment rarely included tools to assess the impacts at the level of the mentors. Therefore, it would be worth to consider adding certain questions to Annex 5 to be able to track down the changes in this target group as well.

5.3. Seasonal School & Online textbook

GOOD PRACTICES

1. Opportunity for students to learn about job opportunities related to science and take more conscious decisions

Similarly, to the module, students involved in the seasonal school received an overview on the profession as well as on the Research and Innovation ecosystem. Working on the online textbook and becoming aware of the skills and competencies they have and are needed for the profession, could help them to decide whether this profession is really a potential career for them or not. The profession became appealing for most of the students. These results suggest that the seasonal school as such could be also organized at any HEI in the future to promote the module and the profession.

2. Opportunity for improving interpersonal and intercultural skills

The seasonal school provided a unique opportunity for partner universities' students to work in an intercultural environment for almost a week and learn some basic notions of the RMA profession. Based on their feedbacks, each of them could improve several interpersonal and intercultural skills which was very much appreciated by them.

3. Certificate in RMA free-of-charge

RMAs bumping into the online textbook and self-development tool highly appreciated the opportunity of getting to access up-to-date and well-structured knowledge in RMA which is available free-of-charge. All of them succeeded with the self-development tool and received the foRMAtion certificate – some of them even shared it on social media promoting it further to the larger public.

FIELD FOR IMPROVEMENT

1. Certificate following the modular set-up of the textbook

Although the testing phase of the online textbook and the self-development tool was not long enough to get detailed assessment, based on the feedbacks, one important issue came up: it would be worth to divide the groups of questions of the self-development tool along the modular set-up of the online textbook. As a result, one should not go through all the questions at once, but it could be possible to answer the questions from the different modules separately.

6. Identification of target groups, channels to reach them and the Unique Selling Points of the project

The sustainability of project results and their potential uptake by organizations beyond the partnership necessitated the identification of the main target groups, channels to reach them out and the messages addressing them. Project partners, therefore, invested important efforts in mapping all possible target groups, understanding their needs and the best ways to make connections with them. The table below presents the results of this activity by characterizing the relevant target groups and explaining the most important Unique Selling Points of the project for them.



Target group	Description of the target group	Relevant foRMAtion outputs	Channels	Unique Selling Point formulated in short message
Higher Education Institutions	There are more than 5000 higher education institutions in 33 European countries providing education for 17.5 million students and job for 1.35 million people engaged in tertiary education and 1.17 million researchers. HEIs have a key role in contributing to innovation, competitiveness and excellence through providing education and training to students in the field of skills and competencies needed in the labour market.	curriculum, teaching methods, mentorship programme, online learning resources, seasonal school	events, e-mail, social media, networks of HEIs	<p>Academics / Management: It is no longer possible to achieve Excellence in Research without Excellence in Research Management. The foRMAtion educational module backed by the mentorship programme is a unique offer for any student studying in any fields, which provides competitive skills and knowledge demanded by the labour market. By teaching the course, teachers and RMAs can get access to up-to-date knowledge increasing their knowledge and competencies necessary for the engagement in highly competitive EU-funded R&I projects.</p> <p>Students: By accomplishing the course, they can get access to attractive and marketable knowledge, know-how, as well as can broaden their transferable knowledge and transversal skills. The mentorship programme is a unique opportunity to get real-job experience in an RPO and tailor-made guidance from a professional working in the field.</p>



University Alliances and University Networks	<p>After the 2022 Erasmus+ call for proposals, there are now 44 European Universities involving around 340 higher education institutions in both capital cities and remote regions of 31 countries, including all EU Member States, Iceland, Norway, Serbia and Turkey.¹⁰ This number will even grow as the new call for 2023 is already open.</p> <p>In addition, there are several university networks at regional or EU levels, such as LERU, AURORA, YERUN, EUA, GUILD UNICA, and so on. These networks are organized along different scope and providing pool of knowledge, better visibility, and platform for improvement of their members.</p>	<p>curriculum, teaching methods, mentorship programme, online learning resources, seasonal school</p>	<p>events, e-mail, social media, networks of HEIs, university alliances</p>	<p>In addition to the above-mentioned arguments, both university alliances and networks can increase their competitiveness by setting up working groups on RMA to enable the professional development of their RMAs and increase the support provided by their RSOs.</p>
Professional Organizations of RMAs	<p>The development of the profession embraces the emergence of professional groupings which also formalize themselves and provide a platform for professionals to exchange knowledge and experience, get support from peers, but potentially to receive training and mentoring. More than ten RMA organizations are already operating at national levels across the Europe, such as ARMA, DARMA, NARMA, ARMA-NL, PIC, but more are to come. In addition, transnational networks are also in place, such as EARMA, SRAI International.</p>	<p>curriculum, mentorship programme, online learning resources</p>	<p>E-mail, events of RMA associations, social media</p>	<p>The results of foRMAtion are freely available and can be used to train early career RMAs. The educational module and the mentorship programme can be adapted to different educational and training schemes, so potentially the association can develop an own training and/or mentorship model based on this.</p> <p>The development of such programme can contribute to the promotion and recognition of the profession itself and reinforce a stronger professional hub.</p>

¹⁰ See <https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative>



<p>Networks and associations of researchers and/or teachers</p>	<p>There are numerous regional, national and European associations and networks of researchers and/or teachers gathering members along research fields or methodological aspects.</p>	<p>curriculum, teaching methods, mentorship programme, online learning resources</p>	<p>events, e-mail, social media</p>	<p>The educational module backed by the teaching methods can be adapted to different educational and training schemes. They provide attractive and marketable knowledge, transversal skills, as well as professional connections to experts in a constantly emerging field where there is continuous need for highly skilled and qualified human resources. By teaching the course, teachers and RMAs can get access to up-to-date knowledge increasing their knowledge and competencies necessary for the engagement in highly competitive EU-funded R&I projects. The outputs are also useful to get a better understanding on the division of work between researchers and RMAs as well as other actors of the R&I ecosystem.</p>
<p>Adult learning organizations</p>	<p>The importance of adult learning and organizations providing adult learning are recognized at EU level, as they can support career development, improve employment prospects, provide transferrable skills needed by the labour market, improve social cohesion and active citizenship. According to the Education and Training Monitor 2030, 10.8% of adults aged 25-64 participated in adult learning.¹¹ According to the</p>	<p>curriculum, teaching methods, online learning resources</p>	<p>events, social media, networks of adult learning associations</p>	<p>The educational module backed by the teaching methods can be adapted to different educational and training schemes, including adult learning. They provide attractive and marketable knowledge, transversal skills, as well as professional connections to experts in constantly emerging field where there is continuous need for highly skilled and qualified human resources.</p>

¹¹ See Council Resolution on a Renewed European Agenda for Adult Learning at <https://www.consilium.europa.eu/media/53179/st14485-en21.pdf> Retrieved on 31 October 2022.



	<p>European Pillar of Social Rights Action plan, by 2030 60% of all adults should be participating in trainings every year.¹²</p>			
<p>Research Funding Organizations</p>	<p>Research Funding Organizations are performing funding and policy making roles and acting as intermediary agencies between the government and the academy. Besides national funding agencies or councils, regional and international funds are also active in the field of R&I. As suggested by Santos et al (2021), experts working in these foundations as Professionals on the Interface of Science, they are “required to share their advanced knowledge and skills with their peers and varied stakeholders across research and innovation ecosystems... They are key to bridge research production, societal needs and the political system”</p>	<p>curriculum, teaching methods, mentorship programme, online learning resources,</p>	<p>events, e-mails, impact assessment and policy recommendations</p>	<p>RFOs have several interests not only in receiving excellent and impactful proposals, but also ensuring that during the implementation phase they get what beneficiaries promised. As RFOs constantly raise the requirements, it is of their interest to train and recognize those professionals who can support researchers and innovators meeting their requirements. The online learning resources can serve as a basis of training newcomers at RFOs by providing an overview on the R&I landscape, policies and funding programmes, introducing the basic knowledge and skills necessary for the preparation and management of R&I projects. The curriculum and the teaching material can be used to prepare trainings held by NCPs for various target groups within their countries, including RMAs, researchers, companies, and so on. NCPs can also join the mentorship programme to develop their professional</p>

¹² See the European Pillar of Social Rights: https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights_en Retrieved on 31 October 2022.



				skills and to provide the opportunity for students to get a glimpse on their daily work.
RMA individually and research support offices of RPOs		online learning resources, RMA mentorship methodology, curriculum, teaching methods	Professional associations, e-mail groups,	For newcomers in RMA, the online learning resources can provide the basic knowledge and by accomplishing the self-development tool, they can get the certificate boosting their CV. By joining the mentorship programme, RMAs can develop their related skills with a special regard to leadership, but they can also build strong connection with universities and get visibility in these institutions to ease the recruitment of employees. Research Support Offices can enrich their internal trainings with the knowledge and methods included in the curriculum and the teaching methods. By doing so, RSOs can increase the efficiency of their operation, the excellence of the support provided, thus the competitiveness of their institution in EU funded framework programmes meaning that they can get more funding.
Policymakers in research, innovation and education	According to the recently adopted European Innovation Agenda, “innovation is essential to drive Europe’s competitiveness and to ensure the health and well-being of its citizens.” ¹³ Innovation is expected to contribute to addressing societal challenges, increasing green and digital	Impact Assessment & Policy recommendations	e-mail, events,	Policymakers must understand the added value of professional research support and the fact that it is no longer possible to achieve Excellence in Research without Excellence in Research Management. Relevant aspects, such as the importance of transversal skills, closed gap between the

¹³ <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022DC0332&from=EN>



	<p>growth, transforming the business landscape and markets. Innovation is, however, heavily connected to science, technology and education. Policymakers need support how to best arrange the interrelations and how to shape the relevant aspects of these policy areas to achieve impactful interventions.</p>			<p>university offer and labor market needs, increased competitiveness of RPOs and higher amount of EU funds absorbed shall contribute to policy-level support to transfer and adopt the foRMAtion module and the mentorship programme by universities and research institutes beyond the partnership. This shall support the recognition of the profession, support to national communities and associations, as well as the introducing the profession in professional classifications and frameworks of occupations.</p>
<p>For-profit think tanks and companies having solid R&I portfolio</p>	<p>The number of companies is constantly increasing across the EU. Companies active in services or industry represent almost 90% of all companies across Europe. Among the top skills needed by these companies, communication skills, teamworking skills, interpersonal skills, self-management skills, IT skills and problem-solving skills are included, companies should also invest in knowledge and skills building of their employees, though the trend is increasing. The participation of companies active in research and innovation is increasing in EU funded framework programmes as well necessitating their preparedness and the existence of relevant internal expertise.</p>	<p>online learning resources, RMA mentorship methodology</p>	<p>events,</p>	<p>As companies should increase the proportion of human capital taking part in training or self-development, they can do it either through the promotion of the online learning resources or the mentorship programme. Once employees acquire the basic knowledge through the online learning resources, they can get the certificate boosting their CV. By joining the mentorship programme, their employees can develop their related skills with a special regard to leadership, but they can also build strong connection with universities and get visibility in these institutions to ease the recruitment of employees.</p> <p>As it is no longer possible to achieve Excellence in Research without Excellence in Research Management, companies can increase the excellence of their staff dealing</p>



				with EU funded R&I projects, the excellence of their proposals and projects, thus their competitiveness in Eu funded framework programmes meaning that they get more funding.
National Contact Points	The networks of National Contact Points are support structures established by Member States (MS) and Associated Countries (AC) and recognized by the European Commission (EC) to help participants to access the different EU Programme opportunities. For Horizon Europe, there are 17 NCP different functions plus the NCP national coordinators network, giving support to participants across the different parts of the programme. It depends on the countries how they organize their system and distribute the roles; however, NCPs can be also understood as Professionals on the Interface of Science providing support to researchers and innovators to enhance their participation in HEU projects.	online learning resources, curriculum & teaching material, mentorship programme	events, e-mail groups, contact lists at EU/national level	The online learning resources can serve as a basis of training newcomers among NCPs by providing an overview on the R&I landscape, policies and funding programmes, introducing the basic knowledge and skills necessary for the preparation and management of R&I projects. The curriculum and the teaching material can be used to prepare trainings held by NCPs for various target groups within their countries, including RMAs, researchers, companies, and so on. NCPs can also join the mentorship programme to develop their professional skills and to provide the opportunity for students to get a glimpse on their daily work.



7. Sustainability

The consortium put a strong emphasis on identifying the main components of sustainability, therefore each output was designed to allow their long-term use by the partners, but also their adoption and adaptation by entities beyond the partnership.

Each output remains available online shared via various platforms, including the project website which will be maintained by HETFFA, Epale platform,¹⁴ Erasmus + project results platform,¹⁵ and so on. Dissemination activities in the second part of the project focused strongly on the promotion of the foRMAtion outputs and encouraging external stakeholders to their further uptake. Based on the feedbacks, these efforts proved to be successful, both the RMA community, and to a certain extent, policymakers from national and European levels started to understand the relevance of the foRMAtion outputs.¹⁶

Nevertheless, the partnership elaborated two main pathways to ensure the further use of the project results. The first is the launching of the foRMAtion alliances, the second is the elaboration of upcoming projects based on the network, experiences and results of foRMAtion.

7.1. foRMAtion Alliances for the educational module & mentorship

With the goal of establishing long-term cooperation among the foRMAtion partnership and research performing organizations willing to uptake either the educational module and/or the mentorship programme, during the second half of 2022, the partnership presented them to various stakeholders at the multiplier events, launched the two alliances and published an open call to join them. Beyond the adoption and possible adaptation of the project results, the partnership is willing to provide support in the field of methodologies and quality assurance for the organizations willing to join.

The offer to Research Performing Organizations aiming to join the Alliance(s) is the following:

- Invitation to **training events**: regular trainings are planned to be organized for newcomers to support the uptake of the module and the mentorship. These trainings are offered free-of-charge for organizations willing to join the alliances. The way they are realized (online or in-person) depends on the availability of funding.

¹⁴ See <https://epale.ec.europa.eu/hu>

¹⁵ See <https://erasmus-plus.ec.europa.eu/projects>

¹⁶ For instance, foRMAtion outputs will be made available at the RM resources platform, to be launched by the two projects, RM ROADMAP and CARDEA funded by the WIDERA-2021 call. Moreover, foRMAtion is among the references of the ERA Action 17 RESEARCH MANAGEMENT INITIATIVE – Enhancing the strategic capacity of Europe’s public research performing and funding organisations launched by the European Commission in 2022.



- Invitation to join the **Community of Practitioners** (teachers and mentors involved in the delivery of the programmes): opportunity to share experiences and learn from other Alliance members, ask support or guidance at regular online meetings, and at large, to enlarge the network of participants and create a real community of sharing.
- **Visibility:** by appearing with the name and the logo of the organization among Alliance members on the foRMAtion website.
- **Evaluation, impact assessment and quality assurance:** all members will get support by receiving the evaluation and the impact assessment of the operation of the activities. If necessary, interventions will be taken in order to ensure the high quality of the programmes.
- **Branding: foRMAtion badges and certificates** will be provided for the organizations and peoples involved.

7.2. Funding opportunities for the uptake and further development of foRMAtion results

The foRMAtion partnership also assessed the feasibility of developing new projects in order to support the broader uptake and, possibly, the further development of the foRMAtion results. Two possible directions were identified: first, the elaboration of training and educational materials for the main target groups of foRMAtion, so for students, or for PhD students or teachers. The second is to alter the target group and put RMAs in the focus of the next project.

foRMAtion 2.0 targeting students, PhD students or teachers

The goal of the possible project would be mostly like the one that foRMAtion had originally:

- to make Research Management and Administration attractive as a potential career for students,
- to provide knowledge, skills and competencies for students and PhD students in the field of RMA, either to train them as future RMAs or to support their initial steps in the world of research,
- to support that teachers and university professors get a clearer picture on the role and importance of RMA, as well as the necessary knowledge, skills and competencies enabling them to teach either the foRMAtion course or similar courses or programmes.

For that purpose, programmes funded by Erasmus +, such as the Teacher Academies or the Alliances for Innovation are considered relevant. On the long run, it might be also possible that a specific educational programme for RMAs in Europe could be elaborated.

foRMAtion 2.1 dedicated to RMAs

Based on the needs of the RMA community and the first feedbacks of the foRMAtion outputs, the partnership also considered important to follow a slightly different path and bring the foRMAtion results and their possible improvement closer to the RMA community and to develop a project aiming at:

- the transformation of foRMAtion results to meet the needs of different learning environment, especially adult education, to support the training of newcomers to the profession either internally within RPOs or at national and European levels,
- elaboration of additional modules supporting the knowledge and skill development of RMAs in specific areas, such as gender and inclusiveness, knowledge and innovation management, research integrity and ethics, science communication, and so on.

Although this direction is not fully in line with the original goals of the project, it is supposed to overcome an important gap with regard to the training offer of new-comers to the profession – which was also an important aim of foRMAtion when converting the developed outputs and making them available through the online educational resources and self-development tool. Such ideas could be integrated into the calls published within the Horizon Europe Widening Participation and Strengthening the European Research Area Work Programme, through the calls of ERA-TALENTS or Support services for professionalization of research management.

Micro-credentials

The European Commission recommendation on making micro-credentials working across institutions, businesses, sectors and borders was adopted by the Council of the EU in 2022. Micro-credentials aim to certify learning outcomes of short-term learning experiences, such as short courses or trainings. The system is supposed to offer flexible but targeted approach providing knowledge, skill and competence development beyond institutional frames enabling personal and professional development. The criteria of such learning courses are to ensure quality, transparency, cross-border comparability, recognition and portability.¹⁷

The Commission is still working on the scheme with Member States and even envisions to provide funding for initiatives developing the frames and best practices programmes. Further discussions are needed with stakeholders; however, foRMAtion results could become a flagship initiative in the field.

¹⁷ See <https://education.ec.europa.eu/news/european-council-approves-measures-to-standardise-micro-credentials>

8. Recommendations

During the project lifetime, the outputs of foRMAtion have been piloted, assessed, and the final outputs reflect all the experiences and lessons learnt. Feedback from end-users were not only collected for the purpose of evaluation, but for the assessment of short-term impacts.

Both the project and these results are welcome and highly esteemed by the RMA community and beyond, including teachers, professors, researchers and policymakers. In favour of the sustainability of the project results and increased awareness on the profession, the following recommendations were formulated:

1. RMAs & Research Support Offices

Professionals working in Research Management and Administration, but even professionals understood in a wider manner, PoIS are welcome to use all the project outputs which remain freely available. Colleagues from all over Europe are recommended to

- advocate the joining of the alliances and initiate the launching of the educational module and the mentorship programme in their RPO to make widespread the education & training of future RMAs,
- propose an ideal set-up for the people (RMAs & teachers) involved in the teaching of the module and the mentorship programme to enable the best learning & teaching environment,
- assess the relevance of possible adjustments of these programmes to enable their integration and realization in the given institutional set-up,
- join the Community of Practitioners to get up-to-date information on the operation of the alliances, experiences of colleagues from other countries, develop a knowledge base for the teaching & mentoring, support their own professional development,
- use the online learning resources to train newcomers or to develop specific trainings for colleagues working in research support or in researcher and teaching,
- use the badges and logos, to promote the foRMAtion outputs and results to additional RPOs & contribute to reinforcing the foRMAtion brand,
- Seek the recognition of the specific skills and competences of RMAs.

Joining these Alliances might require that RMAs must make their university (or RPO) management and leadership allied with the foRMAtion outputs. To do so, it is recommended to use the USPs developed in section 5. Moreover, possible adjustments can be implemented both in case of the educational module and the mentorship programme to address the current needs

of the organizations, e.g., integrating the module into PhD study programmes, and so on. For the organization and participation at the trainings and Community of Practitioners a wide range of funding opportunities available can be used.

2. RPO leadership and management

As it was presented, the foRMAtion educational module and the mentorship programme can be considered as unique undertakings; nevertheless, they have impressive impacts already on the short run. Any RPO aiming to increase its competitiveness in EU R&I funded programmes cannot ignore the importance of well-trained RMAs and RSOs providing excellent research support.

Therefore, colleagues in leadership and management positions are recommended to

- acknowledge the specific skills and competences of RMAs,
- consult with professionals working in the RPO's research support to evaluate the needs and possibilities of launching the educational module and the mentorship programme at the university or the RPO,
- give a consent to joining the Alliances to make widespread the education & training of future RMAs,
- consult with RMAs, researchers and teachers to find an ideal set-up for the people involved in the teaching of the module and the mentorship programme to enable the best learning & teaching environment,
- based on the needs assessment, take decision whether any adjustment or transformation is needed of the formation programmes to fit the educational and teaching frames of the RPOs concerned in the given institutional set-up,
- integrate the programmes into the course offer and ensure that they are promoted adequately,
- extend the current educational programmes by integrating certain elements of RMA,
- enable in-house training of RMAs and possibly researchers or teachers, based on the foRMAtion online learning resources, to improve the competitiveness of the RPOs,
- promote the opportunity of doing internship / mentorship abroad for students to close the gap between the university offer and the labour market needs and to contribute to the awareness on the profession.
- organize regularly the seasonal school in the format of summer or winter schools with the participation of students from universities members of the Alliance to give a glimpse on and motivation towards RMA for students.

3. RFOs and policymakers

We are living a momentum of the professionalization of Research management and Administration. However, amidst the increasing number of opportunities aiming to contribute to this goal, it is important to be prudent and act jointly with all relevant stakeholders to ensure that the needs of the RMA community as well as other actors of the R&I ecosystem are addressed, all possible synergies are exploited, and complementarities are reinforced.

Together with professionals working in research support RFOs and policymakers are recommended to

- investigate the possibilities of funding for the education & trainings for future RMAs and RMAs already in the profession from different areas and levels,
- promote the Alliances among Research Funding Organizations to make widespread the education & training of future RMAs and to overcome the gap between the needs of the labour market & the offer of university education,
- introduce foRMAtion as a reference point for training potential RMAs or newcomers in future calls and programme,
- create opportunities for networking, mobility, knowledge exchange at regional and national levels,
- acknowledge the specific skills and competences of RMAs,
- introduce legal frameworks for the recognition of the profession at institutional and national levels.

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Annex 1: Assessment of the first semester of the foRMAtion educational module

Following the first semester of the teaching of the foRMAtion module, the impact of IO2 and IO3 was measured, using two activities, namely the assessment of the preliminary and the follow-up surveys completed by students and the analysis of the interviews carried out with teachers.

The Survey

Students had to complete an online survey both at the beginning of the semester and at the end. Comparison of the answers collected at these two distinct moments was supposed to provide inputs for the assessment of the impact of the foRMAtion module.

The preliminary survey aimed to show the existing knowledge of students on Research Management and Administration: 1) as an activity; 2) as a profession; and 3) assess the previous knowledge and experiences related to the main topics of the foRMAtion module, e.g., EU research funding framework, research plan, funding plan, as well as skills relevant for the profession, such as networking, communication, teamwork, use of digital tools, and so on. In some cases, having background knowledge in RMA, students were asked to provide some explanation through open questions.

The follow-up survey included similar questions with the aim of showcasing the possible increase in their knowledge, skills and competencies. Therefore, students were asked to estimate their self-development. The other part of the survey requested them to evaluate the curriculum and the teaching methods, two important outputs of the project with the aim of gathering their feedback for the potential improvements of these outputs.

In both surveys, most questions were closed; formulated either in yes or no type or as Likert scale. The Likert scale was used for questions assessing the expected change in knowledge, skill and competence development, answers are gathered in this 5-grade system, where 5 stands for very much, 4: somewhat, 3: undecided, not really; 2, and 1: not at all.

Although the completion of the survey was compulsory, some of the students participating in the course failed to respond either the preliminary or the follow-up survey. Bearing in mind the limited number of students attending the courses at the three partner universities, the number of answers cannot provide trend indication; nevertheless, they are useful for detecting the short-term impact and fields for improvement.

The respondents of the assessed survey count to 19. (The preliminary survey was completed by 30, the follow up survey completed by 22 students.) Out of which 3 are from CUB, 8 from NOVA and 7 from SHUT. As regards to their educational level, 17 students were following a bachelor

study programme and 2 students were doing masters. Regarding their study background, although the course was designed and promoted to attract students from any field, participating students came from Social Sciences and Humanities; approximately 75% of them studying international relations, European studies, diplomacy and intercultural studies. The rest is enrolled in communication and public relations, history and sociology (see Figure 4). In case of NOVA and CUB, many students spent their Erasmus scholarship at the partner university coming from a foreign country.

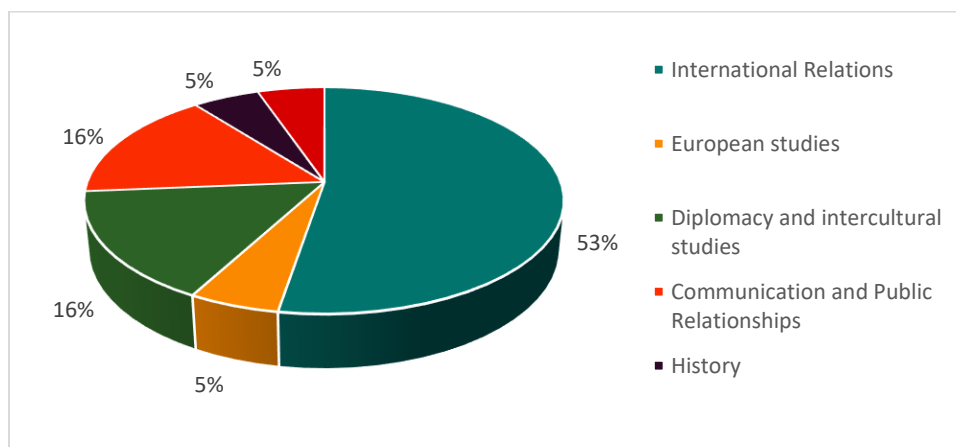


Figure 4 Students' educational programmes' scientific fields

Expectations of students related to the RMA activity, profession and the course

The question investigating the **reason for choosing the course** allowed multiple answers (Q: *Why do you plan to attend the 'Research Manager as a profession in the EU ecosystem: concepts, tools and practice I.' course?*). The majority (84%) of the students registered for the course because they found it interesting and most (73%) of them indicated that it would be useful in the future.

According to their initial knowledge, they found the **RMA activity interesting** due to various reasons (Q: *Why do you find the RMA activity interesting/relevant?*). Some students had already a good understanding of the core part of the profession stating that

- *"It can facilitate the work of researchers, leaving more space and energy for them to concentrate on the research itself",*
- *"It seems to be essential for the development of academic research and progress".*

Few students described it as a potential career choice:

- *"I find that managing a team, establishing connections with EU and other research institutes and helping researchers conduct their projects seems like something that I would really enjoy doing".*
- *"I could imagine working in this area later".*

Others were interested to learn something new, to gather new challenges in their studies:

- *"Because from everything we can learn something new".*

Some wanted to learn more about management:

- *"I want to learn more ... how to work with management."*
- *"It is connected to management ... in which I would like to improve myself."*

Others considered the course useful for future research work:

- *"It can help me when writing a research paper or analytic essay for other classes".*
- *"I think it will be a valuable tool in my profession future".*

Only 1 student confirmed that previously s/he was in a situation when the RMA knowledge would have been useful (Q: *Have you ever been in a situation where RMA knowledge would have been useful?*) referring to those situations when s/he was asked to develop scientific analysis.

After the course, all of them indicated that **they still found the RMA activity interesting and relevant** (Q: *Do you still find the RMA activity interesting/relevant?*). Many of them got a better understanding on the profession and related activities (*"I believe the RMA activity is very much relevant and necessary in the field of research and innovation"*). Some of them were motivated to go for RMA as a potential career (*"Yes, I am definitely considering this profession for my future"*), however, there was also one student who realized that for him/herself the profession of a researcher fits better (*"I feel like it made me more sure that I'd enjoy being a researcher more."*). (This student aimed originally to use the knowledge acquired in future research works, so from minute 0 she was not so much attracted by the profession). Students who originally indicated that the profession is a possible career choice for them, confirmed their intention in the follow up survey.

Both surveys included questions investigating the extent to which students were interested in the RMA as a profession. The figure below (Figure 5) illustrates the answers collected.

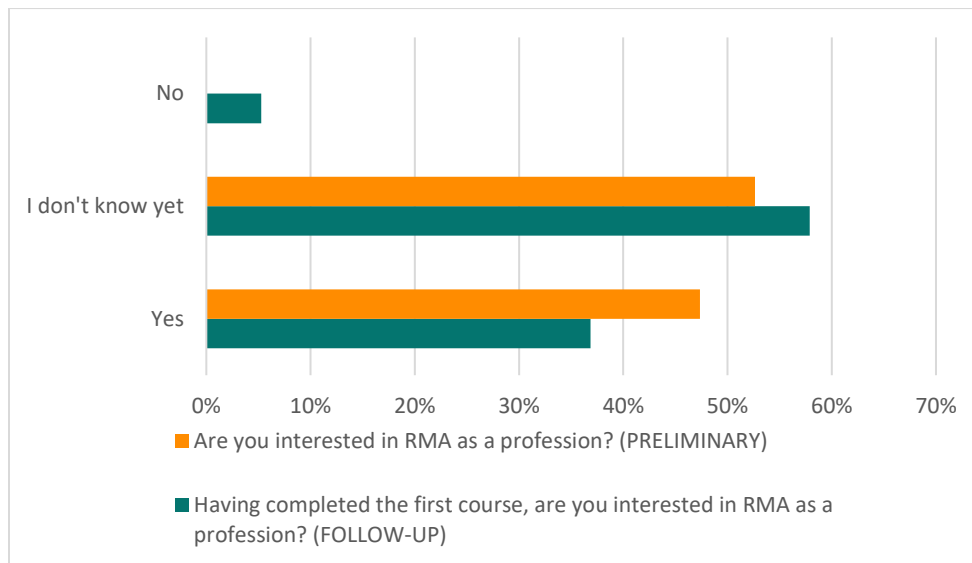


Figure 5 Students' interest towards the profession (n=19)

However, it is also important to see the change regarding the responses of students: six gave a more negative (or less confirmed) answer and only three gave a more positive answer in the follow-up survey (Table 1).

Table 1 The change in students' interest towards the RMA profession

Are you interested in RMA as a profession? (PRELIMINARY)	Having completed the first course, are you interested in RMA as a profession? (FOLLOW-UP)
Yes	I don't know yet
I don't know yet	No
I don't know yet	Yes
I don't know yet	I don't know yet
I don't know yet	I don't know yet
I don't know yet	Yes
I don't know yet	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
Yes	Yes
Yes	I don't know yet
Yes	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
Yes	I don't know yet
I don't know yet	Yes
Yes	I don't know yet
Yes	Yes
I don't know yet	I don't know yet

Regarding previous expectations towards the course (Q: *What are your expectations towards the course?*) the most frequent topics mentioned were as follows:

- getting a better understanding of the profession, related activities and the ecosystem,
- learning about the theoretical part,
- learning new tools and methods (in the field of research and research management),
- developing skills.

The follow up questionnaire inquired to what extent the course met students' expectations (Q: *How much did the course meet your expectations?*). 84% said that the course met his or her expectation either very much or somewhat, whereas only 16% was undecided about this (Figure 6). Five out of eight students indicating that the course met their expectations very much were still interested in the RMA profession, whereas 3 of them was uncertain about it. Opposed to them, only two students answering 'somewhat' regarding their expectations said that they were interested in the profession, and five were uncertain about it. In short, those who were interested in the profession tended to be more satisfied with the course as such, compared to those who were uncertain about their interest.

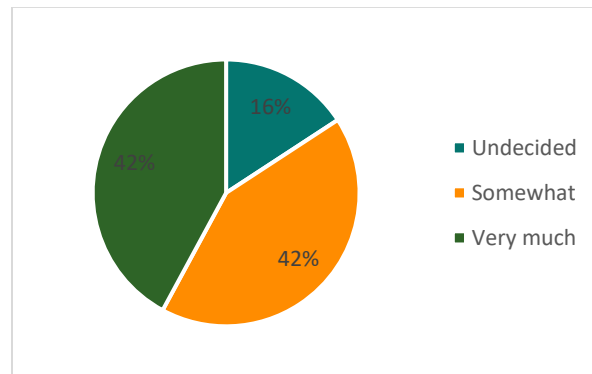


Figure 6 The extent to which the course met students' expectations (n=19)

Those saying very much highlighted various aspects of the profession and the topics they learnt (Q: *Have you learnt something particularly interesting that motivates you to go further in this direction? If yes, could you elaborate a bit?*). They mentioned among others:

- providing support to researchers which can also enlarge the knowledge of RMAs: *"I think it is interesting how one as an RMA can keep expanding their knowledge by working with researchers and in an international community, and it is also exciting and challenging to find funding opportunities which benefit the interest areas of the researcher, too"*.
- how complicated the RMA tasks can be whereas how important it is to carry them out in a professional manner: *"opened my eyes how much work this profession need to have"; "I have learnt that a Project Manager has a lot to do, very important tasks, he/she has a*

weight on his/her shoulder, and a small mistake can cost a lot. I would like to research this field further, but knowing this, I don't know if I would like to practice this thing also”.

- the necessity of being highly skilled in communication, networking: *“I really like the fact that RMAs have to invest in their communication skills and that networking is a part of the job”.*

Knowledge related to the topics covered

Students were asked to assess their previous knowledge and then their acquired knowledge related to topics covered by the course.

Research Management and Administration

Only one of the respondents had previous knowledge and experience related to Research Management and Administration as an activity which was there due to the curiosity of the student. Two of them attended course(s) in project management previously. When students were asked to estimate to what extent their knowledge improved on RMA as an activity, 63% said very much and 37% said somewhat (Figure 7). Among those who had previous knowledge in project management or specifically in research management, one response reported the improvement of their knowledge very much, the two others responded somewhat, so even in their case the impact of the course can be tracked down.

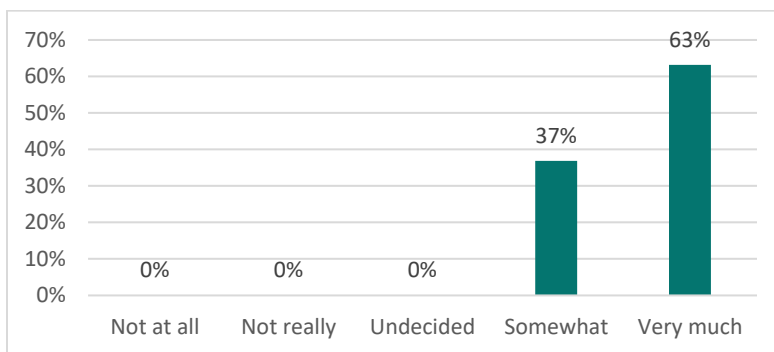


Figure 7 Improvement of knowledge on RMA as an activity (n=19)

EU research funding framework

Although many students were following international relations and/or European studies programmes, only two of them indicated that they had any previous knowledge related to the EU research funding framework. They gathered this knowledge by attending related courses and reading related papers. Respondents confirmed that their knowledge was improved in this field too (63% very much, 37% somewhat, Figure 8).

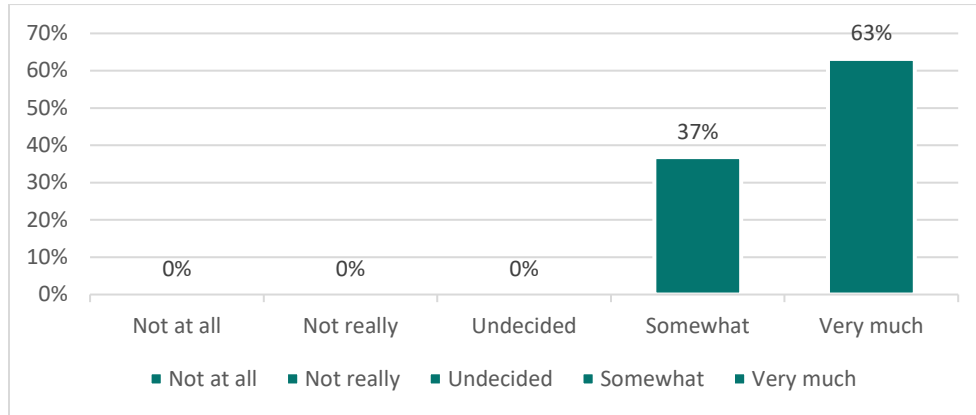


Figure 8 Knowledge improvement on EU research funding framework (n=19)

Being familiar with scientific research projects

Students had to estimate the extent to which they were familiar with scientific research projects in both surveys. Figure 9 presents a positive improvement in general, but it is also important to see that only half of those who confirmed their familiarity before the course at a high level stated the same after the course. The result suggests that the course managed to provide a glimpse on the complexity of scientific research projects; but acquiring more in-depth knowledge might necessitate additional efforts from the students.

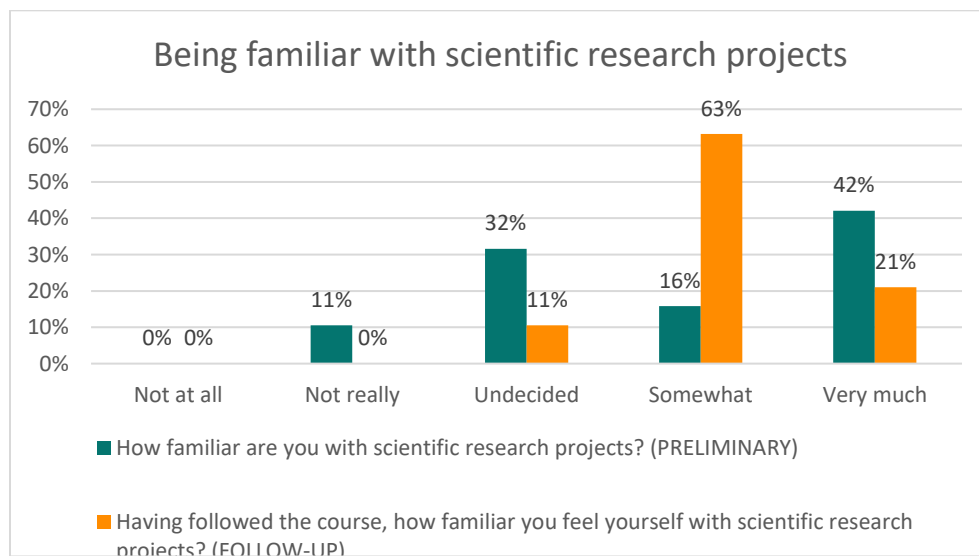


Figure 9 Comparison of familiarity with scientific research projects before and after the course (n=19)

Funding plan for research

Almost one third of students prepared previously a research plan, whereas only one made a funding plan for research before the course (Figure 10).

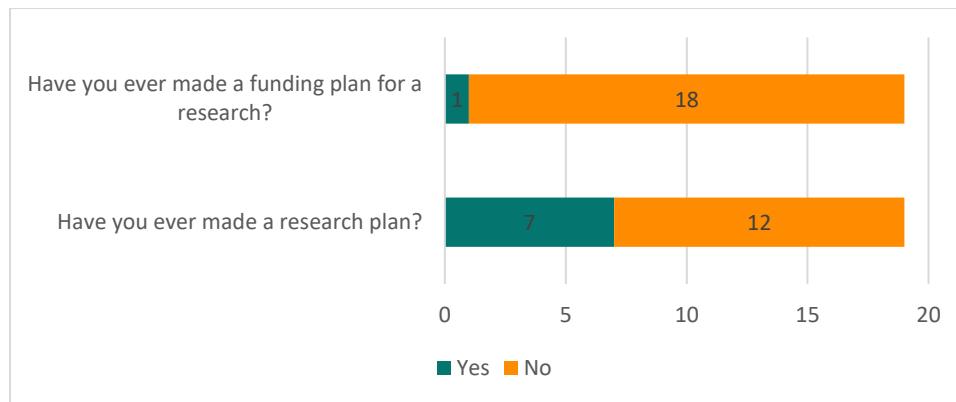


Figure 10 Students' experience before the course related to research plan and funding plan for research (n=19)

According to the self-estimation of students, a positive shift can be tracked down; regarding the formulation of a research plan 42% confirmed that their knowledge improved somewhat and 58% respondent very much. Regarding the preparation of a funding plan for research 32% stated that their knowledge improved somewhat, 47% responded very much.

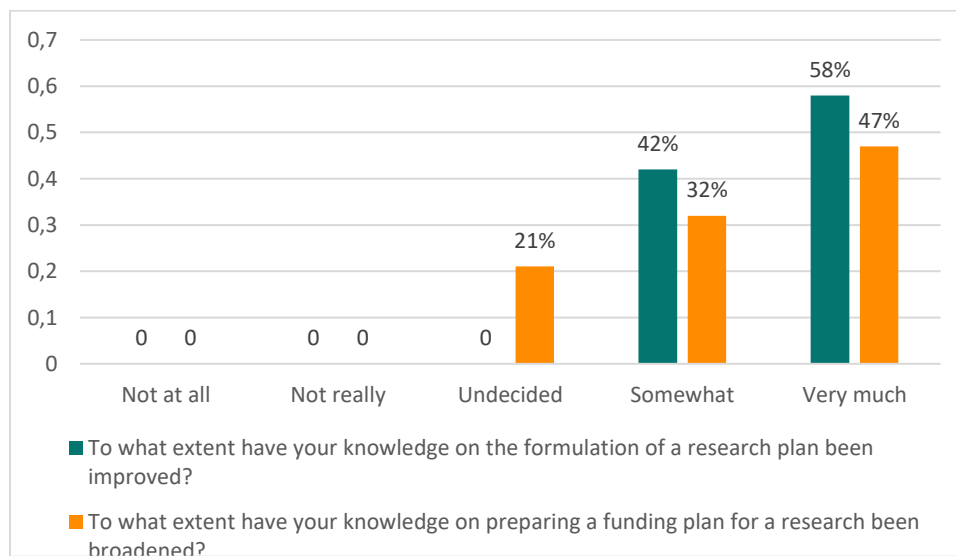


Figure 11 Improvement of students' knowledge related to research plan and funding plan for research (n=19)

Knowledge about research funding, governance and management

Students also provided a self-estimation on their knowledge about research funding, governance and management before and after the course. Figure 12 presents the answers of both surveys demonstrating an outstanding improvement. Almost all students indicated two or three higher degrees after the course.

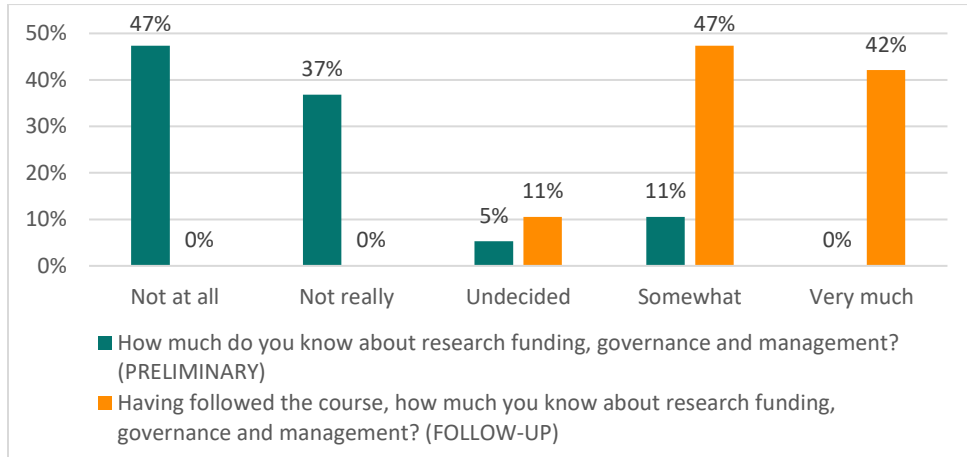


Figure 12 Improvement of the knowledge of students on research funding, governance and management (n=19)

RMA related knowledge and skills

Both surveys required an estimation of students' knowledge and skills essential for doing Research Management and Administration. The rating was done in a 5 grade Likert scale, where 5 stood for excellent and 1 for inexistent. The change between their own self-estimation is presented in Figure 13 where orange illustrates the number of students assessing a decrease, whereas green illustrates the number of students assessing an improvement in case of the listed skills.

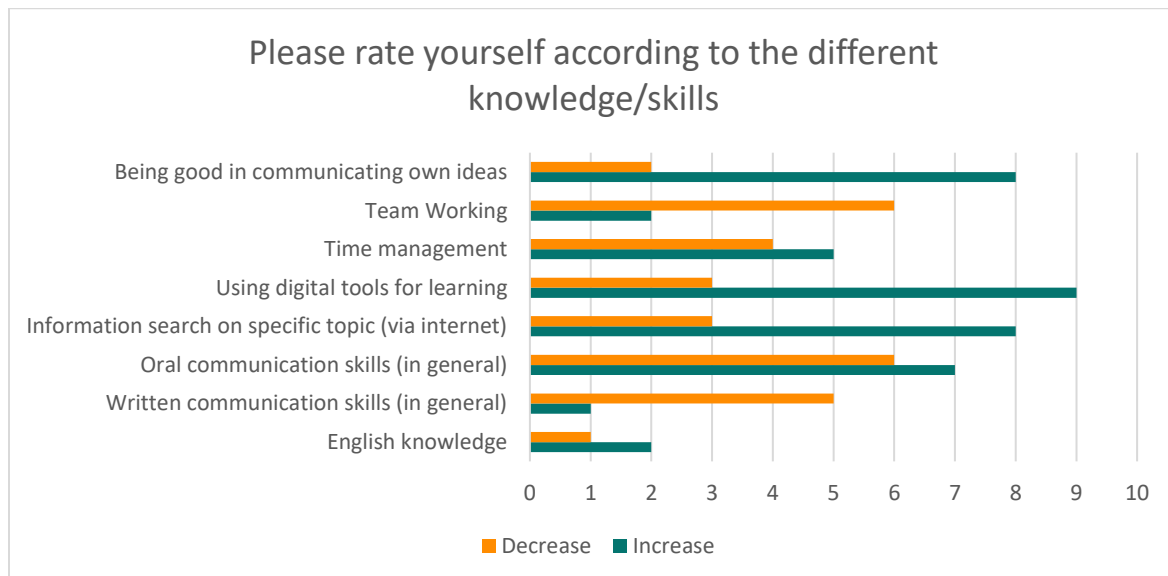


Figure 13 Self-rating of students in the different knowledge and skills related to RMA (n=19)

Generally, students gave 1 higher or lower grade in the follow-up survey. There were only a few where the difference counted to two grades. Important is to highlight those areas where most students declared a positive change, which are as follows:

- using digital tools for learning,
- being good in communicating own ideas,
- information search on specific topics,
- oral communication skills.

Nevertheless, it also must be underlined that in some cases, students declared a negative change in the following areas:

- team working,
- oral communication skills,
- written communication skills,
- time management.

Presumably, following the course they became more aware of the extent of the necessary knowledge and skills which made them more conscious. Nevertheless, it is hard to say that only the course impacted such decrease in their self-assessment, other factors, such as remote and online learning due to COVID could complement it.

The survey also asked them to elaborate whether they think that they managed to develop any skills or information necessary for RMA. Two thirds of the students confirmed that they managed to do so (Figure 14).

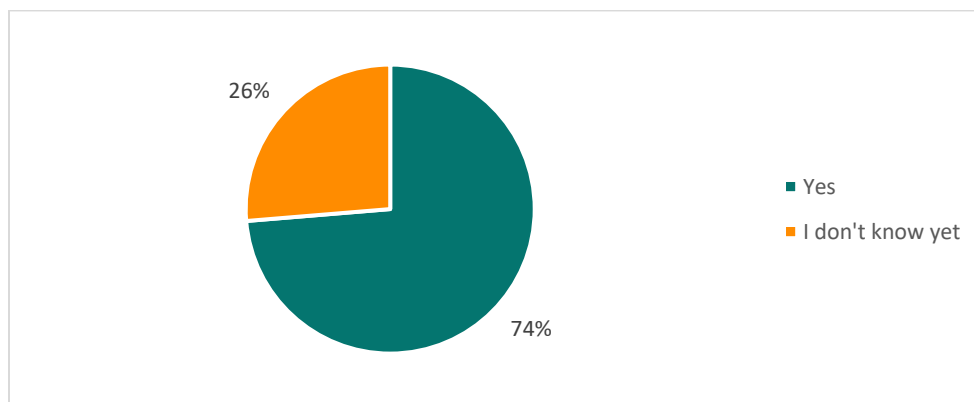


Figure 14 Improvement of any skills/information necessary for RMA according to the students' self-assessment (n=19)

In the open answer they mentioned the following skills:

- Participation skills & confidence of doing it,
- Teamwork,
- Time management,
- Finding funding opportunities,
- Presentation,
- Communication skills,
- Networking,
- Problem solving,
- Adaptability,
- Creative thinking.

So even if in their self-estimation they indicated a decrease regarding certain skills, at large, they could improve them, even if not at the level which was desired.

Registering the course next semester

Both surveys included the question whether students plan to attend the second part of the foRMAtion course next semester. However, it is hard to provide a well-established assessment for this question due to the specificity of the testing of the module: as the first course was launched during the spring semester, many of the enrolled students were in the last year of their studies and graduated during the summer. So, they had no chance to follow the course in the upcoming autumn semester. In addition to that, in the case of one partner university, the fact that the courses were held online enabled students to be enrolled from other campuses situated in other cities, which would have not been possible in case of in-person teaching.

The interviews

Following the first semester, 3 teachers were interviewed, one from each partner university. The interviews were semi-structured aiming to gather as much information as possible regarding the expectations, experiences and lessons learnt of the teachers piloting the courses. In addition, the interviews aimed to reveal the potential impact that teachers perceived, and their evaluations related to the outputs at hand.

Among the teachers teaching the foRMAtion course at the partner universities one of them had RMA background and two of them were HEI professors, researchers. None of them taught the course alone but shared the work with colleagues in various ways:

- one invited a colleague for 2 classes where specific external expertise on certain topics was necessary.

- one divided the course to lecture and more interactive sessions: in this case the interviewee hold the lectures whereas his colleague was responsible for the interactive sessions.
- and one hold the classes together with another colleague simultaneously enabling a smooth shift among the digital platforms used.

RMA, experts and researchers were also occasionally invited at two universities as guests to whom students could address questions.

As two teachers are not working in the RMA profession, their expectations of the course included acquiring knowledge from a new field; the main expectation of the teacher with RMA background was to make the course appealing for the students and sustainable on the long run. Each of them was curious about enrolled students and their motivations; after the course, two reported positive experience regarding the commitment and engagement of their students, whereas one reported a significant dropout rate on the one hand and on the other hand an impressive development process of a few students.

According to the interviews with the teachers, short-term impacts of the course have been detected at various levels, such as the level of the students, the teachers and the institutions.

Students

Despite the online teaching environment, the small size of the classes made it possible to provide tailor-made support, as it was reported by the teachers – even if it was not the same as it could have been in case of in-person teaching. Most of the students provided regularly positive feedbacks to the teachers and as teachers reported, students understood that the classes represented opportunity for skill development through innovative tools. According to the teachers' experiences, students managed to improve many relevant skills, competencies and attitudes including oral and written communication, information screening and attention to details, leadership and self-organization, group works and networking, time management; this confirms the outcomes of the surveys completed by students and presented on figure 13 and 14. One teacher also highlighted that students improved themselves in providing constructive feedbacks, abstraction, flexibility and working in a multicultural environment. Students also highly valued the opportunity to work on projects in team, even if only virtually.

Two teachers reported that in total four students proved to be highly interested towards the profession and already sought for opportunities to train themselves for the profession, e.g., through internship opportunities following the semester which confirms the relevance of the course and the achievements of the original aims.

All teachers confirmed the success of the international class organized by the teachers from the 3 universities for all students following the course. This made a unique opportunity for students

for networking and collaboration in a multicultural environment making the students more enthusiastic about the course.

Teachers

The most important impact for the teachers was their own learning process and the piloting of the innovative teaching methods. The teacher with RMA background personally found the opportunity of talking about his/her everyday job and considered it as an interesting experience as it provided room for reflection, looking for logic and reasoning behind the daily activities. Another HEI teacher pointed out that the course was important to understand better the EU R&I funding system and the job roles of RMAs (as well as of researchers, teachers).

As regards the teaching as such, the Project Based Learning (PBL) methodology applied during the teaching necessitated a different teaching approach: instead of frontal teaching the role of the teacher become rather supportive, facilitating which was another important experiment for the teachers.

All teachers reported that they managed to improve skills and competences, including ICT skills, the use of online platforms and time management – which was especially useful during the online teaching introduced due to the COVID pandemic. Nevertheless, one underlined that the online teaching in general would necessitate even better preparedness and competences from the teachers who shall attract and engage students through “infotainment” in this teaching environment.

Each teacher reported positive experiences thanks to the engagement of students. This was visible through many ways, including the fact that generally students did not use their cameras at the classes but during these ones they did. The teacher with RMA background also highlighted the fact that thanks to class brainstorming’s she became more confident, motivated and inspired for the teaching.

Two teachers highlighted the unexploited opportunity of being in continuous dialogue with other teachers from the other partner universities to discuss the experiences, exchange materials, etc. which should be overcome in the future by reinforcing a kind of Community of Practitioners for the sake of the sustainability, the impact and the high quality of the courses.

Institutions

The launching of the courses required several arrangements within each partner university, such as the inclusion of the course in accredited study programmes, the approval of the syllabi, the selection of teachers, the invitation of guest lecturer and speakers, and so on. According to the teachers’ reports, all these activities generated certain interest towards the course. Two of them reported that within the university, RMAs highly welcome the course. This was not the case regarding the third institution, due out the lack of such professionals.



Each of them noted that the attention towards the profession was raised thanks to the course; a kind of acknowledgement was started to be built toward the need of skilled RMAs and well-organized research support offices in successful proposal writing and project management.

Two teachers also underlined that the course was welcome by the leadership as contributing to an enlarged educational portfolio of the given institutions by providing a gap-filling training on an emerging profession.



Annex 2: Assessment of the second semester of the foRMAtion module

Following the second semester of the teaching of the foRMAtion module, the impact of IO2 and IO3 was measured, using two activities, namely the assessment of the preliminary and the follow-up surveys completed by students and the analysis of the interviews carried out with teachers.

The Survey

Similarly, to the first semester, students had to complete an online survey both at the beginning of the semester and at the end. Comparison of the answers collected at these two distinct moments was supposed to provide inputs for the assessment of the impact of the foRMAtion module with a special regard to the focus points of the content of the second semester. For the detailed methodology check Annex 1.

For the second semester, the respondents of the assessed survey count to 24, out of which 15 are from CUB, and 9 from NOVA. Unfortunately, students from SHUT only completed the follow-up survey which eliminated the in-depth assessment of the impact on their side. As anticipated in the end of semester 1, only two students accomplished semester 1 of the foRMAtion educational module, the rest of the students were newcomers to the course.

As regards their educational level, 23 students were following a bachelor study programme and one student was doing masters. The study background of respondents was more diverse compared to semester 1. Only 42% came from international studies or relations, 8% from European Studies. 17% were following communication and media studies, 13% business management (and administration) and 4% international business. Humanities were also represented by English teaching (8%) (see Figure 15). Similarly, to semester 1, several students spent their Erasmus scholarship at the partner universities coming from a foreign country.

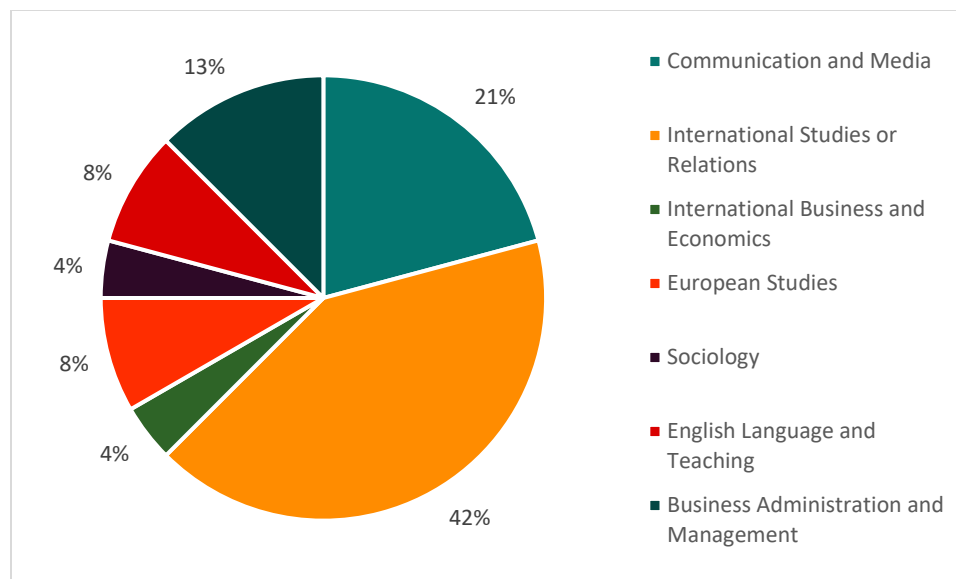


Figure 15 Students' educational programmes' scientific fields (n=24)

Expectations of students related to the RMA activity, profession and the course

The question investigating the **reason for choosing the course** allowed multiple answers (Q: *Why do you plan to attend the 'Research Manager as a profession in the EU ecosystem: concepts, tools and practice II.' course?*). While 17% of them were especially interested in the subject, 42% found it interesting and another 42% indicated that later it can be useful. Positively the two students who accomplished the first semester responded that they were especially interested in the course.

According to their initial knowledge, they found the **RMA activity interesting** due to various reasons (Q: *Why do you find the RMA activity interesting/relevant?*). Compared to semester 1, only a few students seemed to have a good understanding of profession or describing it as a potential career choice. However, one fourth of them made a connection to research in some way: they wanted either to learn more about research, doing research, developing research plans or projects and how to manage and administer them:

- *"I want to learn more about research",*
- *"I am interested in research in general",*
- *"I find researcher as a profession really interesting, so I thought it's also useful to know something about Management and the other processes around doing research".*

Almost another one fourth of the students aimed to learn gather new knowledge or skills which can be useful:

- *"I think this activity will provide me a basic overview in research management, which could support my skills in the future",*
- *"We need to make smaller researches for our degree and these skills will be useful".*

Some of them connected the field to their studies, for instance to European or international studies, and therefore they found it interesting and useful:

- *"I think RMA activity is connected to my future work in international relations field",*
- *"I guess as for the students, in my case it is International Relations, it is essential to study research management and administration. Also, it is required in many work fields".*

Two students referred to the increasing importance of the profession, even the potential of making impact:

- *"it's a field that has an increasing importance in the modern world",*
- *"You can make a huge difference in the world".*

According to the responses, four students reported that previously they were in a situation when the RMA knowledge would have been useful (Q: *Have you ever been in a situation where RMA knowledge would have been useful?*). Two referred to previous job, one mentioned that it could have been an added value at a job interview, even though each of them was bachelor students – these indications can reinforce the usefulness of the activity even in the case of a group of students which have recently started in Higher Education.

Following the course, 87.5% confirmed that **they still found the RMA activity interesting and relevant** (Q: *Do you still find the RMA activity interesting/relevant?*) or even more.

Many of them got a better understanding on the profession and related activities:

- *"I did not know what to expect exactly, but this activity was really helpful and gave me a lot of knowledge on Research Management",*
- *"I have gotten to know a lot about RMA, which was really interesting because I did not know anything about it".*

Many of them confirmed the importance of the activity and the related knowledge:

- *"Yes, I find it extremely relevant and important. It is an activity to look for and that should be present in students and researchers' life's."*
- *"I still find this profession very appealing, and I would like to learn furthermore about the intricacies of the job".*

Some answered with yes but added that it might not be the potential career choice for him or her:

- *“Yes, definitely. I think, I consider it as even more interesting and relevant than in the beginning. Not for me personally but for the science community”*
- *“Yes, of course. Thought, I do not know if it is for me”*

Both surveys included questions investigating the extent to which students are interested in the RMA as a profession. The figure below (Figure 16) demonstrates the answers collected. Similarly, to semester one, the course managed to make the profession more appealing for students, as the number of responses saying yes increased.

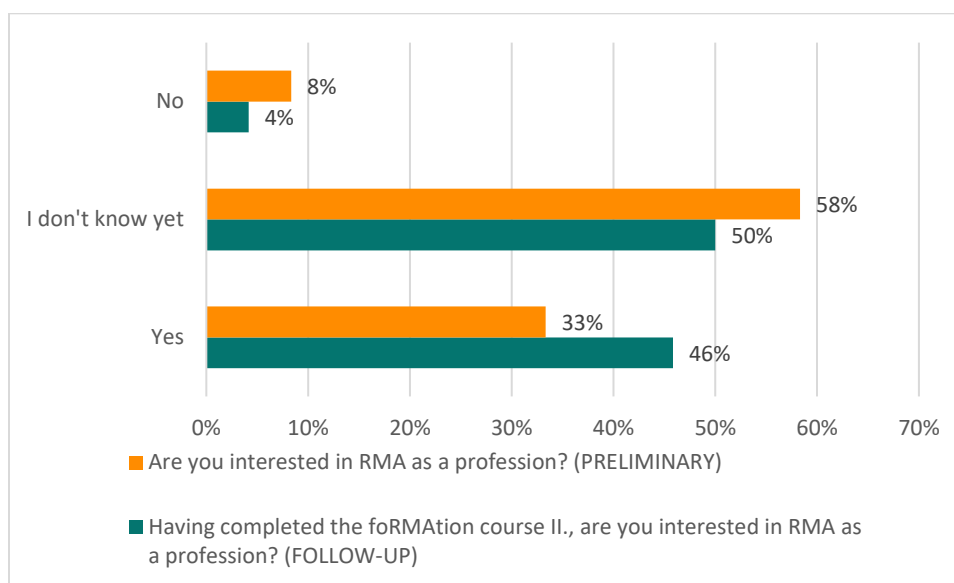


Figure 16 Students' interest towards the profession before and after the course (n=24)

The change regarding the responses of students: in five cases, students became much certain that it is a potential career choice. In two cases they become uncertain, whereas only in one case the respondent stated clearly that it is not anymore, a potential career choice (Table 2).

Table 2 The change in students' interest towards the RMA profession

Are you interested in RMA as a profession? (PRELIMINARY)	Having completed the first course, are you interested in RMA as a profession? (FOLLOW-UP)
I don't know yet	Yes
I don't know yet	I don't know yet
I don't know yet	I don't know yet
I don't know yet	Yes
I don't know yet	I don't know yet
Yes	Yes
No	Yes
I don't know yet	Yes

I don't know yet	I don't know yet
No	I don't know yet
I don't know yet	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
Yes	Yes
Yes	I don't know yet
I don't know yet	I don't know yet
Yes	Yes
I don't know yet	Yes
Yes	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
I don't know yet	No
I don't know yet	I don't know yet
Yes	Yes

Regarding previous expectations towards the course (Q: *What are your expectations towards the course?*) more than half of the students mentioned that they want to get better insights, knowledge, understanding of and relevant skills for research management and administration as such.

- *"I want to understand what is meant by RMA",*
- *"To learn and adapt more skills within the field of research management",*
- *"I expect to learn more about basics of this work, understand and learn main strategies of it and practise it in cases during the lessons."*

However, another important group of responses were directed to gather more knowledge on conducting and planning research – which strongly corresponds to the answers for the question on the attractiveness of RMA as an activity. Accordingly, the responses included:

- *"To give me a practical knowledge on research",*
- *"See if I can learn and come to like research and maybe have it as a possible career",*
- *"Learn how to make the whole research process".*

Besides, the strong focus of the course on skill and competence development was also mirrored in a smaller part of responses, as students indicated to gather practical knowledge and skills:

- *"I would like to learn practical information and improve my skills in the field",*
- *"Hopefully it could enhance my capability of team-working, as well as getting some knowledge of problem-solving".*

The follow up questionnaire inquired to what extent the course met students' expectations (Q: *How much did the course meet your expectations?*). In this semester 58% of the respondents were very much satisfied and 38% somewhat, only 4% was undecided about this (Figure 17). Ten

out of 14 students indicating that the course met their expectations very much are still interested in the RMA profession, whereas four of them is uncertain about it. Opposed to them, only one student answering 'somewhat' regarding their expectations said that (s)he was interested in the profession, and seven were uncertain about it and one is not interested at all. Again, it can be said that those students were much more satisfied with the course who were interested in the profession.

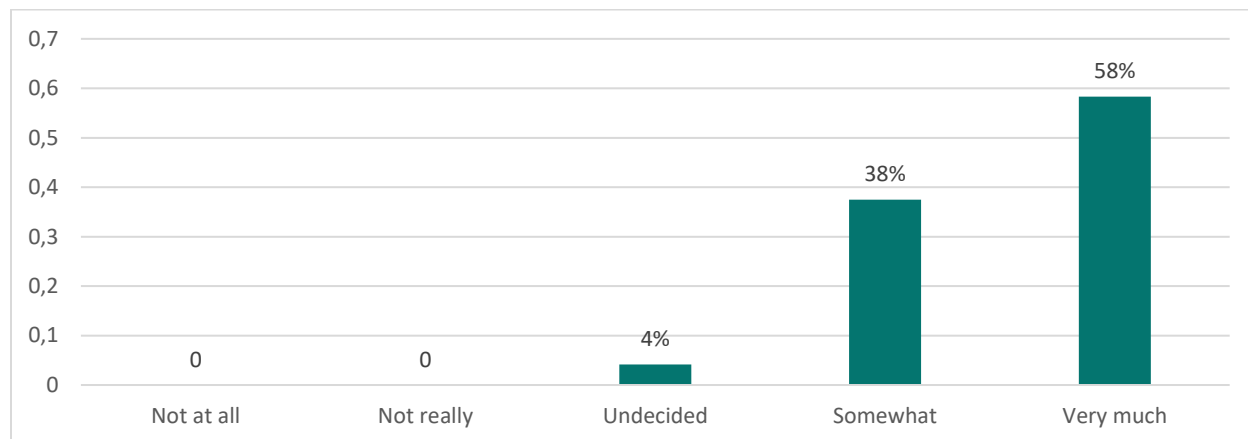


Figure 17 The extent to which the course met students' expectations (n=24)

Those saying somewhat or very much highlighted various aspects of the profession and the topics they learnt (Q: *Have you learnt something particularly interesting that motivates you to go further in this direction? If yes, could you elaborate a bit?*). The mentioned aspects, among others, were completely new compared to those mentioned in semester 1:

- acquiring practical knowledge, especially through the discussions with experts: *"I was very excited to talk with experts in the field that could educate me on how things work in a more practical sense in this field."*
- acquiring the knowledge and the possible impact of RMA profession: *"I have learnt about different research and their management and have found these things very interesting and attractive, because I see real people, their work and results which improve science, society, international connections, etc."*
- in-depth knowledge of research project management: *"the part when we were creating the project management plan and worked with the real research project and tried to understand how the whole process is done with the practical implementation of thin knowledge in the HWs that we did in a groups."*
- career opportunities in science: *"I've learned a lot about science in general... I think the course encouraged me to consider a career in science or a university environment. RMA*

is so colourful, ..., but I think I'm not that much into Management, so common RMA positions wouldn't make me happy.”

- acquiring useful skills: *“I am sure about is that several skills gained during this course will be useful for me in different fields as well.”*

Knowledge related to the topics covered

Students were asked to assess their previous knowledge and then their acquired knowledge related to topics covered by the course. Semester 2 put a particular focus on project management and integration as well as on research impact and public engagement. Nevertheless, basics of research funding, governance and management were touched upon as well.

Research Management and Administration

One student reported previous knowledge in RMA as an activity and attended project management related course(s) earlier. Another student had previous knowledge and experience related to Research Management and Administration as an activity due her/his current job. Another student attended course(s) in project management previously. When students were asked to estimate to what extent their knowledge improved on RMA as an activity, 71% said very much and 21% said somewhat (Figure 18). Those having previous knowledge in project management or specifically in research management, two responses indicated the improvement of their knowledge very much, and one responded somewhat, so even in their case the impact of the course can be tracked down.

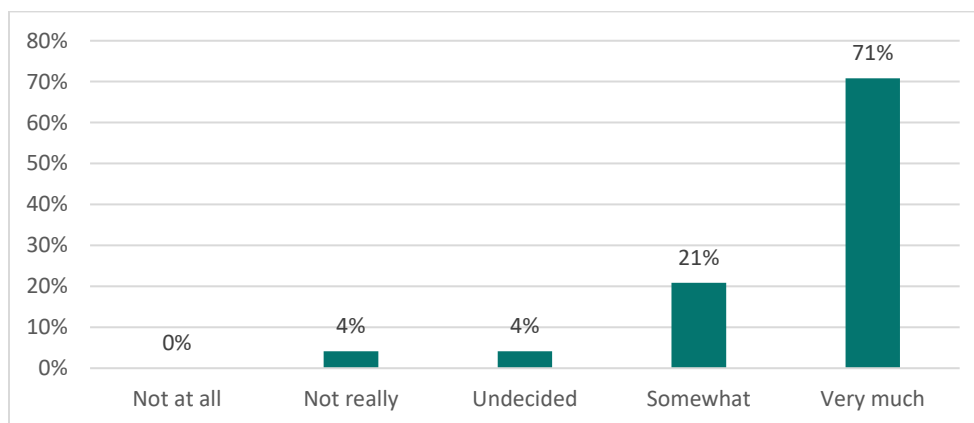


Figure 18 Improvement of knowledge on RMA as an activity (n=24)

EU research funding framework

Although some students were following international relations and/or European studies programmes, similarly to the previous semester, only two of them indicated that they had any previous knowledge related to the EU research funding framework. They gathered this knowledge by attending related courses and being involved in a project proposal. Following the second semester, 92% of respondents confirmed that their knowledge was improved in this field too (46% very much, 46% somewhat, Figure 19).

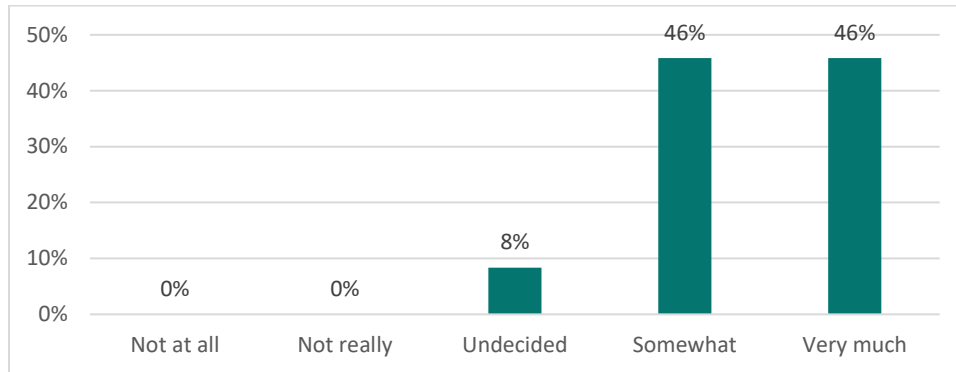


Figure 19 Knowledge improvement in EU research funding framework (n=24)

Being familiar with scientific research projects

Students had to estimate the extent to which they were familiar with scientific research projects in both surveys. Figure 20 presents the improvement which surpasses the impact measured following the first semester: both the number of responses saying, 'very much' and 'somewhat' increased.

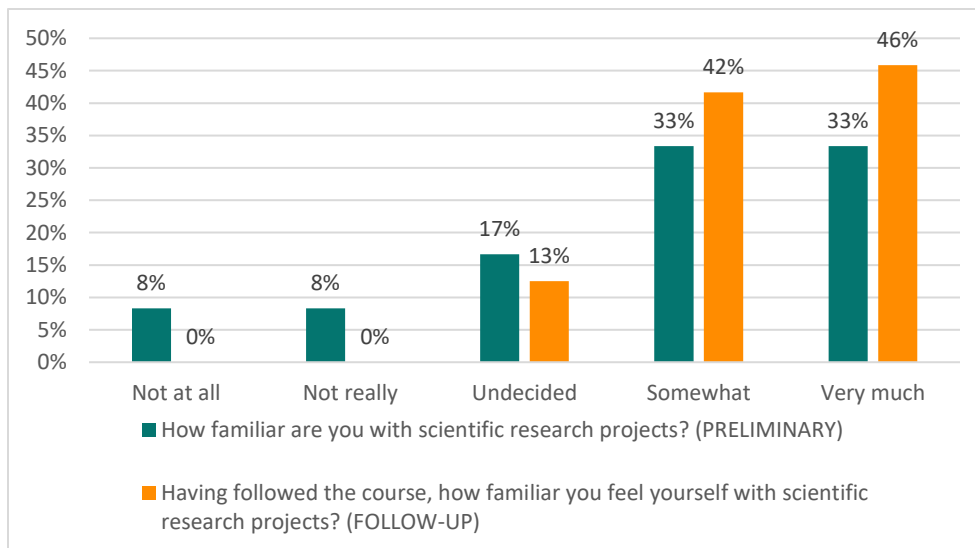


Figure 20 Comparison of familiarity with scientific research projects before and after the course (n=24)

Funding plan for research

Similarly, to semester 1, one third of students previously prepared a research plan, whereas three of them made a funding plan for research before the course (Figure 21).

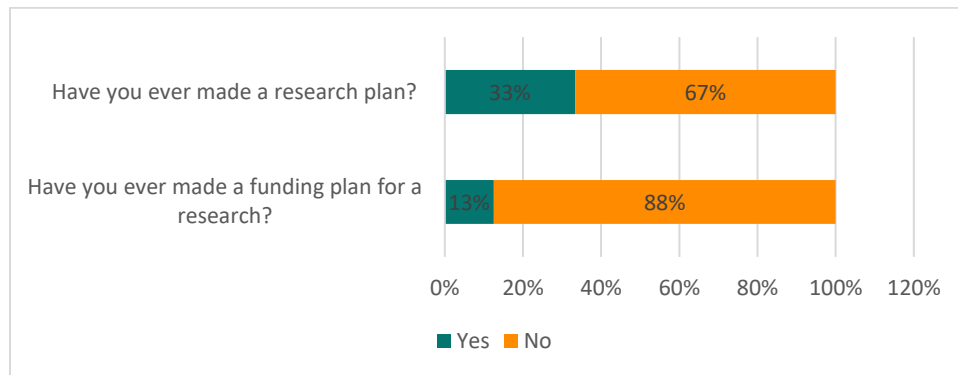


Figure 21 Students' experience before the course related to research plan and funding plan for research (n=24)

According to the self-estimation of students, in case of the research plan the improvement is striking, two thirds of them reported it 'very much' and almost one third reported 'somewhat'. The knowledge increase regarding the funding plan for research was, however, more modest: one fourth of them were 'undecided' about the issue, whereas the rest reported an increase of 'somewhat' (33.3%) or 'very much' (41.6%). It must be added, that such improvement was possible even though the focus of the second semester was on these topics (figure 22).

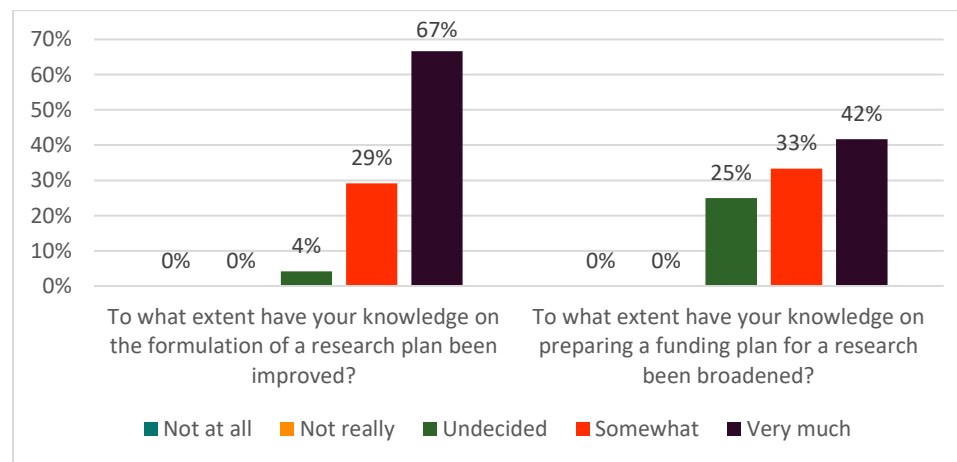


Figure 22 Improvement of students' knowledge related to research plan and funding plan for research

Knowledge about research funding, governance and management

Students were also asked to provide self-estimation on their knowledge about research funding, governance and management before and after the course. Figure 23 presents the answers of

both surveys demonstrating an outstanding improvement. Almost all students indicated two or three higher degrees after the course.

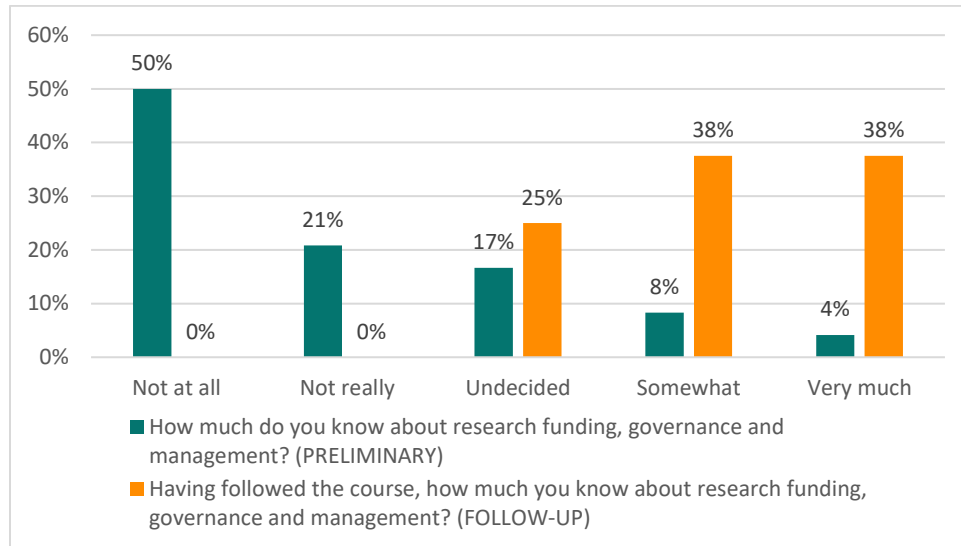


Figure 23 Improvement of the knowledge of students on research funding, governance and management (n=24)

Project management and integration

The second semester of the foRMAtion course is consisted of two modules, out of which project management and integration was the first one. Therefore, a dedicated question aimed to detect the improvement in this field as well; the responses are illustrated by Figure 24; having three fourth of the responses indicating an outstanding improvement can prove significant development.

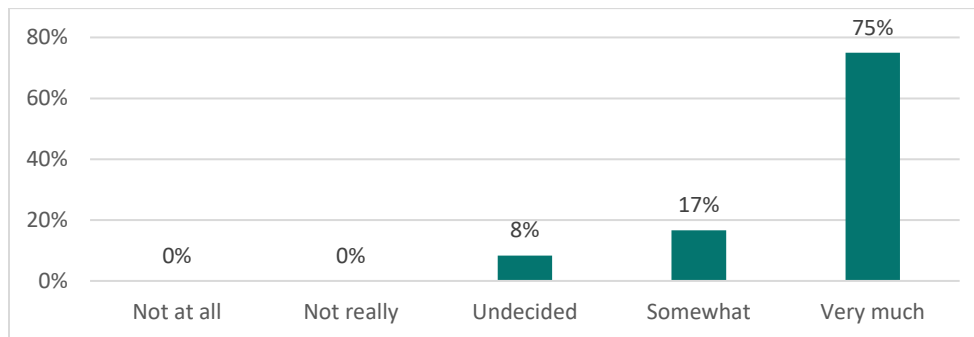


Figure 24: Improvement of respondents' knowledge in project management and integration

This impact is further underlined by the fact that even those students, who had previous knowledge in RMA and/or accomplished project management course(s) beforehand, answered 'very much'.

Research impact and engagement

The other module put research impact and engagement in the focus in the second semester. Accordingly, students were asked to estimate the level of their knowledge improvement in this topic as well. Figure 25 illustrates the improvement which corresponds very much to the previous ones.

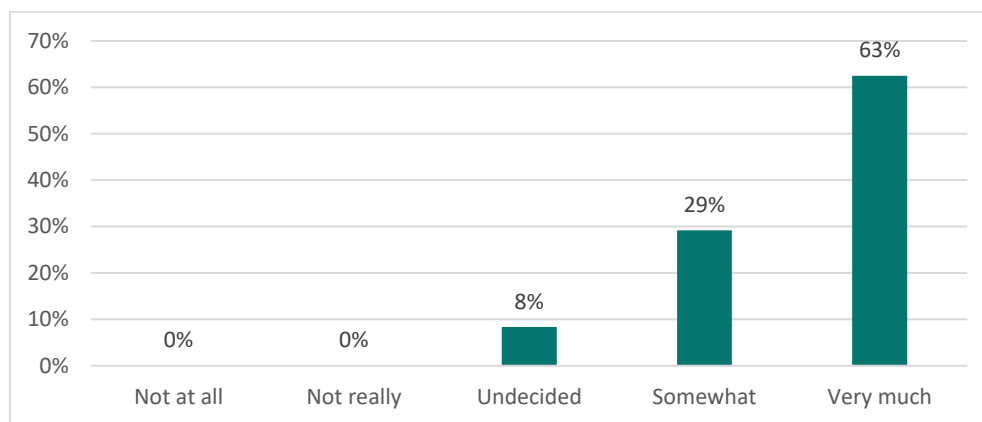


Figure 25 Improvement of students' knowledge in the field of research impact and engagement (n=24)

RMA related knowledge and skills

Both surveys required an estimation of students' knowledge and skills essential for doing Research Management and Administration. The rating was done in a 5 grade Likert scale, where 5 stood for excellent and 1 for inexistent. The change between their own self-estimation is presented in Figure 26 where orange illustrates the number of students assessing a decrease, whereas green illustrates the number of students assessing an improvement in case of the listed skills.

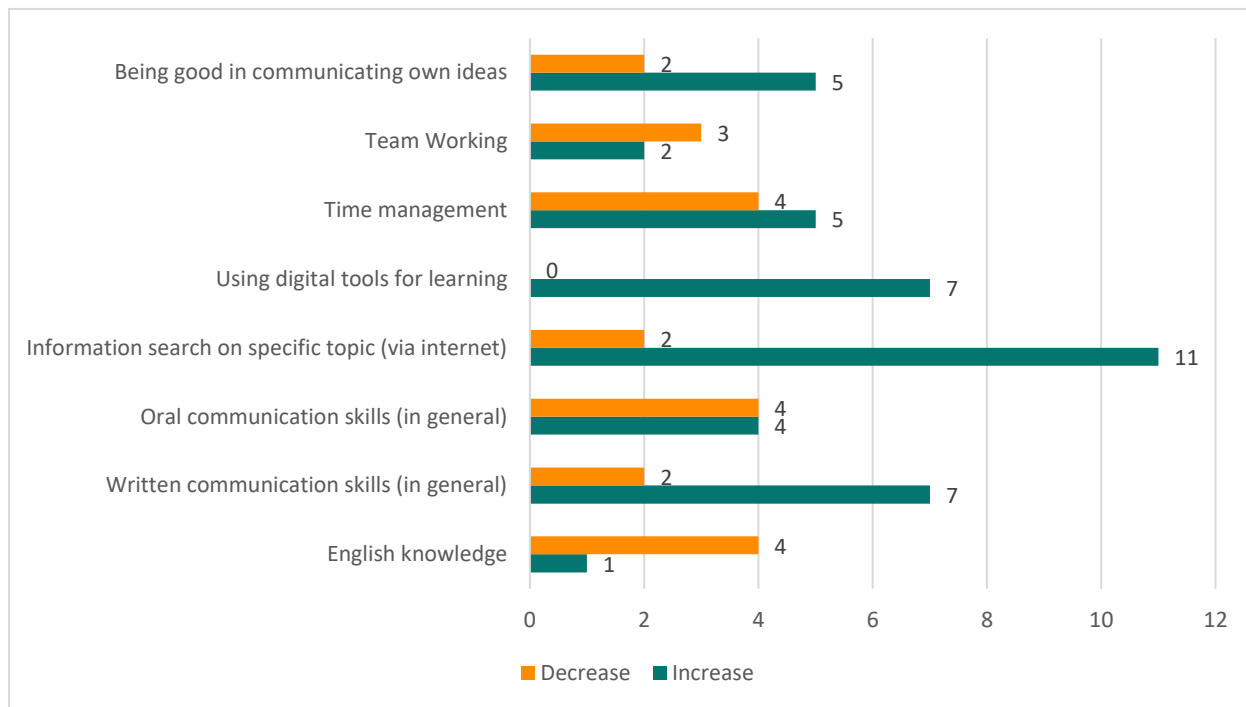


Figure 26 Self-rating of students in the different knowledge and skills related to RMA (n=24)

Generally, they provided 1 higher or lower grade in the follow-up survey. There were only a few cases when the difference counted to two grades. Important is to highlight those fields where most students declared a positive change, which are as follows:

- information search on specific topics,
- using digital tools for learning,
- written communication in general.

Nevertheless, it also must be underlined that in some cases, students declared a negative change in the following fields:

- time management,
- oral communication skills,
- English knowledge.

The results differ from those touched upon following the first semester, which is understandable both due to the different format of the classes (mostly face-to-face or hybrid instead of solely online) but also the different scope of the curriculum. Nevertheless, in case of the decrease, we

can presume that following the course they became more aware of the extent of the necessary knowledge and skills which made them more conscious.

The survey also asked them to elaborate whether they think that they managed to develop any skills or information necessary for RMA. 87% of the students confirmed that they managed to do so (Figure 27).

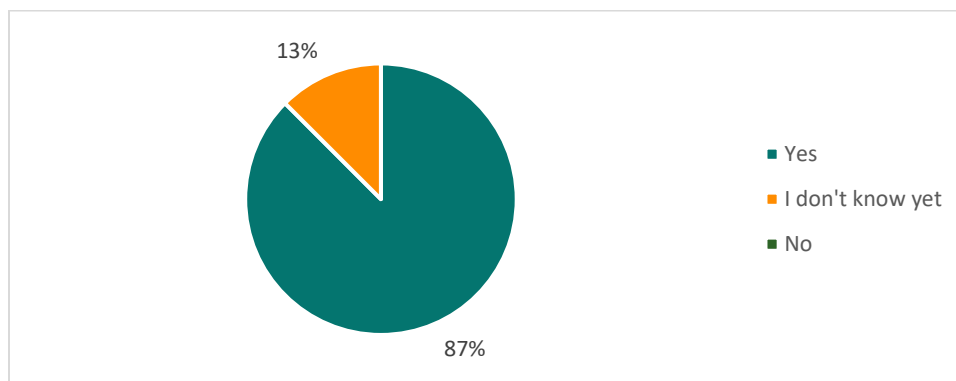


Figure 27 Improvement of any skills/information necessary for RMA according to the students' self-assessment

In the open answer they mentioned the following skills:

- Participation skills & confidence of doing it,
- Teamwork,
- Time management,
- Finding funding opportunities,
- Presentation,
- Communication skills,
- Networking,
- Problem solving,
- Adaptability,
- Creative thinking.

So even if in their self-estimation they indicated a decrease regarding certain skills, at large, they could improve them, even if not at the level which was desired.

The interviews

The background of interviewees was slightly more diverse than in case of the first semester: a teaching assistant with EU project management background, an educational methodology advisor with experience in RMA, and a research manager with experience in teaching in post-graduate programme took part from partner universities.

In the second semester the teaching format was also more diverse, universities either conducted hybrid or face-to-face classes.

The module as such was still found relevant in each country. Its flexibility even enabled the reflection on national circumstances and specificities. Regarding IO2, interviewees confirmed that the curriculum was extensive, well-structured; regarding its level of detailedness, some views differed – one missed deeper background in communication, dissemination and exploitation, another found the introductory part too broad. Nevertheless, it was agreed that due to the flexibility of the curriculum and the teaching material this can be managed.

Each teacher confirmed the relevance of the international scope of the module which should be kept following the end of the project as well; either in the frame of organizing international classes, international group works, or mini conferences, or letting students to attend conferences jointly. Any measures reinforcing the international scope would represent an added value.

Another question came up regarding the language of the teaching: in one case it was mentioned that on the local language the university could reach out more people, however, because RMAs has to work mostly in English, the knowledge they receive is the more valuable if it is in the language of the exact work.

All interviewees agreed that through the course, their goal was to effectuate quality learning experience instead of going through the whole curriculum solely – this needed, however, preparation and constant reflection on students' needs.

The second semester resulted in an important lesson learnt as well: despite the success of the module among the teachers, students, and of course, RMAs working in the institutions, partners were struggling to secure its sustainability. Therefore, the impact in this case is divided to 3 groups, those of students, teachers, and the profession itself. Lastly, some observations regarding the sustainability are also added.

Students

Similarly, to the first semester, teachers confirmed that students were enthusiastic about the course and satisfied with it. Based on students' feedback, teachers were confident that they were able to achieve their goal and realize a positive learning experience for students. This included that the basic knowledge in RMA was continuously enriched with practicalities and real-life examples. Students could also acquire project-based thinking which can be used in any future career area in life, similarly to all the knowledge which took part of the curriculum and the teaching methods.

All teachers agreed that student could develop important transversal skills, competencies and attitudes. Students could also improve several interpersonal skills, such as team working, responsibility taking, representation, evaluation. Skills directed to their personal improvement were also increased, such as self-evaluation, self-motivation and self-directed learning. Moreover, student became familiar with their definition, significance and further opportunities to develop them – in this way, the changes in skills and competences measured through the students' surveys explain the decreases.

Nevertheless, similarly to the results of the student survey, some of them realized that RMA is not the right career path for them – even if the profession as such became appealing to students and they started to appreciate professionals working in the field.

Teachers

The teaching of the foRMAtion module proved to be a continuous exploratory and learning experience for the teachers themselves as well. They reported that they acquired better knowledge in the field of innovative teaching methods, digital tools, but also in the field of European R&I funding and R&I ecosystem. Although all the courses necessitated preparation in advance, it was worth it as they could use the teaching methods in other courses as well.

Two important methodological impacts were highlighted: first, the project-based learning required a different role from teachers as they had to act as facilitators rather than educators, which also had to be learnt and practiced. Second, the project-based thinking was also relevant for teachers, not only for students.

Beyond the teaching experience as such, two teachers underlined the opportunity of broadening their network thanks to the project and getting feedback from experienced experts thanks to the continuous contacts with the advisory board.

The recognition of the profession

Two teachers highlighted that the teaching of the module provided a unique opportunity starting to thematize the issue of the RMA profession, which is important in all countries of participating universities as they are lagging not only in the recognition of the profession but even its existence. Each of them confirmed that students became motivated and enthusiastic about the profession, they got an in-depth understanding on the RMA roles and the importance of the work carried out – one teacher even added that probably the picture on RMAs became too positive and the downsides of the profession were not reflected in a sufficient manner.

Further remarks regarding the uptake

Following the first semester, interviewed teachers reported that the course had impacts on the institutional level as well: RMAs got more visibility, the management and leadership started to understand the importance of well-trained RMAs and research support offices offering excellent services. However, following the second semester, difficulties related to the sustainability of the module revealed an important drawback: if the course is held by RMAs, it might be more challenging to get the necessary support to run it. Unless someone in leadership or management position pushes through the course, RMAs cannot teach it on the long run as they should be employed as teachers, which is impossible in many cases.

This issue also came up when discussions started about the possible uptake of the module by entities beyond the partnership: even if RMAs were enthusiastic about it, to integrate the course in the university course offer, they needed the support of the academics and the leadership. This suggests, that the recognition of the profession and professionals still must overcome existing barriers within universities.



Annex 3: Assessment of the Mentorship Programme

The foRMAtion mentorship programme was carried out in the form of blended learning programme including international mobility. Six students were selected among those who accomplished the foRMAtion course at the 3 partners universities. Each of them was assigned to a mentor employed by one of the research performing organizations within the partnership – each from a different country than where the student followed the course.

The blended feature of the mobility programme included consultations before and after the mentorship: general introduction of the mentor and mentee, their expectations, the institutions hosting the mentees, as well as the formulation and then the evaluation of the work plan. In each case students designed a work plan for this period in line with their fields of interests and the fields in which their mentors were active.

The physical mobility lasted for 6 weeks when students worked at their mentor's institution for 30 working days during June and July 2022. Although, due to the pandemic, the idea of online mentoring was discussed by the partnership several time, finally the circumstances enabled the implementation of the programme in line with the original plans.

IO4 included all the annexes which were relevant for the evaluation of the programme; Annex II, III, IV and Annex V had to be completed either or both by the students and mentors. Participants were asked to provide feedback on the quality, structure, implementation, impact and usefulness of the programme. Due to the small number of participants, no major trends can be assessed regarding the programme; nevertheless, the results can showcase the changes at the individual level, which can be also important to see the possible impact.

Impact on skills and competencies relevant for RMA

Annex II Checklist of skill and competences had to be completed by the students to assess their level of skills and competences necessary for RMA field before and after the mobility programme, reviewed by the mentor to assess the improvement of the student as an impact of the blended learning mobility. Annex II included the matrix of knowledge, skills, competencies and abilities which were considered both relevant for RMAs and possibly tested during the mentorship programme. They were divided into six groups:

- 1) knowledge: English & knowledge in RMA,

- 2) performance: information search, analytical skills, written & oral communication skills, punctuality, and so on,
- 3) Teamwork and interpersonal skills: ability to work in team, ability to accept others' views, networking, and so on,
- 4) Behavioural competencies: reliability, efficiency, flexibility, openness, and so on,
- 5) Abilities: understanding others & managing responsibility,
- 6) cultural and diversity skills.

Students were asked to carry out their self-assessment in a 5-grade scale ranging from Excellent = 5, Good = 4, Acceptable = 3, Improvement desirable = 2 to Not applicable = 1. The table below presents the summary of the completed self-assessment forms before and after the blended mobility programme.

Table 3: Summary of self-assessment forms of students participating in the mentorship

Annex 2 Self-assessment form		Mentee A		Mentee B		Mentee C		Mentee D		Mentee E		Mentee F		TOTAL	
		Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Know	English knowledge	4	4	3	4	5	5	5	5	4	4	5	5	4.33	4.50
	Knowledge appropriate to the field	2	3	3	4	4	5	4	4	4	4	2	4	3.17	4.00
Performance	Listens to and understands assignments	4	4	3	4	5	5	5	5	4	4	5	4	4.33	4.33
	Information search	4	4	4	4	3	4	3	4	4	4	4	4	3.67	4.00
	Analytical skills	4	4	4	4	3	4	4	4	4	4	3	4	3.67	4.00
	Written communication skills	3	4	4	4	5	5	4	4	3	4	4	4	3.83	4.17
	Oral Communication skills	3	4	3	5	5	5	5	5	4	4	5	5	4.17	4.67
	Punctuality	4	4	4	3	5	5	5	5	4	2	2	3	4.00	3.67
	Ability to work with deadlines	3	3	4	3	4	5	5	5	4	3	4	3	4.00	3.67
	Initiative and self-directedness	4	4	4	4	4	5	5	5	4	3	5	4	4.33	4.17
	Problem-solving	4	4	4	4	4	5	5	5	4	4	2	3	3.83	4.17
	IT skills (using various software and programs)	3	4	3	3	3	4	4	5	3	3	2	3	3.00	3.67
Quality of work performed*	4	4	4	5	5	5	5	5	3	4	4	4	4.25	4.33	
Teamwork and interpersonal skills	Interpersonal skills	4	4	4	5	5	5	5	5	3	4	5	5	4.33	4.67
	Ability to work in a team	4	4	4	4	4	5	5	5	3	4	5	5	4.17	4.50
	Ability to accept others views	4	4	4	4	5	5	4	5	3	4	5	5	4.17	4.50
	Effectiveness as a part of a team	4	4	4	5	4	5	5	5	4	3	4	4	4.17	4.33
	Ability to accept criticism/Responding to conflicts	4	4	4	4	4	5	4	4	4	4	3	4	3.83	4.17
Networking	3	4	4	5	5	5	4	4	4	4	4	4	4.00	4.50	
Behavioural competencies	Reliability	4	4	4	5	5	5	5	5	4	4	4	4	4.33	4.50
	Efficiency	4	3	4	4	5	5	4	5	3	4	2	3	3.67	4.00
	Flexibility	4	4	4	5	5	5	5	5	4	4	3	5	4.17	4.67
	Openness	4	4	5	4	4	5	5	5	4	4	5	5	4.50	4.50
	Assertiveness	3	4	4	4	4	5	5	5	2	3	4	5	3.67	4.33
	Creativity	4	4	5	5	5	5	5	5	4	4	3	4	4.33	4.50
Abilities	Understanding others	5	5	4	4	5	5	5	5	3	4	4	5	4.33	4.67
	Managing responsibility	4	4	4	4	4	5	5	5	3	3	4	5	4.00	4.33
Cultural sensitivity	Cultural and diversity skills	4	4	4	5	4	5	5	5	4	4	5	5	4.33	4.67
	Average	3.75	4	3.89	4.18	4.39	4.90	4.64	4.81	3.61	3.68	3.81	4.29	4.02	4.29
	Difference		0.25		0.29		0.51		0.16		0.07		0.48		0.27

In most cases, the self-estimation of students improved following the mentorship programme (highlighted in green on Table 3). This kind of positive impact is surprising, if we compare it with the assessment of the foRMAtion module. Presumably, the intensive feature of the mentorship programme, the supporting environment secured by the mentors, and the successful accomplishment of the work plan not only motivated the students but contributed to the more positive self-assessment of students.

Slight decrease (highlighted in red) is presented only in a few cases: most of them are connected to punctuality, working with deadlines (or efficiency), and oral communication skills. The weaknesses of students regarding the first two skills were highlighted by mentors as well: almost all of them underlined that the major challenge for students was time management, which can be explained by the fact that this was the first real job experience of students, and the initial steps to learn to estimate the amount of work needed for the different assignments.

Mentors had to provide feedback related to the skills and competencies of students in Annex V including questions investigating the strength of students and their weaknesses. In general, mentors were very much satisfied with the performance, the motivation and the approach to work of students. Half of the students received excellent; the other half received very good feedback on their attitude. Each mentor reported that students met the original expectations, or even added that they exceeded them. This suggests that the selection of students was well-prepared, their approach was made in line with the programme, and their initial knowledge on RMA was appropriate thanks to the accomplishment of the module.

Among strengths, interpersonal skills, teamwork, analytical skills, flexibility and oral communication skills were mainly highlighted. All of them confirmed that during the programme they could establish good working and personal relations with students. Among weaknesses, if anything was listed, they mentioned time management, written communication skills, efficiency and critical thinking. As mentioned above, the mentorship as the first job experience of students revealed that they must develop in these fields.

Mentors as role models

Beyond evaluating the programme, Annex IV included questions focusing on the impact of the programme and the mentor on students as potential future RMAs. Students were overwhelmingly positive about their mentor. Each of them strongly agreed that the mentor helped them to understand their roles and responsibilities during the mentorship, informed them about the expectations towards their work, provided timely and constructive feedback, was an active listener. All these suggests that mentors were well-prepared for the programme and accomplished their role in an excellent manner.

In the section “Evaluation of the mentor”, students were asked whether their mentor had an influence on them to acquire career in RMA. Three students strongly agreed, two agreed with the statement. Regarding the question “(s)he acted as role model” five students strongly agreed, only one was neutral. These results underline the relevance of such programmes in the promotion of the profession, as students had the opportunity to see RMAs in real working environment, understand their work, their responsibilities and their potential impact. This may

influence their career choice in a way that they might end up as RMAs or in similar jobs within the R&I ecosystem.

When students were asked to evaluate the mentorship programme, two questions targeted to understand the impact of the programme: the first question “After participating in this mentor programme, do you feel more certain about your possible career as RMA?”, three of them agreed, while two of them was neutral (one did not reply). In case of the second question “my RMA career related skills and competences improved”, one strongly agreed, 4 agreed (one did not reply).

Main results & impressions of students

Annex III requested detailed summary from students on the mentorship programme: they had to elaborate the work carried out, the main results, main impressions, and personal impressions. Each of them confirmed that the programme provided a work unique experience that they did not have before. They also highlighted the importance of real-life work environment: while during the classes they learnt about RMA in theory, now they could see the practical side of the profession. It was also underlined that having completed this programme students are better prepared to start working following their graduation, getting used to work culture and the atmosphere of a workplace.

Among the main results, most of them highlighted the improvement of the above-mentioned RMA related skills. In addition, initiation and self-directedness was underlined, accepting others’ views and feedback.

Regarding the main impressions acquired, students confirmed that they got a better understanding of RMA and its importance, which either triggered them to direct their career towards it or to respect professionals in their future when working in other fields of research and innovation. They got also a better understanding of the research and innovation ecosystem, practical knowledge applicable for the management of projects, as well as relevant skills to work in teams. One, however, mentioned that (s)he is not able to imagine her/himself in RMA.

As far as personal impressions are concerned, some underlined the cultural differences both at workplace and in the hosting country in general. “Getting out of the comfort zone”, getting to know different work cultures, as well as the culture and history of other countries were outlined as the main personal impressions.

As mentors were only asked to evaluate the development of the student and the mentorship programme as such, unfortunately the impact on their professional development and experiences could not have been touched upon.

Annex 4: Assessment of the seasonal school and the online learning resources

The seasonal school was organized for the students of CORVINUS, NOVA and SHUT interested in RMA and not accomplishing the foRMAtion module. It took place in the form of blended mobility of learners with the following objectives:

1. To showcase key lessons and materials that became part of the “foRMAtion textbook” for an audience unaware of the EU R&I policy frames and the RMA profession. The participating students were asked to test them and provide feedback about how the proposed approach could be improved as well as the clarity and completeness of the provided materials.
2. To test in depth the “foRMAtion self-development” tools available on the project website: students had to provide feedback on each application to allow their further development. Students were working with the:
 - [foRMAtion online learning resources](#), including videos of the project’s YouTube channel and gamified exercises,
 - [foRMAtion self-development tool](#) and certification process, which is granted once students pass the online questionnaire.
3. To provide experience in using key concepts, techniques, and tools available to project managers to develop a proposal. The students worked together with the aim of replicating the international environment in which RMAs work.

Due to the COVID-19 pandemic, the event was postponed by more than half year, as none of the partners preferred the online option due to fact that an online event would not have been attracted students and the learning outcomes would not have been the same as it was desired in the original, face-to-face set-up. So, finally the seasonal school took place in Rome hosted by ISINNOVA between 1 and 5 April 2022 attended by 3 students from each partner university.

Similarly, to the foRMAtion educational module, the impact of the seasonal school and IO6 was assessed based on a sequential study design including an online survey before and after the blended mobility programme. The comparison of the responses aimed to touch upon the change regarding their knowledge, skills and competencies, thus the impact of the programme.

The structure of the survey followed the one designed for the educational module (see Annex 1). The preliminary survey aimed to assess the existing knowledge of students on Research Management and Administration: 1) as an activity; 2) as a profession 3) related knowledge and experiences, e.g., EU research funding framework, research plan, funding plan, project management and integration, research impact and public engagement, as well as 4) necessary skills, such as networking, communication, teamwork, use of digital tools, and so on. In some cases, students were asked to provide some explanation through open questions.

The follow-up survey included similar questions with the aim of showcasing the change in their knowledge, skills and competencies. Therefore, students had to give estimation regarding their self-development. The other part of the survey requests them to evaluate IO6 “Online foRMAtion textbook and self-development tool”.

In both surveys, most questions were closed; formulated either in yes or no type or as a Likert type of scale. The Likert type of scale was used for questions assessing the expected change in knowledge, skill and competence development, answers are gathered in this 5-grade system, where 5 stands for very much, 4: somewhat, 3: undecided, 2: not really, 1: not at all.

Although the completion of the survey was compulsory, they were not completed by all students participating at the blended mobility programme. Bearing in mind the limited number of participating students the answers gathered can suggest where further improvement is needed.

The respondents of the assessed survey counted to 10 (the preliminary was completed by 10, the follow up by 12 students), out of which 3 were from CUB, 3 from NOVA and 4 from SHUT. As regards to their educational level, 7 students were following a bachelor study programme and 3 students were doing masters. Half of the students came from international relations study programme, two from science communication, one from diplomacy and intercultural studies and one from history.

Expectations of students related to the RMA activity, profession and the blended learning programme

Both the preliminary and the follow-up survey aimed to reveal whether students were interested in RMA as a profession. Figure 28 illustrates the results depicting a positive change: the proportion of positive answers increased by 20% decreasing the proportion of uncertain answers. The only negative in both cases answer came from the student whose father works in the profession but who was certain from the beginning that (s)he could not imagine him/herself in the profession.

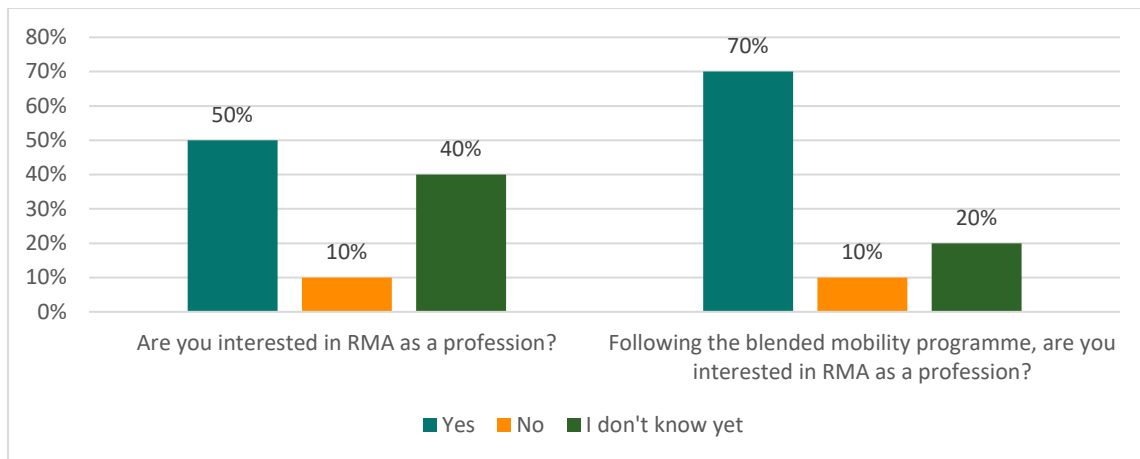


Figure 28 The change regarding students' interest in RMA as a profession (n=10)

Based on their self-assessment, the C10 seasonal school had a significant impact on their knowledge on RMA as an activity (see figure 29). None of them had previous knowledge on the topic, only one (representing 10%) mentioned being aware of the activity because the father works in the profession. Though 30% reported being not familiar with the activity at all and 50% reported being not familiar, following the seasonal school 80% confirmed that their knowledge improved very much.

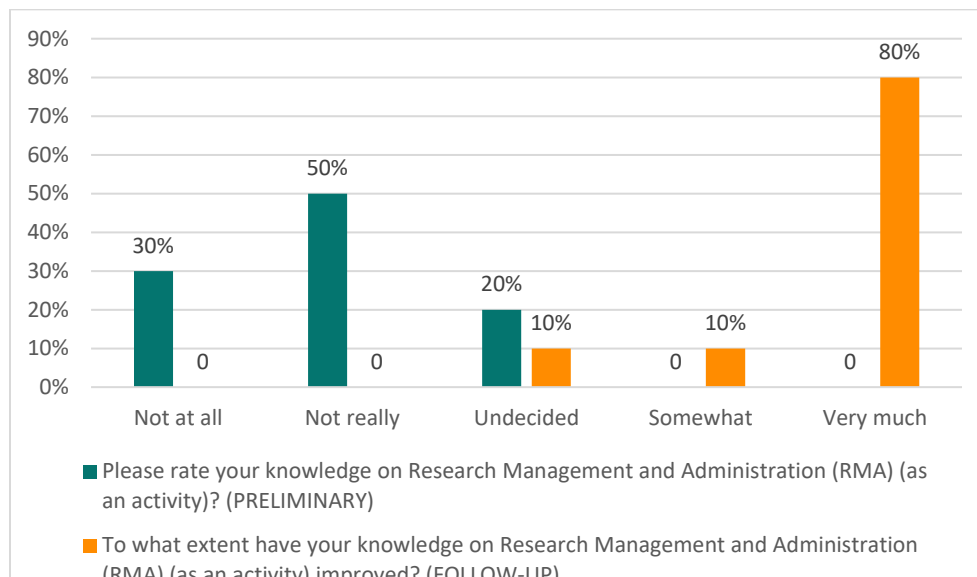


Figure 29: Change in the knowledge of students on RMA as an activity (n=10)

When students were asked to elaborate whether they learnt something particularly interesting which motivates them to go further into the field, due to the low number of responses it was not possible to showcase any trends. However, the following aspects were mentioned:

- better understanding and appreciating what RMA professionals doing, the support they provide to researchers and the practicalities within the work,
- the impressive amount of budget dedicated to EU R&I programmes and related tasks within the projects, so budgeting and financing,
- being motivated (or not in one case) to work in such international environment.

The preliminary survey aimed to touch upon the motivations and expectations of students. Few responses were shared, most of them wanted to get a better understanding of RMA as such that can be used later, either in the academic or professional career. One referred to the improvement of organization and coordination skills, whereas another expected to get knowledge on how to build up a sound research plan.

The follow-up survey aimed to get feedback regarding the satisfaction of the students with the blended learning programme. 60% of respondents were very much, 30% somewhat satisfied. Only 10% was undecided about the issue – the feedback of this student was similarly under the average in case of other questions as well.

Knowledge related to the topics covered

Knowledge improvement in the specific fields of the textbook is illustrated by Figure 30. Before the seasonal school, the most unknown fields were the “Funding plan for research” and “Research funding, governance and management”. Thanks to the seasonal school, the knowledge of students changed and were rated either as the highest or the second highest levels.

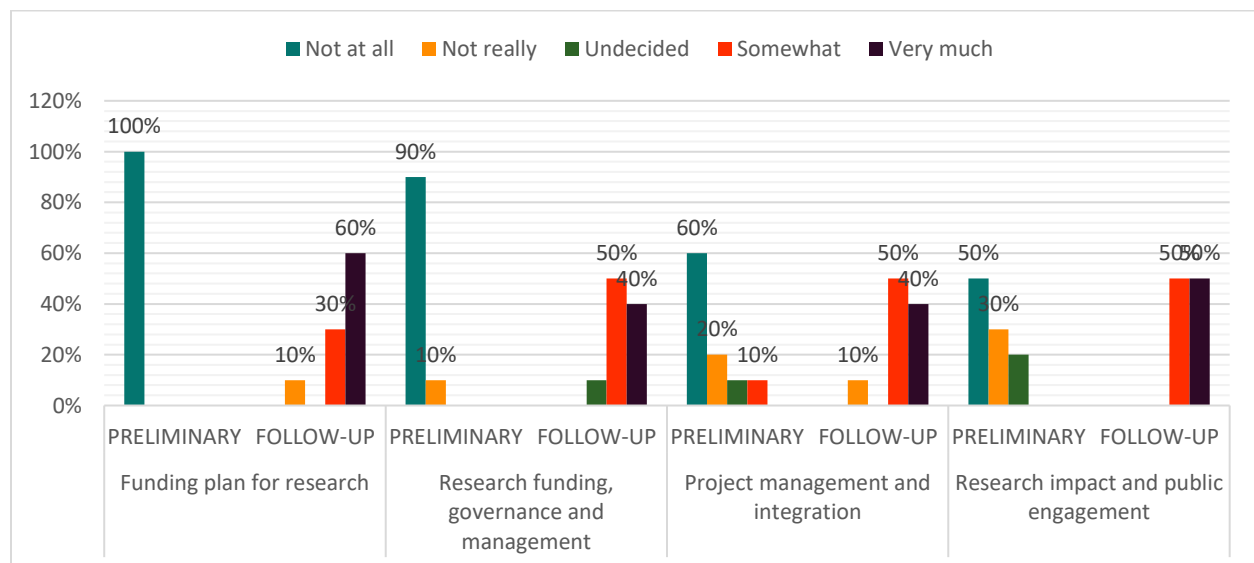


Figure 30: Knowledge before the mobility and improvement after the mobility (n=10)

The usefulness of the seasonal schools shows a similar picture: according to 60% it was very useful, whereas 30% reported somewhat useful. When they were asked to share the most interesting parts, the mentioned issues are rather diverse, however, three aspects can be highlighted: 1) the opportunity to learn from professionals, referring to the RMAs of partner institutions contributing to the programme by sharing hands-on experiences and real-life examples, 2) budgeting, funding and financial issues, 3) working in teams (which were culturally diverse).

RMA related knowledge and skills

Both surveys required an estimation of students' knowledge and skills essential for doing Research Management and Administration. The rating was done in a 5 grade Likert type of scale, where 5 stood for excellent and 1 for inexistent. The change between their own self-estimation is presented in Figure 31 where orange presents the number of students reporting a decrease, whereas green presents the number of students assessing an improvement in case of the listed skills.

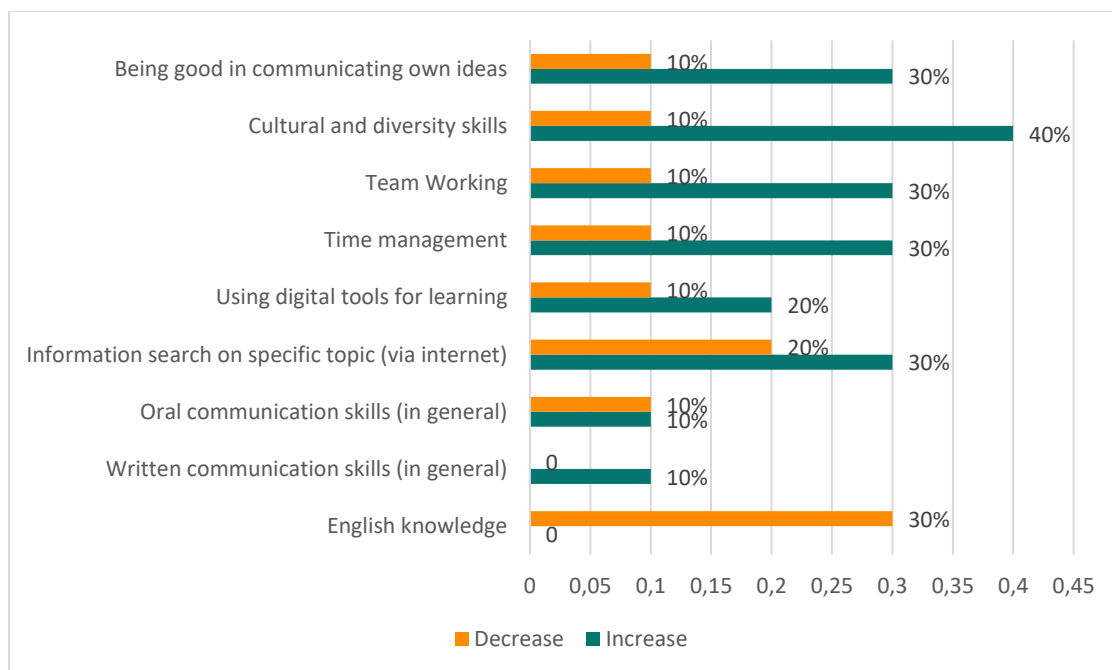


Figure 31: The change of RMA related skills according to students' self-estimation (n=10)

The most impressive positive change was measured in case of cultural and diversity skills (40% reported a better grade), being good in communicating own ideas, team working, time management and information search on specific topics (in each case 30% reported a better grade). This suggests that the activities of the seasonal school and the online learning resources could really effectuate positive impact on students. Negative change was reported by 30% in case

of English knowledge, which suggests that during the intensive blended programme students were faced that their language skills could be improved, and they were not at the desired level so far.

In addition, when students were asked whether they could improve any skills/information necessary for RMA, 70% confirmed and 30% were uncertain about that. Those confirming the statement could explain their choice in the form of short answers. Teamwork was highlighted in most cases followed by cultural and diversity skills which corresponds to the unique feature of the seasonal school enabling the joint participation of students from 3 different countries and engaging them in an intensive, 5-day long training.

Following the seasonal school, students were asked whether they were interested in RMA as a profession. 50% confirmed their interest – all of them confirmed previously that they could improve skills and knowledge related to RMA. 40% were unsure, whereas 10% added that (s)he is not interested as (s)he cannot imagine working in the profession.

These results suggest that once students get a broader overview and some practical knowledge in the field of RMA, at least half of them remains interested to the field – even if not as an RMA but using the knowledge and expertise in other fields of live. Another important outcome that almost everybody who gets insight into the daily life of practitioners, start to appreciate them and recognize their expertise and profession. Based on this the importance of any programmes raising awareness on and giving introduction to Research Management and Administration has relevance on the long way leading to recognition.

10. Annex 5: Assessment of the project as a whole

Qualitative indicators

The quality assurance of the project was an ongoing activity: started by forming an internal quality assurance team and subcontracting an external expert. This was followed by the elaboration of the quality assurance plan (QAP) which was part of the foRMAtion Management Handbook. The QAP included the methodology, the process, the timeline, as well as the templates of documentation. Both the mid-term quality assurance report and the final quality assurance report were elaborated as planned providing feedback from an outsider on the progress of the project, the achievements and the quality, in line with the original plans.

In general, it can be underlined that the project implementation was successful, in most cases it not only reached the original goals but went far beyond them. By building on a complex approach, developing innovative outputs and activities, after its first year, foRMAtion became a flagship initiative within the RMA community. The more professionals, teachers, students, institutions and associations became aware of the project, the more they wanted to get engaged. The extensive work of partners paired with their enthusiasm to develop high quality and broadly useable outputs raised significant attention from target groups and relevant stakeholders as soon as the first outputs were shared with the public.

Two major issues can be highlighted, however, affected the project implementation in a negative manner, and which necessitated additional efforts from the coordinator to ensure that the project reaches the original goals:

- 1) COVID-19 pandemic: the pandemic and the general close-downs started six months after the beginning of the project, which practically meant that following the first two half-yearly meetings and events, partners had to switch to an online working process without having any idea when it would be possible to continue the implementation in line with the original plans. The investigation of the feasibility of organizing events and programmes, the consultation with the partnership and with the National Agency, the development of various scenarios to ensure the delivery of the originally planned activities and outputs, required enormous investment on the side of the coordinator and the partnership as well.

As a result, some activities were shifted online (teaching of the first semester of the foRMAtion module or the C3 Mentors Training) but some were postponed (C4-9 Mentorship Programme, C10 Seasonal school) half or one year later as the partnership

insisted on keeping their originally planned format. This required, however, that the project was postponed by 4 months. Nevertheless, based on the feedbacks and the indicators collected, the postponement was reasonable and met the original expectations.

- 2) **BUDGET:** The limited budget of Erasmus + KA2 projects, the fact that the project was approved with a decreased budget, as well as the lack of dedicated budget line for communication and dissemination required an important amount of additional investment from all partners, especially from the coordinator and the partner responsible for communication and dissemination. Budget reallocations from the transnational meeting budget line to intellectual output budget line could partially compensate the additional resources of partners, which necessitated that the coordinator had to continuously motivate partners to ensure that all the activities are running smoothly, and each partner fulfils its obligations. Meeting the high requirements of the Programme regarding communication and dissemination activities would require dedicated budget line.

Nevertheless, the project at large effectuated significant impact on various groups.

Impact on participants

- 1) During the teaching of the foRMAtion module, students received significant knowledge on EU funded R&I programmes and projects. The PBL approach and informal training methods enabled them to develop their skills, competences and abilities. The course raised their interest towards the RMA profession, and some already looked for internship opportunities in the field. Similarly, students participating at the seasonal school gathered important knowledge in RMA and could improve several related skills, including cultural & diversity skills, teamwork, communicational skills. Students in the mentorship programme got a glimpse on real-life working environment, practical knowledge in RMA. They could also improve several skills, especially time management, efficiency, and communication skills.
- 2) The teaching of the foRMAtion module enabled teachers to broaden their knowledge on EU funded R&I programmes and projects. Both IO3 and C2 events made them familiar with new, informal and project-based teaching methods, innovative and digital teaching tools. Thus, they could develop several skills and competences. They also became connected with professionals of the European RMA community which enlarged their network and opened new opportunities for learning and carrier development.
- 3) Appointed mentors participating the C3 event got a clue on how to be a good mentor, develop their carrier and enforce their leadership skills. During the mentorship

programme they guided and supported their mentees in an excellent manner. They could act as role models making the students motivated towards the career.

- 4) RMAs from partner universities engaged in the teaching could develop their knowledge, skills and competencies too. RMAs from partner research organizations benefited from the knowledge gathered through IO1, IO2 and IO4.

Impact on participating organizations

Thanks to the complex approach of foRMAtion, the development of each activity and outputs is strongly built on each other. This necessitates that partners continuously work together resulting in several important lessons learnt as well as the development of new knowledge. Due to the direct involvement of the Advisory Board, each partner can broaden their network and learn in-depth from the experiences of the international R&I community. Thanks to dissemination activities, each partner had the chance to reinforce their international visibility and recognition.

The project became a reference point not only in the RMA community, but also for EU policymakers: two partners (HETFA, NOVA) became members of a consortium of a new project called RM ROADMAP funded by Horizon Europe providing capacity building, knowledge development and networking opportunities for RMAs across Europe. In parallel, the European Commission published 20 Actions reinforcing the European Research Area. Among them, Action 17 wants to strengthen the strategic capacity of Europe's public research performing and funding organisations as the EU wants to respond to and develop solutions for the issues that research managers and administrators (RMAs) in Europe face. Accordingly, the European Commission envisions the strategic capacity of RMAs to be strengthened by building capacities in four key areas: Upskilling, Recognition, Networking, and Capacity Building. The project foRMAtion is mentioned as one of the previous, key initiatives in the field.

Besides, HEIs got access to new teaching techniques and materials, and could launch a new complex module to improve their course offers. Thanks to the involvement of research institutions, the curriculum became better aligned to the needs of the labour market and foster interaction between education and R&I. Moreover, at NOVA University of Lisbon, the foRMAtion module was awarded with the Blended Learning Award which is an important recognition coming beyond the RMA community.

Research institute partners could get acquainted with new methods and working practices related to research management, expand their network and increase their competitiveness.

Impact on target groups

1) RMAs and RMA associations:

Beside the directly involved participants, foRMAtion aims to reach out professionals and support their knowledge, skill and capacity development. Thus, social media activities and presentations delivered at various events raise attention on those outputs which are open for the wider public too. As a result, several inquiries and feedback have been already received highlighting their usefulness even for professionals.

2) HEIs beyond the partnership:

The project has been already presented at various fora gathering universities highlighting the innovative approach especially of IO2 and IO3. Since foRMAtion is a gap filling initiative especially in countries of Central and Eastern Europe, discussions have started about the possible adoption of the formation module with several institutions. Besides, the Coordinator and NOVA started discussions with HEIs beyond Europe (US and South Africa) where RMA training courses or educational programmes are already in place to exchange knowledge and identify the possibility of developing joint activities.

Impact on other stakeholders engaged

Thanks to the opening up measures following the pandemic, the Multiplier Events could have been organized in the last year of the project. This enabled the partnership to mobilize and engage all relevant stakeholders, from policymakers to HEIs, RPOs, RMA associations, related projects, and so on. Thanks to the possibility of organizing hybrid events, stakeholders beyond Europe (from Canada, US, South Africa, Australia) could take part at the event enriching the presentations and discussions. Their interest in the project in general, but also in joining the trainings and alliances underlines the relevance and their gap-filling role of foRMAtion outputs. In addition, relevant stakeholders were mainly reached out by a huge number of presentations at events organized beyond the partnership. Each occasion proved to raise interest towards the project and delivered outputs and resulted in additional invitations to present the project and discuss about its objectives and possible areas for development with researchers, institution leaders, National Contact Points, etc.

Annex 6: Research data management

In line with the principles of the Erasmus + programme, both the foRMAtion outputs and the related research data is freely available.

Necessary data for the elaboration of IO7 were collected in compliance with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC General Data Protection Regulation (hereinafter: GDPR) and other relevant legislation. HETFA as a controller attach great importance to the protection of personal data.

Participation in the surveys and interviews were voluntary and the data is treated confidentially and is not forwarded to any third parties. No one was obliged to provide personal data and their lack did not result in any consequences. One could revoke its participation at any time and request to delete its data from the person responsible for the survey and the interviews. Consent was asked both from the respondents of the survey and the interviews. Only appropriate staff from HÉTFA who were involved in the research could access them. The data provided directly is kept until maximum 5 years after the end date of the project.

For the research and the assessment, data were anonymised and made available at figshare:

https://figshare.com/projects/foRMAtion_IO7_impact_assessment/156500

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