





Chapter 4.2

Professionalisation of Research Support in Hungary Through the Lens of the Non-research Specific Requirements of Horizon Europe

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Abstract

The emergence of Research Management and Administration (RMA) is a result of the pressure on academics to secure research funding from external sources, the increasing competition for these funds, as well as the rising requirements of research funders in terms of reporting and compliance with regulations. This is relevant in the case of the current Horizon Europe Framework Programme for Research and Innovation (HEU) funded by the European Union (EU) which requires important level of professionalisation of the research support staff on behalf of the applicant institutions. Data management, open science, research ethics and integrity, achieving impact beyond academia and the valorisation of project results can be regarded as non-research specific criteria which have to be met by applicant organisations to secure the highly competitive funding. Meeting these non-specific criteria is not always possible in countries whose performance is lagging behind compared to the Western European competitors in EU-funded programmes, such as Hungary.

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Our findings reveal two things. First, research support in Hungary is in its early stage of maturity, similar to many countries in Central and Eastern Europe. In several cases, Research Managers and Administrators (RMAs) do not possess the knowledge necessary to meet the non-research specific criteria even if the knowledge is present at the institution or with other colleagues. Second, due to the continuously increasing participation in EU-funded framework programmes (FPs), the state of research support in Hungary is constantly evolving. There is also willingness to learn and improve capacities, which needs strategic planning, studying others' examples and their adaptability. Such processes can support the capacity building and professionalisation of research offices not only in Hungary, but in countries of the Central and Eastern European region with a similar maturity level of RMA.

Keywords: RMA; research support; professionalisation; framework programmes; non-research specific criteria; Central and Eastern Europe

Introduction

The profession of RMA does not have a long history. It emerged in public research performing organisations (RPOs) and in higher educational institutions (HEIs) after World War II, primarily in the Anglo-Saxon world (Campbell, 2010, p. 1). The rationale behind its development is manifold, including the pressure on academics to secure research funding from external sources, the increasing competition for these funds, the rising requirements of research funders in terms of reporting and regulations, as well as their complexity and scrutiny (Campbell, 2010; Green & Langley, 2009; Kerridge, 2016; Reiser et al., 2015; Wedekind & Philbin, 2018, p. 44).

In Europe, the launch of the FPs for research and technological development within the European Economic Community in 1984, now the EU, also reinforced the demand for university staff to support researchers who were struggling, for example, with EU-funded grants. Then the cuts in national research budgets made these research programmes significantly more competitive – meaning that ‘only the very best proposals are retained for funding’ (Wedekind & Philbin, 2018, p. 48). As a result, universities had to increase their investment in the management of their research processes (Virágh et al., 2020).

In line with this, Campbell (2010, p. 1) describes RMAs as those who ‘both navigate and administer the increasingly complex world that funds and oversees research’. Similarly, Schützenmeister (2010, p. 23), when talking about ‘new research managers’, underlines the complex requirements of different funding sources. His list includes requirements which are not necessarily connected to the research itself, such as the inclusion of stakeholders, multidisciplinary research design and promotion of societal goals.

However, the non-research specific requirements of EU-funded research programmes, which are our main focus here, are explicitly highlighted by Wedekind and Philbin (2018, p. 48):

proposals are evaluated on a wide range of non-research related aspects, such as the socio-economic impact and the visibility of the envisaged project as well as project and risk management processes and competencies. This concretely means that ... a European research and innovation project entails the involvement of a wide range of non-research related roles.

This is how we arrive to the overarching concept of RMAs as ‘Professionals at the Interface of Science’, proposed by [Agostinho et al. \(2018\)](#), which lists a number of responsibilities throughout the research project lifecycle, including outreach and science communication, knowledge and technology transfer, intellectual property management, ethical compliance, project management and so on.

Nevertheless, the long-term lack of recognition and awareness of the RMA profession is evidenced by the fact that, in the evaluation of the research management work carried out under the FP7,¹ no focus was dedicated to the importance of RMAs supporting researchers in carrying out these projects. EU experts ([Jansen et al., 2014](#)) only expressed that ‘good research management and project success goes hand in hand’. Neither did the report ‘Interim Evaluation of Horizon 2020’² ([European Commission, 2017a](#)) refer to the importance of research managers or their lack in case of countries lagging behind, such as EU-13 countries.³

It was not until the report on ‘Overcoming innovation gaps in the EU-13 Member States’ ([European Parliament, 2018](#)) highlighting the lack of experience and capacities of EU-13 countries in the preparation and management of FP-funded projects that there was any reference to the importance of RMAs in research governance mentioned in the public domain. The report underlined that ‘another aspect that might help to increase the success rate rests on the improvement of supporting services for writing proposals, project management ...’ ([European Parliament, 2018](#), p. 118).

Such reference to the rudimentary status of research support in EU-13 countries, including Hungary, is crucial since, as of April 2022, beneficiaries from EU-13 represent only 8.54% of H2020 beneficiaries; whereas they absorb only 5.25% of H2020 contributions. Hungarian beneficiaries represent 0.87% of H2020 beneficiaries, and 0.55% of H2020 grants are received by them. These rates are higher in case of other EU Member States with somewhat similar size but with different research & innovation (R&I) ecosystems, such as the Netherlands (6.23%; 7.78%), Belgium (4.77%; 5.05%), Portugal (2.22%; 1.69%) or Czechia (1.06%; 0.72%).⁴

The current HEU⁵ requires a significant level of professionalisation of the research support staff on behalf of the applicant institutions. As the importance of open science, FAIR⁶ data management, gender equality, research ethics and integrity, achieving impact beyond academia and the successful exploitation of project results is growing, it becomes a factor of competitiveness how the institutions can provide specialised

¹FP7 stands for the 7th EU-funded FP for research and technological development running between 2007 and 2013. See <https://cordis.europa.eu/programme/id/FP7>.

²Horizon 2020 (H2020) stands for the 8th FP of R&I running between 2014 and 2020. See https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-2020_en.

³Since 2004, there have been 13 new countries added to the EU – Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

⁴Data retrieved from Horizon Results Dashboard on 15 April 2022. See <https://webgate.ec.europa.eu/dashboard/sense/app/98dcd94d-ca66-4ce0-865b-48ffe7f19f35/sheet/KVdtQ/state/analysis>.

⁵The HEU is the 9th FP of the EU funding R&I running between 2021 and 2027. See https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en.

⁶FAIR is an abbreviation for findability, accessibility, interoperability and reuse of digital assets. See <https://www.go-fair.org/fair-principles/>.

support for their researchers to meet these criteria which are not research specific and should not belong to the core activities of researchers.

The response of institutions to meet these non-research specific criteria can vary, for example, setting up a regulatory framework, assigning specialised human resources and establishing dedicated positions. By assessing the current state-of-the-art and mechanisms of the research support structure of the Hungarian RPOs, including HEIs and public research institutes (RIs), we shall get a picture of the current state of RMA in Hungary and the challenges these professionals face. Similar exercises might support countries with a similar or lower maturity level of research support services to identify their strength and weaknesses and develop strategic plans for their improvement.

The Focus of the Research and the Research Question

Our investigation aims to identify and assess the capacities and the level of professionalisation of research support in Hungarian RPOs through the lens of non-research specific requirements of Horizon Europe, such as the division of tasks during the research lifecycle, data management and open science, gender equality, research ethics, communication and valorisation of project results. The supporting questions are as follows: what kind of expertise is provided to researchers in the case of non-research specific requirements of the Horizon Europe Programme? To what extent are RMAs prepared to offer in-depth non-research specific support? Are there institutional strategies and/or answers to meet these requirements or are only ad hoc solutions offered? Which non-research specific requirements can be easily met and which necessitate additional efforts in terms of human resources, capacity building or professionalisation?

Methodology

The mixed method research design relies on an anonymous online questionnaire and on in-depth online interviews, as this was the most appropriate way to retrieve the relevant information due to the (in some cases extreme) workload of RMAs working in Hungarian organisations.

At the time of the investigation, 65 HEIs were operating in Hungary, ranging from minor universities of applied sciences to top research universities. The Hungarian Research Network (HUN-REN)⁷, formerly known as the Eötvös Loránd Research Network (ELKH) comprises 11 research centres and 7 RIs.

The subject of the research includes those universities and RIs which participated in H2020. The list was drawn by Horizon Dashboard search and includes 44 entities: 26 HEIs and 18 public RIs. In this way, 40% of all Hungarian HEIs, while all ELKH research centres were approached with the questionnaire.

Questionnaire

The questions aimed to provide an overview of the status quo of the context and capacities of the organisations with regard to the most crucial issues of Horizon Europe's non-research specific requirements. Thus, the main topics included the

⁷<https://hun-ren.hu/en>.

institutional frameworks and strategies regarding participation in international R&I projects, research data management and open science, gender equality plan (GEP), research ethics and integrity, science communication and dissemination of research results, planning and implementation of R&I projects, as well as exploitation and marketisation of the results. To make it easy-to-answer and not requiring a lot of time, most questions required only Yes/No responses. Respondents could add any further comments after each topic in the form of long answers. No difference was intended to be made whether the participant was employed at the central level or at departmental/institutional level of the given organisation.

The questionnaire was open between 1 March and 29 March 2022. E-mails were sent to the direct contacts collected by the authors, as well as to various lists maintained by Hungarian National Contact Points.

In total, 26 questionnaires were completed representing 59% of the targeted population: 16 respondents (62%) from HEIs and 10 respondents (38%) from RIs.⁸ As almost half of the Hungarian RPOs are based in the capital Budapest and the other half are situated in other regions in the countryside, the responses gathered are in balance with this overall geographical division of Hungarian organisations (see Fig. 4.2.1).

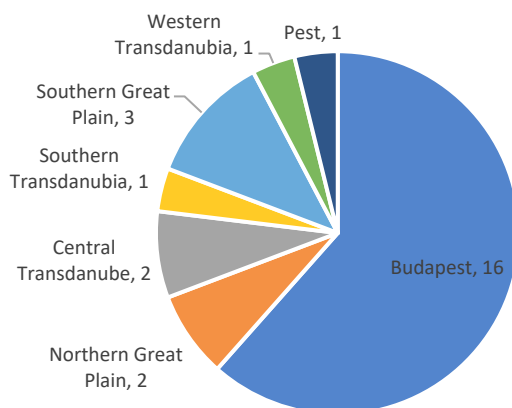


Fig. 4.2.1. Institutional Background of the Respondents and the Geographical Location of Their Institute According to NUTS-2 Regions.⁹

The majority of respondents were research managers ($n = 16$). Three in leadership positions and three research project assistants answered, whereas two researchers, a librarian and a research data steward were also among the respondents.

⁸It is important to add that to secure privacy and reach the highest number of possible respondents, the survey did not ask the respondents to specify their organisations nor to limit the number of respondents from each organisation. Nevertheless, based on the responses it is not likely that more respondents filled in the questionnaire from the same organisation.

⁹The seven Hungarian (NUTS-2) regions are: Central Hungary, North Hungary, North Great Plain, South Great Plain, South Transdanubia, West Transdanubia and Middle Transdanubia. See <https://ec.europa.eu/eurostat/documents/345175/7451602/2021-NUTS-2-map-HU.pdf>.

Online Interviews

The selection criteria for the online interviews included the organisations' performance in H2020; the size of the institution (e.g. number of faculties, students and researchers); research portfolio (single or multiple focus); geographical location (capital or countryside region); and willingness to participate in an in-depth interview.

The authors aimed at selecting a diverse range of HEIs and RIs (see selection criteria above), so eight universities and three RIs were contacted directly. Few of them responded, so in the end, three universities (two from Budapest and one from Northern Hungary NUTS-2) and two RIs (both from Budapest) undertook the interview. One in a leading position, two research managers and two research assistants participated.¹⁰ To get a more inclusive picture, the authors reached out and interviewed two representatives of the Hungarian research funding organisation as well.

Assessment and Discussion**Background Notes on the Context**

Different organisational structures of research support (e.g. centralised and decentralised) exist in parallel among Hungarian RPOs, thus their daily operation also varies. In several cases, we seldom find organic development or continuity of the research support offices (RSO) due to the numerous reorganisations¹¹ initiated in recent years. The two major initiatives are explained briefly below.

Hungarian Research Network

In 2018, the reorganisation of the entire R&I sector was initiated in Hungary. On 2 July 2019, the Hungarian Parliament adopted a Bill (Act no. LXVIII of 2019¹² on the structure and financing of the research, development and innovation system) which detached the network of RIs from the Hungarian Academy of Sciences (HAS) and made them independent entities.¹³ The new law renders the research network (named HUN-REN) under a governing body that consists of 13 members, all of them appointed by the Prime Minister.

The HUN-REN¹⁴ research network currently comprises of 11 research centres, 7 RIs and 116 additional supported research groups operating at universities and other public

¹⁰Even though the invitation for interview stated clearly that the name of interviewee and their affiliation would not be included in the chapter, approached representatives of the organizations were reluctant to participate. The authors learned from unofficial channels that interviewees are not allowed to participate in the research even anonymously without prior approval from senior leadership.

¹¹These changes either occurred based on internal decisions of the RPOs, like the merger of smaller colleges and/or medical universities into one big institution or due to governmental initiatives. The in-depth overview and analysis of recent changes in the field is not the subject of this study, it is only providing information for a better understanding.

¹²Act no. LXVIII of 2019 on the amendment of certain acts to transform the structure and financing of the research, development and innovation system See <https://njt.hu/jogszabaly/2019-68-00-00#foot1>.

¹³For more information check out <https://abouthungary.hu/news-in-brief/minister-reorganization-of-science-academy-to-boost-rdi-in-hungary>; <https://cz.boell.org/en/2019/03/12/battle-academy-war-academic-freedom-hungary-enters-its-next-phase>; and <https://www.nature.com/articles/d41586-019-02107-4>.

¹⁴See <https://hun-ren.hu/en/about-hun-ren/about-us>.

institutions, conducting basic and applied research, exploring the most varied disciplines of mathematics and natural sciences, life sciences, social sciences and the humanities.

The Shift in Governance Models for Hungarian Universities

In parallel, in public education, the financial remodelling of the higher education system had been initiated. The goal of the model change was to boost universities' overall performance and to attract new private resources through a more flexible regulatory environment.¹⁵

Corvinus University of Budapest began as a pilot, then became the model for the entire restructuring of the university system, when it was transformed from a state-funded institution into one that is maintained by a non-profit foundation in 2019. This change also meant that the university was no longer controlled and financed by the government, but a foundation. As of August 2021, only six HEIs remained under state maintenance, the vast majority of them are located in Budapest. However, negotiations are taking place on the transformation of these institutions as well.¹⁶

General Observations on the Operation of RSOs

As it is highlighted above, the engagement in EU-funded R&I projects and meeting all the requirements necessitates significant support from the RSO. Therefore, the authors aimed to reveal whether there was any such organisational unit in the surveyed institutions. A total of 20 respondents (77% and almost the same ratio of the interviewees) confirmed its existence, whereas 6 reported the lack of such a unit. Each organisation belonging to the latter category are RIs. In their case, half of them reported that despite the lack of RSO there is strategy for engagement in international research projects, and apart from one institution, the RPO leadership is in favour of participation in such projects. In one case, where there is no RSO and no support of leadership, only a central unit is responsible for the financial management of running projects.

Interviewees also revealed that adequate financial resources for the efficient operation of RSOs were rarely allocated during the reorganisation(s) of the institutions under investigation.

In most cases, the RSOs typically consist of only a few but devoted staff, who are extremely overwhelmed (which is the case in several other countries as well, see [Shambrook, 2010](#); [Tabakakis et al., 2020](#)). It was also learnt from the interviews that many RMAs have research backgrounds or they are still active researchers thus playing dual roles. This means that if they want to take part in EU-funded research projects, they are responsible for all the activities which should be generally shared by researchers and RMAs; screening calls, seeking consortia, contribution to the preparation of the different parts of the proposal. Then, when the project is awarded, responsibility for coordinating contracting within the organisation, managing not only research but financial, administrative and communication activities also must be done. While it is rather general that researchers become research managers, examples when researchers act as research managers were also learnt from the interviews and the survey. This situation is perceived unfortunate as researchers cannot carry out their work in full potential if they also have to carry out all management related tasks for the funded projects.

¹⁵For more information check out <https://publicgoods.eu/model-change-hungarian-tertiary-education/>; <https://kozjapak.hu/node/579> and <https://4liberty.eu/from-public-to-private-universities-model-change-in-hungarian-higher-education/>.

¹⁶See https://eduline.hu/felsooktatás/20220119_BME_targyalasok_modellvaltas.

Strategic Documents and Leadership Support

Before focussing on meeting non-research specific criteria, following the example of [Green and Langley \(2009\)](#), the investigation aimed to reveal the context in which the research support operates. If there is a decision by RPOs to get engaged in international R&I collaboration, the main goals and the related actions are laid down in an institutional strategy. Based on international practices, it is becoming more common for RMAs to take an active role in such processes ([Krasinski, 2021](#)).

As regards the main institutional frames for participation in international R&I projects among the organisations taking part in the assessment, it was found almost two third of the institutions ($n = 16$, representing 62%) have institutional R&I strategy. Although a vast majority ($n = 24$, representing 92%) of the institutional leadership favours participation in international R&I projects, only 12 (46%) of the respondents reported to have a dedicated strategy for participation in international R&I projects. Interviewees added that even if such documents exist they are not specific enough and lacks a real strategic approach. Furthermore, outstanding support from the senior leadership for the successful participation in Horizon Europe was confirmed only in a very few cases both in the interviews and the survey.

Preparation for Horizon Europe in General

Examples from European RPOs

The preparation of international R&I projects needs an important amount of time and resources, therefore last-minute submission, even if the institution has only a partner role, is a waste of resources ([Zsár, 2022](#)). Both the institutional leadership and the researchers have to understand the life cycle of FP programmes and act not only when the calls are published, but shall try to get informed and engaged during the planning phase of the policy, then at the elaboration of the draft Work Programmes. In this way, important topics for the research organisations can become part of the calls, thus before they are published, the preparations of the proposal can be already on the way ([McCarthy, 2022a](#)).

As researchers have different levels of interest in participating or coordinating EU-funded projects, the offer provided by the RSO has to consider such differences. Potential winners need coaching and mentoring, newcomers need training and one-to-one support, whereas those who are not interested, first, need to learn success stories from participation in FPs highlighting the benefits of participation ([McCarthy, 2022b](#)).

To provide such tailor-made and proactive support for researchers, research organisations across Europe developed a number of practices which can be showcased as good practices. For instance, the allocation of roles and competences of RMAs altogether is carried out by the Politecnico di Milano in order to strengthen the consultancy quality within the RSO, to manage and use data as well as to give researchers the opportunity to trust in services offered ([Grotti & Suevo, 2021](#)). Charging a fee on the project for the services provided by the RSO is also becoming common, such as the case of the University of Vienna ([Fogel, 2021](#)). Developing proactive research support services, based on data and communication, can be also highly important by addressing silent needs of researchers ([Grotti & Suevo, 2021](#)).

Personal meetings of pre-award funding advisors and post-award RMAs are regularly organised by a number of institutions, including the RSO at the University of Paris. For current updates, news, and knowledge sharing, such meetings are held biweekly, but for more in-depth knowledge exchange and training, such meetings should be held at least quarterly ([Mereu, 2021](#)).

Skill development workshops (e.g. intervision sessions within the research support team, [Kanters & Le Large, 2018](#); and trust building workshops with researchers, [Kra-sinski, 2021](#)) are also organised at several research organisations to handle the stressful and hectic workload and to build good working relations within the teams. This can be complemented by MicroSoft Teams/Slack channels to keep in touch and discuss challenges and rules but also to support community building.

The commitment and motivation for RMAs can be increased through numerous incentives, such as self-development and training opportunities, networking, clear career path and so on. Participation in European and international network of research managers, such as EARMA,¹⁷ SRAI,¹⁸ NCURA,¹⁹ etc. can be part of such motivational factors as conferences, trainings and the participation of other type of events or networks not only provide important up-to-date information to participants, but platform for practical knowledge exchange ([Mereu, 2021](#)).

It is of crucial importance that researchers and potential principal investigators (PIs) are aware of the RSO and RMAs, to whom they can turn with their questions and use the services provided during the whole lifecycle of the funded project. Based on the example of the University of Paris, it also proved to be highly useful that the RSO presented all the advantages to participate in research projects (e.g. bonuses and teaching release) for researchers ([Mereu, 2021](#)).

The Situation in Hungary

However, in Hungary, apart from a few good practices of organisations with a significant track record in terms of H2020 participation, it is rare to find wide-spread examples of conscious, tailor-made activities either generally or specifically with regard to the preparation or the participation in HEU that was reported at the institutional level. Organisations rarely took time to learn from the experiences of H2020 participation or identify new areas for potential cooperation.

RMAs participated in the FP European Commission (EC) info days, trainings and webinars organised by the National Research, Development and Innovation Office (NRDIO)²⁰ and/or the EC, as they realised that acquiring information on Horizon Europe is crucial for the successful completion of their work. In some cases, institutions' senior leadership ordered RSO staff to attend in such events.

Therefore, individual considerations are still strong in initiating proposals – they are typically bottom-up initiatives coming from the researchers, however, in some cases there is also top management pressure to generate revenue from national and EU resources. As it was underlined by the interviewees, young researchers (usually up to PostDoc level) are generally more encouraged to apply for grants and submit proposals. Participation in a Horizon Europe project provides EU-wide visibility, which is a very strong motivation for researchers. Validating the experiences of European counterparts, the existence of a well-functioning RSO can motivate researchers to apply as they 'dare to ask questions and can receive detailed answers thus they are not left alone' (interviewee from university based in Budapest).

¹⁷EARMA stands for the European Association of Research Managers and Administrators. See <https://earma.org/>.

¹⁸SRAI stands for the Society of Research Administrators International. See <https://www.srainternational.org/home>.

¹⁹NCURA stands for the National Council of University Research Administrators. See <https://www.ncura.edu/>.

²⁰See <https://nkfih.gov.hu/about-the-office>.

Effective engagement in international projects, including their preparation and management, also necessitates the provision of predictable incentives both for the academics and the support staff, for example, travel cost and subsistence allowance paid for researchers to attend and actively contribute to proposal writing seminars abroad, or opportunity for career advancement and so on.

Financial support provided for the elaboration of collaborative international projects is provided by 9 (35%), a bonus following the awarded grant is provided by 7 (27%) organisations. A total of 15 respondents (58%) reported the lack of any such financial motivational scheme. For these institutions, the only option is to actively encourage and convince the researchers to participate in EU-funded projects; the so-called ‘champions’, well-respected, influential individuals play a crucial role in this mission.

The interviewees also reported, in some cases, the availability of financial incentives for researchers to apply for individual research grants or participate in collaborative projects. One can differentiate (at least) two categories, such as follows: (a) researchers receive financial support only in case their proposal is winning, while in the other case (b) the organisation is already willing to pay for submitting a proposal. The amount of remuneration depends on the workload or the level of involvement of the researcher in the project. Other interviewees reported that their organisation is considering launching similar financial incentives. In case of patents, it was also learnt that if patent or know-how is sold on the market, researchers might receive some reward.

Addressing the Non-research Specific Requirements of Horizon Europe

Research Data Management and Open Access

A data management plan (DMP) is the required element for the right management of data.²¹ DMPs are requested from funded projects and not from institutions, however, the knowledge related to sound data management is considered as an important asset of all applicants.

A total of 16 respondents (62%) confirmed the existence of a research data steward in the institution, whereas 7 reported (27%) the lack of such a position (Fig. 4.2.2). Interestingly, in the case of institutional procedures related to the management and

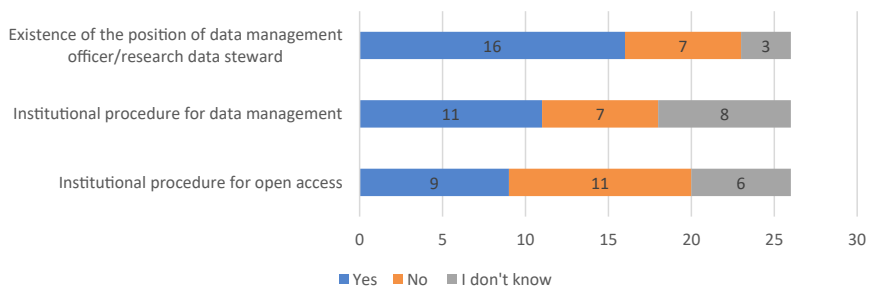


Fig. 4.2.2. Institutional Settings Related to Data Management and Open Access.

²¹Retrieved 19 April 2022, from, https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm.

accessibility of research data, seven respondents (27%) (however, not entirely the same group of respondents) confirmed the lack of any documents pertaining to that topic. The need for guidance supporting open access to research data and results is underlined by the respondents: only 9 respondents (35%) referred to an already existing institutional procedure, whereas 11 respondents (42%) confirmed its lack.

A few of the interviewees claimed that in their organisation, there is no dedicated research data steward. Moreover, in certain cases there is even no intention (from the senior leadership side) to employ one or simply there is no budget which could be allocated to employ one. Generally, librarians are prepared for data management instead of RMAs.

Open access refers to the practice of providing online access to scientific information that is free of charge to the end-user and reusable. In case of Horizon Europe, open access of publications is a condition, whereas the Commission has extended the Open Research Data (ORD) pilot to ensure the accessibility of research data with the aim to 'improve and maximise access to and re-use of research data generated' by the funded projects.²²

Apart from some good examples, more than 60% of the RPOs who participated in the online interviews are facing difficulties in handling open science/open access/open data related issues. Large sound of data are being produced in many scientific field or research area (e.g. microscopic analysis), which requires appropriate internal storage capacity. As a consequence, they cannot be shared easily with the public, thus in some cases it is available only upon individual request. Also, in case of other measurement results, modelling algorithms and simulation, it is questionable how to keyword, index, store or publish them, which is a challenge both for researchers and research managers in the elaboration of the DMPs. Interviewees identified 'research data management and open access' as one of the main areas, in which they and the support they provide to researchers should improve, especially in regional comparison.

Gender Equality Plan

As the EC strives to reinforce gender equality across various policies and fields, it is also considered as a cross-cutting priority by the HEU. In practice, it means that for most legal entities, including the organisations under investigation, the elaboration and the implementation of a GEP is an eligibility criterion from the year 2022.²³

GEPs have been either completed or in progress in case of all examined institutions. A total of 20 respondents (77%) confirmed the existence of the GEP, the other (23%) added that its elaboration is in progress. One indicated that the plan for equal opportunities was in place since 2010, whereas a dedicated GEP has been elaborated only recently. For those organisations where a GEP is already in place, only 10 respondents (38%) reported that the implementation of the strategy is followed up by any monitoring process. One respondent even doubted that there would be any resources to carry out such a monitoring activity within the institution.

Interviewees confirmed that GEPs already existed before it became the pre-condition for Horizon Europe participation, for instance, in those institutions where gender

²²Retrieved 19 April 2022, from, https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm.

²³Retrieved 19 April 2022, from, https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation_en.

studies are being taught or research is being conducted in the field. In other cases, a need for a GEP emerged due to the different culture/background of the colleagues together with sensitisation trainings. Nevertheless, both the interviewees and survey respondents confirmed that there are significant differences in the quality of delivered GEPs.

Research Ethics

Horizon Europe introduced several changes concerning the ethics appraisal process for EU-funded research projects. Key changes reflect three areas: research integrity, ethics self-assessment and ethics appraisal process.²⁴

Rather divisive answers were collected in the case of research ethics (Fig. 4.2.3). Less than half of respondents confirmed the possible choices (existence of research ethical committees: $n = 12$ representing 46%; institutional procedures monitoring research ethics: $n = 9$ representing 35%; institutional code of research integrity: $n = 7$ representing 27%). Only one respondent added that the institution follows the European Code of Conduct for Research Integrity (ALLEA, 2017).

Science Communication, Communication and Dissemination of Research Results

Transforming project results into concrete benefits for the society, maximising the scientific, social, economic, technological and policy value of the EU-funded projects, is required. According to the Model Grant Agreement,²⁵ ‘the beneficiaries must promote the action and its results by providing targeted information to multiple audiences (including the media and the public), ... and in a strategic, coherent and effective manner’.²⁶

Based on the responses, Hungarian RPOs are committed to the successful communication and dissemination of research results. A majority of respondents ($n = 20$ representing 77%) confirmed that the unit responsible for external communication and/or public relations is also responsible for the communication of the projects, their results and outcomes. An even higher percentage of respondents ($n = 25$ representing 96%) added that there are numerous initiatives striving to promote research results with the

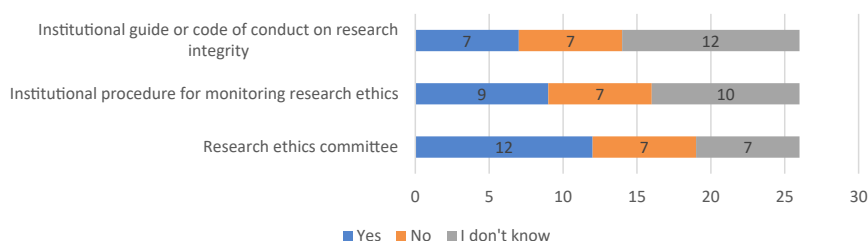


Fig. 4.2.3. Institutional Practices and Procedures Related to Research Ethics.

²⁴Retrieved 19 April 2022, from, <https://www.horizoneuropencpportal.eu/academy/ethics-research-and-research-integrity>.

²⁵Annotated Model Grant Agreement (AGA). Retrieved 19 April 2022, from, https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf.

²⁶Retrieved 19 April 2022, from, https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf.

active involvement of the general public, including events such as the Researchers' Night,²⁷ Girls' Day²⁸ and so on.

A total of 21 respondents (81%) indicated that their organisation cooperates with the business sector and non-governmental or civil society organisations to promote research and its results, through various forms, including summer camps for high school students, mentoring and internship for BSc, MSc and PhD students and so on. However, a lower number of respondents ($n = 9$ representing 35%) reported the availability of colleagues who is specifically charged with the communication and dissemination activities of international projects. Among respondents, 12 (46%) confirmed the lack of such colleagues and one added that such efforts have to be carried out by the researchers if they have time for that at all.

Preparation and Implementation of International Projects

As mentioned earlier, the limited in-house skills on drafting proposals or project management of RPOs across EU-13 countries were considered a barrier to the successful participation in H2020 (European Parliament, 2018). The findings can provide additional insights on the still relevant problems.

Among respondents, 23 (88%) indicated the existence of an institutional procedure to manage the different units in case of the preparation and implementation of international projects. There were two respondents who reported the lack of such an institutional procedure and provided detailed explanation. One respondent said that there is a general procedure for the preparation, approval and submission of the proposals (by the organisation), however, for the management, the institution hardly has capacities and resources to set up a team and working procedure. Another respondent explained that administrative and financial support is provided by one or two colleagues to the researcher who has to take the responsibility for all the content related work.

The division of work between the researcher and the RSO in case of the preparation and implementation of international projects can be used as a proxy for the overall maturity level of the availability of research support in Hungarian RPOs. A significant number of respondents ($n = 12$ representing 46%) confirmed that most of the work is carried out by the researcher, whereas RMAs are responsible for minor tasks. In two cases, it was reported that the researcher is responsible for carrying out all the tasks in their entirety, whereas five claimed that the researcher is responsible for about three-quarters of the work including research, coordination and management. Only six respondents reported that there is good team work between the researcher and the research support colleague, they prepare and coordinate the project by supporting each other, sharing the work equally.

Exploitation and Valorisation of R&I Results

According to the Model Grant Agreement, beneficiaries receiving funding under the grant must – up to four years after the end of the action – use their best efforts to exploit their results directly or indirectly, in particular through transfer or licencing.²⁹

In terms of exploitation and valorisation of research results, the majority of respondents ($n = 23$ representing 88%) claimed that there is continuous cooperation

²⁷Retrieved 12 February 2022, from, <https://marie-sklodowska-curie-actions.ec.europa.eu/event/2022-european-researchers-night>.

²⁸Retrieved 12 February 2022, from, <https://lanyoknapja.hu/>.

²⁹Retrieved 19 April 2022, from, https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf.

between the RPO and industrial partners. Among respondents, 16 (62%) indicated the existence of a unit which is responsible for supporting technology transfer and/or the exploitation and valorisation of research results. The same proportion (even if not the same respondents) confirmed that there are expert colleagues providing support in the field of intellectual property rights (IPR) and commercialisation. Two of those RPOs which lack RSOs have technology transfer units and three of them have experts for IPR, though in some cases it is an external expert.

As the interviewees reported, applicants to Hungarian national research programmes are required to indicate the number of new patents created as a result of the implemented project. However, most of these patents are terminated after the maintenance period (if they are not utilised by the market) because the institute is not willing to undertake the further payment. One can note that certain institutions pay more attention to the interest of the institution and the researchers and not accepting all the conditions dictated by companies.

Conclusions, Recommendations and Future Discussion

The complexity of R&I funds are rising internationally and this is even more true in the case of the EU-funded Horizon Europe Programme. As the performance of Hungary as well as its counterparts among EU-13 countries has not reached their full potential in the participation of EU-funded R&I programmes, this research aimed to understand the level of the professionalisation of RMA among the Hungarian RPOs through their capacities answering the non-research specific criteria of HEU. By doing so, the aim was to set a benchmark and provide recommendations for future development for countries having similar or lower maturity level of research support.

Context of Research Support in Hungarian RPOs

The strategic approach towards the engagement of international R&I projects is not wide-spread so far; although institutional leadership generally favours the participation, less than half of the respondents confirmed the existence of dedicated strategy for the engagement of international projects.

The organisational structure of the research support at Hungarian RPOs are highly diverse and generally lack organic development. Although a majority of the organisations under investigation reported the existence of RSOs, some institutions still lack such a unit. If there is such a unit, it typically consists of a few devoted staff.

Strategic activities with regard to the preparation and participation in HEU projects were rarely reported at the institutional level; although certain incentives were mentioned by less than half of the respondents. Thus, in initiating proposals, typically individual considerations matter, however, the visibility of RSOs and their services can motivate researchers to seek EU funding opportunities.

Recommendations to Address Non-research Specific Criteria

Regarding data management, as it seems a slightly unknown field for people working in research support, deeper cooperation should be maintained between RMAs and librarians, as in many cases, FP proposals and projects necessitate a detailed awareness of research data management procedures.

As open access is one of the most critical issues in Hungarian RPOs; a better understanding of the HEU requirements is needed, first. Second, RMAs need guidelines

how to use ‘as open as possible as close as necessary’ principle in reality and work closely with librarians. Third, each institution should initiate an in-depth overview of the research data which can be potentially handled and then build up the process of internal data management and, if possible, making it accessible.

Regarding GEPs, once they are approved, organisations are supposed to continuously keep an eye on their implementation, carry out the regularly monitoring tasks and, if necessary, adjust them to the real needs and problems. Moreover, in case of all proposals, both RMAs and researchers have to bear in mind the gender related requirements towards the set-up of the proposals, research teams and the implementation of the whole research as such.

To ensure that all research activities meet the general standards of research ethics and integrity, beyond the set-up of research ethic committees, it is worth to adopt The European Code of Conduct for Research Integrity at the institutional level.

As FP-funded projects and their promotional activities have to meet the needs of the general public, it is important to plan and use interactive and innovative tools. For that, specific expertise is needed, therefore having a colleague experienced in marketing and promotion, responsible for supporting communication and dissemination efforts can be highly useful.

As most Hungarian RPOs involved in the investigation have a good track record in organising specific occasions and programmes for youngsters or the public at large, these initiatives should be kept and transformed to the basis of research carried out through co-creation, action research and citizen engagement.

The concept of exploitation does not necessarily mean commercialisation. Thus, all RPOs should embrace the inclusive approach of exploitation and plan related activities regardless of whether they are purely scientific or rather in line with the interest of citizens. In the case of the development of new methodologies, toolkits, recommendations, the most efficient measure for exploitation could be the development of training material and the provision of trainings.

In case of commercialisation, more knowledge would be needed to find the right balance between the provision of open access as well as the potential exploitation routes and related obligations. For that, the help of an internal or external advisor on IPR can be useful – depending on the size of the institution. Benefitting researchers following the selling of a patent or know-how should be also taken into consideration as another incentive to produce applicable results.

Future Directions

Based on these findings, it can be stated that research support is at its early stage of maturity in Hungarian RPOs, and that, however, due to the continuously increasing participation in EU FPs, this level is constantly evolving. In many cases RMAs do not have the knowledge necessary to meet the non-research specific criteria of HEU projects; even if the knowledge is present at the institution at other colleagues – for instance, in case of data management, research ethics, communication, technology transfer – it is not always easily available to the research support.

Nevertheless, there is willingness to learn and improve capacities, which needs strategic planning, studying others’ examples and their adaptability. For that, more in-depth investigation would be needed to understand the operation of research support abroad as well as the needs and possibilities of domestic institutions. Such efforts shall support the capacity building and professionalisation of research offices not only in Hungary, but in countries with similar levels of maturity of their communities of RMAs.

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