Chapter 5.23

Research Management and Administration in Poland

Zygmunt Krasiński^a and Cyprian Tomasik^b

^a©0000-0003-2205-0538, Institute of Fundamental Technological Research Polish Academy of Sciences, Warsaw, Poland; ^aConceptualization, Investigation, Writing – original draft ^b©0000-0001-8964-9532, Institute of Genetics and Animal Biotechnology of the

Polish Academy of Sciences, Magdalenka, Poland; Conceptualization, Investigation, Writing – original draft

Abstract

This chapter outlines milestones and circumstances that led to the evolution of the profession of research management and administration (RMA) in Poland. The RMA has a history stretching back around 20 years, with the breakthrough year being in 2007, when the Polish National Council for Research Project Coordinators (KRAB) was established. Currently, the Polish community of RMA is scattered across universities, scientific and research institutes; and its RMAs are employed in research support centres, national/international research programmes offices or welcome offices. At the national level, main activities concerning RMA are centred around KRAB and its pool of activities related to research project management implemented by International Project Management Association (IPMA) Poland. In some respects, RMA can still be considered a semi-profession in the country; and RMAs are that part of the administration staff engaged with the development of scientific excellence in research institutions: they are more often an invisible workforce, but necessary to project development and related activities. There are no dedicated RMA certifications available yet, however, support for RMAs in Poland has been

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consistently becoming stronger and more widespread over the years in the higher education system (HES) and beyond.

Keywords: Poland; research management and administration; professionalism; educational/training network; KRAB; RAAAP

Research Ecosystem in Poland

Poland is the ninth largest country in Europe with a population of over 38.2 million people (38th most populous in the world and 5th in the European Union, EU). Poland is a unitary state divided into 16 administrative subdivisions (voivodeships) with a capital in Warsaw. Poland has been a member of the EU since 2004. The Polish gross domestic product (GDP) amounts to 17,815 USD/per capita (38th place in the world) (Statistics Poland, 2021b).

The main long-term strategic document concerning science and technology policy in Poland is the National Research Programme which was published by the Ministry of Education and Science (MEN)¹ in 2011 (National Research Programme, 2011) that includes seven priorities of research and development (R&D). EU funds for R&D activities are distributed in Poland in 13 areas listed in the national smart specialisation strategy published in 2014 and updated annually by the Ministry of Development and Technology.² Regional funds are distributed primarily to projects fitting into the regional smart specialisations of 16 voivodeships.

In the 1990s, after changing the political system,³ there was an increase in the number of universities in Poland. In parallel, there was also an increase in the funding for research. The Polish MEN distributes the state budget resources for scientific research and evaluates scientific institutions. The reform of science in 2010 resulted in the creation of two funding agencies of the MEN: the National Science Centre (NCN – basic science⁴) and the National Centre for Research & Development (NCBR – applied research⁵) (Fig. 5.23.1). In 2017, the National Agency for Academic Exchange (NAWA – mobility programmes, welcome offices⁶) was created. The largest, non-governmental organisation involved in the financing of scientific research, personnel exchange with foreign institutions, and support of the transfer of technology to the economy is the Foundation for Polish Science (FNP⁷).

There were 891 dedicated research entities in Poland in 2020 (Statistics Poland, 2021a). The Polish HES includes both public and non-public institutions. There were 349 universities in 2020, including 130 public and 219 private universities. In addition, a crucial component of the scientific sector in Poland is institutes including the following types of entities:

- 68 Scientific institutes of the Polish Academy of Sciences (PAN⁸).
- 2 International research institutes.

¹https://www.gov.pl/web/edukacja-i-nauka

² https://smart.gov.pl/en/ – the Polish national smart specialisations.

³The trade union solidarity won in a partially free election, leading to the fall of communism in Poland.

⁴https://ncn.gov.pl/en – the Polish public funding agency for basic science.

⁵https://www.gov.pl/web/ncbr-en – the Polish public funding agency for applied science.

⁶https://nawa.gov.pl/en/ – the Polish public funding agency for mobility.

⁷https://www.fnp.org.pl/en/

⁸ https://pan.pl/en/

POLICY LEVEL					
	Ministry of Education and Science				other ministries
FINANCING/SUPPORT UNITS					
NCN	NCBR	NAWA	National Information Processing Institute	NCP-PL	FNP
RESEARCH INSTITUTIONS					
universities	institute Academ	s of the Polish y of Sciences	research institutes & Łukasiewicz Network	enterprises	other institutions

Fig. 5.23.1. Overview of the Polish Institutions in the Field of Science.

- 76 Sectoral research institutes.
- 26 Łukasiewicz Research Network institutes.

In the same year, there were 1.2 million students and 293.4 thousand graduates in Poland. Altogether there are 377 students of HES per 10,000 population which is almost equal to EU average (378) (Statistics Poland, 2021a).

The level of gross domestic expenditure on research and development (GERD) in Poland reached 32.4 billion PLN (7.2 billion EUR) in 2020. The proportion of GERD to Polish GDP has risen over the last years from 0.96% in 2016 up to 1.39% in 2020. The expenditures on R&D in the HES were 11.3 billion PLN (2.5 billion EUR), which constituted 35% of the national expenditures. The HES devoted over 90% of expenditure on scientific research (basic and applied) and less than 10% on experimental development projects. The HES accounted for 64.7% of the national expenditures on research (Statistics Poland, 2021a).

According to Statistics Poland, more than 10.5 thousand domestic research projects with a total value of 1.92 billion PLN (0.4 billion EUR) were financed by the state units (MEN, NCN and NCBR) in 2020. The number of international research projects amounted to 968 with a total value of 233.6 million PLN (51.9 million EUR) (Statistics Poland, 2021b).

The share of foreign funds as the share of GERD in Poland has risen from 5.5% in 2016 up to 7.2% in 2020. At the same time, the share of the European Commission funds as the share of GERD in Poland has risen from 2.8% up to 5.3%. The number of entities in R&D using European Commission funds has risen threefold from 333 in 2016 up to 1,124 (incl. 144 HES) in 2020. The above data show the increasing significance of international R&D projects which generates need for RMAs with experience in international cooperation (Statistics Poland, 2021b).

The reform of science in Poland in 2018 within Law 2.0, also called the Constitution for Science (Law on Higher Education and Science of 20.07.2018, 2018), introduced a number of changes in the field of university management, education of students and doctoral students, as well as conducting and evaluating scientific research. Introduction of the new Law 2.0 was preceded by a consultation process and recommendations prepared by the international experts. The report *Peer Review Poland's Higher Education and Science system* (European Commission, 2017b) underlined the need to secure a new governance system at universities to address the needs for more powerful and professional institutional management. Around 10 research-intensive universities were selected for the Polish excellence initiative involving additional multi-year funding. In this context and through the initiatives supporting research and knowledge transfer based on European/international networks of cooperation, perspectives for development of the RMA profession can be also tracked down.

Evolution of the Profession

State of the RMA Profession When Poland Joined the EU

From Copernicus and Maria Skłodowska-Curie to contemporary times, Poland is present on the world's scientific stage. When Polish scientific institutions started their involvement in the EU Framework Programmes (FPs) in 1999, it became progressively obvious for institutions that international research projects, which are by nature complex and of high risk, require professional RMAs. When Poland became a full EU member in May 2004, the scientific institutions experienced the lack of research managers and professional research support offices (RSOs) able to cope with the growing demand on these projects. Research teams were supported mainly by administrative staff of the research offices. In the period 2004–2006, the National Contact Point for Research Programmes of the EU⁹ (NCP-PL) initiated a series of workshops on project management for the R&D sector, conducted by certified project managers. We found however that the so-called behavioural competences developed by the IPMA were pertinent for project managers dealing with international collaborative research projects. Definitely, there was a strong interest expressed by the scientific institutions to educate the staff involved in RMA to a higher level and more consistently (Krasiński, 2013). Late in 2006, the NCP-PL organised the Inauguration of the 7th FP in Poland, which included Project Management Working Groups meetings that saw even the participation of the EARMA President.

Year 2007 – The Breakthrough in RMA in Poland

[•]Excellence in science requires excellence in the management of science' – this message given by Janez Potočnik, the former Commissioner for Science and Research, was fully agreed by participants of the EARMA Annual Conference in 2007 held in Warsaw. The same was concluded by panellists of the special Plenary Panel on Research Project Management, organised during the 21st IPMA World Congress 2007 in Krakow. Furthermore, in 2007, the KRAB was established and driven by the search of the best practices and exchange of experience in RMA. KRAB and NCP-PL started a close cooperation with EARMA¹⁰ and NCURA¹¹ organisations that were already part of the INORMS family.¹² The liaising between EARMA and NCURA were initiated by the occasion of the Warsaw EARMA Conference 2007. Thus, the role played by these international professional associations in the development of RMA in Poland cannot be underestimated (Krasiński, 2013) and should be regarded as a milestone.

⁹In the period 1999–2020, the implementation of FPs in Poland was supported by NCP-PL, a unit located at the Institute of Fundamental Technological Research Polish Academy of Sciences (IPPT PAN); IPPT PAN is an institutional EARMA member since 2004.

¹⁰ https://earma.org/

¹¹ https://www.ncura.edu/

¹²https://inorms.net/

Current Community

There is a great potential for the RMA sector in Poland working in scientific institutions. Over the past decade, Poland's effort to develop capacities in RMA can be observed. The current community of RMAs is mainly scattered across universities and scientific/research institutes. On the national level, the community is centred around the KRAB association open for individuals (80 members). KRAB is the member of the Leiden Group.¹³ The main activities of KRAB are focussed on organising the national symposia encouraging institutions for active participation in FPs and other international initiatives as well as the promotion of RMA profession, exchange of best practices among research administration systems and enhancing international research collaboration. RMAs are also involved in activities related to research PM implemented by IPMA Poland (i.e. IPMA certification system and Project Master Award) since the behavioural competences developed by IPMA are about intersectoral and cross-cultural competences. Some of KRAB members were engaged in several projects, that is, implementation of the EARMA/NCURA International Research Management Fellowship Programme,¹⁴ BESTPRAC¹⁵ and V4WB RMA Network.¹⁶ The dedicated RMA certification system is not available vet in Poland but support for RMAs in Poland is becoming stronger and more consistent. Representatives of the Polish RMA community are aiming to actively participate in new initiatives concerning RMA development financed by Horizon Europe (HEU), including, for example, RM Roadmap project.¹⁷

Demographics

The unique geopolitical location of Poland, as the bridge between the Western and Eastern parts of Europe, makes Poland unique in developing capacities as a 'centralregional lighthouse' of excellence of the European Research Area and as a 'vehicle' of European widening and neighbourhood strategies. The current total expenditure on R&D in Poland is still below the EU average, but the situation has systematically improved in recent years. According to Statistics Poland, the R&D personnel amounted to 283.4 thousand people in 2020 and 48.7% of them work in the HES. Women account for 38.6% of total R&D personnel, however, in HES the women participation is higher and reaches 50.2%. In 2020, nearly 32% of R&D employees had at least PhD degree (Statistics Poland, 2021a).

However, there is no separate definition of RMAs or data collected specifically for these personnel in the national statistics. Overall, the R&D personnel in Poland is divided into three categories: researchers (69.3%), technicians and equivalent staff (18.4%) and other supporting personnel (12.3%, incl. RMAs). In the HES, the percentage of researchers was higher (75.4%) while the percentage of other supporting personnel in the total population (12.4%). The share of other supporting personnel in R&D personnel in the business enterprise sector was a little lower than in HES (11.8%). Taking into account only dedicated research entities, the total number of other supporting personnel in 2020 was 17,047 (incl. 12,097).

¹³Leiden Group consists of representatives of the national professional RMAs associations in Europe.

¹⁴https://www.ncura.edu/Portals/0/NCURA-EARMA_1.pdf

¹⁵https://bestprac.eu/home/

¹⁶ https://hetfa.eu/international-projects/v4wb-rmas/

¹⁷ https://www.rmroadmap.eu/

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women) and they were divided as follows: higher education institutions -11,927 (8,677 women), institutes -3,910 (2,684 women) and others -1,210 (736 women).

It may be estimated that there are about 3,000–4,000 project management and administration experts who identify with the RMA profession in Poland. RMAs are employed, for example, at the research support centres, national/international research programmes' offices or welcome offices on different positions (assisting, managerial, strategic or operational experts). The support provided by Polish RMAs include a 'variety' of knowledge and skills – for example, project governance, proposal development, project portfolio management, financial, legal and IPR aspects, research mobility support, science communication, dissemination and outreach, innovation management and results exploitation.

Research Administration as a Profession surveys (RAAAP-1, RAAAP-2 and RAAAP-3) elicited rather weak response levels from Polish RMAs. Nevertheless, from the RAAAP-3 data (Kerridge, Dutta, et al., 2022) as it is common around the world, Polish RMA professionals are predominantly female (61% out of 18 responses). Furthermore, as it happens to be in many other regions, the profession is highly qualified academically with 41% holding doctorates, and 53% holding masters. The predominant role levels were research administrator (39%) and project manager (33%). The most common period of employment was 5–14 years.

Unique EducationallTraining Network for Research Managers and Administrators

Even if it was not a common practice in Europe to use a systematic approach to education and training of RMAs, a pioneering project entitled 'Research Project Management and Commercialization of Research Results. The Postgraduate Studies for Employees of Scientific and Research Institutions' was successfully implemented in Poland between 2010 and 2013.¹⁸ The project was coordinated by Krakow University of Economics¹⁹ and co-financed by the European Social Fund (through the Operational Programme Human Capital²⁰) and consisted in a two-semester long programme; the course was then implemented by seven Polish universities, which cooperated with other project partners, namely Education for Entrepreneurship, NCP-PL²¹ and IPMA Poland.²²

The uniqueness of the project concerned the development and implementation of a uniform programme of studies, of a common database and of consistent criteria for recruitment of lecturers at all participating universities. Seventeen postgraduate courses at seven universities were completed by over 400 academic and administrative staff from 45 universities and 99 research institutes from across Poland. In general, over 60% of the graduates received the status of Certified Project Management Associate on IPMA Level D. It was an exciting venture and the results achieved exceeded all expectations. According to foreign experts, it was the first initiative of this type and scale in Europe.

¹⁸ https://biznes.uek.krakow.pl/zarzadzanie-projektem-badawczym-komercjalizacjawynikow-badan/

¹⁹https://uek.krakow.pl/en/

²⁰ https://www.gov.pl/web/rodzina/program-operacyjny-kapital-ludzki-2007-2013

²¹ https://www.kpk.gov.pl/

²²https://ipma.pl/

Although all the efforts depicted above and the new initiatives that can be found in the field of RMA education and training in Poland, the overall offer in this area is still incomplete. The examples of existing educational initiatives include: (1) preparation of Master courses, for example, in the project 'Education for R&I Development' (funded from Norway Funds²³), (2) supporting research and knowledge transfer, for example, in the project 'International Networks Supporting Research and Knowledge Transfer – The Platform of Cooperation for Polish and Norwegian Universities' (Norwegian Funds); (3) postgraduate studies and doctoral schools' courses on research project management implemented by several universities and (4) tailored-made trainings provided by universities and consulting companies. As a result of the project 'Education for R&I Development', the handbook on *Research Project Management* was published (Rzempała, 2015).

Besides, in addition to the national experience and offer, the country can benefit from the longstanding strong collaboration with several professional associations in RMA education/certification (e.g. EARMA Academy, training programme of SRA International).

Moreover, resulting from the efforts in training and professional development for RMAs recapped above, institutions invest more widely in RSOs.

National Studies on RMA

There is an ongoing discussion in Poland about the separation of the roles of the project leader and manager among the KRAB members and research institutions. The systemic and professional support for research project leaders in management area is crucial. Research project leaders are usually people with deep substantive knowledge who have acquired management skills through life experience. The significant role of the project manager, who takes over some of the project leader's functions in the area of organisation, supervision and reporting, was revealed during the qualitative research on R&D project management in the science sector (Gryzik & Knapińska, 2012). The manager usually stands lower in the hierarchy of the institution than a project leader, also does not have the authority to make key management decisions, such as delegating tasks or accepting costs, but knows perfectly well what is happening in the project, prepares solution proposals, takes care of documentation and cooperates with internal and external administration. Project managers are usually young researchers (PhDs or PhD students) or people with experience in administrative and organisational project activities.

According to the report on the role of university administration in the process of striving for scientific excellence published in 2020 as part of the ministerial project Dialog, the position of the university administration staff in Poland can be described by three words: invisible, non-existent but indispensable (Nicolaus Copernicus University, 2020). The role of administration in the process of striving for scientific excellence was analysed based on interviews with 60 representatives of this group employed at six universities in Warsaw, Poznań, Gdańsk and Toruń. From the interviews, it emerges how the administration is often overlooked; this is the common perception in institutions although without administrative support any goals, even those easily measured by rankings, including the number of grants or the results of recruitment, would have been unattainable.

²³ https://www.eog.gov.pl/

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Arising from the report above, we see that it is the commitment, competence and efficiency of thousands of employees of dean's research offices, knowledge transfer centres, departments, such as human resources, finance, international cooperation, legal services, public procurement, promotion, as well as project managers and coordinators that largely determines how the university will be perceived not only in their surroundings, but also more broadly – compared to others.

These employees talk about prestige, stability and professional satisfaction, but on the other hand they mention limited career development opportunities, including the lack of clear rules for promotion. They complain about being overloaded with duties and working under serious time pressures. Some respondents pointed to the lack of an unambiguous strategy on the priority directions of scientific research, which directly translates into more difficult resource management. In addition, there are large inequalities in the status of administration and scientists, and double standards in treating both groups, since 'scientists are allowed more'. The employees appreciate the system of motivational tools as well as the availability and attractiveness of the training offer. The results were used to develop a diagnosis in the field of professional development, and then to create a proprietary training programme, which is currently being implemented (Nicolaus Copernicus University, 2020).

The KRAB plans to conduct regular analyses of the RMA profession across Poland. The questions that will be asked in a questionnaire will cover issues of educational background, experience and most recent research administration role of RMAs, RSO model in the institution as well as RMA education, the level of skills required for RMA and current trends and challenges.

The Current Challenges and Opportunities for RMA in HEU

So far, in total, more than 8,000 Polish research teams have participated in FP projects. More importantly, the roles of Polish teams in FP projects are constantly increasing and this is also reflected in the higher co-financing of the EU absorbed by Poland. The rules of the former FPs were not properly designed to use the whole innovation potential of the EU-13. Despite serious efforts by the EU and the Member States as well as the inclusion of the 'Widening package' in Horizon 2020, significant gaps remain among European regions in terms of research and innovation performance. The current challenges and opportunities for RMAs in HEU are related to:

- new measures which should support the opening of the so-called *closed clubs* in HEU, namely introducing new horizontal instruments (e.g. new ex-aequo selection criterion based on geographical diversity); and
- continuation of the significantly strengthened 'Widening package' and need for professional management of Teaming, Twinning and other projects.

It is beneficial that in all HEU Twinning applications it is obligatory to include work package devoted to strengthening the RMA skills. Since Twinning calls are well received in Poland, it can give a new boost to professionalisation of research management.

Future Directions

Over the past decade, we observe Poland's effort to develop its capacity in RMA. Still, in Poland, there is a substantial need for highly qualified RMAs and professional

RSOs. The need for professional RMAs is increasing as a result of current opportunities in national programmes implemented by the NCBR and EU funded/international projects, in particular HE, whereas we expect the roles of Polish teams will be constantly increasing. We believe that the new reform of science and systematic growth of funds for research, will create better conditions for scientific teams but also for the RMA profession in Poland. The KRAB has an ambitious plan to develop a strong position in Poland, with membership stretching into the hundreds and almost all research organisations. The KRAB plans to keep good ties with international RMA organisations as well as the national funding agencies and the EC and will regularly consult on matters such as support instruments and research efficiency. A goal is to implement a regular certification programme for RMA (in cooperation with EARMA and IPMA) and promote better understanding of RMA professionals who are notably situated between the academic and administrative spheres. There are ambitious plans, including active support for Polish participation in HEU. The goal for the Polish RMA profession is clear, it strives to be even more visible on the European level.

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