Chapter 5.19

The Profession of Research Management and Administration in the Baltic Countries: Estonia, Latvia, and Lithuania

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Abstract

All three Baltic countries – Estonia, Latvia, and Lithuania – share common features, similar history, and took similar steps to establish an external evaluation of their science base. Even though the three countries have similarities in terms of their geography, size, economic structure, development and demography, they demonstrate differences, for example Estonia is often considered to be ahead of Latvia and Lithuania in terms of the economy and development. So, do the Baltic countries share similarities or differences from the point of research management and administration?

Keywords: Baltic States; Lithuania; Latvia; Estonia; research management and administration; professionalisation; L-ARMA; RAAAP, ESIF

Research Ecosystem – Baltic States (Estonia, Latvia, and Lithuania)

Research Policy Formation

All three Baltic States effectively have been part of the Western European system for centuries and have traditionally had the benefit of good school and university systems.

The Emerald Handbook of Research Management and Administration Around the World, 579–585

doi:10.1108/978-1-80382-701-820231053

For example, Vilnius University in Lithuania, founded in 1579, and Tartu University in Estonia, established in 1632, are among the oldest higher education institutions in Europe (Ronk, 1998). However, the centuries of the changing geopolitical situation had stalled down the research and innovation progress, until a revival and new era of research innovation from 1991.

Estonia, Latvia, and Lithuania took similar approaches to evaluate their science bases after the collapse of the Soviet Union. In 1991, the Estonian Science Foundation applied to the Royal Swedish Academy of Sciences and the Swedish Research Councils with a request to carry out a thorough evaluation of Estonian science. The Danish Research Council carried out a similar evaluation in Latvia in 1992, and the Research Council of Norway conducted an evaluation of Lithuanian research (Allik, 2003). In all three cases, the evaluations were relatively benevolent, partly due to the evaluators' surprise in finding high competence and good research at least in some areas of science.

The rise of the research competences in all these three post-soviet countries was not even. By 2002, Estonian scientists produced the largest number of high-impact papers (4,429) and also received the largest number of citations (22,274); the impact factor was highest in Estonia (5.03) followed by Lithuania (3.97) and Latvia (3.52) (Allik, 2003). Most significantly, neither Latvia nor Lithuania was able to produce high-impact research in social sciences. Nevertheless, when comparing the research output in 2019 to the research output in 1993, large differences are observed by country: Lithuania was the leader with a 1522% increase in the research output, followed by Estonia (842%) and Latvia (336%) (Chankseliani, 2021). By 2019, Estonia was ranked 13th in the EU in terms of scientific impact (9.99% of authors were involved in the top 10% of the world's most cited publications) and by 2021 there was a stark difference between three Baltic countries with Estonia leading in high-impact publications.

Even though the research intensity and quality in three Baltic countries over the last 30 years has been improving (increasing number of publications, international collaborations, external funding), the correlation between the research intensity and innovative performance has not materialised yet. Those EU countries which are leaders in innovation have, on average, a research intensity close to, or above, 3% country's GDP; they are also the most advanced in terms of their transition to green and digital economies – as of now Estonia, Latvia, and Lithuania are well below reaching the target (Soete et al., 2021). In 2020, R&D expenditure per GDP in Estonia was 1.792%, followed by Lithuania 1.155% and Latvia 0.702%.

Public Research Funding

In all three countries, research and development is mainly carried out by universities and other public and private sector education and research institutions.

Research in Estonia is primarily financed on the basis of quality competition. Financing comes mainly from the state budget; but also from companies, foreign funds (mainly the EU's Framework Programmes for Research and Innovation, and other EU initiatives). The Estonian Research Council (ETAg) is the main body responsible for the funding of R&D, also supporting researchers' mobility and external cooperation offering various types of grants. Estonia is holding a very good position within the EU in view of its successful participation in Horizon 2020. If we compare the proportion of the awarded funds to a country's GDP, Estonia exceeds the European average 2.5 times (Research in Estonia, n.d.).

In contrast to the Estonian success is Latvia. According to the European Commission's '2020 European Semester' assessment, Latvia invests little in research and

innovation and faces a shortage of researchers. In 2018, Latvia invested 0.64% of GDP in research and innovation, which was among the lowest in the EU. Moreover, the investment is highly dependent on EU funding and has not noticeably increased for more than a decade. The serious underfunding of the system hinders its effectiveness and its attractiveness to researchers, especially early career researchers. Moreover, the system suffers from governance fragmentation.

On the positive side, Latvia has a vibrant start-up community, which boosts its innovation output somewhat against a backdrop of rather weak performance on other fronts. From July 2020 the Latvian Council of Science (LCS), became an institution of direct administration under the supervision of the Minister for Education and Science and is responsible for science and technology development policy, ensure expertise, implementation and supervision of research programs and projects financed from the state budget, as well as from the European Union structural funds and other foreign financial instruments delegated in regulatory enactments. However, the continued reforms, low numbers of researchers coupled with low R&D investment meant that in H2020 framework programme country's participation was the lowest out of all EU member states (Horizon 2020 Key Figures, n.d.).

On the one hand, we have Estonian research success and on the other Latvia's reforms hindering R&I development. Lithuania sits somewhere in the middle with only one research funding agency. According to 'Science for policy ecosystems in Lithuania' (2021) report, the Research Council of Lithuania is an important actor, which fulfils the role of the expert institution tackling the challenges of the development of science at the national level. It implements programme-based competitive funding of research, administers the most important Lithuanian science development programmes, evaluates research performance and represents Lithuanian science in various European and other international organisations. However, more general directions of the research funding policy are decided by the Ministry of Education, Science and Sport. The Research Council of Lithuania acts as an important mediator between state institutions and researchers, who can provide research-based policy advice on the policy issues considered important by governmental institutions as well as provides national funding (Vilpišauskas, 2021). Even though at the national level Research Council of Lithuania is playing an important role, it does have an impact on the performance of the framework programmes – in Horizon 2020 participation Lithuania was not far off from Latvia – 27th out of 28th place for received funding.

Even though all three countries have faced the same challenges after the collapse of Soviet Union and have made a significant effort to break away from the previous Soviet structure of science, there is a clear evidence that Estonia's research ecosystem has developed furthest. Latvian and Lithuanian governments and institutional bodies could learn from the example of Estonia on having a clear strategy and focussing on international funding and moving away from structural funds, attracting international researchers and by investing in R&D activities.

Evolution of the Profession

The slow national investment in research and innovation means lower participation rates in European framework programmes, lower success rates, lower knowledge and in return slow development of research management and administration culture.

Research Management and Administration as a profession has not officially been recognised in Baltic countries, anecdotally, the majority of the administrative staff in the institution have been doing a variety of different tasks and research development

support is a minor part of the role, mostly in a reactive capacity. However, there are signs of change in some more progressive institutions, especially the ones relying on external funding to support their operations and research.

The Latvian Institute of Organic Synthesis is one of the institutes which undertakes R&D activities mainly from external funding (European Structural and Investment Funds, European funding and private funding). Dace Kārkle, Deputy Director of Administration, Finance and Law, started working at the institute in 2004; she was the only person who supported grant development, with the funding received from structural funds (ESIF). Since then her team has evolved and nearly two decades on, there is a separate Grants Office with research managers in roles that cover pre- and post-award research management. Research managers support grant development, help to prepare the budgets, fill in administrative forms and manage the projects if they are successful. All Latvian research institutions have someone working in pre- and post-award roles, however, the roles are not necessarily defined as such, but the functions would be the same. The job titles might range from project officers, research support, to grants officers. According to Dace Kārkle, the evolution of research management support has started with introduction of the structural funds in the country, when the need to administer highly complicated funding mechanism became an important part of every institution's income stream and ecosystem.

The evolution of RMA is very similar in Lithuania. For example, at Vilnius University, there are clearly defined structures supporting national and international funding, as well as individual faculties have their own equivalents of research managers, mainly administrators or part-time PhD students, who are taking on small roles of research administrators. Currently, the central Research Projects Division has over seven FTE providing pre-award support for national and international funding (mainly EC framework programmes).

According to Anzelma Useliene (Head of Research Projects Division), the start of the early 2000s have seen the development of research management, nevertheless the people supporting projects were very much focussing on research finance (financial reporting, project budget management, accounting). Only in the second half of 2010s, has the university started gradually hiring people who would be able to advise on grant development, or rather roles evolved with the hiring of international researchers, who have expected a certain level of pre-award support. Even though the current decentralised system of the research management support at the Vilnius University has its own challenges (uneven support for the researchers across different departments), there are some opportunities as departments can choose the level of investment they want to make in the RMA structure. For example, Faculty of Philosophy or Institute of International Relations and Political Science have a number of dedicated part-time RMAs supporting research development (pre-award) and this is reflected in a number of submitted applications and awarded projects for the Horizon Europe Programme.

Another institution in Lithuania, Kaunas University of Technology (KTU), leads in attracting (H2020, Horizon Europe) framework programme funding. Historically, research and research project management activities were carried by the different units at KTU. Based on experience and observations at leading European institutions, a strategic research support reform, initiated by Vice-Rector for Research and Innovations at the time, took place at KTU in 2017. Since the support for the researchers' activities related to research and innovation grant development and project management was provided by the team of the Research and Innovation Projects Centre at KTU. Eventually, the number of professional research project managers at the Centre has grown from two to six and the bigger team provides tailored training and workshop sessions as well as consultations. In accordance with Vilma Karoblienė, Head of

Research and Innovation Projects Centre, the continuous professional learning and capacity building of managers and researchers in the field of research grants preparation and projects management, drives to sustainable, ambitious and leading research projects management culture at KTU.

As with two previous cases, there is no definitive date when research management can be said to have evolved in Estonia. However, according to Taivo Raud (Head of Grant office, University of Tartu) the *pre*-pre-award stage in Estonia strategically has started in the early 1990s. With a support of the ministry and group of universities, the international partnerships were being forged with universities outside of Estonia, mainly Scandinavian countries. This strong relationship building early on led to strong research collaborations and success in EU framework programmes. The University of Tartu participated in 174 projects in the European Union's Horizon 2020 framework programme and raised 60 million euros, thus being the most successful research institution in Estonia (University of Tartu, n.d.). The success in international funding as well should be attributed to the growing number of research professionals supporting the grant applications. In 2017, the University of Tartu established a Grants Office, with clear pre- and post-award functions, and expert grant officers dedicated just to grant writing. Moreover, the research management professionals are encouraged to move around, i.e. work in different academic departments and take up various roles (pre- and post-award), this enables research managers to grow and better understand the full research development process.

There are very clear signs of evolution of the profession in all three Baltic States, however it is happening at different speeds and still in relative isolation, each institution tends to develop their own frameworks and support mechanisms depending on what type of support is needed. The Horizon Europe financial mechanisms like WIDERA topics (Twinning, Teaming, ERA Chairs), which have a focus on capacity building in research management, is strongly encouraging research management capacity development is another way to speed up an evolution of research management in the Baltic nations.

Current Community

Even though the evolution of research management is disjointed, there are clear signs of the development of communities. In Latvia and Estonia, research managers have informal meetings, exchange information, and share best practices. Similarly in Lithuania research managers and administrators have started meeting up online during the COVID-19 pandemic. The meetings have been initiated by the Lithuanian Research Development and Innovation Liaison Office in Brussels (LINO), first meetings were attended only by the heads of departments. During each meeting, a different topic has been presented followed by Q&A. In June 2020, an un-official association of research managers and administrators has been established in Lithuania called L-ARMA, which has nearly 80 members. The members of the group include National Contact Points (NCPs), RMAs, tech-transfer officers, financial officers, and heads of research departments. The group meetings are taking place once every 4–6 weeks with invited guests from within and outside Lithuania.

Demographics

The typical RMA from the Baltic countries could be described as a 35–44-year old female, who has been working in the central research office between 5 and 15 years. She has been employed in a permanent position in a public higher education institution,

most likely a research-intensive university, and identifies herself as a research manager. She likely has masters in the Social Sciences and Humanities (SSH) and is supporting project development in the similar field of science; based on RAAAP-3 data, Kerridge, Dutta, et al. (2022).

The research management community in the Baltic States goes beyond the higher education sector and covers hospitals, research institutes, regional authorities, and funding bodies. However, not everyone describes themselves as research managers and administrators, because the term is not used widely, even though they are carrying on research management tasks. This makes it difficult to monitor the increase in RMA professionals across the sectors as the job roles are not standardised and there are no formal associations being established across countries that could undertake the monitoring.

According to RAAAP-3 survey respondents' data in Baltic countries ($n = 13$), we could infer that 100% of the RMA community is female, which would not be entirely true. However, this small snapshot gives a glimpse of the gender bias profession across all three countries, with most leadership and administrative roles being led by female RMAs. In all three countries, most of the RMAs are nationals working in their national language, however increasingly events/workshops are run in English due to the growing number of international researchers at the research-intensive universities, hence fluency of English is a necessary skill when applying for the research development roles, which support framework programmes.

The snapshot of the survey data suggests and confirms the global trend, that most of Baltic RMAs have an academic background at master's or PhD level. In some of the institutions, for example, Vilnius University Lithuania, there are PhD students working as RMAs at a departmental level alongside studying for their PhD. The combining of roles is normal and a common occurrence.

It is hard to say if there are a growing number of RMAs with doctoral degrees. However, with only a few academic positions and precarious working conditions, it would not be a surprise if in few years we would observe a trend of RMAs with PhD degrees, particularly in the STEM field, choose to work in research development instead of academic fields. Again, the RAAAP-3 data suggest that most RMAs background mirrors the kind of research they support leading to the high quality of service.

Most RMAs have been employed less for than 15 years, this can be traced back to the transformation of research support and systems, increased internationalisation and need for administrative support when applying for ESIF funding and framework programmes.

As previously mentioned, the profession of RMAs in Baltic countries is not well defined, so research support departments will have varying names across institutions and departments, as will RMAs. This can be illustrated, when asked how they identify themselves, the answers included: professional at the interface of science, research administrator, research and innovation manager, research manager and administrator. When asked if they would recommend RMA as a career the split was pretty much evenly between 'yes' and 'it depends'. The RMA profession provides flexibility, however the lack of career progression and capped salary scales might make some RMAs reconsider their options.

The profile of RMA in Baltic countries is still evolving, however it has all the main attributes of RMA in the UK or other countries with advanced RMA communities. Not surprisingly, as best practice examples at institutional and individual levels are being adopted through exchange visits, attending EARMA conferences, peer-training with colleagues from other countries. RMAs in Baltic countries are very adaptable, proactive, and eager to support their communities of academics, and by having this attitude and mentality there is a strong indication for the growth of the profession.

Summary and Future Directions

The future of research management and administration in Baltic countries looks positive. Increased pressure to obtain international funding leads to an understanding that researchers/academics/innovators cannot do everything themselves and they need trained professionals, who understand the funding landscape and can help with project management. However, in Lithuania and Latvia, there is a greater need to focus on the support from leadership at institutional and national levels in recognising research management as a profession and not only as an administrative role in an institution. Even though the three countries share common features, in terms of research management, Estonia is the country leading the way and direction of the profession in the Baltics.

Acknowledgements

The author would like to acknowledge and thank four Heads of Departments, who have willingly agreed to speak with the author and share their insights and experience into research management as a profession in their respective institutions:

Taivo Raud (Head of Grant Office), University of Tartu, Estonia.

Dace Kārkle (Deputy Director of Administration, Finance and Law) Latvian Institute of Organic Synthesis, Latvia.

Anzelma Useliene (Head of Research Projects Division), Vilnius University, Lithuania.

Vilma Karobliene (Head of Research and Innovation Projects Centre), Kaunas University of Technology, Lithuania.

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