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**Research Funding Reforms in the Baltic States:  
Institutional Heritage, Internationalisation and Competition  
from 1988 to mid-2010s**

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TALLINN UNIVERSITY OF TECHNOLOGY  
DOCTORAL THESIS  
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**Research Funding Reforms in the Baltic States:  
Institutional Heritage, Internationalisation and  
Competition from 1988 to mid-2010s**

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**Declaration:**

Hereby I declare that this doctoral thesis, my original investigation and achievement, submitted for the double doctoral degree at Tallinn University of Technology and at Université de Toulouse has not been submitted for doctoral or equivalent academic degree.

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signature

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**Teadusrahastuse reformid Balti riikides:  
institutsionaalne pärand, rahvusvahelistumine ja  
konkurents perioodil 1988 kuni 2010-ndate keskpaik**

TEELE TÕNISMANN





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## NOTE TO THE READER

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## ABBREVIATIONS

**AS** - Academy of Sciences  
**ASPRI** - Latvian University Advanced Institute for Social and Political Research  
**CEE** - Central and Eastern Europe  
**CP** - Communist Party  
**CPCI** - Web of Science Conference Proceedings Citation Index  
**CREST** - European Union Scientific and Technical Research Committee  
**CSC** – Estonian Council of Scientific Competence  
**EC** - European Commission  
**ERA** - European Research Area  
**ERC** - European Research Council  
**ERIH** - European Reference Index for the Humanities  
**ERIS** - Estonian Research Information System  
**ESIF** - European Structural and Investment Funds  
**EstRC** - Estonian Research Council  
**EstRDC** - Estonian Research and Development Council  
**EstSC** - Estonian Science Council  
**EstSF** - Estonian Science Foundation  
**EU** - European Union  
**FP** - Framework Programmes for Research and Technological Development  
**HE** - Higher education  
**HEI** - Higher education institution  
**IISS** – Tallinn University Institute of International Social Studies  
**KGB** – USSR Committee for State Security  
**LitRC** - Lithuanian Research Council  
**LitSC** - Science Council of Lithuania  
**LitSSSF** – Lithuanian Science and Studies Foundation  
**LvSC** - Latvian Council of Science  
**NPM** - New Public Management  
**OECD** - Organisation for Economic Co-operation and Development  
**PHARE** - Poland and Hungary Assistance for the Restructuring of the Economy  
**R&D** - Research and development  
**RAE** - Research Assessment Exercise  
**SJR** - Scimago Journal Rank Indicator  
**SSCI** - Web of Science Social Sciences Citation Index  
**SSH** - Social Sciences and Humanities  
**UK** - United Kingdom  
**US** - United States  
**USSR** - Union of Soviet Socialist Republics  
**VAK** - Higher Attestation Commission under the USSR Council of Ministers  
**WoS** - Web of Science



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## INTRODUCTION

In January 2015 I attended a meeting for an exploratory interview at the research department of the Estonian Ministry of Education of Science in Tartu. I was greeted warmly by two higher officials of the department who were keen to learn about my research project. I knew that Estonian scientists were outstanding with their high rate of publication and their performance in European programmes, and my interviewees were not shy about presenting statistics confirming this impression. After a brief discussion about broader trends and successes in Estonian science my interviewees suddenly turned apprehensive. One of them, who I soon learned had earned a candidate degree in physics before the Estonia's independence from the Soviet Union, took the lead of our conversation. I had asked them about foreign influences in science policy-making and explained my intent to compare these effects across the three Baltic States.

“Well, we have this European Science Area, but we have been living in this area for a long time now. Lately, we were asked at the ERAC [European Research Area and Innovation Committee<sup>1</sup>] if and how our national research strategy refers to the European Research Area priorities. We had to admit that we have never referred to it officially but if we look at its content, most of our positions overlap with those of the European Union and the OECD. We don't follow European Union policies...so we haven't undertaken any radical changes. I would say that we found our positions on local issues. We are trying to sense where to go and what to do...and as the mechanisms of society's and the economy's development are the same everywhere, then it happens that our policies correspond to European policies and those of the OECD. [...] Regarding the Baltics, however, we tend to

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<sup>1</sup> The European Research Area and Innovation Committee is an advisory body for the Council of the European Union, the European Commission, and the Member States on issues relative to European research policies.

consider that it is not correct to compare Estonia with other Baltic states because, in a given situation, we are so much better in so many ways. You see, we prefer to compare ourselves to other...more...those who are ahead of us in different rankings<sup>2</sup>".

Policy choices and orientations were represented as if had been developed in isolation from international organisations. I had expected to encounter rather enthusiastic supporters of European Union (EU) policies, but this was not the case. Instead, I had met two higher-level state officials who both seemed to minimise the importance of the EU on Estonian research policies. I had expected to be encouraged to work on the Baltics, but that was not the case either. This was even more surprising when considering the Baltic states' similar recent political history.

After the restoration of their independence between 1990 and 1991, all three Baltic countries – Estonia, Latvia and Lithuania – joined the EU in 2004. By the time of my interview in 2015, the public research funding policies of all three countries differed from those implemented by the Soviet regime. Firstly, the Soviet-era ideological and military-industry centred science policy objectives had been refocused and aligned with those of the EU. Policy documents such as "Program for Development of Studies and Research and Development for 2013-2020" in Lithuania, "Guidelines for Science, Technology Development, and Innovation 2014-2020" in Latvia and "Knowledge-based Estonia 2014-2020" all aimed to raise the international competitiveness of their academic systems. Secondly, governments had multiplied the number of public research funding devices. The former recurrent funding streams that were distributed to research institutions on a yearly basis had been supplemented with science funding councils responsible for project-based funding. Also, research funding devices became linked to research evaluation, with peer review and bibliometric measures as the main methods for measuring research performance. Lastly, since joining the EU, Baltic researchers had gained access to a variety of other support resources in addition to competitive research programs.

Considering that all three small, neighbouring countries had reframed their policies with competitive elements promoted by the EU, of which they had been members for a decade, how can we explain this distancing from international organisations, as well as from each other?

This interview made me realise that research about the international influences on national science policy had to be approached from the very interior of the administration and

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<sup>2</sup> Interview with a high ranking official from the Estonian Ministry of Education and Research, 6.01.2015, Tartu, Estonia (EST02)

over a longer time period, and that these policy orientations were not established automatically after joining the EU. This introduction will first clarify the object of this research, after which the research approach will be set forth, followed by a discussion of our interest in studying the Social Sciences and Humanities (SSH). The hypothesis will then be introduced, along with a presentation of our comparative research strategy. The introduction ends with an overview of the research environment and research methods.

## 1. Research object: research funding policy reforms

Resource allocation and international scientific excellence are increasingly tied together in the science policy agendas of western countries (Jongbloed, Lepori 2015; Whitley 2010; 2003; Geuna, Martin 2003). Indeed, in their pursuit of higher research performance and the consequent economic and societal development, many governments have introduced reforms in their public research policies in recent decades. These reforms include transformations in the modalities of public research funding allocation. Traditional principles of stabilising institutional funding have increasingly been replaced with so-called “performance-based” principles, and yearly funding mechanisms with “project funding” instruments (Jongbloed, Lepori 2015; Hicks 2012). Research budgets are increasingly subjected to conditional allocation and come with accountability requirements (Geuna, Martin 2003). Aiming for more efficient resource planning, notably in the form of *competition*, these reforms seek to bring about scientific excellence and international outreach.

The introduction of these norms of competitive funding in the public sector also reflects a broader change in the relationship between the scientific community and the state. Wrapped into the policy logic where “competition” is perceived as a preferred mechanism in the governance of science, these new rules and instruments are also assimilated to neoliberal governmentality in which New Public Management (NPM) is presented as a variation applied to the state (Jeanpierre 2006). In this context, science policy is often conceptualised as shifting into new “regimes” (Slaughter, Rhoades 2004, 11-45) or “modes” (Gibbons *et al.* 1994), meaning that the traditional public interest in science goods is subsumed in the increased growth expected from a strong knowledge economy. Even if some claim that state, economic, and military powers have always tried to exert control over science (Pestre 1997), it is expected that the blurring of the traditional boundaries between state, science, and market will provide higher research performance and consequent economic and societal development. Hence, academic managers seek to situate higher education institutions (HEI) as farther and more separate from

the “state” and closer and more connected to the “market”. Thereby, while the actual impacts on scientific disciplines are little known (Gläser, Laudel 2016), these changes are transforming the organisational contexts in which research is undertaken (Whitley, Gläser 2014). The new funding conditions have required readjustments, from the “stereotypical self-image as scientists to give more prominence to resource mobilization and management skills” (Morris, Rip 2006, 260). Progressively, a new style of researcher has taken shape in the public discourse: a “researcher-entrepreneur” who “adjusts” their practices and their conceptual tools to the (new) norms of neoliberalism, emphasising competition (Benninghoff 2011, 47).

Similar reforms are expected to be undertaken by scientifically peripheral and generally resource-poor countries, such as Eastern European post-communist countries. With its “value for money” oriented policies, the EU has been called a major “actor” in promoting competitive reforms in research and development (**R&D**) policies, including in academic research funding, in this part of the world (Suurna, Kattel 2010; Radošević, Lepori 2009; Meske 2004). For example, since the development of the European Research Area (**ERA**) in 2000 that made the free movement of researchers, scientific knowledge and technology across Europe a formal objective of the EU, the European Commission (**EC**) has regularly “benchmarked” the share of project funding in national funding portfolios (Boekholt *et al.* 2009)<sup>3</sup>. In member states, following the EU recommendations has been a political indicator of these countries’ geopolitical orientation both before and after their official integration. Similar policies are also promoted by the Organisation for Economic Co-operation and Development (**OECD**) (Steen 2012; Lepori 2008; source: OECD 2003).

However, post-communist countries have inherited a very specific background. In these countries, the academic science policy-making of the past was not in the hands of the scientific community but controlled by the Party-state via the Academy of Sciences (**AS**), which stood as the central organisation for academic regulation and funding in the Soviet academic system. Research activity in universities and research institutes was subject to political control, especially in SSH disciplines (Graham 1993). With the political turmoil of the Soviet collapse, the research environment drastically changed. AS funding from Moscow stopped, formerly prominent industries collapsed, and research budgets were cut. Scientific communities mobilised to restore self-regulation by liberating academia from state control. As these countries were poor there was also an urgent need to secure incomes, including the scarce

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<sup>3</sup> In the EC, the higher shares of competitive funding are related to the “challenge” of aiming for “more effective national research systems” (source: European Commission 2007).

resources that were allocated from the state budget. Overall, there is good reason to believe that the two “worlds” of science organisation – aspirations for autonomy and collegiality on the one hand and increasing state involvement and competition on the other – are most strikingly in conflict in the science policies of post-communist countries.

With a focus on research policy reforms, and on research funding more precisely, this thesis aims to analyse the introduction of competitive norms into research funding in the context of the post-communist transformation. Post-communist transformation is of course far from being a new topic in the literature. Many works have investigated the problems of recombining the social, political and economic order in Eastern Europe after the fall of communism. However, with a focus on the transitional reforms from a totalitarian regime to democracy, and from socialism to the market economy (Havrylyshyn 2006; Elster *et al.* 1998; Stark, Bruszt 1998), or the origins of emerging political (Hadjiisky 2006; Eyal 2003; Mink, Szurek 1998) or intellectual (Rosca 2019) elites, sectoral academic policies are only rarely discussed in this research<sup>4</sup>. Studies that have examined the academic sector have mostly focused on higher education (HE) policies (see, for example, special issues: Dakowska, Harmsen 2015; Cîrstocea *et al.* 2014) and not on research policies as is the case in this work.

To explore this aspect, we focus here on the set of research funding reforms undertaken in the Baltic States between 1988 and the mid-2010s. Applying a sociological approach to public action, attentive to the socialisation and social trajectories of actors, we approach these reforms from two angles. On the one hand, we are interested in the extent to which the introduction of competition into research funding is attributable to internationalisation and Europeanisation. On the other, we question the *effects* of these reforms. In this way, the competitive norms will be captured from both perspectives: as a *phenomenon* that is linked to the transnational circulation of policy recipes, and as a *policy objective* that is related to the

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<sup>4</sup> Several authors have analysed the conversion of the intellectual elite from a socialist system to a capitalist one (Rosca 2019, 46; Eyal 2003; Eyal *et al.* 1998). In these analyses, the notion of intellectuals is defined either very broadly, or on the contrary, very narrowly. In the first case, intellectuals are defined as “non-manual workers”. The category refers here to the official Soviet way of seeing society. The Soviet model affirmed the existence of a society composed of two principal classes: the first being workers and peasants, who are supplemented by a layer of “intelligentsia”. The other, narrower definition equates intellectuals with the members of the *nomenklatura*. The *nomenklatura* refers to a list of leading positions at all levels of the system that were distributed directly by the Central Committees. According to Mink and Szurek (1998, 7) the *nomenklatura* imposed itself as a true dominant group of individuals with the same social status, the same systems of values and behaviour. In both cases, the concept of intellectuals or “intelligentsia” includes a variety of socio-professional categories such as politicians, engineers and technicians, agronomists and zootechnicians or business leaders. As explained by Rosca (2019), with the post-socialist change the meaning of “intellectuals” changes as well. It now refers to a transmitter or producer of knowledge.

need to increase research performance in the globalising science system. In other words, to understand the introduction of competitive norms in public research funding in the context of post-communist transformations, research funding reforms should be studied through the socialisations and practices of actors at both the policy and disciplinary levels. By deconstructing internationalisation and introducing agency, we are asserting the multidimensionality of foreign relations and references, and more globally, of transnational relations in policy developments (Grosser 2012).

The rapidity and intensity of the reforms undertaken in post-communist countries means that they are generally considered to be privileged sites for understanding the process of Europeanisation and internationalisation (Dakowska, Hamsen 2015, 6). Although academic literature has only rarely been interested in the Baltic region<sup>5</sup> (**Box 1**), these countries are excellent ground for pairing some institutionalist and sociological approaches with our research object. Their small size allows us to consider the political activity of reform actors and renders them accessible for conducting a multilevel trans-national comparison. Besides their similarities, such as their size and recent political history, they also exhibit fundamental differences, forming what Lithuanian sociologist Z. Norkus has called “Baltic South and North”. Estonia is geographically and linguistically close to Finland and the Scandinavian countries but is, similarly to Latvia, predominantly influenced by Protestantism. Lithuania is linguistically closer to Latvia, but contrary to Estonia and Latvia, influenced by Catholicism (Norkus 2012, 222). Hence, their socio-economic differences and specific geographical position enable us to draw attention to more endogenous elements and factors that may play a role in the policy change.

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<sup>5</sup> The construction of the analytical category of the “Baltic (sea) region”, including the countries that are considered here and their distinctiveness compared to other “regions” has been in constant flux and may differ between research areas (Kesa, Escach 2021). Similarly, the common signification of “Baltic states” has been constructed throughout regional and worldwide conflicts. While up to the early 20th century it designated all countries neighbouring the Baltic Sea, since World War I the term has designated a region of three countries – Estonia, Latvia, and Lithuania (Bojtár 1999, 3-23). Then again, except at the end of the 1980’s when all Baltics “joined” in their fight against Soviet power, Baltic people also have very different views about the term “Baltic”, as summarised by K.Kesa and N.Eschac (2021, 7). According to them, Estonians and Lithuanians are respectively anchored in the North European and Central European spaces. They tend to understand the term “Baltic” as an externally imposed name aimed at making the three countries a common whole, even though they do not base their cultural and linguistic identity on the same foundations. Latvians, however, seem to take a more nuanced position and accept the use of this adjective more easily. For the sake of clarity, in this thesis, we use the term “Baltic region” to refer to the states of Estonia, Lithuania and Latvia. We also use the term “local” to refer to their national cases. This is justified as the thesis does not discuss municipality or district level policies.

### Box 1 The omission of Baltic countries in post-communist transformation literature

The specific position of the Baltic countries in the post-communist space has made it hard to incorporate them into post-communist transformation-related literature.

To begin with, Estonia, Latvia, and Lithuania were part of the fifteen units or “republics” of the Union of Soviet Socialist Republics (USSR). After the collapse of the Soviet Union, the three Baltics were the only countries to join the EU and their socio-economic development was considerably stronger than that of their former “brother” countries (Russia, Ukraine, Georgia, Belorussia, Uzbekistan, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Tajikistan). This specific development has set them apart, meaning that even if they are analysed together with other “post-Soviet countries”, they are always referred to as a “special case” (see for example a recent book about post-Soviet HE policies: Huisman *et al.* 2018). At the same time, in other works that have focussed on “Central (Eastern) European countries” (the term is often used as a synonym for “post-communist countries”), the Baltic countries are simply left aside (or are generalised under the umbrella of “post-Soviet countries” represented by Russia). One notable example is a manual for universities on the “post-communist region” by J.Heurtaux and F.Zalevski *Introduction à l'Europe postcommuniste* (2012), where the exclusion of the Baltics is barely justified. The Baltics also haven't found their place in other works, such as R.Krakowski's *L'Europe Centrale et Orientale* (2017), J.Heurtaux, C.Pellen *1989 à l'Est de l'Europe* (2009) or S.Kott, M.Mespoulet *Le postcommunisme dans l'histoire* (2006). These studies tend to focus instead on countries that either comprise the successor states of the Austro-Hungarian Empire (Poland, Czechoslovakia, Austria, Hungary), are located in south-eastern Europe and succeeded the Byzantium and the Ottoman Empire (Yugoslavia, Romania, Bulgaria), or belong to the “Visegrád Group” (Czech Republic, Hungary, Poland and Slovakia). Some French authors explain the exclusion of the Baltic states from these studies by the lack of direct historical and cultural contact between the Baltic region and France (for example, special issue: Kesa, Escach 2021; Blanc-Noël 2002). Finally, a broad majority of works (mostly R&D specific literature) refer to the Baltics as “Central and Eastern European” (CEE) countries, which is an OECD term for the group of countries formerly part of the Soviet “bloc” comprising Albania, Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, Slovenia, and the three Baltic States. However, these more analytical works do not question the policy developments from the point of view of the CEE region's broader sociohistorical development.

Taking Baltic public research funding in SSH as a case study, the approach of this thesis has several benefits. First, it allows a discussion of the current literature about research funding that tends to compare countries based on their institutional funding models. Comparison between the Baltics shows that while their organisational settings may be similar, research funding instruments were not used in the same way in the national context of each country. Instead, public research funding policies have resulted from the struggles between different groups of reform actors, and notably from the way foreign references are used by reform actors.

Also, while focusing on the position of SSH in the national academic and administrative disciplinary hierarchies, our study demonstrates that reforms do not have the same impact on

the discipline in different countries. These fields were downsized during the Soviet era and particularly dependent on public resources after the restoration of independence. They are also seen to be less inclined towards internationalisation. Hence, there is good reason to believe that this disciplinary area is particularly reactive in either resisting or adopting competitive norms. While particularly emphasising the internationalisation of SSH disciplines in peripheral countries' development and academic dependency, our research contributes to the debate around the internationalisation of SSH (Heilbron, Gingras 2018; Wagner 2004).

More generally, by focusing on international trajectories this research shows that the EU was not the main actor in the reforms of Baltic research funding policy. It therefore calls attention to the prevailing methodological Eurocentrism in post-communist policy literature and, more broadly, to methodological nationalism in neo-institutionalist literature (Mahoney, Thelen 2010; Streeck, Thelen 2005).

In short, through the study of the introduction of competitive norms in research funding policies, the thesis more broadly questions policy reforms, as well as post-communist countries' transformation and institutional change.

## II. Studying research funding policies in the context of the restructuration of the relationship between the scientific community and the state

Research in political sociology and the sociology of public policy, as well as the sociology of public administration, has shown that although it might seem homogenous, upon closer inspection the “state” as an entity is composed of fragmented organisations where groups of actors are in tension and struggle. Public policies are therefore good observation points for understanding public action (Bezes, Pierru 2012). Despite this, public research funding policies have rarely been studied from this perspective, and even less so in the literature on post-communist science policies. Instead, the role of research funding is often downplayed and “neutralized” in the national “research systems” (I). Even if public funding is problematised from the perspective of changing relationships between the state and science, these works tend to draw a strict line between the interests of the state and those of research communities. They also focus only on specific organisations – funding councils – without taking into account other public research funding instruments (II). Only a number of recent works have investigated public finances as *objects of tension* in public policies (III).

## Increasing research performance through research funding?

Most literature about public research funding addresses its function in the national research systems (Aagaard 2017; Stampfer *et al.* 2010; special issue: Lepori *et al.* 2007; Lepori 2006; Geuna 2001). In these studies, research funding settings are often characterised by their budget distribution as “project” or “recurrent” funding. “Project-funding” designates all funds that are temporally allocated to a specific research project, and “base-line” funding (also called “recurrent”, “core”, “institutional”, “block-grant” or “floor” funding) designates the global budgets allocated to research organisations (universities or large public research organisations) for their normal functioning. This clear categorisation is also useful in defining the concepts in our research (**Box 2**).

### Box 2 Defining research funding instruments

Following B. Lepori and colleagues (2007, 374) we define project funding as “money attributed to a group or an individual to perform a research activity limited in scope, budget and time, normally based on the submission of a project proposal describing the research activities to be done”. At the same time, base-line funding (or “institutional funding”) designates “a global budget to research organizations, such as universities or large public research organizations, for their normal functioning. Funding is attributed to ensure the existence of the organization and, in principle, is not limited in time; also, it is usually left to the steering body of the organization to decide how to allocate funds internally to individual units” (Lepori *et al.* 2009, 670). For the sake of clarity, we also separate external and internal research funding instruments. Internal instruments are funded via the state budget (public research funding instruments such as project funding, base-line funding, and national research programmes) and external instruments include European funding instruments such as the European Structural and Investment Funds (**ESIF**) (or simply “structural funds”). However, in some rare cases the ESIF is directly used as a resource in public research funding instruments under the state budget – in that case (and when data is not available) we analyse them as such.

Following the EU and OECD policy discourse, these works tend to measure the “competitiveness” of national funding systems based on the proportion of project funding instruments in the state budget for research. Some authors have gone further, looking for the “best” national policy models in science policy based on bibliometric results (Jongbloed, Lepori 2015; Hodder, Hodder 2010; Auranen *et al.* 2009; Aghion *et al.* 2009). Authors also observe a growing pressure to increase the share of project funding and reduce general funds in national research systems. Working mostly on the example of OECD countries, they underline the persisting conservative use of project funding instruments in Europe compared to the United States (US): while in the “US model”, research grants usually cover the full cost of research, in the “continental European model” they are often only supplementary funding mechanisms,

implying that the general research costs of European universities are primarily borne by the institutional budget (Jongbloed, Lepori 2015, 443-444; Lepori *et al.* 2007).

Some of these works have also focused on analysing changes in the research funding policies of post-communist countries (Lepori *et al.* 2009; Radošević, Lepori 2009; Jablecka, Lepori 2009). While the overall analytical frames remain the same, these studies most often attribute competition-related research funding reforms to the Europeanisation of national research policies. However, all these works identify the fact that despite the EU's impact, former policy logics have challenged the implementation of EU policies in the post-communist area and that local idiosyncrasies in research policies still prevail (*Ibid.*). Authors argue that differences have emerged due to external factors during the initial reforms, such as the underlying political economy or socioeconomic legacies (Radošević, Lepori 2009). Others ascribe importance to the personalities of the reformers, their individual beliefs or even to pre-existing power dynamics (Lepori *et al.* 2009; Jablecka, Lepori 2009). Nonetheless, systematic analysis on the matter has remained scarce.

While all these works draw attention to variations in national systems regarding the shares of instruments and agencies, the role of research funding between the state and scientific community is not discussed further. Moreover, while these studies acknowledge a wide variety of funding devices, it is important to note that they are rarely linked to a systematic analysis of the peer-review process or of other methods of research evaluation. This latter, more micro-level analysis of research funding forms is a separate study area. Existing research on the peer review process relates largely to peer review for journals and less often to the peer review of research and grant applications (see the overview of the topic in Bornmann 2012). The few analyses that do focus on financial instruments show the different modalities of the peer-review process to the degree of specifications against the choice of referees, anonymity, number of referees and their working methods. The authors of these studies tend to take a critical view of the inconsistencies between reviewers in their evaluations of research quality (Jerrim, Vires 2020; Mutz *et al.* 2012) and of the potential scope for bias in reviews (Lee *et al.* 2013; Cole *et al.* 1981). Some question the use of bibliometric indicators or of the peer-review process by analysing factors such as past performance and their influence on grant applications (Besselaar, Leudersdof 2009). These studies are centred on analysing the micro-settings of project funding devices but are completely separated from discussions about the general layout of national funding systems.

Finally, research funding literature is also closely linked to the literature on university research evaluation. Authors have underlined the increasing use of performance-based elements in university research funding. Mostly descriptively, they show that performance-based research funding systems may vary in their unit of analysis, methods of measurement, frequency, and census period, but most often it is the ex-post evaluation of research output which is considered in government funding allocations (Söderlind *et al.* 2019; Zacharewicz *et al.* 2019; Hicks 2012; Lepori 2008; Geuna, Martin 2003; Geuna 2001; Kaiser *et al.* 2001). Some of these works discuss the advantages and disadvantages of this funding mechanism in comparison with other approaches to research funding. J.M. Ziman (1996) claims that changes in resource allocation may lead to unintended negative consequences, especially in terms of basic research outputs. Based on the example of the United Kingdom (UK) where the performance-based research system was introduced in 1986, A.Geuna and B.Martin (2003) suggest that while initial benefits may outweigh the costs, over time such a system seems to produce diminishing returns. However, the authors note that this expectation is rather theoretical and that empirical proof is yet to be found.

Altogether, existing literature invites us to be attentive to different ways in which research funding may have been modified in these past few years: reforms do not only increase the proportion of project funding, but also modify base-line funding. Although there is no agreement on the exact impact of research funding on the scientific community, it is generally agreed that states can mobilise the allocation of both base-line funding and project funding as steering instruments in science policy. However, the more precise ways in which these instruments are mobilised is not studied and instead, different aspects of research funding (instruments, settings, evaluations) are examined separately, and the project funding is assumed to be linked to increasing research performance. In that way, financial mechanisms are depicted as “neutral devices” and their empirical role in the specific science policy systems remains unquestioned.

### Science councils between state and scientists

Besides these more functionalist works, the second branch of academic literature on research funding focusses on research funding councils as organisations. For a brief reminder, funding councils developed in Western countries after the Second World War and are responsible for project funding. They were originally conceived to design and implement research policies, in preference to the traditional public bureaucracy that lacked the necessary

direct contact with science<sup>6</sup>. Their number rose in parallel with the increasing role of science in governmental policies, and the overall reorientation of military-centred research towards socio-economic development (Rip 1994).

Many works focus on the science council's specific role in the system as a mediator between scientific communities and the state (Gulbrandsen 2005; special issue: Braun, Guston 2003; Van der Meulen 1998; Guston 1996; Braun 1993). In these studies, authors model the relation between government and science as a principal-agent game and analyse differences in the extent to which governments and research organizations can pursue their respective strategies. The relation between government and science is thus conceptualised as an "ongoing game relation", with dynamics dependent on preferences, the perception of preferences, the strategies of both actors, and how their relation institutionalises. These works differ from the institutionalist studies mentioned above because they do not assume that these organisations simply play a functional role but rather that they represent a more complex relationship between the state and the scientific community.

Focusing on the tension between these two kinds of actors, the authors of this strand of research emphasise the rising pressure from governments to better utilise the results of publicly funded research and tighten collaboration between the funding agencies and government departments in drafting the research agenda. Some works have however demonstrated the resilience of funding councils in the face of this pressure (Potí, Reale 2007; Slipersæter *et al.* 2007; Godin *et al.* 2000; Duinen 1998; Skoie 1996). For example, B.Godin and colleagues (2000) show through the example of the strategic documents and funding programmes of Canadian councils that although the strategic orientations of the council are being reformulated into more pertinent, socially relevant, interdisciplinary and collective research, funding programmes are still freely interpreted and remain individualised. In an empirical comparative analysis between the development of research councils in Austria, Norway, and Switzerland, S.Slipersæter and colleagues (2007) suggest that councils with stronger government control are more responsive to the policy-makers' requests. At the same time, they also conclude that although the principal-agent approach captures essential features of how councils work, there may be a danger of not adequately capturing the councils' complex embeddedness in the scientific and political system, or the factors affecting their responsiveness.

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<sup>6</sup> Regarding the historic development of funding councils in the US see D.L.Kleinman (1995), in France: J.Aust and E. Picard, E. (2014), V.Duclert (2006), in Swizerland: M.Benninghoff (2004), A.Fleury and F.Joye (2002), in Austria: M.Stampfer and colleagues (2010).

Some works have conceptualised the changing relations between government and science via the “credibility cycle”. In science, the credibility cycle means that individual scientists or small research groups accumulate credibility – that is, the credit (and legitimation) for knowledge claims – which is transformed into a reputation and the chance of receiving funding for further proposals (Latour, Woolgar 1979). A.Rip (1994) suggests a similar analysis for research funding councils: when government agencies start to set priorities and/or want the research council to be pro-active, rather than responsive, this must be accommodated in the research council credibility cycle. On the other hand, the research council must maintain its credibility with the scientific community, and even if it wished to it could not completely follow new government priorities and/or prevailing political fashion. According to the author, this implies that research councils must indeed see themselves as an “independent actor”, rather than a channel for the funding of research by the state (*Ibid.*, 17).

Finally, some studies suggest that research council funding may have specific implications on science development. C. Lyall and colleagues (2013) discuss the capacity of funding programmes to boost collaborative working and interdisciplinary research initiatives. D. Braun (1998) argues that research council funding can often have conservative implications on the content of scientific research. However, there are not many of these works and more precise descriptions of how these specific influences occur are not discussed.

Overall, by showing that research funding organisations are complex organisations that may be influenced by multiple interests, these studies break the functional view of funding councils and project funding. Then again, by focussing on only one type of organisation they tend to obscure other organisations and instruments that are also in the intermediary level between the state and ongoing research (Rip 1994). Indeed, researchers also seek funding from government and private programs, hence these works can be criticised for not considering research councils in their complex environment. In addition, the interests in the two poles – science and state – are often considered to be exclusive, which seems to be one of the major barriers to considering the complexity of struggles in these institutions (Gozlan 2015).

### Research funding as an instrument of governance

The latter criticism is tackled in a third strand of academic literature that is directly concerned with the complex construction of financial instruments and their effects. In a special issue of *Genèses* (Aust 2014) devoted to the topic of research funding, authors show that whether it is a matter of reforming French research in the 1960s, overhauling the Swiss

academic system by encouraging inter-institutional cooperation, promoting the emergence of social science schools in Chicago in the 1920s, or promoting the relations between science and industry in France, financial devices are used to implement reforms and therefore have been the objects of political compromise. Project funding is therefore seen by these authors as an “instrument that carries intentions for political reform” (*Ibid.*, 3)<sup>7</sup>. It follows that, while used to reform research policy, funding instruments may also be somewhat *flexible*. This flexibility in the appropriation of funding instruments is more explicitly described by S.Louvel and M.Hubert, who analyse the adoption of foreign funding examples in research and innovation policies in the field of nanoscience in France. Their work shows that the paradigmatic value of foreign examples derives from the processes of “editing”, including de-contextualisation and re-contextualisation, through which their relevance for certain dimensions of science policy is established (Louvel, Hubert 2016).

The intellectual framework of these analyses comes from the Foucauldian understanding of power and governmentality. It means that in a similar way to some other devices, such as benchmarking (Bruno 2008) or research assessment (Gozlan 2015), research funding instruments are seen as an integral part of the complex *power relations* in the related organisations and institutions. It means that they are not situated outside the academic sphere, nor are they “objective” or “neutral mechanisms” for gaining “efficiency” in the budget allocation as they are often represented in public policy debates and policy analysis. Instead, public finances are the *place of crystallisation for social and political fights*. When applied, they change the arrangement of power relations and start to produce a particular understanding of research, its objectives and its essence (Bezes, Siné 2011). By acknowledging the embeddedness of funding instruments in power relations, these authors show how important it is to pay attention to the specific *usages* of these instruments in the reform process.

In the same line of thought, other authors have studied policy changes from the perspective of scientists. While analysing researchers’ responses to their policy environments, some of them have demonstrated the limiting effect of project funding on the creation of new research areas (Schultz 2017; Aust, Picard 2014). Using a micro-level approach (such as organisational sociology), others have questioned the effect of the new funding regimes on the researchers’ professional autonomy, the contents of their academic work, and the organisation of their research groups (Cauchard, Vilardell 2013; Schultz 2013; Barrier 2011; Jouvenet

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<sup>7</sup> Our translation from French to English. Hereafter, all foreign sources are directly translated into English. In order not to overwhelm the text, the original passages are not cited.

2011). Then again, the effect of research funding devices may vary when observing it from the angle of researchers with longer careers. For example, T.Boncourt (2017) demonstrated (based on the example of French and British political scientists) that next to the policy-related injunctions to internationalisation, the internationalisation of researchers' careers is also affected by the individuals' positions within the university (including the university's resources, position in the international arena, professional status, national disposition and career regulation), their scientific position (research objects, theoretical positions, positions in international organisations) and their private life. The author concludes that the articulation between the international model of disciplines and local idiosyncrasy may lead to re-adaptations, translations, interpretations and even resistance to internationalisation. Organisational/university level analysis is thus insufficient to fully understand the effects of these instruments.

The given thesis can be seen as a continuation of the academic literature discussed above. Instead of conceptualising public research funding instruments as neutral devices that are used by states to ensure efficient resource allocation, as suggested in the literature on national research systems, these devices will be conceptualised in this thesis as *objects of political struggles*. Also, instead of applying a binary view to the actors who are related to these devices (state vs science community), as it is assumed in the research on funding councils, their construction and change will be seen as the result of *complex power relations*. Our research shall therefore not be limited to solely analysing the science councils or project funding but will address project funding in the context of other research funding mechanisms – namely the base-line funding mechanism, which is also at stake in the reform process. As a result, we propose to approach research funding reforms in the Baltic states as events that have the potential to restructure the power relations between different groups of interest in the scientific field where funding devices are both *resources in* these struggles and the *results of* these struggles.

In the post-communist context, changes in research policy funding must therefore be analysed within the broader process of political transformation, which brings us to discuss the institutional approach to post-communist policy changes.

### III. Research funding policy reforms in post-communist transformation: approaching reform trajectories via practices.

By crossing neo-institutionalist literature and a sociological approach to public action attentive to the socialisation and social trajectories of actors, this thesis proposes to study public

research funding reforms through practices. This means that, besides focussing on the impact of international institutions in the process of policy change, we will also analyse the practices of individual and collective actors related to these changes. The question is therefore not only if and when reforms were introduced, but also how funding instruments were used in national scientific fields (I). To fully understand the scope and density of policy changes and to relativize the impact of the EU, these practices are then analysed in the perspective of mid- to long-term reform trajectories (II). This leads us to conceptualise national science administration as an arena for struggles between various geographical influences that are, due to the specific heritage of post-communist countries, also linked to the disciplinary affiliation of the reform actors (III).

#### Research policy reforms in post-communist countries – change via external pressure?

Contrary to their HE policies (See special issues: Cîrstocea *et al.* 2014; Dakowska, Harmsen 2015) post-communist countries' research policy reforms have only rarely been examined with the more sociological approach of public policy analysis. To explain the post-communist research policy reforms in general, and the internationalisation of policies in particular, the current literature is mainly concentrated around the event of EU accession (see below). Inspired by cultural or historical institutionalism, these studies follow institutionalist literature where the internationalisation of science is viewed as resulting from political ruptures that are exogenous in origin or is the fact of international organisations.

A bulk of studies published in the 1990s about post-communist science policies were mostly focused on analysing the “transition” and “Westernisation” of scientific systems, meaning that they concentrated either on the barriers to transformation, or on making global predictions about policy trajectories. In these studies, public research funding was treated descriptively, mostly in the context of changes in the “models” of science management and institutional settings (Schimank 1995; Péteri 1995; Kneen 1995; Schott 1992) or the democratisation and transformation of the AS and its institutes (David-Fox, Péteri 2000; Mayntz 1998; Simeonova 1995; Wolf 1995). In that way, these works also followed some prominent studies on regional developments that appeared at the very end of the Cold War. In a similar way to F.Fukuyamas's *The End of History* (1992), which predicted the ultimate and inevitable global triumph of democracy and the free market, scholars working on different topics such as privatisation, marketisation, and democratisation in post-communist countries predicted the harmonisation of institutional arrangements in their respective areas of study.

One of the most frequently cited authors, T.Schott, predicted that the collapse of the Soviet Union would move Soviet science out of its “isolation” from transnational networks, towards the “periphery” integrated with the Western centres (Schott 1993; 1992). Reflecting the dominant works of historians of science, this vision relies on the assumption that the process of internationalisation in science is not homogenous but follows the logic of the hegemonic relationship between the “centre” and the “periphery” (**Box 3**). Moreover, this vision assumes that the global science-policy regime is an element of the “world polity” as theorised by sociological institutionalism authors since the end of the 1980s (Meyer *et al.* 1997; Finnemore 1996; Meyer 1987; Ramirez 1987). According to these authors, nation-states are shaped by world polity models through the process of “decoupling”. Thereby, weak or peripheral nation-states are particularly dependent on exogenous models (Meyer *et al.* 1997)<sup>8</sup> and nation-states’ policies are increasingly “isomorphic” as they organise and legitimise themselves in terms of universalistic world models and therefore change through the exogenous impacts of change. In a similar way, science is also becoming institutionalised throughout the world, with institutional arrangements that are similar because they have “a common source in world standards”, namely “models” that diffuse through the global scientific community from its centre to its periphery, and doctrines promulgated by the “global science-policy regime” (Schott 1993; 1991). Post-communist transition is therefore only one phase in the global harmonisation of science-policy structures.

### **Box 3 Centre-periphery relations in worldwide science development**

According to science historians, scientific ideas and institutional arrangements have diffused in all societies since the middle-ages from institutional “centres”, located where scientists have recognised the greatest accomplishments (Altbach 2007; Schott 1998; 1993; 1991; Stichweh 1996; Ben-David [1971]1984). The centre of science, according to these authors, was in Italy up until the seventeenth century when it shifted to England, and then to France. Around the beginning of the 20<sup>th</sup> century, the main centre of outstanding research was in Germany. However, in the decades following the Second World War, Western Europe has been seen as the secondary centre; the primary centre has remained in the major universities of the US (Altbach 2007, 123; Ben-David [1971] 1984). These nations gained attention because of their scientific achievements and have thus been the main places of attraction for peripheral scientists, generating the controversial phenomenon of “brain-drain” (Gaillard, Gaillard 1997; Das 1971). The centre-periphery relationship is defined more precisely by E.Shils. In his works (Shils 1988, 251-252 as cited in Schott 1998, 114) the term “centre” refers to “a sector of society [or community] in which certain activities which have special significance or

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<sup>8</sup> Authors identify that these impoverished countries may set up universities producing overqualified personnel, national planning agencies writing unrealistic five-year plans, and national airlines that require heavy subsidisation. World-societal models have led states to establish ministries and other agencies purporting to manage social and economic planning, including science policy (Finnemore 1996).

functions are relatively more highly concentrated or more intensely practised than they are in other parts of that society and which are to a greater extent than are other parts of society the focus of attention, preoccupation, obedience, deference, or emulation”. Other authors have also defined the centre-periphery relationship through countries’ “scientific capacities”. The concept of scientific capacity and the parsing of countries of the world by categories such as scientifically advanced, proficient, developing, and lagging, is offered in Wagner and colleagues (2001). As analysed by T.Schott: “in wealthy countries, progress takes the form of national security and competitiveness, and in the poor countries, development and catching-up” (Schott 1993). Science internationalisation is thus seen as a unidirectional expansion from more renowned regions and countries toward less renowned ones.

While these early works focused on the event of the collapse of the Soviet Union, after the EU’s “eastern enlargement”<sup>9</sup> and the establishment of the ERA in the 2000s, the literature on research policies focussed more on the impacts of EU accession (Lepori *et al.* 2009; Radošević, Lepori 2009; Jablecka, Lepori 2009). Funded by the EU or the OECD, this literature on regional research policies is complemented by multiple policy assessments and reports that first served the purpose of “evaluating” these countries’ “readiness” for joining these organisations, and later their “success” in policy “absorption” – particularly regarding the use of EU Framework Programmes for Research and Technological Development (FP) in research funding. Often authored by individuals working simultaneously for these international organisations and at universities, these evaluations are also re-used in the academic literature. Europeanisation and the adoption of EU rules and policies are therefore considered in these works to be important explanatory factors of the differences between emerging countries. From this point of view, EU accession and the implementation of competitive funding instruments in national research funding are perceived as a formal rupture with post-communist research policies.

In parallel, another field of research emerged, particularly in the field of science policy and innovation studies<sup>10</sup> (Karo, Kattel 2015; Karo 2011; Kattel, Suurna 2010; Tiits *et al.* 2008; Piech, Radošević 2006; Etzkowitz 1996; Balazs 1995). The focus here is on the complex state initiatives regarding science, education, research, technology policy, and industrial modernisation, and their intent to “strengthen the competitiveness of an economy or selected sectors, to increase societal welfare through economic success” (Kuhlmann 2001, 954). In the

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<sup>9</sup> Notably, eight CEE countries (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia) joined the EU in 2004. Following this, Romania and Bulgaria acceded to the EU in 2007.

<sup>10</sup> Innovation policies became noticeable in the academic literature in the late 1990s, and in particular, with looming EU accession in the early 2000s. For a comprehensive overview of the evolution of science policy and innovation studies see B.R.Martin (2012).

CEE context, these works tend to focus on the issue of “catching up” to industrialised economies, and the impact of the EU is again seen as a major developing factor in domestic policies. Inspired by the institutionalist approach, national research policies in this branch of academic publications are also analysed as parts of the wider “system of innovations”, which similarly to networks, contain a set of interlinked activities (or actors) such as institutions, political processes, and skills (Fragerberg 2006, 12). These “systems” may be “locked” into a specific “path” of development that supports certain types of activities and constrains others and are thus conceptualised as institutions, as is the case in historical institutionalism.

In a similar way to the academic literature of the early 1990s, all of these above-mentioned works have observed changes at the level of “systems” and not at the level of science policy administration. Also, instead of being empirically supported, these observations are often constructed based on pre-existing theoretical frameworks. Post-communist changes in these systems are thereby explained via several factors of exogenous origins such as the EU, which has urged these states to develop new ways of “managing” science – including the introduction of competition in funding policies.

However, in contrast to these more institutionalist analyses, other works on transformations in HE have demonstrated more dynamic effects of internationalisation. Notably, I. Cîrstocea’s (2014) work on the transformation of Romanian HE showed that instead of being reduced to an overhanging constraint and producing homogeneous effects, recommendations from international institutions sometimes give rise to contradictory experiments, as well as to appropriations and differentiated investments, which remain closely tied to the social and political dynamics specific to the national space into which an exogenous organisational model is transferred. Further sociological literature on Europeanisation<sup>11</sup> has also suggested that national policy developments are more or less conscious results of the translation of EU policies into individual trajectories and action (Woll, Jacquot 2010). The assumption that ideas could be used strategically by national actors is extremely useful in overcoming the artificial dichotomy between the logic of appropriateness and the logic of consequentialism (Saurugger 2013). Finally, no less important is the fact that EU policies themselves are versatile and have changed over time.

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<sup>11</sup> In this thesis we differentiate between ‘European integration’ and ‘Europeanisation’. The former precedes the latter as it is the prior institutionalisation of supranational political structures that give rise to questions about changes in domestic political orders. Europeanisation focuses on the consequences when community institutions are in place or are about to become the major institutions of the national political game (Baisnée, Pasquier 2007).

The aim of this research is therefore not to take for granted these exogenous constraints on national research funding policies, but instead, to question how much and in what way specific international references are imported and how they are used in national politico-administrative environments. This implies that research funding policies are not only a set of institutions in the formal sense, but also a set of policy instruments (Lascoumes, Le Galès 2007)<sup>12</sup> that may be “utilised” by both policy-makers and policy target groups in different ways to achieve their goals in the policy-making process<sup>13</sup>. We therefore aim to relativize the periodisation of policy trajectories that are usually attributed to the accession to international organisations. This guides us into applying a longer analytical time frame to our object of analysis.

### The historicisation of practices: analysing “reform trajectories”

As seen above, a major part of the current research on post-communist research policy developments explains changes either through the restoration of independence, or via Europeanisation. These were both major geopolitical changes that affected these countries after the collapse of the Soviet Union. While the given periodisation of post-communist countries' development is common and can also be found in studies on other policy areas, we believe that it does not give a full account of post-communist policy transformations. The Eurocentric approach to post-communist policy developments is influenced by institutionalist work and therefore does not allow for the problematisation of subtler changes that may be equally important in institutional development. Instead, while focusing on practices, we shall need to observe changes – and more precisely, the succession of changes – over a longer period.

For a brief overview, the “classical” historical institutionalist authors have concentrated on explaining abrupt changes and long periods of stability. Moments of change are conceptualised as “critical junctures”, and understood as “a period of significant change, which

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<sup>12</sup> A policy instrument is defined as “a device that is both technical and social, that organises specific social relations between the state and those it is addressed to, according to the representations and meanings it carries” (Lascoumes, Le Galès 2007, 4).

<sup>13</sup> The concept of “usage of international resources” was initially developed to explain European integration (Jacquot, Woll 2008; 2003). The concept covers “practices and political interactions which adjust and redefine themselves by seizing the EU as a set of opportunities, be they institutional, ideological, political or organisational” (Jacquot, Woll 2003, 4). Moreover, authors distinguish between different types of usages. The “strategic” usage describes the transformation of resources in political practices with the intent of pursuing a specific goal. The “cognitive” usage covers the understanding and interpretation of a political subject and provides the vectors for persuasion within a policy discussion. The “legitimising” usage aims to increase or renew the public acceptance of a policy decision at the national level.

typically occur in distinct ways in different countries (or in other units of analysis) and which is hypothesized to produce distinct legacies” (Collier, Collier 1991, 29). While institutional change may happen only by ruptures, this literature tends to have a view of institutional development that emphasises path dependencies and unintended consequences (Pierson 2000). Recent research on institutional change, however, has questioned this analytical framework. Authors have shown that organisational forms often prove to be incredibly resilient and resistant when faced with significant historical disruptions. In other words, as noted by K.Thelen (2003, 211): "there often seems to be too much continuity through putative breakpoints in history, but also often too much change beneath the surface of apparently stable formal institutional arrangements". Thereby, authors in this strand of literature assert that “classical” analytical categories are not sufficient for a proper understanding of institutional change dynamics. Instead of contradicting continuity and rupture, they adopt a power-distributional view of institutions that emphasises ongoing struggles *within* and *over* prevailing institutional arrangements (Mahoney, Thelen 2010; Streeck, Thelen 2005; Thelen 2003; 1999; Thelen, Steinmo 1992). This, according to these authors, shifts the debate towards examining changes that occur under the surface, which instead, fittingly, possess an *endogenous* character. They also propose several mechanisms of transformation (for example: “layering”, “displacement”, “conversion” ) that may lead over time to a transformation of the system as a whole<sup>14</sup>.

If institutional change can be better understood via gradual and more “endogenous” changes, then we should be particularly attentive to temporalities in our research and not take the common sequencing of “pre-” and “post-” EU accession policy developments for granted. To this effect, we refer to the framework of “reform trajectories” proposed by P.Bezes and B.Palier. A “reform trajectories” (the authors insist on the plurality of trajectories) is made up of a succession of long-term reform sequences, each one having consequences on the following ones, and having a "transformative effect" on the system of institutionalised public policies that are subjected to the reform (Bezes, Palier 2018, 1083-1084). We further define reforms as “specific investments intentionally aiming at modifying the constituent rules of the institutions in defined phases” (Lagroye, Offerlé 2010, 76). This definition is appropriate for our approach because it implies the existence of strategic activity by individual and collective actors in the reform process and sheds light on the configurations of actors and the changes the former undergo.

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<sup>14</sup> This analytical framework is used, for example, in analysing changes in Danish science policy (Aagaard 2017).

The framework of “reform trajectories” presents a similar advantage. To explain reform trajectories, Bezes and Palier use the metaphor of a “corridor”. According to them, institutions, like the walls of a corridor, shape and frame the trajectory and demarcate the movement within it (Bezes, Palier 2018, 1101). At the same time, while institutions “shape the reform path”, they do not fully determine it. Institutions frame the corridor in which reform activities take place, but they do not determine the numerous and subtle movements that happen between the partitions. It may thus be that certain reforms may introduce deviations, break down partitions and allow a change (*Ibid.*, 1102). In that way, the concept perceives the role of actors in a more dynamic way than current institutionalist studies. Indeed, in sociological institutionalism, an institution's role is to provide moral or cognitive templates for interpretation and action and by doing so it standardises behaviours (Meyer *et al.* 1997; DiMaggio, Powell 1983; Meyer, Rowan 1977). Similarly, historical institutionalism suggests that whether institutions are formal or informal with rules and norms, they are essential to policies because they shape participants in their decision-making, their strategic behaviour, and, ultimately, their political preferences (Immergut 1992; Evans *et al.* 1985). These works are complemented with attempts to introduce agency to explain “unexpected” or extraordinary changes<sup>15</sup>. Neo-institutionalist works have proposed a typology of reform actors according to different types of changes, relevant to the features of the overarching political context and the properties of the institutions (Mahoney, Thelen 2010). Institutional authors are thus more focused on institutional weight and do not give much importance to the agency of individuals in the policy-making process. However, in the post-communist context where the rules of formal institutions were more open for interpretation than in established bureaucracies, the role of actors who have some room to manoeuvre on anything concerning their decision-making autonomy seems to be particularly relevant for explaining changes. The concept of “reform trajectories” allows us to break the stiff conceptualisations linking institutions and actors, and to pay attention to the latter where they merit it.

Other than that, there are at least three elements linked to the framework of “reform trajectories” that are important for our analysis. First, rather than focusing on a single reform and significant moments as is the case in historical institutionalism, the concept takes into

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<sup>15</sup> Some earlier authors have combined the organisational fields’ framework and institutionalist literature with elements of structuration theory to analyse the interplay between the field and the organisation in terms of behavioural ‘scripts’ (Barley, Tolbert 1997). Others have proposed concepts such as institutional ‘entrepreneurship’ (DiMaggio 1988) or ‘social skill’ (Fligstein 2001) to describe the role of particularly motivated actors in institutional change. To explain the impact of these actors, they highlight actors’ resources such as legitimacy, reputation, client relationships or their ability to induce cooperation amongst others.

account the successions of reforms affecting institutional systems, which can be identified via the method of process tracing: “institutional reforms develop, or even repeat themselves, over time, in line of political cycles and renewals of majorities and governments” (Bezes, Palier 2018, 1093). Analysing a reform trajectory includes mapping the successive sequences of reforms and identifying the change processes that have or have not occurred. Secondly, in order to understand the power dynamics in subsequent reforms, authors suggest studying the “initial point” of the reform trajectory. The initial reform policies may modify the distribution of power between different actors, introduce leverage, or conversely block effects and impose constraints on future transformation initiatives (*Ibid.*, 1095). Thirdly, the framework of the reform trajectory aims to not only understand how the processes of change unfold, but also what the transformations actually are. According to this framework, an analysis of the effects of transformation should be carried out at two levels: for each reform sequence, and at the “end” of the trajectory. This enables us to question the nature and the extent of the transformations produced by successive reforms (*Ibid.*, 1108).

Altogether, by approaching research funding policies through the concept of practices one can observe institutional transformations in the context of their elaboration and production, and therefore see reform making as a *social activity*. This guides us to look further than formal institutions and also take into consideration the *conditions* that make possible the emergence of rules, norms and standards that structure public research funding policies in the Baltic countries. While underscoring the importance of reform *effects*, this framework is suitable for studying the practices of scholars at the level of scientific disciplines. Many authors working in science policy have recently noted that too little is yet known about the “pathways to impact”, the actual adaptation of researchers and research groups to policy instruments, and aggregate effects of such adaptation. This is mostly due to the separation of studies between the sociology of science and policy studies (Benninghoff, Crespy 2017; Gläser, Laudel 2016, 125; Bhupatiraju *et al.* 2012)<sup>16</sup>. To understand how research funding policies have changed the relationship between state and science, we shall thus investigate how Baltic reform trajectories have reconfigured the relationship between different groups of actors in science administration. Reforms in the Baltic science administration will thus be approached through the actors and social dynamics underlying the institutional and normative reconfigurations over a longer period of time. This

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<sup>16</sup> After having studied the evolution of science policy and innovation studies, B.R. Martin (2012, 1235-1236) concludes that this strand of literature could forge links with “science and technology studies” — i.e., work by sociologists of science and technology, and by historians and philosophers of science.

broadens the variety of foreign influences in national policy developments that may be identified.

### Prioritising actors and giving a geographical dimension to reform trajectories

While being attentive to the socialisation and social trajectories of “reform actors”, we conceptualise our empirical fieldwork as a space of struggles (the “scientific field”) between different groups of actors with a variety of foreign references. The struggles of these groups of actors in the institutional field of science may determine the direction of reform trajectories.

This thesis will study the groups of “reform actors” who undertake institutional changes. By “reform actors” we mean actors who are sometimes labelled as “transformative elites” or “programmatic” groups. According to P.Hassenteufel and W.Genieys, these actors can be defined as groups of individuals sharing a similar analysis of a policy problem and supporting a common policy change program (including policy orientations, policy frames, and policy instruments), giving them a collective identity. When they behave strategically as a collective actor, they can be the main drivers of policy change. The analysis of such groups of actors requires the articulation of a combination of methods derived from the sociology of elites (positional, reputational, relational, and decisional approaches), as well as those developed by analysts of public policy (cognitive approaches). This makes it possible to identify programmatic groups, analyse their degree of cohesion, and assess their power (Hassenteufel, Genieys 2020, 29-33). In our case, we expect that analysing these actors will lead us to propose an endogenous explanatory framework for policy change, centred on the interactions between actors.

In doing so, we favour analysing the trajectories of these actors. Literature on the sociology of the state has demonstrated that international socialisation is a major element in the construction of elites in power (Dezalay, Madsen 2009, 683). According to Y.Dezalay the market of international expertise is an elite market, protected by barriers to entry that are discreet. For accession, one needs to have specific cultural and linguistic competencies. In the international arena, the dominant actors are those who can mobilise the resources they have gained from their national spaces, such as national titles and diplomas. At the same time, the mobilisation of international competence and relations can form a powerful strategy in the national field. It can reinforce those actors who highlight their “internationalisation” and are thus recognised as experts in certain internationally important questions. This small elite group might even play a kind of “double-game” by investing in the international field to reinforce

their national positions while simultaneously enlightening their national profiles to be heard in the international arena (Dezalay 2004, 11). There is good reason to believe that international socialisations are thus more or less directly reflected in the reform programmers and the favoured directions of the reform actors. By using the Bezes and Palier metaphor of a "corridor" where institutions form its "walls", we suggest that the former socialisations of reform actors may be decisive in which shape the walls take within each reform sequence and therefore which direction the corridor takes throughout the reform trajectory. In short, the content of reform programmes is influenced by reform actors' socialisations.

We also conceptualise that reform actors operate in what D.L. Kleinman has called the "scientific field", defined as a "shifting configuration constituted by the overlap and interaction of several institutional spheres" (Kleinman 1995, 16-17). The analysis of scientific fields takes into account the "type of research undertaken, where it is being done, why it is being done, who is funding it, and why it is being funded" (*Ibid.*, 24). In our case, the scientific field includes mainly research ministries, funding agencies, the AS, research institutes, and universities. The approach is more so justified in small states such as the Baltics, where the "expertise" on research policy is shared between these formal institutions, often via the circulation of individuals between these organisations. At the same time, these spheres can be viewed as distinct, with independent logics and actors with specific collective projects.

Focusing on the reform actors' activity in the scientific field enables us to better explain the direction of institutional changes within the reform trajectories. Indeed, if neo-institutionalist works have described the different forms that changes may take ("layering", "displacement", "conversion"), then the question of *how exactly these reforms are introduced and what kinds of policy directions they favour*, has remained less conceptualised. It is therefore important to be able to understand the professional socialisation, long-term intellectual trajectories, careers, and cosmopolitan experiences of these reform actors and how their positioning between international contexts and national scientific fields influences national reform trajectories<sup>17</sup>.

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<sup>17</sup> This being said, the mobility and circulation of the elites have been noted as important phenomena in post-communist state transformations (Heurtaux, Zalewski 2012, 156-177). While research sector-specific literature about post-communist elites remains rare, some authors have exclusively focused on elites in state transformations. Many of them focus on exploring the transformation of the administration in the former Soviet state, concentrating on the process of reconversion of former resources/capitals (Hadjiisky 2006; Eyal 2003; Mink, Szurek 1998). However, the international dimension in elite formation is systematically ignored in these works.

Due to their specific geographical location, investigating the socialisation of reform actors is particularly relevant in the Baltics. These three countries neighbour one of the biggest geopolitical powers in the region (Russia), as well as the Central-Eastern European countries (via Poland), and are close to Scandinavian countries such as Sweden and Finland. Due to their location, they have historically been a site of interest for various geopolitical entities, notably including the US, particularly in the period that preceded and followed the collapse of the Soviet Union. In that way, the Baltic example allows one to question the relationship between the centre and periphery in science internationalisation and to study empirically which geographical locations are considered as “centres” by Baltic actors and if they relate to all three countries. The Baltic states' scientific fields can thus be perceived as spaces where we expect to observe struggles between the groups of actors who have various international socialisations and thereby represent the variety of foreign references. Seized from external territories, these references are then adapted to the local context and used in the process of designing and implementing national reforms but may also be also used in the activity of opposition.



### **Baltic states and surroundings**

Investigating these foreign socialisations allows us to better understand the use of foreign references and their appropriation, and therefore understand the direction of reform trajectories. Indeed, the use of foreign references or models has rarely been analysed in research policies and, if they are considered, they are rarely in the centre of the analysis<sup>18</sup>. More broadly,

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<sup>18</sup> As an exception, S.Louvel, M.Hubert (2016) studied the appropriation of funding instruments on the example of French nanoscience and showed that the paradigmatic value of foreign examples derives from the processes of “editing”, including de-contextualisation and re-contextualisation, which establishes their relevance in certain dimensions of science policy. Otherwise, D.Braun and M.Benninghoff (2003) identify international learning in Swiss National Centres of Competence in Research, but the topic is not central. Foreign examples are

the approach presented above aims to take into account the multidimensionality of science internationalisation. As it is postulated by C.Defrance and A.Kwaschik, aside from its universalist claim science can be studied neither as a national nor international phenomenon: “science crosses the national framework and even goes beyond the framework of international relations. Transfers, dissemination of norms, values, practices, flows of knowledge, the constitution of networks of researchers, funding systems, the establishment of new scales of cooperation make it a field of transnational relations” (Defrance, Kwaschik 2016, 4-5)<sup>19</sup>. Hence, in the post-communist context, not only should international organisations (such as the EU) or events (collapse of the Soviet Union) be analysed, but also the variety of foreign relationships that are used throughout the reform trajectory.

In brief, the project of this thesis is to merge a sociological actor-centered Meso-level analysis with an institutionalist analysis about longer-term policy developments. This approach allows us to formulate the following research questions: Which geographical locations are taken as references by reform actors and are they the same in all three countries? In what ways have the international socialisations of the actors of change in Baltic countries affected policy reform programmes and eventual policy changes? To what extent is research funding used by Baltic sociologists – are some groups more eager to use public funding instruments than others? And in what way is research funding linked to researchers’ collaboration/publication practices in international academic spaces? In answering these questions, we have particularly focused on the disciplines of SSH.

#### IV. Social Sciences and Humanities (SSH) as a case study

Focussing on the SSH disciplines as a case study means that bigger research “infrastructures” such as testing facilities, scientific instruments and equipment are not part of the analysis in this thesis. At the same time, although SSH is generally considered less internationalised than other disciplines and there is good reason to believe that this scientific

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central in the work of K.Aagaard (2018), who demonstrates how the Norwegian model was adopted in the Danish science policy context. However, this analysis is considering only formal institutions and not the social process of this transfer.

<sup>19</sup> In defining the term "transnational", authors refer to *Palgrave Dictionary of Transnational History*, according to which the idea of transnational history emphasises the “links and flows between people, ideas, producers, processes and patterns that operate over, across, though, beyond, above, under, or in-between polities and societies” (Defrance, Kwaschik 2016, 4). Thereby, if the term "international" is still used for the sake of simplicity, it is in its double meaning that it should be understood.

area would be strongly mobilised against competitive public research funding reforms, they are also interesting observatories for our work.

Disciplines are objects of categorisation in academic literature. Although some authors have shown that the scientific character and “neutrality” is a social construct (Knorr-Cetina 1981), most authors insist on inherent differences between scientific disciplines. Thereby, SSH disciplines are usually not considered equal to other disciplines such as natural and exact sciences. For example, T.S.Kuhn (1962) emphasises the “immaturity of the social sciences”: instead of sharing one scientific paradigm or body of theory that is subscribed to by all members of the field, the community works around a variety of content and methods. Due to the fragmentation of the SSH community, and their relatively recent development, they are also sometimes designated as “soft” sciences, as opposed to the natural or “hard” sciences. A further distinction is made between “pure” science-based professions such as sociology and social professions or “applied” sciences such as business management. (Becher 1994; Biglan 1973).

SSH disciplines are also often considered to be unique in the face of research policy reforms. Based on the examples of Western countries (US, UK, France, Germany, the Netherlands), existing studies on the topic focus on identifying the specific traits of SSH next to the exact and natural sciences in this matter (Toledo 2018, Hug *et al.* 2014, Nederhof 2006, Hicks 1999; Nederhof *et al.* 1989). A.J. Nederhof (2006, 83-89), for example, has synthesised five elements that are commonly described as specific and inherent to SSH disciplines. First, the SSH disciplines have a more pronounced national and regional orientation: “in contrast to sciences, a considerable part of the output in many SSH fields is primarily oriented at national or regional topics and a local public”. Second, many fields of SSH traditionally tend to publish less in journals and more in books. Third, compared to other scientific fields, many SSH fields seem to be characterised by a “slower pace of theoretical development”. This may be reflected in “various citation characteristics of publications, such as a larger cited half-life of publications and a higher citation rate of older literature”. Fourth, a greater share of SSH publications are directed at the non-scholarly public. As a final point, Nederhof identifies that SSH scholars tend to favour a “single scholar” approach in research: “in bibliometric monitoring of research, it needs to be taken into account that a ‘team-oriented’ scientist tends to produce considerably more publications than the single author”. For all of these reasons, authors tend to converge on the incompatibility of ongoing reforms with SSH traditions. It is important to underline that above these elements, authors recognise that SSH research is not one homogeneous block but is heterogeneous in nature; some social sciences and humanities disciplines resemble natural

and life sciences in publication and citation behaviour (such as psychology or economics), while others share characteristics with the traditional profile of humanities scholarship (such as sociology) (Nederhof 2006; Thompson 2002; Nederhof *et al.* 1989). Previous works that have analysed science policies through a sociological lense have reached similar conclusions (Gozlan 2016, 32). This analysis does not delve into whether or not the norms and standards for SSH should be harmonised with other scientific fields. We approach the above-listed arguments as a discourse that is or is not mobilised when justifying the specific status of SSH in the national neoliberal research policy reforms that occurred since the mid-1990s.

From a historical standpoint, the cleavage between SSH and other scientific fields is probably more important in the post-communist region. Although the Western (USA, UK, Germany) influences on the development of Soviet social sciences is widely recognised, Soviet scientific cooperation with Western institutes beyond the epistemological dimension is often depicted as limited to minor formal cooperation. This is due to the specificity of the Soviet system of social sciences, its submission to Marxism-Leninism, and the strict control exercised by the Communist Party (CP) over contact with foreign scholars and institutions (Kovács, Kutsar 2010; Kaase *et al.* 2002). At the same time, the significance of physics, chemistry, mathematics, and engineering sciences for military and economic development resulted in their relative autonomy and greater access to foreign information, equipment and contracts.

Therefore, studying research funding policy through the case of SSH allows us to see in what way these disparities are reflected in reform trajectories and how these trajectories, in turn, have affected researchers' practices. While post-communist research policies are rarely analysed from the disciplinary perspective<sup>20</sup>, many works have discussed research development from the perspective of bibliometric analysis (Kwiek 2020b; Kozak *et al.* 2015; Kozłowski *et al.* 1999). These works have shown that the integration of Eastern European countries into the EU was accompanied by corresponding changes in their sectoral research profiles. However, even if European homogenisation and convergence were taking place, the increase in international co-authorship relations by the researchers affiliated to institutions in these countries was smaller than expected. The capacity to integrate with international collaboration networks is linked to resources. International research collaboration is expensive and requires a basic threshold of public research funding, which has not been reached in CEE countries over the last three decades (Dobbins, Kwiek 2017). Another perspective is taken by J. Kozłowski

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<sup>20</sup> The few exceptions are A.Roger (2021; 2017) and O.Kirtchik (2012).

and colleagues (Kozlowski *et al.* 1999). They demonstrated that post-communist countries have a non-balanced and highly concentrated structure of internationally recognised areas of science, focused on physics and chemistry. Authors claim that autonomy of science, peer-review, and competition for research grants introduced after 1989 have paradoxically strengthened all past choices and priorities: the best and the most numerous groups of researchers before 1989 became the most influential thereafter. In that way, "path dependency" in the science system, generated sometime in the past, has not yet really been overcome (*Ibid.*, 164). At the same time, they also maintain that although communist heritage operates as a tendency, the concrete disciplinary structure of a specific CEE country cannot be explained entirely through it. A full explanation of national differences would require a variety of other social, economic, and cultural factors being taken into account (*Ibid.*).

More broadly, these elements allow us to question the relation between SSH and the state. While SSH is today seen as an emerging global field or world scientific system (Heilbron 2014; Wagner 1999), there is however a centre-periphery continuum in the social sciences that corresponds roughly to the North-South divide (Lengyel 1986, 105). There is good reason to believe that this also applies, in the European context, to the West-East divide. This divide presents in *academic dependency*<sup>21</sup> and the related question of the global division of labour in the social sciences (Alatas 2003). In short, even if political independence has been achieved, the West's control of and influence over the nature and flows of social scientific knowledge may remain important. We therefore expect that if research funding reforms participate in the structuration of SSH researchers' practices, then they also create conditions for academic dependency or autonomy in these young countries.

For all these reasons, SSH seems to be a compelling case for this research. By extension the development of sociology, which is considered as a "classical" social sciences discipline but was founded only in the 1960s in the Soviet Union and was subject to political control, seems to present an exemplary case for this work. All of these aforementioned elements enable us to draw the hypothesis for this research.

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<sup>21</sup> In a similar way to economic dependency, academic dependency is defined as a condition in which the social sciences of certain countries are conditioned by the development and growth of the social sciences of other countries (to which the former is subjected). The dimensions of academic dependency may thereby comprise dependence on ideas, the media of ideas, the technology of education, and aid for research as well as teaching, investment in education and dependence of Third World social scientists on Western demand for their skills (Alatas 2003, 603-604).

## V. Hypothesis

This thesis questions the theoretical framework of (neo-)institutionalism regarding policy changes and the effects of these changes.

If the literature insists on explaining policy change through political ruptures and international organisations, then by crossing neo-institutionalist literature with a sociological approach to public action, attentive to the socialisation and social trajectories of actors, we propose to study research funding reforms in a dual perspective: through both institutional change and practices. We assert that international references in research funding policy regarding SSH (institutions, norms and standards) were not “imposed” externally on the Baltic states by international institutions such as the EU as is often assumed in the (neo-)institutionalist literature. In other words, national science policy administrations did not “suddenly realise” the need for more competitive and diversified research funding settings as a result of EU integration and then adopt and accommodate them to national policies via national governments. Internationalisation, in our approach, is therefore seized not only from the perspective of international organisations such as the EU, but also the practices of collective actors who participate in the construction of research funding policies in national scientific fields (Dubois *et al.* 2016). In this way, the EU accession is only one element in understanding local policy changes. In parallel, the “past” is not an obstacle, but also a resource for change (Kott, Mespoulet 2006, 7-8).

Similarly, we assert that scholars did not “automatically” modify their practices as a result of changes in research funding settings. Disciplinary communities are not just passive receivers of the reforms, but also negotiators of their interests during the reformatory process. In that way, disciplinary level internationalisation is closely related to the positions of the discipline in these policy reforms. Hence, we propose that to understand the introduction of competitive public research funding in the context of post-communist transformations, research funding reforms shall be studied through the (academic) socialisations and practices of actors on two levels: policies and discipline. More precisely, we hypothesise that **research funding policy settings as we observe them today are the result of continuous struggles in national scientific fields between different groups of actors who use a variety of foreign references to impose their vision of policy developments. Internationalisation is therefore also a phenomenon that relates to different disciplinary areas, where SSH is positioned as a less dominant field of science next to the more dominant natural and exact sciences. It can be**

**understood via an endogenous study of reform trajectories.** The three sub-hypotheses are as follows.

- H<sub>a</sub>: More than just setting the “path” for funding policy institutional development, the importance of the initial post-independence reforms relies upon actors’ capacity to modify the power distribution between them and establish the disciplinary hierarchy in the scientific field that has a structuring effect on the following reform trajectories.
- H<sub>b</sub>: Instead of constituting a unique external influence on the Baltic states’ research funding policy developments, the EU is one resource amongst other foreign references that are used by reform actors throughout the reform trajectories.
- H<sub>c</sub>: Internationalisation in the publication practices of Baltic sociologists is more related to their academic socialisations and research funding practices in the context of national-level disciplinary power distributional struggles than they are to changes in the formal public research funding settings.

Each of these three non-directional and empirical sub-hypotheses is thus based on two competing theoretical frameworks that we “test” simultaneously in each part of the thesis. The period of our analytical framework of Baltic research shall therefore include the pre-accession period, as well as the period after EU accession. We shall be attentive to the reform actors’ temporalities and the different geographical spaces in which these actors operate. In that way, these hypotheses also guide our research strategy.

## VI. Methodology: multilevel country comparison

In this study, we employ a cross-country comparison of the three Baltic states between 1988 and the mid-2010s. Country comparison has widely recognised benefits: it allows the exploration of new, unanticipated avenues, distance from one’s national reality (in this case, Estonia) and identification of social regularities while bringing out the singularity of the studied cases (de Verdalle 2012). It is important to underline that we don’t compare “variables” but “cases”, meaning that we don’t base the comparison on autonomous elements such as the size of each country or their research expenditure. Instead, we are interested separately in the reform trajectory of each case. With their similar recent political history, size (all of them are small countries with a population of only about 1,3 million in Estonia, 1,9 million in Latvia and 2,9 million in Lithuania) and geographic position, the Baltics can be considered in comparative

literature as “similar cases”<sup>22</sup>. In the case of the comparison of “similar cases”, the shared systemic characteristics are “controlled” while inter-systematic differences are considered as explaining variables (Vigour 2005, 160). While considering each national reform trajectory as a singular case, our aim is thus to compare these cases and explain the differences between them. The interest of this hypothetico-deductive perspective is to hypothesise a (same) structuring influence of (same) institutions over time. It therefore invites us to seek regularities in the content and order of the reforms. If such similarities in content and order are not observed empirically, then “path deviations” must be explained (Bezes, Palier 2018, 1101).

Our comparison also has a multilevel character. First, it has an international, or rather “transnational”, dimension to it. Due to the increasing interdependence of public policies in different national contexts, and the increasing role of transnational actors, it is more difficult to analyse national trajectories in isolation from one another. Cases must not be compared in isolation but *in relation to* one another. Also, a transnational comparison is not simply an additional level that is added to the local, regional or national level analysis but is apprehended as a level that is defined in interaction with the former ones (Hassenteufel 2005). As we are focusing on actors’ international trajectories, this approach allows us to see not only how institutions channel and structure political action but also how policy and academic actors act strategically, appropriating elements that circulate across the borders and thereby change national institutional structures. It also allows us to understand the national variations related to diffusion of policy models that are developed and promoted by international and transnational actors. In that way, the objective of this comparison is not to construct static typologies of the three countries, but to better understand the phenomena of internationalisation in the region. As noted by C. Vigour (2015, 17) “comparison is not only a method, it is a research strategy which permeates the whole research process, from the definition of the problematic, choice of cases, construction of data, their analysis and explanation”.

Our focus on reform trajectories, including the “effects” of the reforms, means that our analysis of Baltic sociologists does not take place only at the level of science administrations, but also at the level of research institutes and universities. Target groups have only rarely been

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<sup>22</sup> In most cases, comparative studies (we consider here only small-n studies) are designed on the basis of “very different cases” to explore similarities or “similar cases” to explore differences between cases or countries. But there are no explicit guidelines for classifying these cases. In the Baltic case, the “systematic characteristics” as well as the “inter-systematic” ones may vary depending on the theory. What makes the cases “similar” or “different” depends thus uniquely on the theoretical approach within which the cases are apprehended. In this thesis, under their façade of similarity, the Baltics allow us to discover more complex dynamics that have a role in understanding the object of this thesis.

an object in the analysis of public policies and public action<sup>23</sup>. Notably, historical institutionalists have been attentive to uneven power distribution across social groups. They tend to stress how some groups lose and others win from policy settings (Hall, Taylor 1996, 941). Indeed, in institutionalist literature, the “target group” or “target population” is defined as groups who are “actually chosen to receive benefits and burdens through the various elements of policy design to achieve some public purpose that may include approbation and punishment” (Schneider *et al.* 2014, 107). It then follows that those effects are incorporated into future policy choices. This “feedback” mechanism is often used by historical institutionalism authors who focus on institutional reproduction and self-reinforcing policy trajectories. P. Pierson (2000, 254) conceptualises increasing returns as an important reproduction mechanism (positive feedback) in sustaining path dependency. Hence, even if research policy institutions and policy outcomes for target groups are articulated together, the latter is automatically linked to the former and target groups are always “dependent” on policies. Contrary to these works, we approach the level of researchers as an analytically separate category of actors whose practices relative to policies may vary according to different factors such as their institutional affiliation, national policies or personal trajectories.

As a consequence, the word “case” is used with triplicate meaning in this research. It may designate each of the three Baltic states (their SSH related policies) separately, and when doing so is emphasising their differences. It may also designate the Baltics as a group of countries with a specific geographical location and post-communist background in the Baltic Sea region, and when doing so, it is focussing on their similarities. Finally, “cases” can also refer to each sociology related research group in different Baltic research institutions. In some sense, our research qualifies as an “embedded multiple-case design” (Yin 2012, 7-9), but instead of analysing only the smaller “embedded” units such as research groups, we also analyse the national cases in their transnational contexts. The given research strategy also guides the methods used to carry out this research.

## VII. Research environment and methods

The given study is empirically grounded in qualitative research, paired with quantitative research on researchers’ publication data in the Web of Science (**WoS**) database. The empirical work of this thesis covers the period between 1988 and the mid-2010s. Our starting point is the

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<sup>23</sup> A comprehensive account on the topic is proposed by L. Barrault in his thesis about French education policies (Barrault 2013, 42-53).

emergence of patriotic movements in the Baltic scientific fields, which were subsequently formalised in each country as associations under the name of Union of Scientists (in 1988 in Latvia, and 1989 in Estonia and Lithuania). These associations led the transitions in research policy and were in the front-row in the establishment of the post-Soviet research policy organisational settings in each country. Whereas the further temporalities of the reform trajectories differ between countries (for example, the reform in Latvia was ongoing at the time of our interviews), the end-date of our empirical work is related to our fieldwork carried out in 2015 at policy institutions and organisations and in 2017 at research institutions. We started our fieldwork by examining relevant public research funding policy changes. We then identified and examined the “change actors” who were at the centre of these policy changes<sup>24</sup>. Finally, we continued our analysis by examining sociologists’ research funding and publication practices. After positioning our research object in its environment (I), we give an overview of the conditions of our conducted interviews (II) and more detailed information about our sources (III).

#### Post-communist countries’ scientific fields as a “demanding” fieldwork environment

Conducting fieldwork in post-communist countries in general, including the Baltic countries, is challenging for many reasons.

First, one could quickly notice the existence of relatively closed and complex interpersonal networks that play a key role in shaping political/policy decisions. As highlighted by other researchers, one of the particularities of the post-communist countries is indeed the relatively influential role of political parties which are inbred into social and economic structures (Heurtaux, Zalevski 2012). In our research, we came across this issue several times, particularly when interviewing research administrators. It seemed that the heterogeneous professional trajectories of local policy officers were often embedded in political, economic, or academic institutional fields. For example, it was common to learn that some higher-level Ministry officials had previously held a position as a leader of an association, or as the director of a business. The Baltic countries’ small size did not make things easier. While the low number of policy actors facilitated the tracking down of “key actors” responsible for the policy changes,

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<sup>24</sup> As a side note to an international reader, it is essential to note that due to the small size of these countries, sometimes one or two key individuals’ activity can achieve significant policy changes. This may explain why the “groups of actors” are sometimes small.

it also meant that those interpersonal linkages were particularly strong and “invisible” to the investigator.

Certain research strategies allowed us to, at least partially, bypass these constraints or use them to our advantage. For example, in constructing the narrative around policy trajectories I did not hesitate to multiply my interviews with administrative actors, even with those that were not “key” actors in the analysis – this increased the chances of finding good informants. It was also important to be particularly attentive to the “weak signals” about inbred networks within specific country contexts. For example, when scheduling meetings with Lithuanian Ministry officials some of our interviewees referred to their colleagues as “members” or “supporters” of specific political parties or as being involved in private entrepreneurship (something which did not happen in Estonia or Latvia). It was a clear indication that the administration was inbred with political and private structures. As another example, we noticed that Latvian science administrators were particularly reluctant to accept being interviewed. Even when they did, only a few of them were willing to talk openly about their practices behind the policy implementation process, which may be linked to a censorship effect. Throughout my interviews, all of these elements helped me to better understand the nation-specific realities that shaped the working conditions of my interviewees.

The second difficulty was the lack of literature available to better position our research object in its context. There are only a small number of works about local science policy development. Several studies that focus uniquely on science policy were published in the 1990s and are mostly in the national language and thus partly inaccessible<sup>25</sup>. While remaining mostly descriptive, some of them proposed broader overviews of post-communist science policy organisational transformation in each state (Martinson 2015; Kristapsons *et al.* 2003). Similar to some other post-communist states such as Poland (Heurtaux 2000), there is a lack of academic tradition in sociological studies about post-communist political transformation and elites in the Baltics. There was no literature to be found about the post-communist political and intellectual elite that could better locate this research object. After our own fieldwork experience and analysis of the Baltic sociology discipline, there is good reason to believe that

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<sup>25</sup> In the Baltics, these studies were conducted mostly by natural scientists who were already involved in science studies (*naukovedenie*) during the time of the Soviet Union (see more: Rabkin 1976). At the time it was a separate domain of scholarship concerning the organisation, planning, and management of scientific activity. As an example of one of such study, see J. Kristapsons and colleagues (2003). While in later years the number of proper research policy studies has been low, intensive research and innovation policy studies are undertaken at the Estonian Tallinn University of Technology Ragnar Nurkse Institute.

this is due to both political and academic reasons. People who took part in the transitions are still alive and active, which makes it difficult for any interviewee and researcher to distance themselves from the events under study. Having grown out of the Soviet academic system, local social science communities may also have less experience and low motivation to undertake more critical or structural studies. As we will see in this thesis, the scarce funding for research has its part in this story. Here again, the multiplication of interviews and extensive conversations with interviewees about broader national political and socio-economic developments were an important tactic to better position my research object.

Overall, due to scarce background literature, small communities, politicisation, and invisible links between actors, there are important limits to our fieldwork. In this sense, post-communist research funding reforms can be classified as a “*milieu difficile*” (or “demanding environment”) for fieldwork because the difficulty appears to be inherent to the object (Boumazza, Campana 2007).

### Establishing contacts and conducting interviews

Interviews were broadly conducted with actors from three types of institutions and organisations: policy-making institutions, intermediary organisations, and research institutions.

In the interviews at policy-making and intermediary organisations, the aim was to better understand research policy developments as well as the practices of policy actors who were in charge of these changes. My previous personal experience working in the Estonian public sector helped me overcome the anxiety to “impose on the imposing ones” (Chamboredon *et al.* 1994), and to enter different institutions and organisations where I was sometimes perceived as a “former colleague” or a “colleague from Estonia”. Presenting myself as a “part of the group” gave me better access to information. My own international experience was similar to those of many of my interviewees, and this also allowed me to build common ground for further discussions. Then again, as biographic interviews are rare in the Baltics, some of my interviewees remained suspicious of the research and did not answer my questions until they were sure of my intentions. Also, due to the delicate topic of research funding, gaining trust and explaining my intentions was particularly important. Finally, one of the main weaknesses of my position as a researcher was my occasional failure to penetrate the subjectivity of the respondents at the time of the interview (not asking some basic questions) and at the time of exploitation (the “illusion of understanding”). To clarify some parts of the interviews, I was therefore sometimes obliged to re-contact certain interlocutors after our first meeting.

Contacting Baltic sociologists and interviewing them turned out to be rather simple. Here I was always instantly perceived as a “colleague”. Typical for the given situation (Paye 2012), it took me several attempts before I could bypass the anxiety of conducting interviews with individuals holding high positions in the academic field. This anxiety fell when I understood that in most cases, particularly in Estonia and Latvia, we do not share the “ethos” of academic research and sets of epistemological principles. Most of these sociologists do not use biographic interviews in their research – these are considered more as the tools of anthropology or ethnography. Also, as will be clear from the results of this thesis, sociology does not enjoy a high status amongst other SSH disciplines in these countries. Some of the interviewees were indeed hoping to use our conversations to express their views and that the “results” of this research would then be heard in the higher echelons of decision-making. It was also my impression that there was an overall lack of self-reflection about their discipline or its position amongst other academic disciplines. I received rather little information about which local groups or broader disciplinary schools they belonged to, or how the discipline of sociology has developed in relation to other disciplines in the country in question. This experience was contrasted in two research institutions in Lithuania, where the sociology discipline had a visibly higher status inside the universities (discussed further in Part 3 of the thesis). These sociologists had mastered the theoretical discourses used in their responses, meaning that they often intellectualised/generalised their own experiences. For example, one interviewee offered me a lecture about the Lithuanian academy and its relation to politics through P.Bourdieu's theory of fields. In this case, it was important not to take these generalisations “word for word” but to analyse them as discourse actors as in all other cases. These country-level differences might be due to the smaller diversity in national sociology research in Estonia and Latvia, and greater diversity in Lithuania, but are also linked to the overall socio-historic development of these countries and their research reforms, as will be shown throughout this thesis.

Finally, as is often the case for comparative analysis, language was one of the continuous obstacles in my fieldwork. As I don't speak Lithuanian nor Latvian, both the fieldwork and the writing process was challenging in terms of language. Interviews with Estonians were conducted in Estonian and other interviews were in English. It is important to underline that in most cases, interviewees were fluent in English. This can be explained by their generally high level of scholarly resources –English was already part of university curricula during Soviet times. Nonetheless, in some cases language was a barrier between me and my interviewee. For this reason, I decided not to focus too much on the specific words used by my

interviewees but tried to understand their overall argumentation about the topic. It is also worth noting that it is not possible to estimate how many interviews were explicitly refused due to linguistic issues.

## Sources

### Interviews

In total, this thesis is built on 131 semi-structured interviews. These interviews were conducted between 2015 and 2020, and lasted between 45 minutes and 3 hours. All of these interviews were fully transcribed, contextualised, analysed and interpreted (Beaud, Weber 2010).

As was already mentioned above, interviews were conducted with individuals from three types of institutions and organisations.

The first type is *policy-making institutions and organisations* such as Ministries of Education, Science/Research agencies, and foundations under the tutelage of ministries. Interviewed actors include partisans (ex-ministers), high-ranked officials (vice-ministers, chancellors, and heads of the science departments) and mid- to low-ranked officials. These interviews were conducted mostly between 2015 and 2016.

The second type is *science intermediary organisations*, such as science/research councils and foundations, and the AS. Interviewed actors include officials and both short- and long-term scientific representatives (heads of the councils, council members, research evaluation and expert committee members). These interviews were also conducted between 2015 and 2016.

The third type is publicly funded research organisations or universities, more easily referred to as *research institutions*. In these structures we interviewed former and currently working sociologists<sup>26</sup> and other SSH researchers. We were particularly interested in their educational and professional trajectories, their project resources, and publication practices. The second group of interviews were conducted with other social scientists. These interviews were conducted as exploratory interviews for a better understanding of contextual elements and differences between SSH disciplines. The high number of conducted interviews is justified by

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<sup>26</sup> More precise information on the profiles of our interviewees will be presented in the introduction of Part 3 of this thesis.

a lack of empirical works on the developments in the social sciences disciplines in the Baltics. Most of these interviews with sociologists were conducted in 2017.

Finally, the category “other” encompasses interviews conducted with private sector actors and university officials.

### **Conducted interviews<sup>27</sup>**

	Estonia	Latvia	Lithuania
<b>State institutions</b>			
Partisans	1	1	1
High ranked officials	7	4	5
Officials	7	4	2
<b>Science intermediary organisations</b>			
Science representatives	10	5	3
Officials	17	2	1
<b>Research institutions</b>			
Sociologists (active in 2017)	9	9	13
Former sociologists	7	2	0
Other SSH researchers	6	6	3
<b>Other</b>			
Various	0	2	4
<b>Total</b>	<b>64</b>	<b>35</b>	<b>32</b>

For all of these groups, we used two types of interviews: “biographical interviews” which reveal interviewees’ interpretations of their own experiences and practices (Demaziere 2008), and “topical interviews” to better understand institutional trajectories and other aspects relevant to our research topic (Rubin, Rubin 1995, 197). In most of the interviews, we were particularly attentive to the interviewee’s international experience, including both longer exposures (more than six months) with foreign scientific systems (through studying, working, or cooperation with foreign scientists), and shorter exposures with a specific aim of learning from a foreign context. More precisely, interviews with individuals from policy-making and science intermediary organisations focused on how they represented their activity, their motivations for enacting reforms, and hence the utilisation or implementation of their

<sup>27</sup> The full list of conducted interviews are listed in the Appendix by type and name of the organisation, position of the interviewee, and the time and place of the meeting. Each interview is given a code that will be used throughout the following text.

previously acquired resources, their definitions regarding the quality of research, their visions about the aim of their work, and the effects they hope to achieve with these changes. They were also about the modalities of their role in this process and their relationships with other groups of actors. This allowed us to relate their disciplinary and institutional affiliations with their positions and actions in the policy-making process. Interviews with sociologists focused on their definitions of the quality of research, their visions about the aims of sociology discipline, and thoughts about internationalisation. The implications of the funding context on their research practices and internationalisation (mobility, research projects, and publications) were also discussed.

Eight of these interviews were also conducted during my stay at the Estonian Liaison Office in Brussels in October 2016<sup>28</sup>. This three-week period was used to study the logic of the European research funding system and the complex relationships between national and European research institutions. My stay at the Estonian office and further contacts that I received through this experience explain the higher number of interviews conducted in Estonia.

Biographical narratives are always *a posteriori* reconstructions of events, choices, and views, often trying to present a coherent trajectory or legitimate past actions (Bertaux, 2010, 36-37), which might be particularly sensitive in the post-Soviet context. Hence, we confronted interviews with other sources.

#### Written sources and the construction of databases

Information on the organisation of research policy in Estonia, Latvia and Lithuania was mostly collected from individuals who we met throughout our research (interviews, documents) and different online sources. The latter included English language overviews of research policy, research evaluation documents in social sciences, statistical data on research funding, lists of members of research councils and relevant laws. In addition, we used the website The Internet Archive for tracking back the institutional history of the Baltic states' research policy. Throughout this process linguistic barriers blocked us from using all available written documents or sources in Latvian and Lithuanian. Sometimes, if the source was particularly important, we used web-based translation tools to translate the documents.

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<sup>28</sup> Estonian Research Council established its Liaison Office in Brussels in March 2012. Funded by the European Regional Development Fund, the office has a broad variety of functions. It introduces Estonian R&D and exchanges information between EU and Estonian research and development institutions. It also provides office spaces for Estonian R&D institutions in Brussels as well as offers internship opportunities for employees of R&D institutions. The results of the observation were published in *Revue Gouvernance* (Tönismann 2018).

Another important source of information was the CVs of policy actors and sociologists. These were available both on the internet and upon personal request. Around 20 e-mails were addressed to sociologists with a request for their CV. In gathering background information I occasionally used social networks such as LinkedIn.

We also used WoS core collection sources on the publication practices of Baltic researchers between 1990 and 2017. The WoS is the most commonly used citation tool. Other tools such as Scopus, SCImago Journal Rank or Google's Scholar Metrics differ from each other in the ways the citations are counted and how extensive the journal database is. However, the WoS is now widely used in the Baltics and the data was available for this work. The more precise usage and limitations of this tool will be explained in Part 3 of the thesis.

Finally, I collected 1418 photos of different documents from the Estonian Science Foundation archives. Collected documents included Council of Estonian Science Foundation minutes of meetings between the years 1990 – 2009 (they were well documented between 1990 and 1996). These documents include discussions between council members and voting results over various issues, appendixes of the meetings, lists of funding allocation for SSH projects, funding statistics, and funding criteria from 1993 to 2007. Documents also contain official foreign cooperation agreements with Finland, Russia, the US, Taiwan, Germany and Lithuania, and Estonian Higher Education Accreditation Centre evaluation reports on research activity in Estonia, published between 2001 and 2003.

This collection of sources was used to construct three “databases” that allowed us to contextualise the conducted interviews in the longer-term dynamics of policy development. They include research funding policy formal organisational development in the three countries between 1988 and 2017 (this information was used throughout the thesis) (I); organisational memberships of some research policy-related institutions and research institutions (used in Parts 1 and 2) (II); and an overview of educational and career information on 118 sociologists (56 in Lithuania, 33 in Estonia, and 29 in Latvia) working in the Baltic sociology related academic structures in 2017 (used in Part 3) (III).

The results of the thesis are presented in three parts.

## VIII. Structure of the thesis

The three parts of this thesis are constructed following the methodological approach of the thesis and the above-mentioned hypothesis. Thus, the first part focuses on the “initial point” of the trajectories of reform – namely, the collapse of the Soviet Union. The second part analyses longer-term changes while addressing EU accession, and the third part examines the “effects” of these reform trajectories through the example of the discipline of sociology.

More precisely, the first part of the thesis focuses on the period between late socialism and 1994. We give an account of Soviet and immediate post-communist public research funding policy institutional developments, and analyse in what way the pre-independence period scientific fields (in particular, different openness of each country to the transnational academic space) shaped post-independence policy settings. We show that although the collapse of the Soviet Union was a major event that triggered political independence in each country, there was no “rupture” in the public research funding sector. The actions of the emerging post-communist science administrative elites<sup>29</sup> (who were also the former national elite of the AS) were oriented towards preserving their national research, based on the principle of equal distribution of resources. Hence, although the organisational settings differed from country to country, the competitive norms promoted by the West were not embedded into these initial research funding policy settings (**PART I**).

The second part of the thesis covers the period from the mid-1990s until the mid-2010s. This period covers the accession to the EU and the wider diffusion of NPM-like policies in post-communist countries. We analyse the national public research funding policy reforms in the context of broader research policy developments on the one hand, and the other hand the more specific norms of research funding evaluation in SSH. We show that while the EU accession was an important event in the Baltic countries’ recent political history, its effect on public research funding policy was more complex and indirect. The availability of new financial sources was one of the major motivations for the mobilisation of the reform actors. However,

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<sup>29</sup> The “science administrative elites” are understood here as a social entity; a conscious and mobilised group unified by a common set of ideas, beliefs, and interests who are able to develop collective strategies to enhance their influence within the research-related institutions in each country. This concept can be categorised under the “positional approach” of elite analysis, meaning that there is an assumption that the “elite” status comes within certain (administrative) positions. It is different from the concept of “reform actors” (in this thesis) because if “science administrative elites” are related to the administrative positions, then “reform actors” are not. More globally, the concept of “science administrative elites” is different from concepts used in the majority of current post-communist literature, where elites are categorised based on the acquisition of different capitals (such as social, intellectual, economic, political capitals) (see the works of G. Eyal).

these actors emerged in different moments before and after the EU accession. This again has brought along important cross-national differences in public SSH funding policies, notably the support for “classical” disciplines such as sociology (**PART II**).

The third part of the thesis focuses on scholars’ responses to the research policy reforms and notably on the internationalisation of their publication practices. While articulating Baltic sociologists’ academic socialisations with their research funding and publication practices in the context of their national research policy environments, we demonstrate a feeble link between the “competitiveness” of research systems and its publication “performance”. Due to the variety of professional orientations and available funding sources used in conducting research activity, scholars are not all equally dependent on public research funding instruments. At the same time, due to the changing standards in the base-line funding allocation criteria, all of them are facing pressure to change their publication practices and that may bring along important discrepancies between their actual work in research projects and publication requirements. Besides national variations in the responses to their changing research environment, there is also a cross-national similarity: only a small group of sociologists, who are led by individuals that were part of transnational networks already in the Soviet era, are oriented toward academic internationalisation (**PART III**).



## PART I THE COLLAPSE OF THE SOVIET UNION: FROM THE STATE PLANNING MODEL TO MARKET COMPETITION IN THE ALLOCATION OF PUBLIC RESEARCH FUNDING

The first part of this thesis addresses the period prior to post-independence research funding policy reforms. It sets under closer examination the development of Baltic scientific fields roughly between the late 1980s and 1994. This period includes the collapse of the Soviet Union and the restoration of national independence. It comprises not only the rise of new national political parties and formation of governments, but also the formalisation of rules and norms for research and HE sectors that ceased to be a formal part of the all-Soviet institutions such as the AS due to political turmoil. More precisely, this part aims to expose and analyse factors that were decisive in this period for subsequent policy developments in the Baltic states.

The analysis of this specific period calls us to take into consideration the historical institutional literature on institutional changes. As we saw earlier in the introduction of this thesis, regime changes entail political rupture and in the (neo)historical institutionalism literature, these political ruptures (also called “critical junctures”) are considered crucial for understanding institutional developments (Mahoney 2002; Collier, Collier 1991). The core idea is that these moments of “crisis” open up multiple choices for institutional development and these choices can predetermine or constrain the subsequent solutions. This is partly due to the restrictions of options that result from the initial choices, and the consequences and side effects of these first choices. Hence, the critical junctures are not only “critical” for the immediate present policy situations, but also for further policy developments. Along the same line of thought, one could argue that an expected formal institutional development in the Baltic countries’ research funding policies would have included the suppression of the AS role as a symbol of occupational power, and the establishment of science funding councils as was recommended by many foreign partners via their evaluations or funding programmes. Yet, some other works that seek to understand post-communist political and economic transformation have insisted on the complexity of political rupture. May it be due to the variety of institutional configurations (Stark, Bruszt 1998: 111) or elite struggles (Eyal 2003; Eyal *et al.* 1998) that preceded the collapse of the Soviet Union, authors of these works assert that the political turmoil did not present in the same way in all countries. While they do not offer clear recipes about what exactly political rupture does to countries, they demonstrate that it is important to analyse not only the immediate political crisis, but also broader institutional and

societal singularities of countries in question. Therefore, with this part of the thesis, we do not only lay down the "basis" for understanding the subsequent policy developments in the Baltics, with their similarities and differences, but we also question the role of the collapse of the Soviet Union as a "turning point" in Baltic countries' public research funding policies.

Following the latter works, we propose to apprehend the fall of the USSR as a "process" as it is proposed by G.Eyal in his analysis of the breakup of Czechoslovakia. In his analysis, instead of approaching the breakup as a "social fact", he sees it as a "social action" by taking into consideration the way in which it was "managed, expedited, and consummated" (Eyal 2003, xx). Therefore, instead of perceiving the Soviet disintegration as a universal event, we address it as a process that is unique in specific national contexts and that could take various forms in different countries. It therefore may or may not have affected research funding policy institutions. To this effect, the collapse of the Soviet Union does not automatically produce research funding "reforms" as we have defined it in the general introduction of this thesis. In our conceptual framework, the Soviet disintegration can be thus perceived as a "starting point", meaning that it may serve us as an indicator for understanding the distribution of power between the different actors in research policy and show which institutional arrangement is most exposed to criticism or most vulnerable to change (Bezes, Palier 2018, 1095). In this way, the disintegration of the Baltics from the USSR is part of the research funding reform trajectories that are embedded into the broader socio-economic and political characteristics inherent to the territories under our observation. Moreover, in line with the approach of this thesis, we do not only analyse the institutional development that is linked to the power relations, but also the practices of individual and collective actors in this process.

Two sets of questions can be addressed regarding the current research on post-communist research funding policies: notably the role of the "past" and the "designability" of the immediate post-independence organisational settings. Indeed, in the literature on post-communist science development, scientific disciplines and science development, in general, are foremost analysed through the formal political aspiration of the Soviet state (Mespoulet 2007; Weinberg 2004; Schott 1992). This first chapter seeks to nuance this homogenous view of past scientific fields in the USSR from the point of view of the Baltic Republics. While outlining the Baltic science communities' positions in the Soviet industrial system and their liaison to political powers, we aim to point out the unique characteristics of each countries' scientific fields in the Soviet Union. Notably, we focus on the possibility of international scientific cooperation. Taking into consideration the heterogeneity of scientific communities, similarities

and differences are also underlined by scientific areas with a focus on the SSH. For this, we need to focus on the specificities of Baltic states (**Chapter 1**).

A connected topic is the "designability" of the immediate post-independence organisational settings. If the "past" in research policy literature is often perceived via formal state structures, then the political rupture is consequently perceived as a possibility for the "new beginning" for these policies meaning that changes resulted uniquely from the choices of the "system designers" (Schimank 1995; Péteri 1995; Kneen 1995). Taking into consideration the Baltic countries' specificities in the Soviet system, in the second chapter we demonstrate in what manner the "past" played a role in the immediate post-independence research funding policy construction, i.e. tensions between different actors in the national scientific fields. We show that pre-independence specificities of national scientific fields had a major role in the determination of the distinctive characteristics of post-independence research funding policy institutional settings and practices (**Chapter 2**).

As the empirical research of this thesis was mostly conducted on the post-independence period, the first chapter relies considerably on a detailed examination of existing literature on science development in the Baltic region. Due to the small amount of literature on the topic, we have complemented these sources with interviews with individuals from all three groups outlined in the general introduction of the thesis. Hence, these interviews are used more as a source of information and they are not systematically linked to the trajectories of individuals for analysing the practices of social groups as it is done elsewhere in this thesis. Empirical data for the second chapter derives mainly from the interviews conducted at policy-making organisations and institutions, and science intermediary organisations. Interviews are challenged and complemented with our databases on the organisational memberships of some research policy-related institutions and the formal organisational development of research institutions' research funding policy in the three countries between 1988 and 2017. To facilitate the reading of this part, as well as Part 2, we have summarised the formal public research funding changes in the table found in Annex to this thesis.

## Chapter 1. THE BALTICS IN SOVIET SCIENCE: WINDOWS TO THE WEST?

The Soviet science system is usually described as one of the purest examples of planned and controlled science systems. If in the US, research funding was in the hands of foundations, universities, science-based industry and the state had only a minor role (Kleinman 1995), in the Soviet Union, all research funding was under the control of the CP. Soviet scientists are normally seen as highly detached from the global networks of collaboration, travels, and interpersonal communication (see a more detailed description of the system further below) (Schott 1992). It comes as no surprise that the Baltic SSH disciplines - which developed in the late nineteenth century and particularly after the Second World War - were thus highly influenced by their geopolitical location. Similarly to other scientific disciplines, Soviet scientific cooperation in SSH with Western institutes beyond the epistemological dimension is often depicted as limited to minor formal cooperation (Mespoulet 2007; Weinberg 2004; Bafail 1991). For example, the role of sociology in the framework of general communist political order is described by M. Mespoulet as follows: “The figure of the sociologist (...) is that of a social engineer in charge of analysing and forecasting useful information for the planned economy and society that aims for the realization of the good for the whole population. This social role of the sociologist refers to the very conception of a socialist regime. The latter relies on the collective ownership of the means of production and its leaders can directly influence the development of the economy and society through planning (...)” (Mespoulet 2007, 5). The position of the discipline, in this approach, is foremost analysed through the formal political aspiration of the Soviet state.

Instead of emphasising the homogeneity of Soviet science, in this first chapter we focus on the specificities of Baltic states in the Soviet system by analysing these countries' science communities from “below” – taking into account their practices. For example, some more recent studies have demonstrated that reasoning via “state systems” is not sufficient for understanding Cold War scientific cooperation. These works have emphasised the role of some other actors, collectives, individuals, or structures that also contributed to scientific internationalisation during the Cold War (Boulland, Gouarné 2015; Faure, Kott 2011; Autio-Sarasma, Miklóssy 2011). These may be, for example, private foundations or international scientific associations. Following these works and in line with the approach of this thesis, this chapter provides an analysis of Baltic specificity in the Soviet scientific field and notably the

impact of internationalisation on the local scientific communities. It means that besides considering the traditional or classical dimension of international relations in science policy-making, we seek to also highlight some “less visible” transnational dimensions in Cold War science relations (Defrance, Kwaschik 2016) and elements that locally influenced these relations. We are also interested in Baltic science communities’ positions in the Soviet industrial system and their liaison to political powers. Thereby, following the definition of the “scientific field” (Kleinman 1995, 16-17), we must be attentive to the role of the AS Institutes, universities, science-based industry and the state. These spheres can be viewed as distinct, with independent logics and actors with specific collective projects.

The aim here is not to give a “full overview” of the pre-independence period of science development in the Baltics. This task would demand research on its own. Our analysis is limited to the existing (limited) literature on the topic and information collected via our interviews. By confronting our information on the development of SSH, and notably sociology to other broader scientific areas (such as the natural and exact sciences), the aim here is to roughly underline certain country-specific characteristics of pre-independence scientific fields. In short, we show that although the Soviet era SSH science organisation system was centralised and formally isolated from the western sciences (1.1), scientific cooperation between the two “blocs” still existed. Factors such as political control over science disciplines, the integration of science and industry and other factors such as geographical closeness and cultural links to other countries are essential for understanding the variations in the possibilities for western collaboration for Baltic scientists (1.2). The system was only formally “opened up” after the collapse of the Soviet Union and the restoration of independence (1.3). Although our materials mostly concern the late Soviet period, for contextual purposes we also offer some insights into the first period of independence at the beginning of the 20<sup>th</sup> century.

### 1.1. The Baltics’ SSH funding systems under the “Soviet model”: centralisation and political control

The Soviet academic research "model" is described as highly centralised, with the AS and its institutes in the centre of its system. Also, the organisational structure of science and technology, financing systems, internal structure of research institutions, as well as procedures and academic degrees were uniform within the Soviet Union republics (1.1.1). Due to the Baltic region’s long-reaching academic traditions, this model was integrated into pre-existing research and HE structures. Indeed, during the interwar period, the Baltic countries’ academic systems

had developed around national universities and scientific associations (1.1.2). It was with Soviet occupation that SSH research was further institutionalised (1.1.3).

#### 1.1.1. Centralised academic regulation of SSH disciplines in the “Soviet model”

Following the socialist vision on economic planning, and in opposition to the more decentralised Western structures that favour competition between different industries and institutes, the Soviet academic science model is characterised as more centralised and with a stronger state role in scientific policies. Elements such as the accumulation of research activity within research institutes, the centrality of the AS, granting universities only the function of teaching, and implying political control over these institutions via different bodies can be considered as main elements of this system.

Organisationally, the particularity of the Soviet science and technology sector was its heavy reliance on scientific research institutes – a model inspired by the German example<sup>30</sup>. By the end of the Soviet era, there were several thousand research institutes in the whole Union and the majority of them were under the jurisdiction of industrial ministries. These institutes - commonly called “branch institutes” - were usually funded in the framework of state programs and military programs by all-Union or republican ministries - up to half of the total R&D input in the Soviet Union emanated from the latter as well as from military contracts (Kristapsons *et al.* 2003, 89; Etzkowitz 1996). However, the most prestigious institutes were under the AS. The number of these institutes in the academy system, including the republic academies, reached around six hundred (Graham 1993, 174) and since the reform of the 1960s<sup>31</sup> they were mostly concentrated on fundamental research.

Indeed, the AS was a central academic research institution in the Soviet model. Contrary to many western countries such as the UK, where the Academies had the independent role of a learned society, in the Soviet model the AS embodied different functions, often seen as overlapping and confusing by Western countries’ science administrations (Balazs 1995; Simeonova 1995, 757). It had the role of the traditional learned society of all Soviet

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<sup>30</sup> Although several different references were used (e.g. France), the German scientific structure was the major example in the development of the Soviet scientific structure (see more in: Graham 1993, 173-190).

<sup>31</sup> In the first half of the 1960s, the Soviet system of science underwent several reforms. Importantly, about half of the Academy institutes that were involved in industrial research were removed from the AS structure and assigned to industrial ministries. Also, the Academy started to become involved in technologies, but not old ones like coal and steel but new ones in biology, computers, automation, space and defence (Graham 1993, 184).

academicians, and at the same time was responsible for science policy-making and coordinating basic research throughout the country. It was therefore referred to as a de facto research Ministry. It was facilitating the publication of scholarly works in accordance with official ideology but was not autonomous in granting scientific degrees as it was directly supervised by the body under the USSR Council of Ministers - Higher Attestation Commission (VAK) (Box 4). Finally, the AS was also responsible for research funding allocations to its subordinate research institutes. Thereby, individual researchers within the institute were not free to apply for funds from outside organisations. Instead, each institute received a budget every year that would then be split up among the various departments of the institute. Occasionally, contracts between the AS institutes and various other government organisations could be concluded under the control of institute directors but institutes were prohibited from deriving more than a quarter of their budget from industrial contracts (Graham 1993).

#### **Box 4 Politically supervised Soviet scientific degree system**

The Soviet scientific degree system consisted of two degrees: candidate and doctoral degrees. After five years of diploma studies, students could apply for postgraduate or “aspirantura” training for a candidate degree. Aspirantura lasted for three to four years after university, during which period aspirants had to follow courses under the direction of the research director. The topic of their research was assigned by the Scientific Council of the institute. The aspirant was paid and had to prepare a thesis – a dissertation after which they received the title of “Candidate of Sciences”. After earning their candidate degree, one could continue research to earn the “Doctor of Sciences” degree – this was the highest degree in the Soviet system and the most difficult one to attain. Aspirants had to publish at least two articles on the research topic to defend their candidate degree. For a doctoral thesis the expectation was about 30 articles (Mongili 1998, 41-52). Scientific degrees were defended in front of the Scientific Council of the AS institute which had to be habilitated for this task by the VAK. The VAK was central in the Soviet degree system. It oversaw and controlled the awarding of the advanced degrees of Candidate of Sciences and Doctor of Sciences, and academic rank of Professor in all of the USSR.

At the same time, contrary to many other Western countries such as the US or England, research activity in universities was downsized. Indeed, the Soviet model preferred that universities and technical institutes focus on HE activity and not on research (Graham 1993, 177). Some authors have argued that this avoided the consolidation of intellectuals at universities (a part of whom had no sympathy for Soviet power) and therefore their influence on youth. Instead, universities were converted into mass institutions where the “spirit of socialism” was carefully observed while maintaining the advanced research institutes on a separate level (Rüegg 2011, Graham 1993, 177). Also, as universities did not include specific

courses in history, philosophy, the sociology of sciences or for sociology, degrees in these areas had to be pursued within AS institutes.

Finally, above all research and HE relevant institutions there were at least three controlling bodies and structures for supervising the sector. First, the State Planning Commission of the Council of Ministers (also known as “GOSPLAN”) determined the overall budget of each structure: HEIs, AS and its institutes and branch institutes. Second, the State Committee of Science and Technology (created after the reform of the 1960s), which was responsible organisation of the entire USSR’s science and technology policy<sup>32</sup>. However, according to the historian of science L.Graham, in practice the role of these two bodies were insignificant. Each structure – HEIs, AS and its institutes and branch institutes – controlled its work within assigned budgets and the State Committee for Science and Technology was concentrated more on the coordination of industrial research and obtaining foreign technology while the fundamental research remained mostly coordinated by the AS (Graham 1993, 180-182). Finally, there was also the Central Committee of the CP (executive leadership of the CP of the Soviet Union) whose science and education department and propaganda departments were tied to the political supervision of research and HE.

With the AS in the centre of the Soviet academic model, research activity was embedded into the complex system of institutions and structures whose aim was not only to facilitate research, but also to politically supervise it. However, to understand what form the Soviet institutional model took in the Baltics, we would have to consider the long academic history of these three countries.

#### 1.1.2. Universities and scientific associations at the heart of the Baltics’ academic systems before Soviet occupation

Academic traditions in the Baltic region reach back to the 16<sup>th</sup> century. HEIs that were established since this period progressively developed in the territories of all three countries.

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<sup>32</sup> The emergence of the organisational form of advisory councils was a wider phenomenon in the 1960s. At that time, a bulk of countries such as the US, France, Belgium, West Germany, Sweden, Netherlands and Canada saw the creation of high-level councils of scientists to advise governments on their rapidly expanding responsibilities in science and technology. The Soviet State Committee for Science and Technology (the body incorporated specific councils attached to the Soviet Republic’s Council of Ministers) resembled these organisations by its function. Yet while in the West these science policy advisory councils were composed entirely or partly of non-governmental practising scientists (Rip 1997), in the USSR, they were controlled by the CP.

After the First World War they became central institutions in the national academic systems, all by standing out in different scientific areas.

Corresponding to regional power struggles (**Box 5**), Baltic countries' early academic fields were shaped by a variety of political powers. The first regional university, Vilnius University, was a leading intellectual institution in Eastern Europe at the time - particularly in the field of medicine and exact sciences but also in philosophy, theology and law. Founded in 1579 under the Polish-Lithuanian Commonwealth, then closed down by Russian authorities in 1832, it was reopened in 1919 in Poland, and Vilnius in 1940. Tartu University was established under the Swedish King in 1632. It functioned as a Swedish university until 1710, and was reopened in 1802. Tartu cooperated closely with the St. Petersburg AS and became a recognised academic centre in the Russian Empire, particularly in the fields of natural sciences and medicine. The nowadays Latvian territory, which had mostly developed as a trading centre (now its modern capital Riga), saw the creation of a polytechnic. The Riga Polytechnic, established in 1862, was the first polytechnic institute in Imperial Russia and became quickly one of the most prominent centres for the training of qualified engineers and chemists (Kristapsons *et al.* 2003, 8-14). In this way, until World War I, the Baltic region and its academic institutions played an important intermediary role between the Eastern and Western academic spheres.

#### **Box 5 Baltics territories in the centre of regional power-struggles**

The geographical location of Baltic countries has throughout history attracted the interest of its neighbours - either for securing trading activity between north and south, east and west, or for military reasons. Consequently, the region has been influenced by different rulers. For a short historical overview, the Lithuanian state's political history is often recognised as starting in the 13th century when the Catholic Grand Duchy of Lithuania, later the Polish-Lithuanian Commonwealth, was one of the strongest forces in the region. At the same time, what is currently Latvian and Estonian territories, called Livonia, were ruled by local Baltic Germans, and regularly conquered by the Polish-Lithuanian Commonwealth, or Swedish or Danish rulers. During the 18th century, the Baltic region (today's Estonia, Latvia and Lithuania) was integrated into the Russian Empire. However, the economic supremacy remained in the hands of the foreign elite such as the Baltic Germans in Estonia and Latvia, and the Polish landlords in Lithuania. In the early 20th century, Estonia, Latvia and Lithuania regained their national independence (except for the Vilnius region in Lithuania, which was merged with Poland). Later on, all of them were incorporated into the Soviet Union before the Second World War until the time where they regained independence. Hence, while Latvia and Estonia are generally considered to be "young" countries, Lithuania stands out with its national history reaching back to the Middle Ages.

World War I and declarations of independence in 1918 in three countries also modified the role of the academy in the region. During the first period of independence of the Baltics, the Vilnius region was united with Polish territory and the Vilnius University was reopened as a Polish University. Instead, the University of Lithuania (renamed in 1930 as Vytautas Magnus University) was established in the new capital - Kaunas. In Latvia, Riga Polytechnic was transformed into a more classical university and was renamed the University of Latvia. In Estonia, Tartu University became the most prominent university in the country. In parallel, more specialized HEIs in arts, music, sports, theology, agriculture - but also in technology - were established in each country. It has been stated that during this period, the role of science was to help find identity, to secure the state, and to raise national self-consciousness (Leppik 2008). Broader fields of science fostered before 1918 in Tartu and Riga were abandoned (Kristapsons *et al.* 2003, 16). The priority was instead to develop technical sciences that focussed on local and nationally relevant topics such as local nature and natural resources on the one hand. On the other were the so-called 'national sciences': language, history folklore, archaeology, and ethnology and literary studies. The latter group of subjects was of prime concern for nationalist intellectuals, and was also given high priority at universities in other successor states of Eastern and Central Europe that emerged after World War I (Bolin 2012, 183-258). These disciplines belonged to the national universities' faculties of Philology and Philosophy but also extensively dealt with related associations and organisations. Also, as the state-funded science and educational institutions did not cover science questions, generic and specialised learned societies played an important role in bringing scholars together to implement their ideas, coordinate, and solve all issues related to science development in all three countries (Leppik 2008; Juzefovicius 2007).

In the context of this thesis, it is particularly important to underline two specific characteristics of Baltic science development in the interwar period. The first is the Lithuanian specificity in the area of social sciences. Although Vilnius was occupied by the Polish, the region saw the establishment of the Institute of Eastern European Research and School of Political Science<sup>33</sup>. At the same time, Vytautas Magnus University (Kaunas) scholars were active in different philosophical disciplines. For example, more than 100 publications in the period 1920-40 were published, mainly by these scholars, in the field of political theory in Lithuania (Krupavičius 2002, 286-287). Vytautas Magnus University scholars were also active

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<sup>33</sup> After the Soviet occupation in 1940, the institute of Eastern European Research was dissolved. (Krupavičius 2002, 286-287). We have no further information about the fate of the School of Political Science.

in the area of philosophy of culture. Even a specific department - the Department of the Philosophy of Culture - was established at Vytautas Magnus University. In contrast, only a small amount of literature is available on the topic in Estonia and Latvia<sup>34</sup>. It seems that then these countries' intellectual elites were more interested in national identity (language, culture, literature) related areas. On the other hand, inspired by Continental European philosophy, the Lithuanian intellectual elite and their works had already formed a strong social sciences school of thought in Lithuanian universities during the first period of independence (Donskis 2002, 180)<sup>35</sup>.

The second specificity relates to Estonian science development. Estonia was the only country that had seen the establishment of the AS as a learned society type of institution by the interwar period. According to Estonian historians, the project of the Academy was undertaken by natural and exact scientists (the idea was first launched at a mathematicians' congress in 1917) and considered important as a representative organisation at the International Research Council, and for protecting the autonomous science development at Tartu University (Kalling, Tammiksaar 2008, 25-38). However, the final project was established by the state under the authoritarian president in 1938 to reinforce the subordination of scientific activity to the state authority (the Academy was disbanded in 1940 with Soviet occupation). Although we have little information about whether AS was conceptualised in other Baltic states<sup>36</sup>, the attempt to establish the institution seems to demonstrate stronger exact and natural science communities in Estonia, and their willingness to link their community with international institutions. In that way, in Latvia and Lithuania, scientific activity was more dispersed between scientific associations and it was less concentrated around the largest universities than was the case with

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<sup>34</sup> For example: during our research we did not find any English or Estonian language texts about the development of philosophy during the interwar period in Estonia or Latvia.

<sup>35</sup> For context: according to L.Donskis (2002), modern Lithuanian philosophy originated as a response to the questions formulated in Russian philosophy. Later "it turned to Continental European philosophy, preoccupying itself with German and French existentialism, hermeneutics, and phenomenology. In inter-war Lithuania, the philosophy of culture may well be said to have become the principal philosophical discipline. At that time, the philosophy of culture, as a discipline, was fading away in Western Europe giving way to the intrusion of the social sciences in the theory of culture and Kulturkritik" (*Ibid.*).

<sup>36</sup> Although the conditions of emergence of the national Academies were similar in Latvia and Lithuania (all three countries were members of the League of Nations from 1921, which allowed them to join the International Research Council, and all three countries developed authoritarian systems) the national Academies were not established in these countries. According to L.Leppik, in Latvia, the Academy role was fulfilled by the Riga Latvian Society which stood for the development of national sciences (Leppik 2008, 356-657). A similar role was fulfilled by the Kaunas branch of the Lithuanian Society of Science, which contributed to the organisation of science and education in an independent country.

the Estonian Tartu University. In that way, the Baltic academic field had already developed distinctive characteristics before the Soviet occupation during the Second World War.

### 1.1.3. The institutionalisation of SSH

The Second World War had a profound impact on Baltic science. With the Soviet and German occupations, the number of Baltic scientists decreased substantially<sup>37</sup>. In this context, right after Soviet occupation, the Soviet power imposed its model of organisation and coordination onto research and education institution activities in all Baltic territories.

One of the first actions was the establishment of the National Academies in each Soviet Republics<sup>38</sup>. The Soviet AS of Lithuania was founded in 1941, Latvia in 1945 and Estonia in 1946. Together with the central Academies, the system prescribed the establishment of research institutes. While the number of research institutes was in constant flux during Soviet times, the best comparative account of these bodies can be seen based on the years 1989 and 1990. By that time, each country was left with around 17 academy institutes and other research institutes. More precisely, in Lithuania there were 17 AS institutes and 62 other institutes (namely 30 “state research institutes” and 32 “business sector and other institutes” (Kristapsons *et al.* 2003, 43). In 1990, the Lithuanian AS had a staff of over 5600 employees, including 2000 scientists engaged in research (LitAS webpage 2020). In Latvia, according to different sources, there were 16-17 AS institutes (Kristapsons, Millers 1995, 70; Kristapsons *et al.* 2003, 43) and around 20 other institutes (18 “state research institutes” and 2 “research institutions at universities”) (Kristapsons *et al.* 2003, 43)<sup>39</sup>. In Estonia, in 1990 there were 17 AS research institutes and 21 other institutes (“business and other types of institutes”). Hence, besides the Academy research

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<sup>37</sup> War, emigration and deportation reduced the number of Baltic intellectuals. According to J.Kristapsons and colleagues (2003, 15) about 9% of researchers left Estonia for Germany between 1939-1940; another 20% emigrated to other countries, and a further 22% were deported to Siberia, killed for political reasons, lost in the war, or imprisoned. In 1945 only 28% (or 393 individuals) of all researchers in 1936-1940 had survived. It is not known if the number of researchers indicates the total number of researchers in Estonia. Another wave of purges took place in the beginning of the 1950s when more than 100 researchers in the Estonian Soviet Socialist Republics Academy of Sciences were called for dismissal. According to authors, similar burges took place also in Latvia and Lithuania.

<sup>38</sup> The more active establishment of academies began during the 1940s in the Soviet Union. Academies were established in Georgia and Kyrgyzstan (1941), Armenia and Uzbekistan (1943) and Azerbaijan (1945). It is explained by J.Stalin’s temporary support to the rise of nationality among the peoples of the USSR in order to gain more support from them in the fight against Germany (Kalling, Tammiksaar 2008,17).

<sup>39</sup> In contrast with other authors, A. Adamsone-Fiskovika and colleagues (2011, 228) summarize that in 1990 there were 33 specialised research institutes working in isolation from the HEIs.

institutes, there were also institutes noted as “state research institutes” and “business and another type of institutes”<sup>40</sup>.

These developments gave a further push to the institutionalisation of SSH disciplines. This was the case for those disciplines that could no longer evolve in liberal scientific associations. For example, specialised institutes of language and literature were established based on existing associations. In other cases, current university research was transferred to research institutes. For instance, the discipline of economics that had previously developed at Baltic universities during the interwar period, was more broadly institutionalised during the Soviet period with the establishment of AS Institutes of Economy, departments in Agricultural Academies in Latvia and Estonia, and at the state research institutes (Institute of Economic Planning and research) in Lithuania (Püss 2002; Čekanavičius 2002, Karnite 2002). Yet some other disciplines which appeared later in the Soviet academic space first evolved within universities. Such is the case of political science, which appeared from the mid-1980s (Runcis 2002; Krupavičius 2002; Vetik 2002), and sociology, which only developed under this name from the 1960s - first at universities and then within institutes. All in all, out of the 17 AS research institutes, at the end of the 1980s, SSH institutes made up around 5 or 6 institutes in all countries: Institutes of Economy, Institutes of History, Institutes of Agricultural Economics, Institutes of Pedagogy and Institutes of Language and Literature. There was also a separate Institute of Philosophy, Sociology and Law (in Lithuania and Estonia) and Institute of Philosophy and Law in Latvia<sup>41</sup>.

At the same time, the role of the HEIs in the development of SSH disciplines was ambiguous. On the one hand, their official role became marginal in research. They were mostly concentrated on engineering, mathematics and other technical studies, but also agriculture, medicine and military studies. Specialised institutions were devoted to arts and music, and pedagogy. Thereby, besides CP higher schools that provided political formation (we do not know their number in the Baltics), professionalised HEIs in social sciences were missing. In

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<sup>40</sup> Although the sources do not explain the differences between these types of institutes, taking into consideration the Soviet system of research institutes, there is a good reason to believe that these “other” institutes refer to branch institutes (attached to the sectoral ministries). They might include specialised design institutes, closed organisations conducting secret projects, and pilot plants or libraries as research institutes systems comprised a plurality of organisational bodies which were often named as “institutes”.

<sup>41</sup> However, due to the lack of specific overviews about research institutes in English, the list might not be complete for Latvia and Lithuania.

total, in the late 1980s, we count from 7 to 10 state HEIs in each Baltic state<sup>42</sup>. At the same time, social scientists were part of national state universities' staff because all university and HEI students had to pass extensive courses of Marxism-Leninism regardless of their area of study<sup>43</sup>. National universities also offered diploma studies in different areas such as scientific communism. As is noted above, some social science-specific research groups could also develop at universities. While we have no overview of university research structures, the example of sociology is compelling. With the permission of all-Union authorities, the sociological research groups were opened at both universities and institutes, but due to the differences in their research funding, they could also undertake different kinds of research projects (**Box 6**). Thereby, before the 1980s, the research structures for sociology were often called "sociological" research institutes or laboratories. "Sociology" as a discipline was officially registered on the official list of Soviet academic disciplines only in 1988 (Batygin, Deviatko 1994). The official registration granted the right to deliver sociology candidate degrees. Before that, the official diploma in this field was called "scientific communism" or "philosophy with a speciality in applied sociological studies"<sup>44</sup>. National universities could therefore be used as a framework for instituting new disciplines.

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<sup>42</sup> More precisely, in Lithuania there were at least 11 HEIs, including the following SSH specific institutes: Vilnius State University, Music Academy of Lithuania, Vilnius Academy of Arts, Vilnius Pedagogical Institute and Siuliai Pedagogical Institute. At the same time in Latvia there were 11 HEIs including: the State University of Latvia, Teodors Zaļkalns National Academy of Arts, J.Vītols Latvian Conservatory, Daugavpils Pedagogical Institute, Riga Pedagogical School and Liepāja pedagogical Institute. In Estonia there were 7 national HEIs including: Tartu State University, National Arts Institute, National Conservatorium of Tallinn and Tallinn Pedagogical Institute.

<sup>43</sup> Marxism-Leninism was divided into four sub-areas: philosophy (Dialectical and Historical Materialism), political economy (capitalist and socialist), history of the CP of the Soviet Union, and scientific communism. According to R.Vetik (2002, 247) about 150 to 200 people taught at the Marxism-Leninism departments of Estonian universities in the 1980s.

<sup>44</sup> Sociology research groups were established at technical universities and the country's largest factories and media institutions. We have little information about these research groups. For example, in 1966, the Sociological Research Laboratory was opened at Kaunas Polytechnic Institute in Lithuania, Tallinn Laboratory of Urban Research was founded in Estonia in 1975. There was also a research group at Riga Polytechnic Institute. As these structures had no significant role in the post-soviet sociology research development, these bodies are not in the centre of the analysis of this thesis.

## Box 6 Baltic sociology development as a unique case?

The first official sociological research groups in the Baltics emerged mostly from within universities, and not from within Academy institutes. To give a brief overview: in 1965 the Sociology Research Laboratory was opened at Vilnius University. In 1966, a Department of Applied Sociology was opened at Latvian State University (together with the Laboratory). In 1967, the Sociology Laboratory was established at Tartu State University. This was closed down in 1975, and instead, five laboratories were developed at Tartu State University focusing on communist education, deviance sociology, family studies, HE research, and artificial intelligence research. Only the first three of these laboratories were directly linked to academic sociology research, and the most well-known of these was the Communist Education Laboratory (later renamed the Educational Sociology Laboratory), which was established in 1969 by Estonian sociologists Tiit Kask<sup>45</sup>. These five research directions were formally united into the Sociology Department in 1984.

Sociology units were also established in the AS institutes. The Sociology and Law Sector at the Institute of Economics in Lithuania was established between 1964 and 1966. The sector developed into the Department of Philosophy, Law and Sociology at the Institute of History in 1969, and into the Institute of Philosophy, Sociology and Law in 1977 (Vosyliūtė 2002). In Estonia, the Communist Education Laboratory's work was "extended" from Tartu to Tallinn under the AS Institute of History (Opermann, Vihalemm 2017). In this Institute, together with the other two sectors of research (youth sociology and social structure), it developed into the Department of Sociology in 1975. In 1989 a new institute was formed: the Philosophy, Sociology and Law Institute of the AS. In Latvia, the first Department of Sociology was established within the Institute of History, Latvian AS, in 1977. In 1981 the Institute of Philosophy and Law was established and the department of sociology was transferred into this new Institute. The Institute of Philosophy and Law was renamed the Institute of Philosophy and Sociology in 1991. However, research groups between the universities and research institutes were not static. Due to the small size of the countries, staff members could undertake their activities in parallel in different research groups.

Yet there were some differences in research funding. Academy institutes received their principal resources from the national AS<sup>46</sup> and some extra funding was received through surveys or projects for the Moscow AS<sup>47</sup>. While contractual work did not exclude developing projects on the command of the Party in specific policy areas, one of the most important sources of funding for university research groups was research conducted for the Soviet state enterprises<sup>48</sup>. As the budgets of these enterprises could not be used for salaries, they could use these extra resources to solve various practical problems in the working environment. For example, the Cathedra of Applied Sociology research at Latvian State University was mostly funded by annual contractual work. Sociological research was ordered by Riga factories such as Riga Milk Factory, Dzintars (cosmetics), Aurora (manufacturers of hosiery and socks) but also from Russian factories<sup>49</sup>. Similarly, the Tartu State University Sociology Laboratory in Estonia worked on social/mass communication, working and production environments, life, family and home issues or consumer research (Töner 2015, 225, 227) and developed into a self-sufficient research unit within a couple of years before its closure by the CP (Lauristin 2010, 88).

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<sup>45</sup> Pseudonyms are used throughout the thesis to protect the identities of all individuals.

<sup>46</sup> LIT23, LV29, EST44

<sup>47</sup> LV29

<sup>48</sup> EST38 ; EST47

<sup>49</sup> Research groups carried out evaluations about the role of different positions at these enterprises and their characteristics, but also surveys amongst factory workers and their working conditions. LV22

Finally, the establishment of national Academies and the research institutes network was followed by their sovietisation - mostly through politicisation and replacement of staff members, and the subordination of its structures to the USSR AS in Moscow. The latter was realised through central pacification and coordination of Republics' Academies research work. The number of the members, the appointment of the members of praesidium's, directors of institutes and approbation of candidates of academicians and corresponding members had to be approved by Moscow. The top-level positions such as the praesidium members and directors of institutes were listed in the official list of nomenclature, allowing access to rare social and economic benefits (better apartments, possibilities for travelling or access to shops and medical services available only to the members of nomenclature). The ties between Moscow and the Republics were loosened only in the second half of the 1980s, when the general management (such as pacification of research and appointment of the directors of research institutes) was granted solely to the national level of the Republican Council of Ministers (Kalling, Tammiksaar 2008, 17, 152, 183).

Although our sources of information on SSH development under Soviet rule are limited, there is good reason to believe that the formal boundaries between research institutes and HEIs as they were conceived by Soviet powers were not so strictly followed at the local level. Universities that had evolved and become guardians of national academia during the first period of independence, seemed to keep, at least to extent that we could observe in sociology, their innovative positions during the occupational period. However, this analysis of the national science institutional layouts is not very telling in itself. For a better understanding of the Baltic specificities in the Soviet scientific field, we proceed with an analysis of the position of Baltic science in Soviet science and western cooperation practices.

## 1.2. Heterogeneous opportunities and practices in East-West cooperation

As it was elsewhere in the Soviet Union, Baltic SSH was less open to Western contacts than exact and natural sciences but benefitted from their closer cultural and geographical ties with neighbouring countries (1.2.1). Moreover, there were important cross-national differences in terms of Western cooperation that were relevant to local science industry orientation and CP politics in the science sector (1.2.2). Thereby, while cooperation subordinated scientists into political logic, these opportunities were also seized to gain autonomy in scientific activity (1.2.3).

### 1.2.1. Disciplinary differences

To start with, it is important to underline that the Baltic countries (contrary to Moldova, for example (Rosca 2019)) were generally considered as attractive territories in the Soviet Union. But Eastern-Western cooperation from the Baltics' perspective (henceforth "Eastern" will refer to all other Soviet Regions besides the Baltics) was not similar in all disciplinary areas. While natural and exact sciences, and SSH disciplinary areas, enjoyed greater openness through specific cooperation programmes, cooperation in SSH was foremostly based on local initiatives.

#### *Exact and natural sciences as one of the centres of cooperation*

Local Baltic scientific historiography has concentrated on the specificity of the region inside the Soviet Union (Martinson 2015; Kristapsons *et al.* 2003). Several factors contribute to this.

It is argued that the Baltic region was less isolated from the West than other regions of the USSR. Indeed, Soviet science in general was not developing in autarchy. While several factors played a role in whether a researcher was given the right to travel to a foreign country or not (**Box 7**), the Soviet Union had finalised several bilateral scientific-technical cooperation agreements with, among others: West Germany, France, Italy, Japan, the UK, Austria, and Finland (Autio-Sarasmo 2018; 2011; Gouarné 2016). Fundamental scientists could travel more under these agreements than applied scientists, because the latter had accumulated knowledge about the specificities of the military industry. The most critical of these programmes also concerned natural and exact sciences. For example, the US National Academy of Sciences and the USSR AS organised inter-Academy workshops on frontier topics in mathematics, physics earth sciences and life sciences. Intergovernmental cooperation agreements were established in various areas such as science and technology, health, agriculture, space, energy, and environment (Schweitzer 2004, 1-29; Sher 2004; Graham 1992, 60-63). Overviews of Baltic science development have noted that scientists in this region were actively using the mobility grants provided by the US, German and Scandinavian scientific institutions and that international cooperation programmes between the USSR and Western countries' governments also enabled researchers to travel (Kristapsons *et al.* 2003).

## Box 7 Limited access to foreign countries

Several factors played a role in whether a researcher was given the right to travel to a foreign country or not. All contacts and cooperation with foreign institutions had to be accorded by the USSR AS. Any request for a mission abroad followed a long examination process which began at the level of the research Institute, or at university level, from whence it was sent to Republican level Central Committee of the CP specific commission. Finally, the applicant was called out to the regional Central Committee of the CP commission (in Minsk) where the applicant had to explain their motivation. Moreover, the main security agency for the Soviet Union – the Committee for State Security (**KGB**) - exercised systematic control throughout this decision-making process. However, several obstacles regularly made it impossible to obtain a permit for travelling to other countries. These obstacles could be linked to one's family, such as having Jewish origins, or having family ties abroad through marriage. The question of marital status was particularly applied to women, who were seen as more inclined to remain in the foreign country, and this disproportionately impacted some social sciences such as sociology, where women were predominant. There were also political obstacles. Researchers or their family members who were known to be politically dissident through their discourse or other activities were not allowed to leave the Soviet Union. Additionally, if a researcher with a "clean" background wished to travel they were encouraged join the KGB to both assure their reliability to the CP, and to provide supplementary information from foreign countries<sup>50</sup>.

Due to the Baltics' geographical position, contacts were often established with the Soviet "satellite" research institutes. These included institutes in East Germany, Czechoslovakia, or Poland that were considered more open to Western science than other areas of the USSR, as expressed by one of the former heads of the Latvian AS institute<sup>51</sup>.

"We were very willing to have some contacts with foreign scientists and one way was to use cooperation agreements between universities of socialist countries. And it was more developed East Germany, and our university had agreements with Check Karl University, with Rostock University with Jena university, and there were agreements to go to work, either during the summertime or for two years...and, um...these universities were in the middle, there were also western scientists. So, this is in general how we struggled in an international context. We were able to keep the level of investigation in our institute at the world level"<sup>52</sup>.

Cooperation with these countries was an important resource for developing local (Baltic) science, evidence that is also expressed by other Baltic exact and natural scientists<sup>53</sup>. By the end of the 1980s some Baltic research areas were particularly well-known, not only in the Soviet Union, but also worldwide (*Ibid.*, 18). These were mathematics, solid state physics, laser physics, astronomy, chemical physics, organic chemistry, electrochemistry,

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<sup>50</sup> EST56, LIT14, LV14, EST41

<sup>51</sup> LV31

<sup>52</sup> LV31

<sup>53</sup> EST56, LIT14

biotechnology, and molecular biology. More precisely, Estonia had traditions in physics and electronics. Latvia was well-known for its research in chemistry, and the Institute of Organic Synthesis in Latvia was one of the major research institutes of the Soviet pharmacological complex. In Lithuania, a strong semiconductor research school emerged, and biochemistry and biophysics research were at a high level<sup>54</sup>. Researchers started to publish in international journals in the 1960s and it was one of the few regions in the USSR that sold licenses for research products. The Baltics also hosted international and all-Union scientific events, with some being attended by members of Western Academies (*Ibid.*, 19).

Besides their level of scientific research, the Baltic region was known in the Soviet Union to feature comparatively higher living standards than other union republics (see this topic in Puur *et al.* 2019; Risch 2015). Consequently, they received a major influx of R&D personnel from other Soviet republics. As identified by J.Kristapsons: “The most eminent Russian intellectuals were concentrated in Moscow and Leningrad [now St. Petersburg]. As these centres were not always open for specialists from other parts of the Soviet Union, they flooded into the Baltic countries at the height of industrial development. A large portion of the urban technical specialists of today has a non-local origin. During the communist era, the high prestige and standards of living in the Baltic region (especially in Latvia and Estonia, considered the most Western in the USSR) were instrumental in attracting researchers and engineers from other regions of the Soviet Union” (Kristapsons *et al.* 2003, 16).

#### *Smaller, locally initiated cooperation in SSH*

While Baltic SSH researchers could attend at the international scientific associations’ congresses (Titma 2002) all other cooperation programmes between the USSR and Western countries remained beyond their reach. This was for at least two reasons. Firstly, the Soviet Union was less interested in cooperation in the SSH field than in natural and exact sciences, and these programmes were simply less available. Natural and exact sciences were considered more beneficial by Soviet leaders, and as scientists in these areas were seen to be on more

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<sup>54</sup> According to research evaluation conducted by the Research Council of Norway in the early 1990s, these fields (both at institute and university level) had been “integrated to the international system of basic research” by “cooperating with research institutions in other countries” and “publishing in international journals”. The evaluation identifies other areas of research which are of a “high international level” such as: Physics, Mathematics, Informatics, Biotechnology and some areas of medical sciences. Yet in these cases, the report does not explicitly measure the intensity of actual international cooperation. Contrary to the previously outlined scientific areas, the report indicates a lower international quality of SSH in the fields of Philosophy, Modern History, Political Science, Sociology, Languages and Literature, Economics and Law and Engineering Sciences (source: The Research Council of Norway 1996).

friendly terms with their regimes, engagement in these programmes was less risky (Mikkonen 2016; Zhuk 2013). In general, only a few programmes addressed longer-term scientific cooperation in SSH between Soviet and Western countries. These were undertaken primarily by US-based foundations and organisations, such as the Ford Foundation and the International Research and Exchanges Board (also known as “IREX”) (Kassof 1995; Zhuk 2013; Engerman 2009). Secondly, even if these programmes did undertake exchanges, participants were mostly chosen from scientific centres such as Moscow or Kyiv, or Eastern European countries such as Poland and Yugoslavia in the case of the Ford Foundation (Stensrud 2014; Zhuk 2013). The Baltic scientific community remained, therefore, out of the scope of most of these programmes.

Then again, due to their cultural ties and specific geographical position (**Box 8**), the Baltics had access to Western science through their homologues in neighbouring countries. For example, Finland’s close political ties with the Soviet Union allowed for the development of active scholarly connections between Finland and Estonia. As noted by S. Mikkonen (2016, 167), “many Estonians could speak and understand Finnish, making cooperation with Finnish scholars, few of whom spoke any Russian, easy. Furthermore, their proficiency in Finnish gave them access to Western scholarly trends. Finnish scholars provided them with research papers and publications that were often very difficult to come by in provincial Soviet cities”. A similar channel for the transmission of Western ideas was Poland. The Lithuanian intellectual elite who had strong cultural ties with Poland could use the Polish pathway to access Western literature and contacts. Even if, contrary to Finland, Poland was not considered by the local cultural elite as the “real” West (Risch 2015), it was still closer to Western science than the republics of the Soviet Union. For example, Polish sociologists had studied in the US and Western Europe during the 1950s and 1960s as Ford Foundation Fellows and had thus made an important contribution to Soviet sociology (Czernecki 2013). As they operated on the level of individuals and research groups, these contacts remained more “invisible” than contacts established within the AS networks.

## Box 8 Baltics as a Soviet-Western borderland

The geographical positions and cultural heritages of the three Baltics generated openness towards the Western world during the Soviet period. In general, for ethnic Russians and Russian speakers from other Soviet republics, the Baltic republics collectively were “our Soviet abroad.” This “Soviet abroad” had capital cities with Western architectural styles - impressive restaurants, coffee shops, and music - and more fashionably dressed women. It had attractive consumer products including alcohol, perfumes, and radios. Speaking Russian with a Baltic accent became chic among the intelligentsia (Smirnov 2003, 55– 57; Zubkova 2008, 3–5 as cited in Risch 2015, 75). Due to its geographical position, Estonians could particularly benefit from direct contact with the western world. In 1965, a ferry line between Tallinn and Helsinki was established, bringing about not only access to information but also to western products such as music and clothing. Besides that, in North-Estonia, Finnish TV and radio were consumed on a daily basis (Lauristin *et al.* 1997). Similarly, Lithuania would benefit from similar contacts through Poland. Vilnius had access to Polish TV due to its geographical proximity to the Polish border. By 1968, Polish TV was accessible to two-thirds of Soviet Lithuania’s population. Unlike Leningrad or Moscow, Polish tourists provided locals with black market goods. Thereby, “connections with Finland convinced Latvians that their northern neighbours were the closest thing to the “real” West”. (Risch 2015, 72-76). Despite the closed border between the Soviet Republics and Western countries, the Baltics benefitted from a certain openness that other regions, besides Western-Ukraine, could not experience in the Union.

In this context, ties with the scientific centres of the USSR, Moscow and Leningrad, could offer an important substitute to direct Western cooperation. Described as being more open to world science, these cities had libraries where it was possible to read published translations of Western textbooks and scientific journals. Contact with research institutes in these centres were highly valued by researchers in the branches of both exact and natural sciences, and SSH. Experiences in these centres could sometimes play a crucial role in developing their social networks: “in Russia” one could meet “a lot of like-minded academics, who were also sceptical about communist ideas and were not part of the political party” (source: MacTutor archive 2017). In SSH, access to these publications gave the possibility to learn and work on Western and classical economic and philosophical theories indirectly via criticism, and the explanations of the weaknesses of such theories in comparison to the strength of Marxist-Leninist theories (Vetik 2002, 247; Karnite 2002; Čekanavičius 2002)<sup>55</sup>. Then again, access to Western contacts and literature was not always the foremost objective of local scholars. For example, access to Western SSH literature required significant effort, but there were also barriers to understanding the Western theories because of language and unfamiliar conceptual frameworks. These issues were compounded by a lack of interest. As argued by L. Čekanavičius (2002, 122-123) during the Soviet period, “Lithuanian economists did not have to compete with Western colleagues to

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<sup>55</sup> LIT06

earn recognition, all the competition took place this side of the iron curtain. Therefore, one had no reason to feel inferior as an economist if one was ignorant of the advances of Western economic thought”.

Hence, while Baltic SSH scholars remained outside of the formal path of Soviet cooperation programmes, they could benefit from this cooperation “via” their neighbours or Russian scientific centres. However, Baltic scholars’ opportunities and practices in East-West cooperation were not only structured by their disciplinary fields.

#### 1.2.2. National-level disparities linked to industrial orientations and local CP policies

Differences in the Baltics’ positions in East-West cooperation were also relative to local science-industry orientation and CP politics in the science sector.

To begin with Estonia, international cooperation with Western countries was perceived as a “well-known possibility” even during Soviet times (Kalling, Tammiksaar 2008, 143). One of the former directors of the AS Institute of Physics (and former doctoral student of the Estonian AS President) describes his personal experience as follows:

“For the first time, I got out when I was around 30 or 40. My first trip was to Poland, it was tourism amongst young specialists. Then I was in France for three weeks. But why did I get out at all its because I was quite a kind of hotshot in science when I was young [laughing]. And then I entered the Party yes, I was young and stupid, that way I joined! I saw the whole institute was managed by drools so I just couldn't let it happen [...], so when I became director of the institute, I remember it was a big institute - more than 400 people. I remember in my office I had a drawer where I kept applications for those who wished to go abroad. So from time to time, I took some of them out, handed it over to the secretary who typed in the new date and you would never know if the application was accepted or not”<sup>56</sup>.

In his interview, he also identified that as the University was linked to HE and the Academy with research (and thus stronger control from Moscow), it was easier to “get out” if you were linked to the University and not the Academy<sup>57</sup>. More outstanding researchers could climb the career ladder, develop international contacts, and then make these contacts available to their colleagues. Joining the CP is described more as a “necessity” than a conviction for an academic career. As research cooperation was facilitated by Estonians in the higher instances,

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<sup>56</sup> EST59

<sup>57</sup> EST59

travelling was not just reserved for the scientific elite such as directors of departments and members of the praesidia of the AS. Travel was also permitted for outstanding scientists who were not the members of the CP, and who could present their research at foreign conferences or gain internships in foreign countries. Our further analysis of the Baltics gives good reason to believe that Estonia was unique in this aspect. Other sources show that Estonian researchers could also gain, with relative ease, access to financial supports allocated by universities, research councils, and their organisations in Scandinavian countries, Germany, the US, the UK and Japan, for conference trips and extended periods of scholarship and fellowships<sup>58</sup>. For example, according to our interviews, there were from 10 to 20 Estonian researchers who benefitted from the German Academic Exchange Scholarship programme (also called DAAD) at the end of the 1980s<sup>59</sup>. Most of them were researchers from natural sciences, and only a few from social sciences. According to Estonian AS history authors K. Kalling and E. Tammiksaar (2008, 170), since the 1970s Estonian AS institutes received 500 to 1000 scientists a year from foreign countries and around 100 to 200 Estonians visited foreign countries each year. However, most of these visits were for participating in scientific conferences. Also, as these authors do not define the notion of “foreign countries”, it might signify the USSR Republics, the Eastern European “satellites” or Western countries. It seems, therefore, that Estonian scientists could, due to their specialisation in fundamental research (as we saw above) and relative openness to the Estonian AS and universities in foreign relations, benefit from foreign cooperation relatively more than other Baltic regions.

The situation was somewhat different in Latvia where our interviewees insisted on the existence of more restrictions regarding foreign cooperation<sup>60</sup>. An interesting source of information about this Estonian-Latvian difference is two separate interviews with Latvian and Estonian researchers (and key actors in the first science reforms) who had discussed the topic with each other.

“In Estonia, they were more open, we have discussed it with Estonians. All of these Estonians [cites names] who were also the members of European Science Council... during Soviet times, they were abroad for longer periods. From Latvia,

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<sup>58</sup> EST05, EST56, EST36

<sup>59</sup> EST28, EST56, EST08. Also, in 1959, the representatives of the Federal Republic of Germany and the Soviet Union signed an agreement to promote cultural and technical-economic exchange. The first scholarship recipients from the Soviet Union arrived in Germany the following year. In 1994, counting the former East German programmes, the DAAD granted funding to 12,600 academics in CEE (8,861 foreigners and 3,371 Germans). The political transformation throughout Europe had caused the number of scholarship recipients in this region to quadruple compared to that of 1989 (source: DAAD webpage 2020).

<sup>60</sup> LV31

I don't know so many people for so long period. So it seems that regime was stronger here”<sup>61</sup>.

“We talked to Latvians and we were joking that as over there in Latvia the scientist's foreign relations were coordinated by an agent working for KGB foreign intelligence. He aimed to let out as little scientists as possible. So this is why we could travel more in Estonia. And this is why we could travel more even if we had not joined the Communist Party”<sup>62</sup>.

The common understanding of these two interviewees reflects important differences in the local political arrangements that could affect the intensity of foreign contacts in each country. Although we had no other sources on the topic to confirm these interviews, there is a good reason to believe that CP structures in the Latvian research sector originated "from Moscow" and not from the national context as in Estonia. Moreover, as Latvia saw the development of major electronics, chemical and pharmaceutical industries that are subject to industrial secrecy, these scientific branches were less opened to foreign cooperation programmes. This secrecy is good reason to believe that Latvian exact and natural sciences were more oriented toward cooperation with Moscow or other Soviet Republics. Latvian industry was attractive for the immigration of workers from all over the Soviet Union. By the end of the 1980s, only 9% of the Lithuanian population was Russian-speaking. At the same time, the Russian-speaking population remained close to 50% in Latvia and made up about a third of the population in Estonia (Norkus 2012, 215-216). Hence, central control from Moscow over scientific activity could have been even more important in Latvia where the Soviet Union was developing its science-technological industries.

Finally, our interviewees and other sources suggest that Lithuanian scientists were rigorously limited in their travel to foreign countries and their ability to receive their foreign colleagues (Rindzeviciute 2011). The reasons for this are ambiguous. Linked to the historical developments (**Box 9**), it is claimed that Lithuania had a less techno-scientific oriented industry than the other two Baltics, and therefore attracted fewer East-West relationships (*Ibid.*, 120-121). One of the interviewees explained the need to maintain secrecy of information related to industrial/military-related research<sup>63</sup>. Then again, it seems that restrictions were strong not only in industrial/military-related research, but also in other research areas. A good example is the Baltic cooperation practices in the field of cybernetics. During Khrushchev's leadership,

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<sup>61</sup> LV14

<sup>62</sup> EST60

<sup>63</sup> LIT08

cybernetics was already actively developing in the Western countries and development also began in the Baltics. Existing studies on the topic show that as Lithuania was not allowed to establish direct economic relations with countries in the Eastern bloc or the West, the "American" cybernetics reached Lithuanian scientists through a "Russian" filter (*Ibid.*). However, the development of Estonian cybernetics research was greatly based on the Estonian-Finnish Computing Cooperation since the 1960s (Kaataja 2015). The foreign cooperation practices in each of the Baltics could thus differ in the same scientific fields. Hence, there is a good reason to believe in a similar way to Latvia, science activity in Lithuanian was strongly supervised by central the CP in Moscow<sup>64</sup>.

### Box 9 Differences in economic sectors in the Baltics'

Differences in the Baltic economic sectors' developments in the Soviet period are linked to their territories' historical developments (Misiunas, Taagepera 1993; Idzelis 1984). For a short account, in the second half of the 19th century as railway lines connected Baltic seaports in contemporary Estonia and Latvia with inner areas of the Tsarist Empire, these two grew into critical industrial centres. Thereby, Riga (in modern Latvia) was the biggest commercial and industrial centre. As for Lithuania, it remained an agrarian periphery with peasant agricultural production and weak urban development. Then, with the integration of the Baltics to the USSR, Baltic industry became part of the centrally managed economic system that included a strategy of heavy industrialisation and collectivisation of agriculture. At the same time, industrialisation in Lithuania took off only during the Soviet period in the 1950s-1970s; the agriculture, electricity, construction and building materials sectors were the main features of the Lithuanian economy. Due to its late modernisation and industrialisation, Lithuania avoided the massive changes in the ethnic composition of the population that took place in Estonia and Latvia during Soviet occupation. In the early 1980s machine-building and metalworking, as well as food processing and light industries, accounted for the majority of the Baltics' total industrial production. Some sources claim that it was an intentional Soviet policy not to concentrate on the production of advanced technologies in the Western part of the country. According to E. Rindzeviciute (2011, 121) these territories were perceived as "politically less reliable" and therefore "unsafe" for developing strategic technologies. However, when compared to the rest of the USSR, the Baltics were particularly productive. At the end of the 1960s Estonia's national income

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<sup>64</sup> Although Party control was strict in the science sector, it is also important to underline that Lithuania was the only country out of the three where the national CP had stronger support within society. Indeed, while analysing H. Kitschelt's classification of the types of communism, Lithuanian sociologist Z. Norkus assigned Lithuania to the mixed national-patrimonial category (communism arose in the agricultural economy) and Estonia and Latvia to the bureaucratic-authoritarian type of communism (communism arose after industrialisation). According to the author, this also impacted the construction of local communist elites. While in Lithuania, the CP had deeper roots in local society, the Estonian local CP was purged of national communists in 1949-1950. The same was done in Latvia in 1959. After these purges, the leadership of CPs was dominated by Russified officials who nominally belonged to a titular nationality and were sent in from the centre to replace local cadres. Additionally, Russian speakers were represented more strongly in both the nomenklatura and the lower ranks of the party. Thus, Estonian and Latvian CPs had no broad support among the population, except in the growing immigrant Russian-speaking minority (Norkus 2012, 41, 218-219).

was estimated to be 44% higher than the USSR average, Latvia's 42% higher, and Lithuania's 15% higher.

Similar differences could also be found in SSH disciplines, such as in sociology. Whether via direct contact with their Finnish colleagues, or indirect inspiration from the studies conducted in the US, the Estonian AS Institute sociologists were the most active in Western cooperation (**Box 10**).

#### **Box 10 Estonian Sociology benefitting from foreign contacts during the Soviet period**

Major inter-Republic cooperation activity was conducted through AS networks. While these networks included sociologists from all Soviet republics, Estonians were particularly active.

Some inter-Republic cooperation projects in sociology included: "The Influence of Higher Education on the Reproduction and Development of the Social Structure of Socialist Society" (conducted by the Baltic branch of sociologists in 1975), and all-Soviet research projects "Social Structure of the Urban Population in the USSR" and "Inclusion of the youth with the Secondary Education in the Working Class, Peasantry and Intelligentsia" (conducted in 1981 and 1982) (Trapenziene *et al.* 1994). The widest range of partner institutes was included in the above project about youth studies, consisting of longitudinal research on the life and careers of high school graduates, was started in 1966 and developed by Estonian sociologists (Saar *et al.* 1994; Gaidys, Vosyliūtė 1994). The fieldwork stage was carried out in 15 regions of the Soviet Union (Titma 2002). It was supplemented with a comparative "student study" in which Estonia and Lithuania were part of a study with Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and the Soviet Union<sup>65</sup>. Baltic national leaders of these projects had close research co-operation, which was kept alive through the Baltic branch of the Soviet Sociological Association. Since 1978, Baltic sociologists attended meetings of the International Sociological Association and have prepared English-language publications for it (*Ibid.*), but according to our interviews, permission to travel abroad was granted uniquely to the directors of institutes. The limited occurrences of Western contact were mostly undertaken by Estonian sociologists. For instance, the above-mentioned youth studies project was inspired by the USA scientist Morris Rosenberg's study of high school graduates. Some Estonian sociologists, particularly in the field of family sociology, were already in contact with their Finnish colleagues in the 1970s<sup>66</sup>.

These projects and activities reflect the level of development of the discipline in each of the Baltics as it was observed at the beginning of the 1990s by external evaluators. In evaluations of Baltic research, Swedish academics evaluated Estonian sociology as already having "a good international standard" with "western orientation" during the Soviet period (source: Royal Swedish Academy 1993). Meanwhile, the Danish Research Council's panel on Latvian Sociology and Political Sciences and Law concludes: "substantive international contacts are very few and far between and restricted to a too narrow range of fields. Many institutions boast of impressively long lists of academic links which, on further examination, turn out to be rather formal" (source: The Danish Research Councils 1992, 683).

<sup>65</sup> The follow-up was conducted in 1991 with US NSF grants (Titma 2002).

<sup>66</sup> In 2017 the family research group was located under the academic unit of social policy.

While local scientists have often represented the Baltics as the “second best” scientific regions in the Soviet Union, the three countries did not have completely similar positions in East-West cooperation. We can roughly conclude that due to their specific science-industry orientation and local CP policies, Estonian science evolved in the most active East-West cooperation, Latvian science was mainly turned towards Eastern cooperation and Lithuanian science was the most “nationally” oriented. However, due to the lack of studies on the topic, our account is limited and conclusions should be treated with caution<sup>67</sup>. Finally, it is also important to highlight that the existing albeit limited Western cooperation in the Baltics also acted as a source of resistance against the regime.

### 1.2.3. Forms of resistance

Even if Party control over foreign cooperation varied in the region, the foreign cooperation of all Soviet countries remained under formal the supervision of the CP. As explained above, Soviet intellectuals who had demonstrated their discontent with the regime were not allowed to establish links with foreign scientists. At the same time, foreign cooperation and dissidence did not exist in isolation of each other (Gouarné 2016). For example, similarly to some other Soviet state institutions that had extensive networks in foreigners such as the KGB, links established within foreign scientific cooperation programs were used to quit the Soviet Union illegally to live in exile. While the Baltics saw the migration of researchers during the last years of the war (Kristapsons *et al.* 2003, 17), there is still little information about the researchers who emigrated during the Soviet era.

According to sources available for our work, we can point out some cases where explicit forms of dissidence developed and were manifested in scientific works and informal critical discussions about the regime. A good example is the former Tartu University Sociology Laboratory. It was closely linked with the Leningrad school of sociology, whose leader, V.Yadov, was known for his support to opening the Soviet sociologic discussion to the world

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<sup>67</sup> One of the major limitations of our account is the limited literature and resources about Baltic science practices in the Soviet period. Moreover, the interviews we have used are conducted mostly with members of the post-independence science administrative elite who belong to specific disciplinary branches such as physics or chemistry. Literature that was used for the review, notably J. Kristapsons and colleagues (2003) is also written by authors close to these scientific branches. Representations that are used for our conclusions are thus limited to these disciplines. Practices could differ in other disciplinary areas. Then again, due to the high number of  $\approx$  interviews members and the small size of the countries, we believe that our conclusions roughly correspond to Baltic specificities and that they could be taken as a starting point for a hypothesis in future research.

(Champagne 1990, 68). Sociology Laboratory members remember that their research was “consciously targeted for destructing antagonistic and deeply amoral system” (Töner 2015, 226) and there was a “sincere belief amongst the members of the Laboratory that sociology would change the society” (Lauristin 2010, 88). Besides research, the Laboratory organised seminars outside the university that became well-known for their critical environment. When the regime tightened its control after the Prague Spring events, the Laboratory was closed down in 1975 with the official reason of “non-partisan activity and lack of vigilance” (Opermann, Vihalemm 2017, 26)<sup>68</sup>. The Latvian Faculty of History and Philosophy, where sociology was based, was also temporarily closed in 1983 because of the lack of “loyalty of the students and academic staff” (Kilis 2015, 116).

Examples of such dissident activities remain rare, and when they do exist they are not always documented. At the same time, we could observe that cooperation with foreign countries may have served to support more moderate forms of protests. The basis of this was the existence of key individuals, often members of the CP, who acted as mediators between the Party and research institutions. With a deep interest in their scientific areas, such individuals could use their research groups to conduct foreign approaches or engage in collaboration by offering a “protective shell” against Party surveillance. A good example is the President of the Estonian AS between 1973 and 1990 – Raul Mägi - who was also a member of the CP and the USSR AS. Described as neglecting the distinction between “Estonian” and “Soviet” physics, and a supporter of worldwide research competition, several of his co-workers and PhD students could travel to and cooperate with Western countries’ universities and research institutes<sup>69</sup>. Another example is the head of the Vilnius University Philosophy Faculty from 1982. As a French speaker, he was interested in Western philosophy and, more generally, positioned himself against ideological discourse. On the other hand, with his wife involved in the government and himself an active Party member, he had considerable social and political resources<sup>70</sup>. The faculty, under his leadership, is described as an “academic oasis” in the Soviet system and the centre of Western-oriented philosophy study (Donskis 2005, 25).

“Mine and the older generation, everybody knew that such a department could exist and that such discourses could exist because the head of the department was a man, who on the one hand a very good biography in the Soviet system but he

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<sup>68</sup> After its closure some of its members moved to media research at the journalism department, which was considered as one of the most ideologically liberal academic unit at the university. EST22

<sup>69</sup> EST59, EST56

<sup>70</sup> LIT29, LIT02

was also very clever. He was very bright and open and liberal. He was like some, a tree and under his shadow could exist many different interesting philosophers. [...] Usually, in our department, students were autonomous in their PhD writing process. Everybody in this department had different topics. And the supervisor was more or less formal. The most important criteria for working in this department was to be a real scientist. We had a seminar every month, and it was shameful to present there some ideological bullshit”<sup>71</sup>.

Access to Western science thus often depended on the personal authority of the director of the institute and on his capacity to mobilise his political and social resources. As analysed in previous works, even though Party membership increased scientific dependence on politics, it allowed the margins of professional autonomy to be regained in negotiations with the political regime and the defence of scientific interests (Gouarné 2016).

In other cases, dissidence operated on the level of research areas and disciplines. This seems particularly relevant to AS institutes’ sociologists. Although the Soviet academic field worked under political control, in the words of our interviewees: “nobody believed in this scientific communism”<sup>72</sup>, and even if research groups cooperated with the CP their “national-mindedness was known to everybody”<sup>73</sup>, meaning that they were not working for the Soviet imperial project or communist ideology. Regarding Lithuanian sociology, it is argued that only a few sociologists (mostly leaders) were active members of the CP in the pre-1989 period or “even during the Soviet period, and they were not ‘ideological bigots’” (Vosyliūtė 2002). Instead, many older-generation AS institute researchers describe themselves and their peers with expressions such as “not aggressive, but free-thinkers”<sup>74</sup>.

“In the Soviet Union, the governors wanted to get to know about society. And it is true. They were interested in reality. You could think that I am an older person and somehow idealise the Soviet era and so on, but it was actually like that: the meaning of sociology was different! This was a mission, and it was a passion we had to work here. There is nothing like that any more over here...you see, nobody was whatsoever willing to support this Soviet thing, but we scraped ourselves a cave to do what we wished to do! Moreover, Moscow funded us! And Estonia was our idea! We loved to see Estonia admired. We wished it to live and prosper. We participated in these Soviet rituals because we wished to keep our work ongoing, that we would do better. Moreover, compared to others [Soviet countries], we were also appreciated in the West”<sup>75</sup>.

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<sup>71</sup> LIT29

<sup>72</sup> EST41, LV20, LIT29

<sup>73</sup> EST41, EST44

<sup>74</sup> LV29

<sup>75</sup> EST41

Although working in cooperation with the CP, sociology is seen to serve as a means of change in Soviet society. This observation agrees with a former analysis of Soviet sociology, which claims that intellectuals in the national republics saw in the development of sociology a symbol of the maturity of their own national culture and its intelligentsia (Shlapentokh 1987, 88-104). Similarly, E. Rindzeviciute (2011) demonstrated how, from the mid-50s, Lithuania built an infrastructure for the computer sector, including cybernetics research, and exported to other Soviet countries and satellites. Being transferred from the West, cybernetics appealed to Soviet Lithuanian scientists as a symbol of freedom and openness. She concludes that the internal transfer of techno-scientific innovations was an important locus for the practices of active self-government among actors who were assumed to be subordinate, including the AS (besides the heads of companies and economic planners). International recognition was seen as a symbolic resource for these sociologists to reaffirm the national character of their science.

In sum, Baltic scientists' East-West cooperation practices differed by scientific disciplines, and also country by country according to their science-industry orientations and national CP policies in the research sector. Moreover, foreign contacts could be used by different professional and institutional segments of scientists. They were used strategically (for developing research projects) as well as for legitimising their work in Soviet academia. These heterogeneous practices in East-West science cooperation serve as a basis to also understand country-specific evolutions during the political turmoil.

### 1.3. The disintegration of the Soviet Union

Amid the political turmoil, Baltic science communities were also involved in events that lead to the restoration of political independence. The Soviet-time differences in East-West cooperation, together with their differences in industrial and political spheres, were not only reflected in each Baltic country's political transformations (1.3.1) but also in the immediate post-independence changes in their national scientific fields (1.3.2). Thereby, another important element was the emergence of a plurality of international actors who were contributing into problematisation and proposition of policy solutions for the further development of the Baltic countries' scientific fields (1.3.2).

### 1.3.1. The implication of science communities in political turmoil and the rise of national governments

The Baltics' political independence was successful in great part due to the activity of national movements. While civic movements around various (notably, environmental) issues had spread earlier, it was the national Popular Fronts (*Sąjūdis* in Lithuania, *Tautas Fronte* in Latvia and *Rahvarinne* in Estonia), created in 1988, that took the major steps towards re-establishing national independence. Officially founded to support Gorbachev's program of glasnost, democratisation, and perestroika, they gradually grew to support the full independence of the Baltics. The demands of these movements included the revelation of the truth about the Stalin years, protection of the environment, and disclosure of the secret protocols of the Nazi-Soviet Non-aggression Pact. Importantly, contrary to some other Eastern-bloc movements such as Polish Solidarity, which was established based on trade unions, the Baltic popular movements were initiated by the intellectual authorities (well-known intellectuals, artists and scientists). For example, one-fifth of the initiative group of the Sąjūdis were philosophers from the Vilnius University department (Vosyliūtė 2002)<sup>76</sup>. The Baltics were also some of the most active supporters of the reform process when compared to other Soviet Union Republics such as Ukraine, Moldova or Caucasus (Laar 2010, 51).

For a more detailed account, in this critical period, several massive gatherings were organised where hundreds or thousands of people came together to give speeches and sing national songs (hence, the events that led to the restoration of independence of the Baltic states are commonly named as “Singing Revolution”). Perhaps the most important one was the “Baltic Way”- a continuous 595-kilometre human chain through the three Baltic states organised in 1989. The event marked the 50th anniversary of 23 August 1939, when the Soviet Union and Nazi Germany signed the Molotov–Ribbentrop Pact, which resulted in the forcible incorporation of these three states into the Soviet Union and the loss of their independence. The request for political independence wasn't without its setbacks. Between February and March 1990, the first free Supreme Soviet elections took place in all three Baltic states, and pro-independence candidates won majorities. The following months were critical. The new representatives attempted to adopt acts on the restoration of national independence but were blocked by Moscow, where the activity was declared to be against the Soviet constitutional order. Gorbachev gave the Baltic military commanders permission to use force in restoring

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<sup>76</sup> Although the intellectuals' participation in the events of political turmoil in the Baltic countries is a “well known fact” in the Baltic societies, we have not found any systematic studies on the topic.

order in the region. A major incident took place on 13 January 1991 when Soviet troops attacked the TV tower of Vilnius. During the attack, 14 people were killed and 120 injured. On the same day, Latvian pro-Soviet communists, with the help of military troops, demanded the takeover of the country. People erected barricades showing their determination in defending their political views. Barricades were also erected in Tallinn. On 19 August, a military coup was launched. The Baltic countries were put under direct presidential rule and all independent institutions were ordered to disperse. Attempts to take important communication institutions were made in all Baltics, however, after three days, it became clear that the coup was unsuccessful. Finally, within the political degeneration of the USSR, the Soviet Government recognised the independence of all three Baltic states on 6th September 1991.

After their success in restoring political independence, the political role of Popular Fronts was taken over by political parties. These events were followed by adoptions of the constitutions and the first parliamentary elections (**Table 1.1**)<sup>77</sup>.

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<sup>77</sup> Cooperation with certain Western political parties was essential to inform the western world about the Baltics' situation. The German Christian Democrats, with the active support of the Konrad Adenauer Foundation, were particularly active. The Swedish Conservative, Carl Bildt, played an important role, as did Swedish moderates and Finnish politicians (Laar 2010, 147). Those, and others such as Helmut Kohl, played a crucial role in withdrawing Russian forces from Estonia and Latvia (*Ibid.*, 165).

**Table 1.1 Major events in the period of political turmoil**

	Lithuania	Latvia	Estonia
<b>Foundation of national Popular Front movements</b>	October 1988- Sąjūdis	October 1988- Tautas Fronte	April 1988- Rahvarinne
	23rd August 1989- Baltic Way		
<b>First free elections and a power shift in Supreme Soviets</b>	February 1990- Sąjūdis won the majority of seats.	March 1990- Tautas Fronte won the majority of seats.	March 1990- Rahvarinne won the majority of seats.
<b>Acts on the restoration of independence</b>	11th March 1990- the Supreme Council of the Republic of Lithuania adopted an Act on the Restoration of the Independent State of Lithuania	4th May 1990- the Supreme Soviet of the Latvian Soviet Socialist Republic adopted the declaration "On the Restoration of Independence"	20th August 1991- the Estonian Supreme Soviet, in agreement with the Estonian Committee (the executive organ of the Congress of Estonia), proclaimed Estonian independence from the Soviet Union
	6th September 1991- Soviet Government recognised the independence of all three Baltic states		
<b>Constitutions</b>	Adopted in October 1992	Reintroduced in 1991	Adopted in June 1992
<b>First Parliamentary elections and a power shift in Parliaments</b>	October and November 1992- victory for Democratic Labor Party of Lithuania	June 1993- victory for Latvian Way	September 1992- victory for Pro Patria

*Source: Author's compilation.*

The events leading to the independence of the three Baltic states were relatively similar in their content and temporality. Yet they lead to very different outcomes in terms of political power after the first Parliamentary elections between 1992 and 1993.

While in Estonia and Latvia, CPs were eliminated from the political process by prohibiting the CP, in Lithuania the local CP dissociated from the all-Soviet CP and managed to keep its dominant political power. In 1992, the renamed Lithuanian CP - Democratic Labor Party of Lithuania - won an absolute majority in the Lithuanian parliament. Besides victorious parliamentary elections, the leader of the party, 61-year-old former secretary of the Central Committee of the Lithuanian CP Algridas Brazauskas, was also elected as president of Lithuania in 1993. The role of the president was higher in Lithuania, where a semi-presidential system was established, as opposed to the parliamentary systems as in Estonia or Latvia. Hence,

Lithuania was ruled from 1992 through 1996 by the ex-CP. It was only after the Parliamentary elections of 1996 that the power shifted to the Conservatives Party (Fatherland Union), which united its ranks with the core members of the former Lithuanian Popular Front *Sąjūdis*. However, the conservatives' success was short-lived: governments were shaken by scandals and a rapid succession of prime ministers. In short, while in Lithuania, anti-communist Popular Front *Sąjūdis* was leading the transitional government, the former Lithuanian CP members formed the majority in the government. From then on, opposition was formed between the Russian-friendly left wing versus the nationalist, anti-Russian, church-influenced right-wing parties (Ramonaitė 2006). In other words, between communist and anti-communist groups (Saarts 2011).

In Latvia, where the ethnic Latvian population was close to 50%, the initial political conflict formed mainly along ethnic cleavages: the Russian minority, and Latvians. In June 1993, Latvia held the first parliamentary elections since the restoration of independence. Weakened by economic difficulties and the defections of many politicians, the Latvian Popular Front *Tautas Fronte* received just under 3% of the popular vote and won no seats in the new parliament. It later attempted to reinvent itself as a Christian democratic party but did not gain in popularity. Instead, the elections were won by the liberal Latvian Way (*Latvijas Ceļš*), which was founded by a group of Latvian economic elites from the former Popular Front, and led by 42-year-old Ivars Godmanis, a former physician at Latvian University. However, they were unable to maintain the stability of their coalition governments. Latvian political reality became defined by a succession of short-lived governments, making reforms difficult to implement. Subsequently, Latvian politics was marked by the fight between rather right-wing oligarchic parties (Pabriks, Štopenberga 2006). In 1994, the Socialist Party of Latvia was founded to succeed the CP, but contrary to its Lithuanian counterpart it never gained much popularity, which is also true of the social democrats.

Finally, Estonian political developments are once again different. Contrary to its southern neighbours, in Estonia nationalist radicals formed their semi-parliaments, Congress (also translated as Citizen Committees). The Congress was offering an alternative to the Popular Front movement already by the end of the 1980s; instead of progressive political transformation supported by the Popular Front, the initiators of Congress stood for more radical political and economic changes (similar movements also existed in Latvia under the same name but remained rather weak). Estonian Congress, which was founded by young dissidents and national radicals, became more influential than Popular Front and won elections under the name of the union of

Pro Patria in 1992. With this election, a new generation of politicians that was formed around former anti-society activities, and who were connected through Tartu University, was elected to power. Prime minister Mart Laar (32 years old former history student) was, and many other ministers were, part of this generation (Laar 2010, 167). During the next elections in 1995, the offspring parties of the former Popular front were favoured. These leftist forces were defeated in the 1999 elections and Laar returned to the post of prime minister. Hence, Estonian politics was characterised by the opposition between “old” and “young” political generations (Lauristin *et al.* 1997), and in a similar way to Latvia, weak left-wing parties (Mikkel 2006).

Political parties in the Baltic countries thus had their origins in the independence movements that emerged in reaction to dominant conflicts in society. Notably, the political changes were also somewhat reflective of the main elements that characterised the Baltic pre-independence scientific fields, and more broadly their socio-economic and political orientations. Lithuania was more nationally focused in science, and where communism had national roots, became governed by the conservative elite. Latvia was more turned towards Soviet industrial cooperation, and became politically governed by the economic elite. There is good reason to believe that, contrary to Estonia where the classical university tradition was more strongly rooted and was a well-known source for liberal thinking during Soviet times, Latvian University and HEIs did not have this role in Latvian society and thus industrial and economic interests were also dominant during the political turmoil. Finally, as Estonia stood out for its more Western-oriented scientific cooperation, it became governed by a younger, liberal, intellectual elite. These differences between the Baltics’ post-independence political spheres were reflected in further changes and continuities in the national scientific fields.

### 1.3.2. A related change in the national scientific fields

The differences between the three countries are most noticeable in the level of the AS’s praesidium members, directors of AS institutes, and rectors of HEIs trajectories.

The most noteworthy is the Lithuanian example. A brief study on the AS praesidium members and former HEI rectors<sup>78</sup> shows that out of the three Baltics it was the only one where

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<sup>78</sup> Data drawn from the analysis of eight Lithuanian AS Presidium members’ CVs who held their positions at the end of the 1980s. The full list of Lithuanian Presidium members was not available for this work (for comparison, in Estonia, the size of the Presidium was 11 members). Notably, contrary to Lithuania and Estonia, we encountered difficulties in finding information about Latvian pre-independence science administrative elites. For example, despite our numerous requests to the Latvian AS in person, via e-mail and telephone, we did not receive the list of pre-independence AS presidium members. This can be linked to desire to keep their national-

the former science elite could not only keep their positions, but also actively entered politics. For example, the former President of the Lithuanian AS (in office between 1984 and 1992) was elected as a member of the Democratic Labour Party to Lithuanian Parliament Saeima in 1992 where he was a member of the Committee on Education, Science and Culture. Importantly, as we will see further, this was also a body responsible for research funding. At least five other Soviet-time AS Presidium members became involved in political parties, mostly as members of the Democratic Labour Party or Social Democratic Party (the two were merged in 2001). Finally, looking at the trajectories of heads of Baltic HEIs (including universities), only in Lithuania had the Soviet-time rectors developed their careers further in the post-Soviet period. Out of nine former rectors, at least four became involved with politics. For example, both the former Lithuanian Veterinary Academy and Kaunas Polytechnic Institute rectors were appointed at Ministries after the first Parliamentary elections. Also, Vilnius University rector Paulius Lutkus (Vilnius University rector between 1958 – 1991) was elected as Democratic Labour Party member to the Seimas (between 1994 and 1996). In his interview, a former Lithuanian Minister responsible for science confirms the continuity in the scientific field.

“There was no change here, so it was different than in Estonia for example. We did not replace so many Soviet actors at institutions and at universities... [thinking] These university people contributed to independence, they were members of Sąjūdis and ideas came out of there. Therefore, besides the Higher Communist Party school, people from universities remained the same”<sup>79</sup>.

The continuity of leaders in the science administration is hence justified by their engagement to the Lithuanian Popular Front movement. In Lithuania, where the post-independence political field was dominated by the ex-CP, the possible CP backgrounds of the leaders of the science administration were not perceived as a problem for their future career.

Contrary to Lithuania, Latvian former science administration leaders were not granted access to politics, but were replaced. According to our interviews, the main reason for that stood in the successful Russification of the Latvian academy during the Soviet period. The rising national political and scientific elite did not favour what they called “hard-line communists” in their ranks, and Latvian communists were in a majority, Russians, contrary to Lithuania where the core of their CP members were Lithuanians<sup>80</sup>. Hence, the consequences for former high-

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oriented image and a resulting unwillingness to expose the pre-independence AS cooperation with the Russian CP (the latter factor was identified by some of our interviews with current Latvian AS members).

<sup>79</sup> LIT31

<sup>80</sup> LV34

ranking AS Presidium members, directors of institutes and university rectors was rather harsh - as explained by one of the further presidents of Latvian AS.

“What changed was the political thinking of things. Old academicians were pulled out and newcomers who were more loyal to the Latvian Republic came in...all orthodox communists were removed from universities and the AS institutes [pause] well, in universities, maybe the rector changed but the staff members didn’t change. And scientists who were not loyal they went to industry or academic institutes”<sup>81</sup>.

This perception was not unique amongst our Latvian interviewees<sup>82</sup>. The change within the former Latvian science administration leaders was thus admitted but remained foremostly political in its content. Neither our interviews, nor any other sources, refer to other elements (such as international socialisation or disciplinary affiliation) that distinguished these leading groups before and after the collapse of the Soviet Union. The interviewee is also highlighting the difference between the AS and university systems, referring to the fact that the AS was more reform-oriented than HEIs in Latvia. This again reflects the somewhat more conservative role of the Latvian University and HEIs established during the Soviet period and that remained after the political turmoil.

A different development path occurred in Estonia. First, it is noticeable that all heads of Estonian HEIs were replaced during or shortly after the political turmoil. As demonstrated in the following interview extract with one of the former ministers, the most important change occurred at Tartu University with the demise of the former rector and the election of the new one in 1988.

“All started with the election of the new rector of Tartu University. He invited external people to lead the university, all mostly young people, less than 40...they were those who were internationally very active, spoke several languages, so the orientation of the whole university became modern and Western-oriented...and then in 1992 when the new [Pro Patria] government was elected, they were also radically minded...and of course supported the aspirations of these university leaders”<sup>83</sup>.

Hence, the generational shift in national governance resulted in changes in the scientific science. With the elections of the AS Presidium in 1990, the core members were also changed. Only two out of the former 11 members of the Soviet-time AS Presidium reached high

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<sup>81</sup> LV34

<sup>82</sup> LV01, LV25

<sup>83</sup> EST56

professional ranks in their future careers (one as councillor for the government and one as head of the new private university). All others took their retirement from science management or continued their research work at some AS institute or university<sup>84</sup>. Further major changes were introduced in the next Presidium elected in 1994. The composition differed from previous ones by their strong links with universities (members were elected equally from the biggest universities), youth, and political background, as almost none of them were engaged with the CP during the Soviet era. In that way, Estonia was the only country out of the three where the political turmoil brought about not only a political but also a more “qualitative” change in the profiles of science elites that was enabled by the national scientific field’s engagement in East-West cooperation during the Soviet period. The orientation is also observable on the level of SSH institutes: contrary to Lithuania where the former CP party members could multiply their career opportunities in post-Soviet times, it was much more difficult in Estonia (**Box 11**).

#### **Box 11 Trajectory of Tiit Kask – the most prominent Soviet Baltic Republics sociologist**

The trajectory of Tiit Kask (born in 1939) reflects well the Estonian post-independence context in the field of science. He earned his Scientific Communism candidate degree from the Soviet AS in Moscow in 1975. He established the Tartu State University Communist Education Research Laboratory in 1969, which was later transferred to the AS in 1975, and worked as head of the sociology sector at the Institute of History between 1975 and 1989. In cooperation with the Baltic and other Soviet Republic AS institutes, Tiit Kask launched several large-scale projects on youth longitudinal research in the Soviet Union (e.g. see Box 10). According to his colleagues, he was “well-known” not only in the Soviet Union, but had also good relationships with some Western (US) sociologists. In parallel, he was engaged as a member of the CP and he was working as secretary of ideology at Estonian CP from 1988 to 1990. Events of the political turmoil and the rise of the Popular Front brought Tiit Kask under the spotlight as an active supporter of the independence movement. As a member of the Estonian Soviet Republic Supreme Committee between 1990 and 1991, he was one of four Front Popular members who proposed the Estonian economic separation from the Soviet Union. Nonetheless, with the rise of Pro Patria, his political activity remained only temporary. After the restoration of Estonian independence, he left Estonia and started working at Stanford University in the US. Although he kept a Professorship of Sociology at Tartu University from 1998 to 2005, his visits to Estonia remained occasional, as did any public appearance since the 1990s. With this sudden turn in his career, he is still controversial amongst Estonian sociologists. Highly esteemed by his former colleagues due to his success as a project leader and his international reach during the Soviet era, he is criticised by others due to his ambition and activity in the CP. Moreover, some interviewed

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<sup>84</sup> The new elected members of the Presidium did not differ greatly from the previous ones from the intensity of their international visits (half of both Presidium collectives had international studying or research experiences) but did, for example, differ from their publication experiences: if out of former Praesidium only two members had published in the WoS journals, in the new one, eight members had published in these journals.

Estonian sociologists controversially link Tiit Kask to their incapacity to gain state financial support to preserve and develop the remaining longitudinal research databases<sup>85</sup>.

Structural developments within the science elites were thus highly (inter) dependent on political developments in each country. This being said, we have provided a relatively sufficient basis on which we can draw a more detailed analysis of post-independence research funding policy developments. However, these developments cannot be understood without taking into account the activity of multiple international actors who engaged in assisting the Baltics during their political changes.

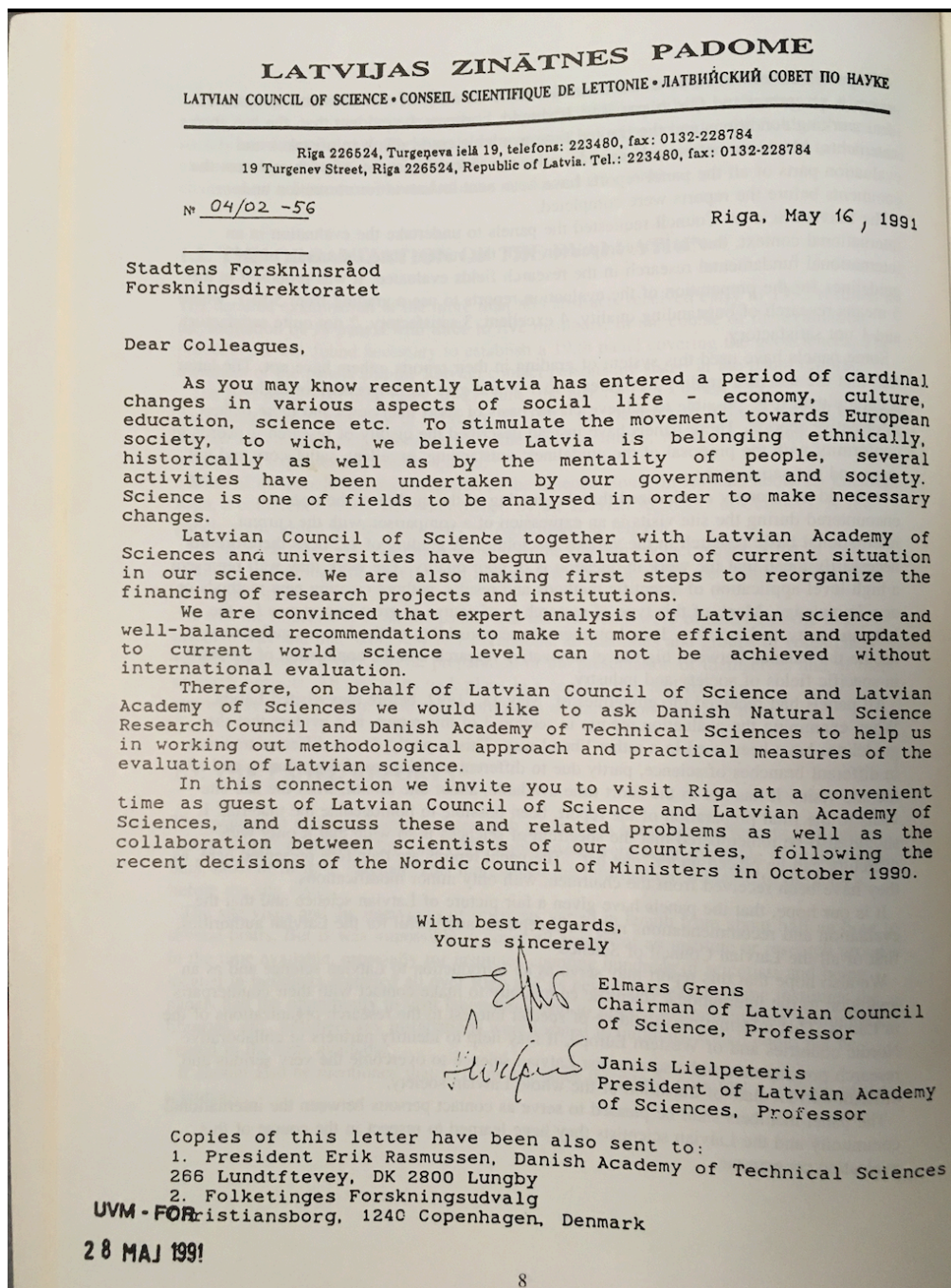
### 1.3.3. “Back to Europe” with the help of international actors

Restoration of independence and the related disintegration of national science institutional structures from the Soviet system brought along some inevitable legal and formal questions. These were linked to the role of the AS, the status of the AS institutes and HEIs, and the regulatory role of government in science.

These matters were, among others, addressed in national science organisations by a plurality of foreign actors who had been intervening in national science policies already since the end of the 1980s. One of the most active interventions originated from the Scandinavian countries’ - Sweden, Norway, Denmark - research authorities. Together with Finland and Iceland, these countries had cooperated in various policy areas already for several decades, notably in the framework of the Nordic Council of Ministers, an intergovernmental forum established in 1971 for promoting Nordic Cooperation. Notably, during the political turmoil in the CEE region, these countries’ science authorities agreed to conduct an institutional evaluation on the Baltic countries. According to our interviews, the project was initially proposed by one Estonian biochemist who previously been collaborating with the Swedish AS in the Soviet period (e.g. see section 2.2.3). The “idea”, from then on, was also implemented in Latvia and Lithuania by the leading members of Unions of Scientists, organisations whose aim was to “Westernise” Baltic science (these organisations will be discussed in the next chapter). An example of this request is presented in the official invitation letter below, written by the Latvian science policy organisations (**Figure 1-1**).

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<sup>85</sup> By 2017, Tiit Kask had published six articles in the WoS journals (published under Estonian institutions). All of them were in US or UK outlets. Source: CV. EST41, EST46



**Figure 1-1 Letter from Latvian science authorities to Danish partners**

Source: *Latvian Research. An International Evaluation (The Danish Research Councils 1992).*

International evaluation is assimilated to the historical development of the country thwarted by the Cold War. Offering a possibility to Latvian science and society to “return to Europe”, where, as it is written, “Latvia is belonging ethnically, historically as well as by the mentality of people”, this resumption of ties with Western Europe is presented as if it was responding to identity and symbolic needs of Latvian people. On a more practical level, offering

an external view on the Baltics' position in the "world sciences", it was expected that these international evaluations could be used as a resource to implement changes in the national scientific fields.

Research evaluations were conducted by the Royal Swedish Academy of Sciences in Estonia (published in 1993), the Danish Research Councils in Latvia (published in 1992), and the Norwegian Research Council in Lithuania (published in 1996) (source: The Research Council of Norway 1996; Royal Swedish Academy 1993; The Danish Research Councils 1992)<sup>86</sup>. The process included the intervention of teams of foreign researchers in different fields of science, monitoring previous work and future projects. The outcomes were published in extensive volumes (each one up to 500 pages) that were accompanied by general opinions and recommendations not only for research groups, but also for the further amelioration of research policy organisation on the government level.

General recommendations on the topic of research management for each of the Baltics were similar and can be summarised in the following points. The first major issue concerned the executive body in the research funding system. An essential element in establishing modern democracies was the reorganisation of sectoral ministries as executive institutions in their policy fields. In the Soviet system, science policies were conducted mostly by the AS. With the collapse of the Soviet Union, the role of the AS as an executive organisation was put into question. The Nordic academic actors recommended their Baltic partners replace the AS system with research council systems. In contrast to the AS, whose efficiency was limited by a lack of democratic control and the small influence of young, bright scholars and scientists, the council system is designed to represent democratic values in research governance. For example, in the Lithuanian evaluation it is said that it gives freedom for researchers to undertake their research and publish their results without being influenced or suppressed by "sponsors" or public agencies, and to communicate with the national government in case of disaccord (source: The Research Council of Norway 1996).

Secondly, recommendations tackled the organisation of the fragmented universities system on the faculty and department level, as well as the bulky, cumbersome research institutes system inherited from the Soviet era. Recommendations phrased the problem in the separation of research and teaching: research is placed in institutes that have little or no contact with teaching and students. It was proposed that the research institute sector should be reduced and

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<sup>86</sup> The pages of Estonian and Lithuanian reports were not numbered; therefore we only refer to the titles of the report.

restructured. Reorganising university departments and university faculties was considered important to create stronger and more flexible units. Also, recommendations stress that it is important to get the best researchers and research groups to remain at the institutes. Coordination and cooperation between the universities and the research institutes, as envisaged in the new framework, should be maintained and strengthened. The aim is to bring science into all university education and to relieve the university teachers of some of their burden, thus giving them more time for research.

Finally, all the evaluations insisted on greater international openness, which should be facilitated through a new research organisation system. Recommendations were to facilitate publishing in international, peer-reviewed journals, using international experts in national peer reviews and the establishment of a regular research evaluation system with the participation of international scientists. Moreover, it is suggested that local scientists should participate in all kinds of mobility and international cooperation programmes, not only to learn from others but also to make local scientists known in other countries. For example, in the Latvian evaluation, it is stated that as “most of the literature was published in Russian, many good level works of Latvian scientists are overlooked” (source: The Danish Research Councils 1992, 17). It is thus important to publish in international journals and to produce books and monographs “in first of all English but also German and other languages” (*Ibid.*). All in all, evaluations advised reducing the link with Soviet research institutions and proposed collaborations with Scandinavian countries. They put forward democratic values in science organisation, developing a “high standard” in research to give a solid basis for industry and other parts of economic and social life, as well as for democracy.

Scandinavian countries were not the only foreign actors to intervene. As the Baltics’ biggest Western political ally during the Cold War<sup>87</sup>, US-based actors also emerged as key influences during the transitional period. According to our interviews, after the restoration of independence at least 3 to 4 individuals from each country were sent to an internship in the US for three months. Participants included former scientists and/or individuals working in the newly reorganised national science councils and foundations. Funded by the State Department and National Science Foundation, these “internships” consisted of courses regarding the US research organisation system, organisation of public funding allocation, and technical

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<sup>87</sup> The US government was the most radical amongst other Western countries in non-recognition of the incorporation of the Baltic states into the Soviet Union. The “Baltic question” emerged there at the beginning of the Second World War as an important element in Washington’s attempt to influence and restrict Moscow’s room for foreign policy manoeuvre (Hiden *et al.* 2009).

competencies for undertaking “democratic” funding allocation procedures<sup>88</sup>. Also, with its grants, the G.Soros Open Society Foundation’s action in the Baltics supported the strongest research groups – primarily in the exact and natural sciences. The distribution of the grants legitimised the new science management organisations in deciding research priorities in the national scientific field (Martinson 2015).

Although the Baltics had not yet started their formal negotiations for joining the EU, together with other CEE countries they were also in the interest of the EC. To reduce social and regional inequalities the EC opened up involvement in specific R&D programmes to countries in the region. The Commission established a unit dedicated to cooperation with Eastern Europe at DG XII level (Directorate of Research and International Relations), and created posts for curators who were responsible for supervising the transformation process in pre-candidate countries within the domain of R&D. Three main measures of intervention were the Poland and Hungary Assistance for the Restructuring of the Economy (**PHARE**) and structural funds for supporting the development of research infrastructure, FPs for supporting research activity and cooperation of researchers, and research policy monitoring to promote specific research policy aims. Specific R&D programmes for pre-accession states that were directed at cooperative research between the EU and CEE countries were opened (PECO-Copernicus under the FP3, and INCO-COPERNICUS under the FP4, launched in 1994)<sup>89</sup>.

Some of these actors also highlighted the role of the SSH. The Nordic partners’ recommendations outline certain SSH scientific disciplines such as economics and law, which are seen as crucial for the future development of national states. The US National Science Foundation also considered that the strong social science in the former Soviet Union is critical in several ways. It is necessary for the development of “enduring democracy” in the successor states. It is critical to U.S. “national interests” in the region and the “global democratisation process”. Finally, it is important to “advance scientific understanding” in the world (Stern, Walker 1992).

As described, three categories of foreign actors were the most active in the Baltics: the US-based actors including the US science institutions and G.Soros Open Society Foundation, EC, and the Nordic Council of Ministers in cooperation with Scandinavian science institutions. Through different measures such as research evaluation, study trips or direct financial aid, they

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<sup>88</sup> EST53

<sup>89</sup> These specific programmes were also preserved in subsequent programming periods. The entire funding programme was for the first time opened to participation with the FP5 (1998–2002).

were all included in the debates about the organisational structure of research policies in the Baltics. Some of them (such as the US or Scandinavian partners) were particularly active in formulating policy “problems”, as well as “solutions” to these problems. However, the extent to which these suggestions were applied was relevant to the outcomes of the struggles of national-level science administrative elites, as will be discussed in the next chapter.

## CONCLUSION: CHAPTER 1

Peripheral to the principal scientific centres of the Soviet Union and close to its western border, Baltic science developed in a peculiar context before the restoration of independence. Within the USSR, the Baltics (together with some parts of Ukraine), were marked by relatively higher economic development, strong cultural activity and were perceived as more “Western and nationalist” than other parts of the Soviet Union (Risch 2015, 63). As was the case in some other areas such as culture or tourism, Baltic scientists could, with certain restrictions, benefit from some degree of scientific cooperation with the western “bloc”. The cooperation was facilitated by international scientific associations whose congresses were attended by both western and Soviet scientists, or programmes that involved longer-term scientific cooperation. Due to their cultural ties and specific geographical position, Baltic scientists could also locally initiate collaborations with their homologues in neighbouring countries. The USSR scientific centres such as Moscow also provided access to western science. Baltic scientific fields were thus part of the Cold War transnational relations (Defrance, Kwaschik 2016).

Then again, it seems that access to western contacts was not homogenous for all Baltic scientists and differed by disciplinary areas. We have shown that to understand these differences, other characteristics of scientific communities including connections to the CP and Soviet industrial complex must be taken into consideration. While our research was limited due to the lack of literature on the topic and its unavailability due to linguistic reasons, the following characterisations can be made about the pre-independence scientific communities in each of the three countries.

The Estonian national CP was less strict than the Lithuanian or Latvian CP regarding foreign relations. Certain groups of Estonian science communities, notably in natural and exact sciences, were the most active in creating foreign relations with their counterparts in Scandinavian countries and the US. Geographical and cultural proximity with Finland also facilitated contact with Finnish researchers in SSH. While taking inspiration from the US traditions, Estonian sociology was mostly linked to the Soviet scientific centres. Tartu State University and the AS were the key actors in providing openness to western contacts.

Lithuanian Soviet-time science communities were partially integrated with communist power structures. Although the Lithuanian science community was under the strictest central CP supervision in the Baltics, some foreign contacts could be maintained via Polish cooperation because of its geographical and cultural closeness to Lithuania. Moreover, certain disciplines

at Vilnius State University, such as philosophy and political philosophy, were historically more rooted than in Estonia or Latvia and became the centres of liberal thinking also in the Soviet period.

Finally, the Latvian scientific community was marked by the role of the Soviet industrial sector, which was most developed in Latvia. Industrial cooperation was even more important in Latvia as there was no big classical university as in Estonia or Lithuania. Due to secrecy, industrial research offered less access to western cooperation. Also, social sciences did not form centres of liberal thinking at Latvian State University as was the case in Lithuania. The sociology community in Latvia was the smallest and highly oriented to a local industrial complex.

We have shown that the specificities of each countries' scientific fields were not isolated from the political developments that unfolded during the years of turmoil. Instead, the country-specific differences in the emerging government parties corresponded to those that can be observed in the scientific communities. These elements are important to further understand the country-specific particularities of the emerging national science administrative elites, power-relations in national research funding policy settings, and the formal institutional layout of these policies

## Chapter 2. RESEARCH FUNDING AS AN OBJECT OF STRUGGLES IN SCIENCE ADMINISTRATION

With the establishment of political independence, the formal-structural ties in science, technology and industry between the Soviet Republics and Moscow were cut. As it was in other former Soviet Republics, the new political environment implied a need for the Baltic governments to restructure the current organisational settings.

Despite several works focussing on post-Soviet R&D development, the impact of Soviet heritage often remains ambiguous. On the one hand, Soviet heritage in terms of its formal institutional layout is problematised as a possible limit for future developments, particularly in innovation-oriented literature where many authors focus on lack of cooperation between science and industry during the Soviet era. On the other hand, be that for the Baltics (Kristapsons *et al.* 2003, 50-51; Mayntz 1998, 7) or other post-communist countries (Schimank 1995; Péteri 1995; Kneen 1995), the post-independence policy situation is often treated as a *tabula rasa* meaning that in this period, "all policy choices were possible". The given position is well represented in the following extract: "when the rule of the Party was overthrown, research actors were suddenly confronted with opportunities to rebuild the institutional structure of the research system. These opportunities revived desires which had been suppressed for decades. (...). When the transformation of post-communist society, in general, oriented itself to the western model, research actors in particular naturally aspired to the kind of level of self-regulation that is realized in western research systems" (Schimank 1995, 637-368). In that way, policies are not only presented as rationally premeditated designs but also as the result of unanimous groups of actors such as the government or scientific community.

Few other authors have also underlined the tensions that political turmoil brought along between several institutional and collective actors. For example, with the rise of the national-minded governments, the role of the AS as a science funding executive actor was put in question. Also, the tensions could rise not only between the government and the praesidium, but also inside the Academy system, which included scientifically important research institutes. As in the Soviet system the Academy was an executive and representative organ at the same time, the conflict between the managers (praesidium) and the assemblies for control over institutes became one of the key issues during the transition (Simeonova 1995). Finally, no less important actors were universities, which had so far concentrated on HE (Cîrstocea 2014). Due to their long history and external position from the AS, they could claim new resources from

both the government and the AS to reinforce their role as “research universities” in national academic spaces. Hence, it was in the context of tensions between the AS praesidia, governments, research institutions and universities where the first wave of reform actors emerged in each country.

Following these works, we aim to understand in what way pre-independence particularities - including the national scientific fields’ international relations, and connections to the CP and Soviet industrial complex - influenced the immediate post-independence research funding policy construction in the context of tensions between different actors in the national scientific fields. We show that these elements enable us to understand the distinctive characteristics of post-independence science administrative elites, established power relations, and eventually research funding policy institutional settings in three countries. More precisely, we start by analysing the professional trajectories of emerging science administrative elites while demonstrating the differences in their connections to foreign countries’ scientific fields (2.1). We then move on and analyse the process of organisational changes that were undertaken in the early 1990s by emphasising their limited utilisation of foreign references (2.2). In the final sub-section of this chapter we return to the formal institutional analysis. We demonstrate the uneven weight of political and science institutions in public research funding organisational setups as we could observe them at the beginning of the 1990s. The given changes make sense if analysed in the context of broader changes and continuities in the institutional layout and quantitative changes in Baltic science communities (2.3).

## 2.1. The emergence of science administrative elites

The Baltic science administrative elite grew out of the patriotic movement - Union of Scientists - that not only stood for autonomous science systems but also uniform transformations in the Baltic countries’ organisational structures (2.1.1). This uniformity was linked to the similarities in the profiles of emerging science administrative elites, including former research staff from the exact and natural science disciplines (2.1.2). Then again, while comparing these groups against each other in each of the Baltics, there was an important difference in the extent of their international socialisations (2.1.3).

### 2.1.1. The Unions of Scientists and the ambition of Baltic uniformity

The political disintegration from the Soviet Union provided a basis for the formation of national science administrative elites in the Baltic countries.

This process cannot be explained without referring to professional movements – Union of Scientists – in each country between 1988 and 1989. The Latvian Union of Scientists’ membership reached up to 1200, Lithuanian up to 800, and Estonian up to 600 (Kristapsons *et al.* 2003, 20). In parallel to Popular Front movements that promoted greater national political autonomy, these movements were standing for scientific autonomy. At the peak of the national awakening, all three of the Union of Scientists declared their aims to “overcome the political dependence”, to “consolidate” scientific autonomy, to “humanise” science, to “eliminate it from ideologisation”, or even to develop the “citizenship of scientists”, and to restore “moral criteria” to scientific activity (source: Lietuvos mokslininkų... 2014a). Moreover, after the establishment of the national-level Unions of Scientists, a joint Association of the Unions of Scientists of Estonia, Latvia, and Lithuania, also known as *Balticum*, was founded in Riga in 1989. The willingness to cooperate on this lead to various other forms of cooperation. The Baltic Academies signed a cooperation agreement in 1990. A scientific cooperation was also established within the Baltic Assembly<sup>90</sup> (**Figure 2-1**).

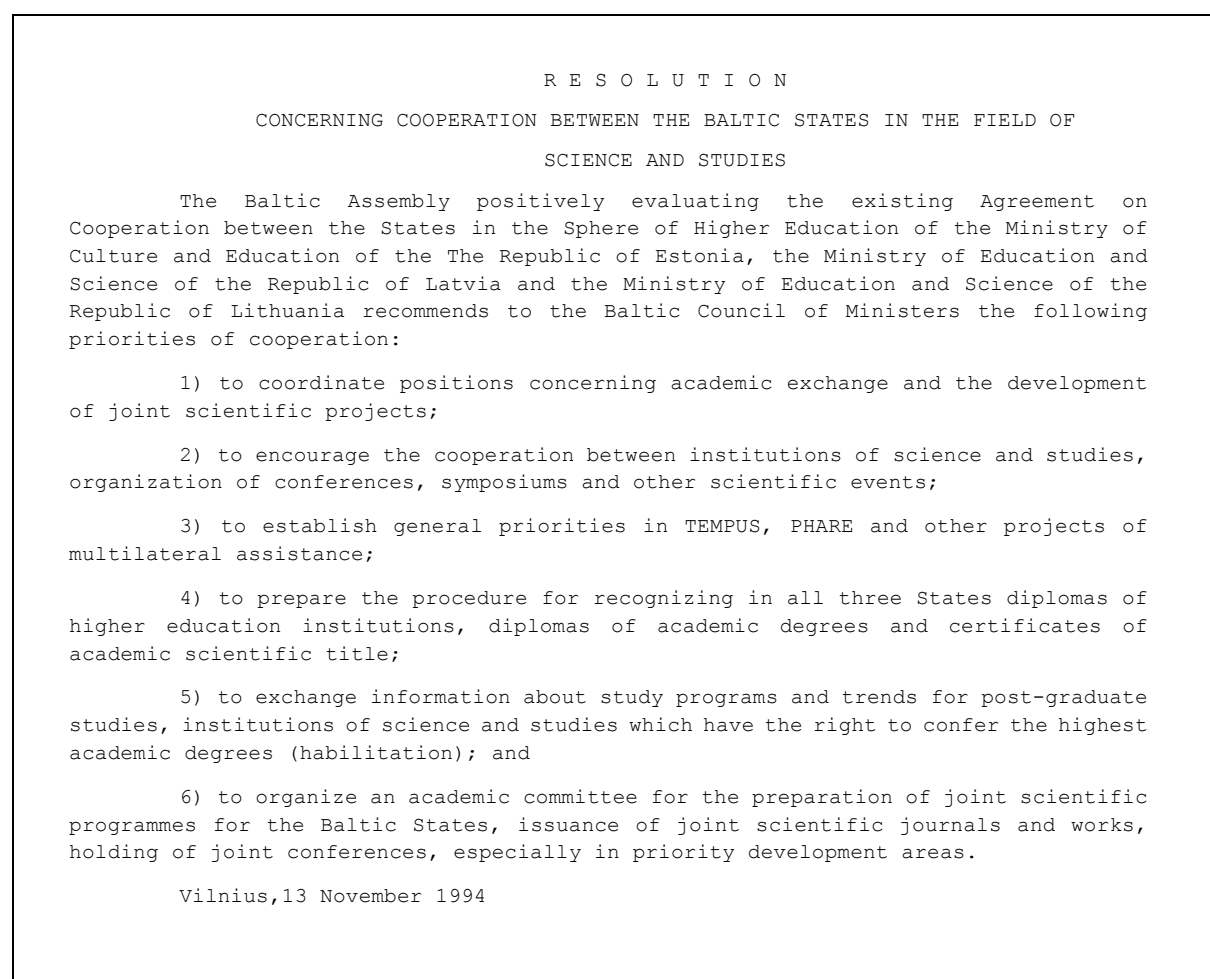
A recurring element in this cooperation was the willingness to insist on Baltic unity and uniformity in the science sectors. The *Balticum* agreed on the basic guidelines for a “standard policy of R&D reform” (Kristapsons *et al.* 2003, 22). According to these guidelines, the three countries were to create “similar systems of R&D organisation and funding”, as well as a “similar system of academic degrees” (*Ibid.*). Also, a discourse about the need for a funding system based on scientific merit was diffused amongst the first wave of reform actors<sup>91</sup>. Finally, as we can see from the resolution established within the Baltic Assembly, the aim was not only to regulate cooperation between the Baltics but also between the Baltics and the EC, as well as other international organisations initiatives. Hence, to some extent, their view was quite similar to the perspective of M. Polanyi who, in his works, claimed that cooperation between scientists should be analogous to the way agents co-ordinate within a free market - just as consumers in a free market determines the value of products, science is a spontaneous order that arises as a consequence of an open debate between specialists. M. Polanyi was also against any guidance of the science from a centre. According to him, science does not need to have special obligations to society, since it is only concerned with the deeper understanding of nature. He argued that “Subsidies should be curtailed in areas where their yields in terms of scientific merit tend to be

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<sup>90</sup> The Baltic Assembly was established in 1990 as an international organisation for cooperation among the parliaments of the Republic of Estonia, the Republic of Latvia, and the Republic of Lithuania.

<sup>91</sup> EST05, EST59

low and should be channelled instead to the growing points of science, where increased financial means may be expected to produce a work of higher scientific value” (Polanyi 1962). However, seeking to extend their control over state resources for scientific research, these ideas from the Baltic Union of Sciences were mixed with nationalist ideas, meaning that the scientific system should be managed by the national (ethnic) scientific elite and not by Russians (as we will see below). Hence, paradoxically, this discourse was not free of ideology.



**Figure 2-1 Baltic states' cooperation agreement for the research sector in 1994**

*Source: Baltic Assembly (Baltic Assembly webpage 2019).*

This willingness to collaborate and take a common path in science development can also be explained by the profiles of the leaders of the Union of Scientists that reflect a rather high degree of homogeneity of these national activists (**Table 2.1**).

**Table 2.1 Profiles of the leaders of the national Union of Scientists**

	Total number	Average age	Gender		Disciplinary area	
			Men	Women	Exact and Nat. Sciences	SSH
<b>Latvia</b>	11	53	64%	36%	89%	11%
<b>Lithuania</b>	8	49	75%	35%	75%	35%
<b>Estonia</b>	11	52	91%	9%	73%	37%

*Source: Author's compilation.*

Note: Average age and disciplinary area of Latvian group are calculated based on 9 individuals for whom the information was available. The average age of the Estonian group is calculated based on 8 individuals for whom the information was available.

Indeed, we can observe that most leaders in the Union of Sciences were men - in Estonia, men were almost in the absolute majority. They were in their early fifties, meaning that they had already started their career and were, most probably, at the high point of their careers. Most of them had also pursued their research careers in the fields of exact and natural sciences (in Latvia, these science areas were almost in the absolute majority).

The establishment of these movements granted permanent contacts with the leaders of the Popular Front movement, and hence further legitimacy to act in the science policy field. In the context of the events of restoration of independence, the leaders of these Unions in each country and the groups that surrounded them (e.g, their research institute colleagues) also became involved in the legal-structural reorganisation of science policy organisational settings as follows:

- **Estonia:** Estonian Science Foundation (**EstSF**) as a science funding body and Estonian Science Council (**EstSC**) as an advisory body.
- **Latvia:** Latvian Council of Science (**LvSC**) as a science funding and advisory body.
- **Lithuania:** Science and Studies Foundation (**LitSSSF**) as a science funding body and Science Council of Lithuania (**LitSC**) as an advisory body.

Thereby, they not only constituted the national science policy related structures but also held the leading positions in these bodies (**Table 2.2**).

**Table 2.2 Plurality of positions occupied by the leaders of the union of scientists**

	Union of Scientists	Academy of Sciences	Science funding and advisory councils
<b>Lithuania</b> Andrius Petraitis	Initiator, head of the Union of Scientists working group which was set up to prepare the law draft in the research sector	—	Chairman of the Science Council of Lithuania between 1991-1993
<b>Latvia</b> Andris Kalniņš	Chairman between 1988-1991	Member of Presidium and Senate since 1989	Chairman of the Latvian Council of Science in 1990, 2000, and between 2007-2009
<b>Estonia</b> Mati Järvsoo	Initiator and the first head between 1989-1990; member of the council between 1989-2009	Correspondent member since 1986; member of the board between 1990-1994 and 2009-...	Chairman of the Estonian Science Foundation between 1990-1993

*Source: Author's compilation.*

A glance at the national initiators of the Union of Scientists and their professional positions shows that these individuals hold key positions at newly founded national science funding and advisory councils. With the exception of Lithuania, they also became leading figures within national AS structures. The analysis in the next two sub-sections will question in more detail the “homogeneity” of the science administrative elite.

#### 2.1.2. Common national institutional trajectories of emerging science administrative elites...

A more precise account of these and other key figures in each country allows for a better understanding of the resources that allowed them to gain positions in science policy organisations.

To start with a Lithuanian example: the late head of the Lithuanian Union of Scientists - Andrius Petraitis (1936 - 2012) - held the position as head of the Laboratory of New Electrochemical Methods and Automatization at the AS Institute of Chemistry from 1978. He was a co-author for several inventions and his works are described by his colleagues as having great scientific importance in his field (Juzeliūnas, Steponavičius 2006). Andrius Petraitis was not only one of the initiators in founding the Union of Scientists, but also guided the process of law drafting in the science and HE sector. He was the first director of the Department of Science and Studies under the government office, and then the head of the state agency in Research and Higher Education and Technologies under the Prime ministerial office (the government

commission of Sciences and Studies). He later became the first chairman of the LitSC from 1991 to 1993. Giedrius Shaulis (1935 - 2014) was another important Lithuanian activist who was working as a professor of mathematics before the political turmoil. While defending his thesis in 1968, for the degree of Doctor of Physical and Mathematical Sciences, he became the youngest habilitated doctor in Lithuania. In 1970 he became the head of the mathematical statistics section of the Institute of Physics and Mathematics. In 1987 he became a member of the Lithuanian AS, and a leader of the Sąjūdis group of the AS. He was also a member of the first parliament of Sąjūdis between 1988 and 1990.

Latvian key actors were closely linked to two AS research institutes. These were the Institute of Organic Synthesis, which developed its drug production company, and the Institute of Solid State Physics that worked for the USSR Military industry. Moreover, all of them held Professorship positions at Latvian State University. For example, Andris Kalniņš (1935 - ) was one of the key initiators of molecular biology and genetic engineering research for Latvia and the whole of the USSR. He was research director of the AS Institute of Organic Synthesis from 1975, director of the institute since 1991, and after its reorganisation in 1993 became director of the Biomedical Research and Study Centre at the University of Latvia. He was also a professor of the Faculty of Biology of the University of Latvia from 1978 - 2001. During the political turmoil, he was one of the organisers and first chairman of the Latvian Union of Scientists from 1988 to 1991. In parallel, he was a member of the AS from 1987, a member of the Presidium and Senate in the Latvian AS from 1989, and President of the AS from 2007 to 2009. He was one of the founders of the LvSC, and chairman of the council in 1990 and in 2000. At the same time, Edgars Jansons (1933 - 2019) founded the Physical Organic Chemistry Laboratory at the Latvian AS Institute of Organic Synthesis in 1961 and headed it until 2006. He was simultaneously a Professor at the Latvian University from 1974. He contributed to the first scientific discovery to use nuclear magnetic resonance spectroscopy. He became a full member of the AS in 1973 and was therefore likely linked to the CP. From 1990 he worked as a researcher at the Latvian University Latvian History Institute, and from 1992 at the Riga Stradiņš University Medical History Institute - a university named after his father, a famous Latvian surgeon and health care organiser. From 1990 to 2007, he was a board member of the LvSC. Between 1996 and 1998 he was vice president of the AS and from 1998 to 2004 the president. In 2004 he was elected as chairman of the AS Senate. Finally, Valdis Pētersons (1940 - ) was working in the area of Physics of Optical Glasses. He held a position as director of the Institute of Solid State Physics at the University of Latvia from 1984 to 1992, after which he

continued as a senior researcher. He was elected Chairman of the LvSC from 1991 to 1992 and from 1998 to 1999, and Vice Chairman from 1990 to 1991 and from 1997 to 1998. In 1992 he became a full member of the Latvian AS and held several high-level positions. He was the AS Scientific Secretary from 1992, Secretary-General from 1998, and 2001 Vice-President. He was an elected member of the Parliament of the Republic of Latvia from 1993 to 1995 as part of the Latvian Cels party. From 1996 to 2000 he was the adviser to the Minister on Higher Education and Science. It was later uncovered that during the Soviet era he was a CP party member with links to the KGB (Pettai, Pettai 2015, 145).

In Estonia, the key actors were all linked to the AS Institute of Physics. In particular, Mati Järvesoo (1945 - ) worked as head of the laboratory of the AS Institute of Physics from 1976, and was director of the institute from 1981 until the time of writing this thesis. As an author of discoveries in optical physics, and a CP member, he became a full member of the AS in 1986. He was the initiator and the first head of the Estonian Union of Scientists between 1989 and 1990, and the first head of the EstSF from 1990 to 1993. Another important activist was Edgar Rihtmäe (1944 - ), who was one of the pioneers of Estonian molecular biology research. He was one of the founding members and director of the Estonian Biocentre from 1986 to 2014, which was a joint research institute of the AS Institute of Chemical Physics and Biophysics and Tartu State University. He was a member of the AS since 1987 and was President of the AS between 2004 and 2014.

Working as leading researchers at national AS Institutes dedicated to research in physical science, (molecular) biology and chemistry, all of these individuals were linked with the strongest Baltic AS institutes. These individuals thus had important professional resources in the late 1980s. There is a good reason to believe that the common background of exact and natural sciences can be explained by the somewhat higher relevance of representatives from these fields of science to undertake the legal-structural reorganisation in the science sector. That is, as their research objects were considered less politically binding than SSH researchers, these actors could claim their “distance” from the Soviet powers and thus had higher legitimacy to undertake reforms. Also, even if the Baltic rising science administrative elite did not have similar international socialisation (as we will demonstrate below), these groups could have greater legitimacy to engage in the reforms due to their relatively greater openness to international cooperation. For example, I.Cîrstocea (2014) argues that because they could lean on their previous international experiences, Romanian HE reforms were mostly undertaken by SSH scholars. Likewise, in the Baltics, it was the exact and natural researchers who could

engage in negotiations with international actors to guide national reforms. Finally, the cross-country similarity of these groups could also be explained by specific groups of scientists who formed a network in the Baltics through their previous cross-national research links. The proof of this cooperation is a joint Association of the Unions of Scientists of Estonia, Latvia, and Lithuania - *Balticum*.

The professional resources of these actors were complementary to political ones. With one exception (Mati Järvsoo), none of the actors held a position as the director of the AS institute for a longer period before the collapse of the Soviet Union. Instead, most of them were previously working as heads of laboratories or research directors - they were not part of the scientific nomenklatura. Moreover, several of these individuals describe themselves and are described by their colleagues as “national minded” or “sceptical” about communism,<sup>92</sup> which manifested in their reluctance to join the CP. At least two of the seven above-mentioned individuals were members of the CP. Nonetheless, they claim that such decisions were made due to their desire to “change the system from the inside”<sup>93</sup>. Rejecting the membership of the CP could also impact their career - it could block them from becoming members of the AS or Director of an institute. For example, Giedrius Shaulis was not allowed to become a member of the AS at the beginning of the 1970s since he was not willing to enter the CP, and Andris Kalniņš was, in his words, dismissed as vice director of the institute because of his reluctance to join the CP.

The result is that the national science administrative elites in the three Baltic countries were formed out of seemingly similar groups of former researchers who resembled each other in their disciplinary and political backgrounds. Then again, this homogeneity can be questioned while studying their professional socialisations in a more detailed manner.

### 2.1.3. ...with differences in their international socialisations

The emerging national science administrative elites in the three Baltic countries were indeed not entirely homogenous. To further contrast their professional trajectories, we looked at three key research policy organisations in the Baltics: LitSC, LvSC and EstSC. We compared the profiles of these organisations’ members between 1990 and 1991. More precisely, we

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<sup>92</sup> LV34, LV31, EST60, EST59

<sup>93</sup> LV34, EST59

focussed on their educational and professional experiences, relationships to foreign associations, and publication practices (**Table 2.3**).

**Table 2.3 Overview of science council members' foreign experiences by 1990-1991**

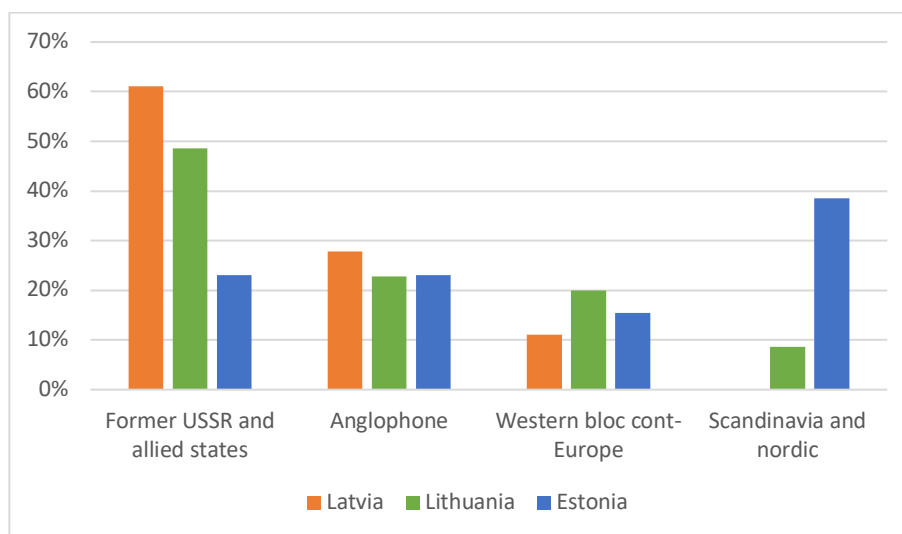
	Total members	Foreign study or research experience	-Visited Eastern-Bloc countries (times visited)	-Visited Western countries (times visited)	Members of foreign scientific associations	-Geographical dimension of associations	Articles published in the WoS database	-Collaboration partners
<b>Lithuanian Council of Science (1991)</b>	36	13 (4 uniquely in East, 3 in West, 6 in both)	RUS (7) POL (2) CZE-SVK (2) GDR (1) EST (1) LVA (1) HUN (1) BGR (1) BLR (1)	US (6) FRA (3) UK (2) FIN (2) ITA (1) FRG (1) CHE (1) JPN (1) NLD (1) IND (1) SWE (1) VEN (1)	4 (3 in West)	ITA (2) POL-LIT (1) International (1)	11 had published in the WoS journals (6 of them 1-3 articles)  Average H index: 0,61 (for total members) and 2 (for 11 authors)	USSR (20) USA (9) FRG (3) GDR (1) FRA (1) AUS (1)
<b>Latvian Council of Science (1990)</b>	26	10 (5 in East, 3 in West, 2 in both)	RUS (5) POL (2) BGR (1) CZE-SVK (1) GDR (1) ROU (1)	USA (3) CAN (1) ITA (1) GBR (1) AUT (1) JPN (1)	13 (5 in West)	USSR (3) Europe (3) CZE-SVK (1) GDR (1) Baltic (1) International (1)	8 had published in the WoS journals by 1990, (5 of them 1-3 articles).  Average H index: 0,46 (for total members) and 1,5 (for 8 authors)	USSR (20) CZE-SVK (1)
<b>Council of Estonian Science Foundation (1990)</b>	17	7 (1 in East, 4 in West, 2 in both)	RUS (1) HUN (1) CZE-SVK (1)	US (3) FIN (3) SWE (2) ITA (1) JPN (1) FRA (1)	5 (5 in West)	International (4) FIN (2) Scandinavia (1) USA (1) Europe (1) USSR (1) HUN (1)	8 had published in the WoS journals by 1990, (5 of them 1-3 articles)  Average H index: 3,47 (for total members) and 7,37 (for 8 authors)	USSR (73) GDR (37) CZE-SVK (10) HUN (8) USA (6) FRG (3) UK (1)

Source: Author's compilation. Based on available information in CVs and conducted interviews.

Note: Countries are hereafter designated according to the international organization for standardization country codes (ISO 3166).

Results for the Estonian group are calculated based on 17 individuals. However, results for the Lithuanian group are calculated based on 34 individuals for whom the information was available, and results for the Latvian group are calculated based on 21 individuals for whom the information was available. Due to the inconsistent representations of foreign experiences, the column "Foreign study or research experience" counts all experiences, regardless of their durations. The column "collaboration partners" represents the number of articles published in collaboration with researchers in the given country.

Comparing the profiles of members of these organisations reveals significant differences. The major difference between these groups seems to be their travel experience (**Figure 2-2**).



**Figure 2-2 Distribution of science council members travel experience in 1990-1991**

*Source: Author's compilation. Based on Table 2.3.*

The biggest difference can be noticed Estonian researchers and their southern neighbours' travel experiences. While Latvian and Lithuanian council members had mostly travelled to the USSR and allied states, the EstSF council members had travelled mostly to the Scandinavian and Nordic countries. Moreover, Estonian travelling experiences to this region surpassed their number of experiences in the USSR and allied states. That was not the case in Latvia and Lithuania. These trends are also visible in the profiles of the previously presented key actors. For example Edgar Rihtmäe, before defending his doctoral degree in 1984 in Moscow National University, was also working from 1972 to 1973 in Novobrovsk and from 1975 to 1976 at the University of Uppsala in Sweden, and in 1977 to 1978 in the University of Edinburgh. Also, Mati Järvesoo had the opportunity to participate in shorter, three to four month internships in the USA and Sweden in the 1970s and 1980s. Moreover, although the Institute of Physics and the Biocentre had industrial contracts, the group of science administrative elites were more engaged in basic research. Together with their peers – mostly scientists of biomolecular chemistry and physics – they started working with bibliometrics in the 1970s and manually calculated citation indexes based on references found at the library (Martinson 2015). In the words of one of these individuals, “the idea was that if you produce an article, you would

need to know how it is doing”<sup>94</sup>. They also indicated that they were concentrated more on fundamental research because, in their words, it meant “they were less dependent on Soviet industrial contacts”<sup>95</sup>. Indeed, a comparison of their publication practices in the WoS journals confirms a stronger Western orientation in the profiles of the EstSF members, as well as their focus on fundamental sciences. In each council, 8-11 authors had published in the WoS journals by 1990 or 1991; in this time the Estonian authors’ H index<sup>96</sup> (7,34), which reflects the productivity of authors based on their publication and citation records, surpasses Latvian authors’ indicator (2,00) three times over, and the Lithuanian indicator (1,50) four times. The collaboration in these lower-scoring articles was conducted with researchers working in research institutions in the USSR or allied countries’.

Compared to their northern neighbours, Lithuanian authors were only slightly turned towards the sphere of Western science. During their studies and early professional careers most LitSC members had experiences in foreign Eastern universities and research institutes where they earned their degree, or spent part of their postdoctoral studies, which often lead to Soviet doctoral degrees. For example, Lithuanian researcher Giedrius Shaulis followed his scientific supervisor to the University of Kyiv, Ukraine, and subsequently to the Lomonosov Moscow State University in Russia, where Giedrius Shaulis studied at least three years and defended his candidate degree on the topic of Limit Theorems for Sums of Step Random Processes. Andrius Petraitis was sent to Bulgaria (period unknown) for post-doctoral studies, where he participated in studies of the electro-crystallization of metals at the Institute of Physical Chemistry of the Bulgarian Academy of Sciences in 1987. Throughout our research, we found only one Lithuanian activist who had personal experiences with the Western academic field. Liudvikas Petrauskas received his PhD in Electrical Engineering from the University of Illinois in 1960, and after working at the University of California, Los Angeles, returned to Lithuania in the early 1990s to become directly engaged with systemic science and study reforms. Notably, he built up the Kaunas Vytautas Magnus University, which by its structure, curriculum and staff members became the first Western type university in Lithuania (source: Aleksandravičius 2018). It is visible that although Lithuanians had experiences from the Western and Eastern context, these experiences were not binding to either orientation as was the case in Latvia or Estonia.

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<sup>94</sup> EST04

<sup>95</sup> EST59

<sup>96</sup> The H index is used for measuring scientists’ productivity. It is based on the set of the scientist's most cited papers and the number of citations that they have received in other publications.

With some exceptions, Latvian LvSC members had very few experiences with Western institutes and universities. For example, Edgars Jansons participated in postdoctoral study programs in Moscow, Warsaw, Prague, and Jena. At the same time, Valdis Pētersons, a CP member who received a degree in Physics from Moscow State University in 1966, was one of the few in Latvia who could travel to Western countries for longer periods of time. He participated in two intergovernmental scientific exchange programmes. From 1973 to 1974, he was an exchange researcher at the Mac-Master University, Canada, and between 1980 and 1981 he was a visiting scientist at Brown University, USA. Many LvSC members had close contact with one another, channelled via their collaborators in Russia<sup>97</sup>. Their home institutes were closely linked to the Moscow scientific and military-industrial infrastructures. Both the AS Institute of Organic Synthesis and the Institute of Solid State Physics received most of their funding from Moscow and St Petersburg AS institutes, and through military contracts. For example, the Institute of Solid State Physics, which created windows for satellites, received 70% of its funding outside of the Latvian AS budget. Such external resource collecting was against the formal rules of the AS. In the view of Andris Kalniņš, the success of the Institute in military-industrial cooperation and the resulting autonomy was a source of conflict with the Presidium of the Latvian AS<sup>98</sup>. Hence, even if the LvSC members were not oriented towards Western contacts, they formed a rather homogenous group: they shared common professional trajectories, alongside their common experiences working with the Russian industrial complex and the AS.

We can see that these cross-national differences in the profiles of emerging science administrative elites were reflective of Soviet period scientific orientations toward East-West cooperation in each country. These experiences also shaped their critical perception of the national science administrative system, and further practices in reconstructing national science administrations.

## 2.2. Limited utilisation of foreign references and organisational innovation

These groups of emerging science administrative elites were also on the frontline of changes that took place under the transitional government – namely, the legal-structural reorganisation of science policy, and the foundation of research funding organisational

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<sup>97</sup> LV31

<sup>98</sup> LV34

structures. How the former rules and norms in these matters were questioned and reformulated, in the context of national science administrative elites and their power struggles, was different in each of the Baltic nations. The Lithuanian system favoured the influence of the Parliament (2.2.1), the Latvian system turned to the research council (2.2.2), and the Estonian system aligned more with the research foundation system (2.2.3). The influence of both Eastern (e.g. former Soviet Union) and Western countries' systems had varying degrees of successful implementation. For example, although Western countries' systems were intensely referred to in Estonia, they were visible only in formal organisational designs and not always in the actual research funding practices.

#### 2.2.1. Lithuania: national parliament and the centrality of political decision-making

As it was in other Baltics, political turmoil uncovered several collective actors and their projects for structural reorganisation of the scientific field. These projects were often public, were communicated in newspapers and on TV, and were discussed within major rising political groupings.

In Lithuania, at least three propositions were put forward (source: Personal archive 2016). First, the leaders of the Lithuanian Union of Scientists proposed to implement three main principles for HE and R&D development: democratic governance, institutional autonomy, and integration of science and studies. This was to be accomplished by establishing an institution of self-governance for the science and studies system – a science council elected directly by Lithuanian scientists. Second, the Presidium of AS suggested that the existing functions of the AS, which at that time essentially carried out the tasks of the ministry for R&D, should be strengthened. Finally, a liberal grouping from the Councils of Ministers put forward their own proposition<sup>99</sup>. Their reform plan included integrating some parts of the AS institutes into HEIs, reorganising the other institutes into independent research organisations cooperating with the business sector, the transformation of the AS into a Western-style academy, the creation of a Science Foundation for research funding, and establishing a National Science and Technology Council for the state coordination of R&D (*Ibid.*). According to our interviewees, the latter project was considered too “radical” and did not get the support of the transitional government

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<sup>99</sup> The project was led by Edgars Jansons, who had graduated from the Institute of Economics of the USSR AS in Moscow, was a member of the Lithuanian Rotary Club, and later became a businessman and member of the Lithuanian Centre Union - a social liberal political party in Lithuania that existed between 1993 and 2003. Despite several attempts, we have not found more in-depth testimonials about this working group.

or the Parliament. Instead, the anti-communist Popular Front *Sąjūdis* government supported the Union of Scientists' programme. As a result, the preparation of the legal-structural reorganisation of the science sector was put in the hands of the Department of Science and Studies (*Mokslo ir Studijų departamentas respublikos vyriausybės*), which existed from 1990 to 1991 under the Government and was led by the head of the Union of Scientists Andrius Petraitis.

But the administration of these changes was demanding. The Lithuanian scientific field was characterised by a widespread engagement of scientists with the CP, and support only for smaller changes in research policies. One of the leaders of the Union of Scientists, in describing changes at the AS Institute of Physics and Mathematics, remarked that Lithuania was the only country where the Union of Scientists and *Sąjūdis* faced major difficulties in undertaking changes: "We established the *Sąjūdis* group at this institute, which not only encouraged the employees of the institute to participate in its activities but also resolutely raised the ideas of democratising our science management. Our initiatives quickly spread throughout the Academy of Sciences. We demanded a change in the principles of governance of the institutes. At that time, the Presidium of the AS tried to implement a new procedure for appointing the leading staff of the institutes belonging to the Academy. On behalf of the Institute's *Sąjūdis* group, we demanded that these regulations be made public and considered, and we proposed additional democratisation measures. However, the resistance to this change was greater than might have been expected" (source: Lietuvos mokslininkų... 2014a). In another article, he goes so far as to assess that there was a widespread reluctance within AS institutes against the new norms advocated by the Union of Scientists, such as democracy, transparency and autonomy. Besides the remaining Soviet science elite, reform attitude was also strongly opposed by the State Security Department, led by the Lithuanian CP (source: Lietuvos mokslininkų... 2014b). These elements in the science management system became the major issue for the activists from the Union of Scientists.

The conflict was also present in governmental structures. On the one hand, there was the Department of Science and Studies (led by the leaders of the Union of Scientists) that was responsible for drafting the first regulations for the research sector. On the other hand, there was the Lithuanian Parliament, which was included from early on in the discussions of the new scientific management system. As we saw earlier the Parliament's Committee on Education, Science and Culture was composed of former CP members, including the former President of the Lithuanian AS (e.g. see section 1.3.2). The conflict arose in a more concrete way on the 12<sup>th</sup>

of February 1991, when the Parliament discussed the new law on the science and HE sector. In the discussion about research funding, a section of members at the Committee on Education, Science and Culture had supported direct research funding allocations from the Parliament, and other members of Parliament questioned why the funding shouldn't be entirely in the hands of a scientific council composed solely of scientists. One of the most active promoters of the council system was Liudvikas Petrauskas, who had constructed his career in the US and used the example of California in discussions about the Lithuanian research funding system. According to him, a strong science council would "guarantee their full autonomy and independence from government change and from the impact of political parties" (*Ibid.*). Otherwise, in our interviews, Parliamentary discussion over the law act, or other written sources, foreign examples are only rarely brought out as a reference to the reform programmes. In the Parliamentary discussion, no other foreign examples besides the Estonian, Latvian and US examples were evoked. Notable is the statement of the head of the Department of Science and Studies: "...the alternative that the (funding) decisions of the Lithuanian Science Council would be final was considered by the commission and the working group. I even want to say that there are some precedents. The national scientific councils of the Republics of Latvia and Estonia are established in this way, but they are also executive bodies under the government structures. However, there is a strong suspicion that such councils are ineffective as executive bodies. In Lithuania, they would replicate the Department of Science and Studies. Hence, we propose that the Lithuanian Science Council would be a compulsory expert body for the Government. But the decisions would be made by the Government" (source: LitAS 1991). The extract is interesting because, on the one hand, we can observe the influence of the Parliament Committee over the law draft: Parliament was proposed as a final decision-making body. On the other hand, we can also observe the agenda of the Union of Scientists to impose the science council as a mandatory advisory council in funding allocations. The conflicts described above show that the Department of Science and Studies had to manoeuvre between different interests and that the proposed solutions were "handcrafted" to reach a consensus.

The Law of Research and Studies was adopted in 1991. With this law act, the Lithuanian AS was defined as a state-sponsored institution which "joins the most prominent Lithuanian and foreign scientists connected to Lithuania" (source: LitLRMSI 1991, Article 6). In the Parliament discussion over the law draft, the change was considered important for its supporters it brought an end to "dictation over research institutes". Moreover, it was argued that it provided the basis for Lithuania to join the international cooperation of academies, and more broadly to

establish a system “corresponding to the structure of “world science”<sup>100</sup>. In addition, the Law stipulated the establishment of the LitSC. Founded as in 1991, its aim was explicitly directed towards “supporting the development of fundamental science and related research” (Berg-Andersson 1997, 65). Yet, in the matter of research funding, the LitSC remained in the role of an advisory body (not “mandatory” as was proposed by the Union of Scientists). Instead, the major part of the research budget was allocated to each institution as part of the Parliamentary decision. Hence, the Parliament, and notably its Committee on Education, Science and Culture, became the central body in research funding allocation. Moreover, it means that although the role of the AS was formally cut and a new science council<sup>101</sup> established, the Soviet era AS science administrative elite could still control funding allocation via the Parliament.

After the first parliamentary elections in 1992, the government was replaced with the party that was led by the former Lithuanian CP members. In 1992, the Department of Science and Studies was named the State Agency in Research and HE and Technologies (*Valstybinemokslo, studijurtechnologijutarnyba*) under the Prime Minister’s Office. The agency was closed in 1994, and science management was transferred to a separate legal body under the Ministry of Education and Culture (renamed to the Ministry of Education and Science). Also, although the LitSSSF was created in 1993, this foundation allocated only 1-3% of the total science budget on the project-based method (Dagyte 2004, 168) despite consisting of the board and six expert commissions on physics, engineering, biomedicine, the social sciences, humanities, and economics. Thereby, instead of a change in science administrative staff members that could provoke changes, our interviewees refer to shifts in political loyalties, including amongst the reform actors. For example, according to one former head of the independent division of HE and Science under the Ministry, one of the key reform actors who had supported this law proposed by the Union of Scientists “changed his opinion after two or three years” and “understood that this self-government is not a good system for research and innovation”<sup>102</sup>. In another interview the former head of the LitSC, who is also a conservative political party supporter, noted that the Union of Scientists leadership also changed between 1993 and 1994. The new leadership “were against restructuring science funding in 2000 and so on, we were debating with them a lot. I told them you are wrong, and that we should follow the

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<sup>100</sup> Transcript of the meeting of the Supreme Council of the Republic of Lithuania in 12.02.1991 (source: LitAS 1991).

<sup>101</sup> It is also interesting to note that the first LitSC was composed of many scientists who were linked to the *Sąjūdis*. Out of its 36 members at least eight were politically engaged - most of them (six) as active members of *Sąjūdis* two as members of the Homeland Union (Lithuanian Conservatives) and Lithuanian CP.

<sup>102</sup> LIT09

pathway like in other countries. They just wanted to increase researchers' salaries, so they became like a trade union"<sup>103</sup>.

The rooted power of the Soviet era science administrative elites in Lithuania is also reflected in the practices of foreign cooperation. Following the example of their Estonian and Latvian counterparts, and with the support of the Nordic Council of Ministers, the Popular Front government requested an international evaluation of Lithuanian science from the Norwegian Research Council (e.g. see section 1.3.3). The final version of the evaluation was published in 1996. At the time of the evaluation in Lithuania, research funding councils did not exist, so precise directions were given: "the council shall distribute one fourth to one-third of the government funds provided for research at universities and research institutes. The Ministry of Education and Research and the other ministries should remain responsible for providing basic funds and for stimulating research of specific importance to their sector" (source: The Research Council of Norway 1996). Yet the result of this evaluation was ignored by the government officials:

"I can say that after the discussion of the scientific community we decided not to implement most of the proposals of Norwegian colleagues. They [the scientific community] said that Norwegian colleagues don't understand the reality of Lithuanian situation...and after the visits of our politicians to different institutions and after several discussions about the Norwegian proposals, there was decided that okay, these are nice proposals, but not for Lithuania. [...] Our rectors and directors of institutes had a great influence starting from our independence, they were key players in this field, they could go to parliament, to Prime Minister's office, to the President's office and say there what must be done"<sup>104</sup>.

Due to widespread resistance from the science elite (heads of universities and research institutes), the recommendations thus remained unused by the Lithuanian science administration. There is good reason to believe that the science administrative elite, and their links to the Democratic Labour Party, were more profitable for research institutes. Institutional funding distributed by the Parliament allowed the heads of these institutes to sustain their activities, which would have otherwise been put under question following the foreign recommendations.

Hence, research funding in Lithuania was an object of political conflict between communist and anti-communist groups. Although the "Soviet" or "Russian" example of

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<sup>103</sup> LIT14

<sup>104</sup> LIT09

scientific management was openly rejected due to its autocratic control, the political dimension itself did not disappear from the governance of Lithuanian science. Due to the continuity of power in the hands of politically connected science administrative elites, the former Soviet system was reproduced in its core and the Soviet era AS science administrative elite could control funding allocation via the Parliament. In that way, although the “science council” organisational model was adopted on the US example, this example was altered to accommodate the local political context: it became an advisory body for the Parliament. The interplay of low foreign experience in Lithuanian reform actors with a unique scientific field context were therefore primary factors in the development of science policy during the years of political awakening.

#### 2.2.2. Latvia: replicating the Soviet AS system in a science council

As we demonstrated earlier, the Latvian scientific field context was unique within the Baltics during the political turmoil. In the Soviet period, the Latvian science and technology sector was submerged in industry, and particularly military-industry institutes that were closely linked to Moscow. The Sovietisation of the AS, and particularly its Russification, was therefore most successful in Latvia.

In the perception of emerging science administrative elites, the given context dictated the orientations of their action in the years of political turmoil. As it was briefly described by several of them: the AS was a “nest of hard-line communists” and the aim was to “cleanse” it in favour of Latvian scientists<sup>105</sup>. In collaboration with the reform-minded part of the AS and the newly composed Board of Rectors of the Latvian HE institutions, reform actors hence aimed to “shatter the old administration of research management at the AS and break the former top-down political research funding system which was managed by people loyal to Moscow” (Grens 1995 as cited in Kristapons 2003, 40). Support was also granted by the rising political parties. Several scientific field activists were leading figures of the Union of Scientists, and hence close to the Popular Front which arose in power during the transitional period. Moreover, the first parliamentary elections in 1993 were won by the Latvian Way party (co-founded by a group of Latvian economic elite and former members of Popular Front) where at least one of the reform activists was actively engaged. It seems that with one exception (notably the former

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<sup>105</sup> LV04, LV34

Russian-originated AS praesidium), reform actors shared a similar political desire to “re-nationalise” Latvian science.

To attain their objectives, several parallel processes were launched: the reform of the AS, the establishment of a new organisation for science and funding management, and an international evaluation of Latvian research. The new legal-structural system of research management was formalised in 1992 with the adoption of the Law of Scientific Activity.

More precisely, the first action was the transformation of the AS into a learned society type of organisation:

“Some members of the Academy of Sciences were political, especially in social science and history. What Edgars Jansons did, as a good diplomat, he invited more active people from the Latvian Union of Science to be members of the Academy of Sciences. Because previously, there was no way that somebody from the university would be elected to the Academy. But he invited them and said that their results were good. So he decided to broaden the Academy so that these old-time people would not be able to rule. In that way, the praesidium was changed. President of the AS was not very willing for changes but he was supporting. When the academy became a personal academy, only one vote changed the situation”<sup>106</sup>.

The strategic move described above created change amongst the members of the AS and its subsequent restructuring. As described by one of the reform actors “old academicians were pulled out and newcomers came in who were more loyal to the Latvian Republic”<sup>107</sup>. According to the interviewee, the most anti-national views were found within SSH disciplines. The change in AS membership was therefore not only a political reform, but also a power fight between different fields of disciplines. Secondly, it contained the withdrawal of the AS’s executive role. Reform actors were against the complete dissolution of the AS system proposed by more “radical-minded” members of the Union of Scientists. They shared preferences for the role of an Academy to be a representative organ of scientists, but also personal trajectories were important – for example, family histories linked to the Academy<sup>108</sup>. The Latvian AS was transformed into a learned society type of organisation with its new Statute, which was designed on the example on the Swedish academy<sup>109</sup> and adopted in 1992. In the same year, it was declared that the AS’s institutes were now independent in terms of their scientific work and

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<sup>106</sup> LV31

<sup>107</sup> LV34

<sup>108</sup> LV34, LV04

<sup>109</sup> LV04

their administration. At the same time, contrary to Estonia for example, the universities and research institutes were kept under the sectoral ministries' governing areas of operation.

In parallel, a new formal organisation for research funding was established: the LvSC, established in 1990. Setting up a science council was not a fortuitous choice:

“From the very beginning, the idea of establishing a science council came from the Union of Scientists because it was well known that Nordic countries had such councils, so automatically we took this example. And not from other countries such as Germany or the US, because they are too large countries with very different situations. And they [Nordic countries representatives] were the first who came here and made contacts with us. Also, this influenced that<sup>110</sup>.

Although the interviewee did not refer to a specific country from where the example was taken, the organisational form of the science council was perceived as somewhat “evident” by the reform actors. Most importantly, the establishment of the LvSC resulted in a major shift in AS capacities. The LvSC was granted the power to manage the totality of public research funding both for applied and fundamental research, allocated through two instruments: “fundamental and applied projects” and “cooperation projects”. The LvSC also became the key government advisory organisation on the formulation and implementation of science, HE and R&D policy. In that way, instead of decentralising power to scientific institutions or universities, the LvSC greatly replicated the functions of the former AS.

The LvSC not only gained functions similar to the former AS but also worked closely with the new AS Presidium.

“The Latvian Council of Science was formed as a democratic collegial institution. We had a headquarter at the Academy. Presidents of the AS like [cites names] were simultaneously head of the Science Council. [thinking] I think it is because the more active scientists were the members of the Academy. So it was more or less how to say, um...joined organisation. So, therefore, the influence of the AS in Science council was very high, because of the persons who overlapped. Not officially...but because of the people”<sup>111</sup>.

The two organisations shared a physical working space as well as leading members of the organisations. For example, of the 26 members of the LvSC in 1990, a majority of them (14) were members of the AS. As mentioned previously, Latvian reform actors launched a

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<sup>110</sup> LV34

<sup>111</sup> LV34

campaign aimed at elite Latvian scientists in the late 1980s to enter the CP and the AS, and this context helps explain this overlap in personnel<sup>112</sup>.

Moreover, the first foreign evaluation of Latvian Science was initiated by the Danish Council of Science. It was initiated by one of the members of the Union of Scientists (Andris Kalniņš) who was working in the field of Biochemical and Biotechnology sciences. The international visits and the following evaluation report (printed in 1992), with suggestions to support science from the governmental budget, became a resource in negotiations with the government over the policy sector. According to the emerging Latvian science administrative elite, the evaluation could not only “show to the government the importance of the field of science”<sup>113</sup>, but distinguish fields and projects worthy of funding:

“What we started to do the first, was the evaluation of Latvian Science. The reason was very simple and understandable. If you look the area of scientific institutions which were powerful in the Soviet era, many not in science but more in military technologies or for spying and so on...these institutes were large and powerful...um...so what do you do? You couldn't simply select that this was good and that was a bad institute. At the same time, some scientists were bright, so we couldn't just discard them with the bad institutes! That's why we decided not to give money to science institutes, but to allocate it based on the selection of the best projects. So that several aspects would be taken into account: the quality of the scientific project, what scientific records and publication you have, how active you are, what do you propose to do...and the idea was that these projects would not be selected by us, but we sent these reports of scientific groups to Western countries, to Denmark's National Science Councils. Denmark was the organizer of this...but there were also people from Sweden and Germany and so on. And we decided...so it [the evaluation] was not taken as an official thing how to distribute money, because it was independent and international...but then we made the call for projects through Latvian Council of Science - this was together with the Ministry of Education, they supported that. Projects which were proposed were similar. And then the LvSC formed evaluation groups in several branches and decided who will get funded and who will not. Therefore, the money didn't come to institute but to particular research groups! But okay, there was some basic infrastructure money...however, not all of the institute groups received the project money. So many large institutes that were based on military research institutes collapsed. In that way, we could support real sciences which corresponded to Western criteria”<sup>114</sup>.

The Danish evaluation of research served as a resource to justify funding decisions to re-organise the scientific field. The effect was the elimination of research groups that were

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<sup>112</sup> LV34

<sup>113</sup> LV04

<sup>114</sup> LV34

composed of party-appointed (and often immigrant) science workers, and investment into research regarded as more “useful” for Latvia<sup>115</sup>. Research funding could be thus streamed to basic and applied research in various branches of the exact and natural sciences linked to national-based industries – that is, the areas that were represented by members of the rising science administrative elite. As written earlier by reform actors: “looking back, it seems obvious that this shock approach was necessary to shatter the old administrative system of research management before it could recover and adapt to new conditions” (Grens 1995 as cited in Kristapons 2003, 40). Although the foreign evaluation was used to establish initial funding decisions, due to “lack of money” and “lack of need”<sup>116</sup> neither major foreign evaluations nor peer-review for projects were conducted in further years.

In the ways described above, Latvian public research funding was an object of conflict between immigrant (Russian) and nationally oriented science administrative elites. It seems that the latter were using foreign references (e.g., the research funding council model) and evaluations to establish their dominance in the scientific field, meaning that their actions were foremost guided by political interests rather than a willingness to reproduce any foreign country’s (“Nordic” or “Western”) type of science policy and funding system. Therefore, instead of emerging as a highly competitive funding body, the LvSC became an organisation for allocation of base-line funding (or “survival money” as described by many of our interviewees) for national economy- and society-oriented institutes. Many rules and norms of the Soviet-time AS system were reproduced: the multiple roles of the AS in the LvSC, the formal categorisation of scientific disciplines, as well as research funding decision-making rationales (e.g. see section 4.2.1). Hence the pre-independence period AS, led by Russian administrative elites, was replaced with the post-independence LvSC, led by Latvian patriotic science administrative elites. The unique Latvian reform context and rather low international experience of the new Latvian national science administrative elite are key elements to understanding this process.

### 2.2.3. Estonia: the quest for a “Western model” via a research foundation

In Estonia, at least three propositions were put forward for the science organisational setup. First, the activists of the Union of Scientists proposed the transformation of the AS into a scientific society type of organisation, and the establishment of two new science management

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<sup>115</sup> LV34

<sup>116</sup> LV34

organisations: a science foundation for research funding, and a science office for accompanying administrative matters. Second, the AS commission for science policy stood for keeping the Academy system. Instead of establishing an independent science foundation, they proposed the creation of a state science council type of organisation that would be responsible for research funding issues. According to the Union of Scientists, in that way, the research funding system would be kept linked to the government and most probably, its political influence. Finally, the government commission on scientific expertise (*Vabariigi Valitsuse teadusliku ekspertiisi komisjon*), composed of members mainly from the disciplines of the social sciences such as law and economics, proposed the creation of a multifunctional science council that would advise the government and coordinate science and other foundations (Martinson 2015).

While the leading role of the Union of Scientists in establishing the legal structural framework was not yet evident at the very beginning of the 1990s, it became so in the context of national political struggles and the support given by the most prominent researchers to the Union of Scientists and its leaders. However, not all propositions of the Union were popular with interest groups and several compromises had to be made in the new organisational structures compared to the initial plans.

All in all, two new organisational structures - the EstSC and EstSF – were established in 1990. The EstSC as a multipurpose advisory council was established next to the government office (hence, the R&D policy became the only policy field formally steered from the centre of government). The official aim of the council was to “work out and harmonise national science and innovation policy” and to “coordinate and guide” the resources of three different foundations, including the EstSF (the others were the Innovation Foundation and Informatics Foundation), as well as to “generate and control the execution of national target programs” (Martinson 2015, 115; source: EstSC 1990). Instead of the establishment of a science office as initially planned, reform actors had to compromise with the government and accepted the establishment of the advisory science council (source: EstSF 1990; EstSC 1990). The EstSC was reorganised into the Research and Development Council (**EstRDC**) in 1994.

The EstSF, on the other hand, was defined as a “state organisation under the tutelage of the Ministry of Education” and became responsible for research funding and particularly the establishment of the grant system (source: EstTS 1994). In practice, the science foundation was autonomous in its decision making<sup>117</sup>. However, the EstSF grants remained small and scattered

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<sup>117</sup> EST05

between different disciplinary areas. As it was in Latvia, there was no base-line funding in research. Hence, the small research grants were often distributed to secure the survival of research groups, rather than to grant them supplementary funding for outstanding research activity (e.g. see section 4.1).

Experiences from both Russia and Western bloc countries during Soviet times, and the engagement in the international community of researchers, had a direct influence on how the new organisational outline was imagined.

“So, here in Estonia, what was important was that we were a group of Estonians who all had lived in Moscow...at the Moscow institute, Moscow Science Academy, and Moscow University particularly was full of excellent scientific groups, they had huge budgets and they did space science and all that, they also had equipment. And this group returned to Estonia afterwards. Their mindset was way more open than those who had stayed here. Because Estonia it's just a small meaningless dot on the world map. [cites names], Raul Mägi ... – all of them they brought along a wider kind of thinking [...] And thanks to those people, who had seen the world and who were educated in bigger centres...they just understood better what's going on. [...] And those who worked against us, there was a combination of their age, profession, and status...to make it short, people who were against the reforms were the ones who knew that if it will be about the scientific quality they will lose money! So it included these applied science workers who were used to their contracts from Moscow and worked for the whole union. Also, many social science people, for the same reasons, and also because the reformers were from the exact sciences. Also from the government side, there were those who were against, but I said that's normal and that has always been like that [in Western science]”<sup>118</sup>.

“Our aim was the creation of a Western-type system. In the frontline, there were those who knew how things work in the West. So that we would know what to do so that we could make a Western-type system”<sup>119</sup>.

“Science foundation was a collective creation. At the time, the whole funding it was like rain, came from above, fall to us from Moscow. So, there were all of these talks and discussions and also the logics of exact sciences and also the knowledge that in the West there is a grant system, all that contributed to it...so it was just evident, it was clear to everybody what must be done”<sup>120</sup>.

As expressed by the individuals we interviewed that were linked to the science administration in the 1990s, the main ideas for this organisation had been evolved throughout the educational and professional careers of the emerging science administrative elites. In

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<sup>118</sup> EST05

<sup>119</sup> EST25

<sup>120</sup> EST59

contrast to the Latvian and Lithuanian cases during the reform period, some leading members of the Union of Science in Estonia engaged in systematic studies of foreign examples of science management. Not all countries were addressed, but mostly the USA, Germany, Canada, and the Scandinavian countries (Martinson 2015). The US example was relatively easy to grasp because of the US National Science Foundation's project on the Baltic science systems, as well as early contacts with the Open Society Foundation that helped establish contacts with US science managers. Scandinavian countries were considered close and similar to Estonia; hence their experiences were considered essential.

The EstSF also decided to directly use Swedish evaluation results in grant allocation. In 1991 the EstSF applied to the Royal Swedish Academy of Sciences and Swedish Research Councils with a request to evaluate Estonian science. According to a former EstSC staff member, the choice of Swedish experts was made considering the “cultural and geographical closeness” of Sweden, the “reputation of the Swedish Royal Academy in regards to Nobel Prizes” and “the Natural Science Council's long-term experience in organising international expertise” (*Ibid.*, 191). Behind this study was one of the reform actors Edgar Rihtmäe who was a visiting researcher at Uppsala University in Sweden in 1974, and since 1989 was a Foreign Member of The Royal Swedish Academy of Sciences. He succeeded in getting the President of the Academy and the Secretary-General to agree to the evaluation process. Although some local expenses were covered by the EstSF, the rest of the evaluation was fully funded by Sweden (source: Akadeemik... 2012). By setting the level of research internationalisation at the heart of the assessment criteria, the assessment problematised the research policy situation in Estonia and contributed to the design of the funding measures of the EstSF. First, the Swedish evaluation served as a benchmark for funding decisions in each scientific branch. It was decided that research groups that received a rating less than “good”, as a result of those not presenting for evaluation, should not be funded at all<sup>121</sup>. Although the council voted for using the evaluation results in both grant funding and the base-line funding system, we have no precise information on the impact of these decisions on the latter. Presumably, it was formulated as an informal recommendation for the AS and universities. Secondly, the evaluation was also used to justify a progressive increase in the proportion of grant funding. Finally, at a time when science-specific laws were not yet adopted, nor were any policy guidelines coming from the government, the Swedish assessment offered legitimacy to the EstSF in making further decisions regarding funding. Analysing the EstSF Council's notes of the meeting (**Box 12**) gives

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<sup>121</sup> Transcript of the EstSF Council meeting on 19.10.1993 (source: EstSF archive 1993a).

an impression that there was an overall consensus amongst members regarding the need for a grant system, its progressive implementation, and the legitimacy of the council in taking all of these steps.

### **Box 12 Utilisation of Swedish assessment for extending competitive share of public research funding**

In September 1992 the EstSF Council received most of the results of the Swedish evaluation. How to utilise these results became the key question during the monthly meetings of the council. In particular, at the beginning of 1993, the council questioned the relationship between the “basic funding” and “grant funding”, and the aims of the latter. Some of the members of the Councils (Lipmaa) supported drastically increasing the share of the grant system to support the strongest fields of science. Most of the others were for a progressive transformation, mostly due to the risk of instability in research institutions. Notable is the end of the discussion where the question about the aim of grant funding is raised: “The question is if we want to use grants for changing the actual structure of science? At the moment we don’t even know where to move, because we have no national research policy and Programs”. (E. Kraav). The response, which also closes the discussion about grant funding is given by the head of the Council: “That is our responsibility, by relying on the Swedish expertise and our experts' opinions, to normalise Estonian scientific structure comparing to our neighbours, all by taking into account our potential and needs”<sup>122</sup>.

Previous foreign experience was the principal resource of these actors in negotiating reforms within the scientific community, as well as with the government. However, although the EstSF gained the right to apportion the totality of the research funding budget, only part of it was allocated through project competition. Instead, in the early 1990s, particularly when the AS structure was not yet divested of its institutes, the majority of funding was earmarked to intermediaries such as the universities, ministries, and the AS. For reform actors, the establishment of the foundation, with a gradual transition to funding through research grants, allowed a “smooth transition from the Soviet research funding system” towards a more “Western kind of system”<sup>123</sup>. This achieved the desired scientific self-co-ordination and competitive norms in research funding, but also softened reluctance against the reforms. Hence, the AS maintained an important role in funding.

The Law on Organisation of Research was adopted in 1994, and the Law of Universities Act in 1995. With the Law on Organisation of Research, the role of the AS over the research institutes and its capacity to allocate research funding was cut, and it was transformed into a

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<sup>122</sup> Transcript of the EstSF Council meeting on 7.01.1993 (source: EstSF archive 1993b), EST59.

<sup>123</sup> EST05

learned society type of organisation as in other Baltics. Research funding, from then on, was streamed solely through the EstSF.

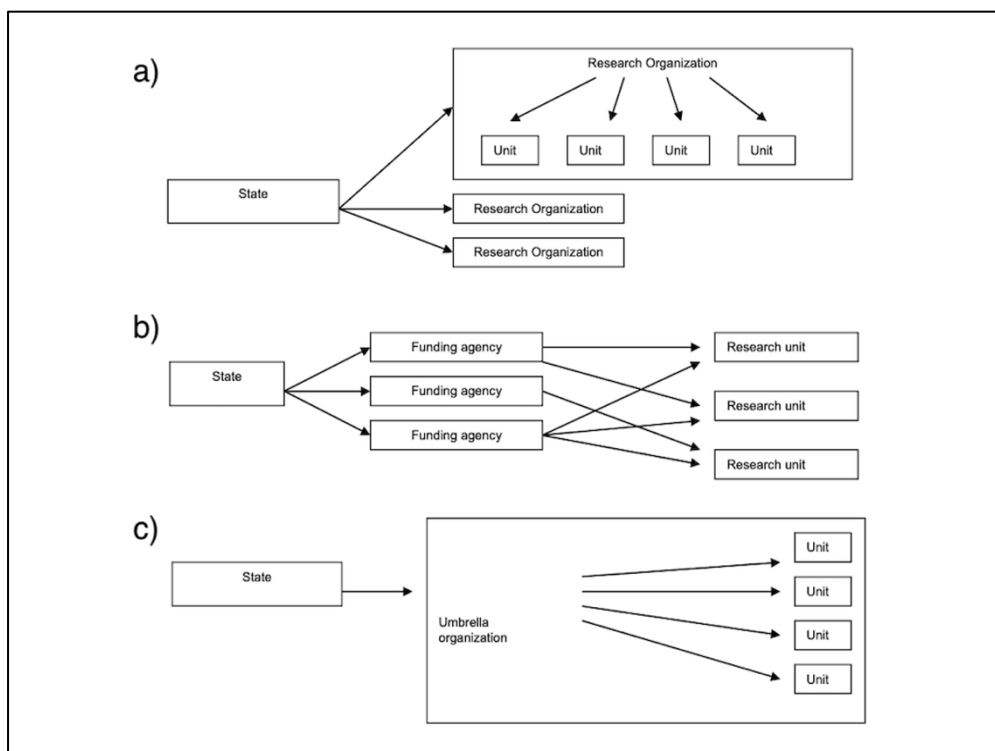
The legal-structural reorganisation of scientific policy and the foundation of research funding organisational structures in Estonia was somewhat similar to the Latvian case, but without the “Russian problem” and with higher mobilisation of foreign references that were available for the rising science administrative elites due to their trajectories. We also see a growing tendency to mobilise foreign references to further support research groups that undertake “high-quality” research (measured by their international contribution), and in which the reform actors themselves were represented. However, due to factors such as the resistance of several groups (mainly the AS), and the need to offer basic support for research groups that were heavily influenced by the political and economic crisis, these ambitions seemed to remain on the level of discourse in the first years of independence.

### 2.3. A change in scientific fields?

While the research funding was an object of power struggles in national scientific fields, these processes were also shaping the organisational settings, or “models”, of public research funding in each country. Thereby, they resulted in the uneven weighting of political and science institutions in public research funding organisational setups (2.3.1). Also, although these reform trajectories had only little effect on SSH related research organisations (2.3.2), they had an impact on the overall numbers of researchers working in relevant structures (2.3.3).

#### 2.3.1. Different funding “models” and the uneven weighting of political and science institutions in organisational setups

From a formal organisational viewpoint, we can underline the transition from a broadly similar communist system – characterised by strong centralisation and the central role of the AS – towards three very different systems in the Baltic countries. For categorisation of national settings, we refer to the funding modes proposed by B.Lepori and colleagues (2009) in their research on CEE countries’ funding systems (**Figure 2-3**).



**Figure 2-3 Funding arrangements: a) institutional or core funding; b) project funding; and c) vertical integration**

*Source: Lepori et al. 2009.*

At the beginning of the 1990s the majority of the Lithuanian research budget was allocated to each institution by parliamentary decision. The LitSSSF was an exception to this rule. However, only around 1-3% of the total state budget funding for research was managed through the foundation, which makes its role marginal. Also in the Lithuanian case, the LitSC, which represented the core of the scientific elite of the country, had an advisory role in the process of funding distribution through the Parliament. Unique in its organisational form, the Council was established next to the legislative body of the government structure: two-thirds of the Council members were elected by scientists and one third was appointed by the Parliament. In that way the LitSC had no expert commissions and was not charged with financing research, but acted more as an independent scientific and research body resembling a scientific arbiter in its competence. The activities of the LitSC included: analysing the use of budget funds for science and studies, evaluating studies programs and textbooks, determining the qualification requirements for higher schools and research institutes, scientific degrees, and academic titles. Finally, the Lithuanian science funding organisation was composed of the Department of Science and Studies (later the State Agency in Research and HE and Technologies - however, we have no information on its composition). According to our interviews, these organisations

were not designed as representative organisations such as the EstSC or EstRDC, but as administrative offices “executing the orders of the parliament and government”<sup>124</sup>. In that way, in Lithuania, we can observe the emergence of the “core funding” model. In this mode, “the state allocates a global budget to research organisations, such as universities or large public research organisations, for their formal functioning” (*Ibid.*, 670). As it is the steering body of the organisations that decide how to allocate funds internally to individual units, it creates the “nested structure” with the “possibility of competition” at the institutional and internal units’ level of organisations (Braun 2003 as cited in Lepori *et al.* 2009, 670).

In Latvia, the totality of public research funding was streamed through the LvSC. The Latvian LvSC was composed of a council and fourteen disciplinary commissions. Commission members were elected by scientists for three years and each commission had its representative in the Council. According to its Statute, the council included 20 to 28 members with a scientific background (the number changed several times). At least fourteen of them were representatives of different branches of science. In 1990 the LvSC council also included representatives appointed by each of the Council of Ministers, the President of the Latvian AS, the chairman of the Council of Rectors of the University, and the secretary of the Board of the Latvian Unions of Scientists. However, as the representatives of the Universities were not obligatory, the design of the LvSC favoured the inclusion of the former AS institute representatives. Moreover, instead of decentralising the power to scientific institutions or universities, the LvSC replicated many of the former functions of the AS. Alongside funding allocation and advisory tasks it was granted responsibility for other research policy issues, such as the promotional committees of various research organisations and HEIs that were entitled to award research degrees. In that way, the Latvian research organisational setting differed importantly from the Estonian and Lithuanian ones. In those cases the research funding management and advisory functions were separated. In Latvia, these were both carried out by the LvSC. As we saw above, this relates with the trajectories of the Latvian science administrative elites, who were closely related to the AS institutes, and their strategy to outnumber the AS. In that way, it was not the universities but the AS that became the primary cooperation partner for the LvSC. Formally, the Latvian organisation of public funding corresponded to the “project funding” model. In this mode, research funding is streamed directly to a research group or an individual by a funding agency. The state controls the repartition of funds between agencies and instruments through the

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<sup>124</sup> LIT09

definition of the portfolio, and to some extent the allocation criteria, while it has little control over the selection of beneficiaries (Lepori *et al.* 2009, 670).

With the establishment of the EstSF the number of actors involved in decision making over public research funding was relatively high in Estonia. Its council, which was responsible for confirming decisions regarding funding allocations, was composed of: the Minister of Education (later changed to a representative of the Ministry), President or Vice President of the AS, rectors of the three biggest universities (Tartu University, Tallinn University of Technology and the Estonian Agricultural Academy's scientific secretary), and representatives of seven scientific fields (the humanities and social sciences separately). Representatives were chosen by an electoral college composed of representatives of universities and other scientific institutions (one from each institution, and one for every 100 scientific workers if the number of scientific workers exceeds 200). Notably, the academic representatives included both the AS and university representatives, which compared to the Latvian and Lithuanian systems was unique<sup>125</sup>. It can be explained by the early change in the Estonian science administrative elite at universities, and the alliance of these actors to the activists who emerged from the Union of Scientists. Also, while formally the activity of the EstSF was supervised by the EstSC and then EstRDC<sup>126</sup>, in practice, the advisory body did not intervene in the activity of the foundation. Nonetheless, the Academy kept its role in science funding. In 1994 when around a quarter of the overall state science budget was funded by the EstSF council, the rest was operated by four bigger scientific institutions (such as universities) and the AS<sup>127</sup>. In that way, the Estonian funding organisation was similar to what B.Lepori and colleagues call the “vertical integration” mode. In this mode, an umbrella organisation with a generic research mandate is delegated by the state and attributed a global budget, which is then allocated to its internal units either as institutional funding or through competitive means (*Ibid.*, 671).

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<sup>125</sup> The inclusion of universities was even broader. For example, the right of conferring scientific degrees (Masters and Doctors) sat exclusively with Universities Estonia in 1990. In parallel, Latvia and Lithuania opted for a more centralised system with the LvSC and LtSC in the roles of academic degree regulation. In both countries, the Soviet era degree system (including Doctors and Habilitated Doctors degrees) were also preserved.

<sup>126</sup> In the year of its inception, the EstSC included 21 members: 8 representatives from the EstSF, 3 from Innovation Foundation, 3 from Informatics Foundation and 7 members appointed by the Government (source: EstSC 1990, Section III). During the first meeting of the EstSC other stakeholders were added such as the President of the AS, three rectors from the biggest universities, the Minister of Education and Culture and his adviser. By 1994, the 19 members of the council included the Prime Minister, four representatives from the Government, the State Secretary, and representatives from the most prominent universities, AS, the national bank, and other non-defined institutions. The number of representatives with a scientific background was not fixed. In that way, the council had a role as a discussion platform for science managers, political parties and administration.

<sup>127</sup> We were not able to identify the exact share of State budget managed by the AS.

In the early 1990s the Baltic countries appear to exemplify three possible organisational structures of public funding proposed by the B.Lepori and colleagues: Lithuanian organisational settings corresponded to the “core funding” model, Latvian settings to the “project funding” model, and Estonian settings to the “vertical integration” model. Our analysis above demonstrated that these models resulted from the power struggles between different groups of actors. These organisational structures differed not only in their formal utilisation but also in their compositions and thus predominating interests. As previously analysed by D.Braun (1998, 811) “...scientific referees and advisors, laymen, funding administrators, and political representatives are all part of the decision process within funding agencies. This nurtures the suspicion that funding agencies may rather be ‘arenas of interest struggle’ than corporate actors with a well-defined aim”. To gain a better understanding of how these organisational innovations were relating to the other political and scientific institutions such as the Parliament, government organisations, the AS and universities, we focus on the formal functions of these new science funding organisations together with their inner organisational structures. We can draw a comparative table on the weight or the role of each political and scientific institution in these structures (**Table 2.4**).

**Table 2.4 Role size for representatives of different institutions in public research funding organisations at the beginning of the 1990s**

	Lithuania	Latvia	Estonia
<b>Parliament</b>	Large role	—	—
<b>Government (research ministry)</b>	—	Small role	Small role
<b>Academy of Sciences</b>	Not specified	Large role	Medium/large role
<b>Universities</b>	Not specified	Small role	Large role

*Source: Author's compilation.*

Such a comparison demonstrates the distribution of power between different actors in research funding. While in Lithuania it was the Parliament, and in Latvia the AS, in Estonia it was the universities that held the key role in the matter. As we saw earlier, these differences between the three countries were highly relevant to national specificities and struggles over the funding budgets. The weight of these actors is even more important to analyse, as the newly established structures were often highly innovative in their internal organisations. Research funding councils did not correspond to the “Western” kind of funding councils where the “selection arena”, “policy arena” and “control arena” are all distinguished from one another

(*Ibid.*). Instead, the internal structures in the newly established organisations remained relatively simple and the same individuals could often find themselves in multiple positions: project peer-reviewer, funding policy coordinator and executer, and political decision-maker for funding priorities, if not even a project applicant. In this context, some individuals in key positions (the head of the scientific branch commissions, for example) could play a pivotal role in the development of disciplinary fields. The following section analyses the impact of these reform courses at the level of research performers with the focus on the AS institutes.

### 2.3.2. The stability of SSH research institutes

As we saw earlier, with the dawn of political independence the AS networks between the former Republics of the USSR were cut, as was the financial support from Moscow to national Academies. At the time of establishing the new research funding systems, the AS institutes were thus under pressure for re-organisation.

Overall, the newly independent countries were poor and the situation was made worse by the economic crisis. The formerly prominent industries collapsed and smaller enterprises did not have the budgets to commission research. As their customers had no money to pay for their products and services, branch institutes and research groups working with or within industries experienced the greatest hardship. But the universities and the national academy also suffered considerably. If research groups' institutes were not closed, the majority of them saw a decrease in their operating and personnel spending. The cutback of resources was often divided proportionately among departments, institutes, or research groups to soften the impact of the crisis. On the other hand, new government structures and enterprises were created and foreign partnerships were opened to everyone, offering potential to compensate for losses by the acquisition of resources from elsewhere. Making a profit from their previous position and applied orientation, as well as from the institutes' unused research, many institutes' leaders started the process of science privatisation. Simultaneously, individual researchers at the Academy created their own small firms on the spot, usually sharing their working time between private and public engagements (Simeonova 1995, 760).

In the Baltics the Academies continued formally as learned societies, with the mission to develop the national scientific community and tasked with advising the government institutions in HE, research and other relevant issues. The juridical role of the Academies was

transferred to the Ministries of Education<sup>128</sup>. Together with the transformation of the AS to a learned society, the Baltic Academies were formally divested of their institutes. As a side effect, as we can see on the example of sociology discipline, scientific associations linked to the Academy structures were abolished and gave ground to developing independent national associations (**Box 13**). Research institutes were no longer dependent on the AS's supervision in the selection of the director, staff members and research areas. Research funding flows from these institutions to research institutes were eradicated as well. Only in Estonia did the AS keep its role in research funding for a part for the budget.

### **Box 13 Fading national academic associations**

The collapse of the Soviet Union brought an end to the Baltic branch of the Soviet Sociological Association, which was formerly operating on the AS network and funding. Instead, independent sociological associations were established in each country: In 1989 the Latvian Association of Sociologists and Lithuanian Sociological Society, and in 1990 the Estonian Academic Sociology Association (from 1999 became the Estonian Sociology Association). All of these associations became member organisations to the International Sociology Association. While the objectives of these associations are to promote the professional development of sociology communities in each country, they function with non-existent or small budgets. The organisation of annual conferences and seminars (sometimes held in common with all three countries) has become their primary activity. At the same time, they have no entitled publishing outlets nor resources for supporting research collaborations. Members of these associations argue that these associations are not playing a key role in the development of the discipline (Tabūns 2002, 461).

With the adoption of the first laws regulating the sector, the former AS institutes were given new independent statuses and transferred under the governance of relevant ministries<sup>129</sup>. The specific departments for research policy were established in all three countries' government structures (ministries) by the beginning of the 1990s. However, as it was analysed above, these departments had small roles in science management. Instead, the focus of the Ministries was on the sectors of education and HE. The overview of changes in the titles of the ministries reflects the low incorporation of science matters into the area of education<sup>130</sup>. The Estonian Ministry of

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<sup>128</sup> This is documented in Estonia (Kalling, Tammiksaar 2008). There is good reason to believe that the same process took place in Latvia and Lithuania.

<sup>129</sup> However due to the early state of legislative framework, the content of these statutes was often vague. For example, in Estonia, national museums or science or HE related organisations were also defined as “public research and development institutes”. In that way, the number of such bodies rise up to several hundreds.

<sup>130</sup> More precisely: In Lithuania, from 1989 to 1994 Ministry of Education and Culture. From 1994 to this day the Ministry of Education and Science. Although the Ministry was renamed the Ministry of Education and Science in 1994, the research department was connected formally to the Ministry only in 2004. Between 1994 and 2002 the divisions of HE and science which worked in relative independence from the Ministry. In Latvia,

Education was renamed as the Ministry of Education and Research only in 2003. Although the Lithuanian Ministry was renamed the Ministry of Education and Science in 1994, the research department was connected formally to the Ministry structure only in 2004. The term “science” was included in the name of the Latvian Ministry as early as 1993. For the sake of simplicity, we will henceforth refer to these departments as “research ministries”, using more accurate names where needed. Moreover, the initial science and research departments remained small. For example, with only 4 officials working on research in 1997, the Latvian Ministry of Education and Science remained remote from policy planning for a long time.

These changes brought along structural changes in the network of SSH institutes (**Table 2.5**). For example, in all the Baltics, the former sector of pedagogy under the Academy was reformed into universities, and the Institutes of Language and Literature were split in two. At the same time, the Institute of Agricultural Economics was renamed and continued its activity as an independent research institute.

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from 1990 to 1993 Ministry of Education. From 1993 to 1994 Ministry of Education, Culture and Science. From 1995 to 1996 Ministry of Education and Science. From 1995 to this day the Ministry of Higher Education and Science. In Estonia, from 1989 to 1993 Ministry of Education. From 1993 to 1996 Ministry of Culture and Education. From 1996 to 2003 Ministry of Education. From 2003 until this day the Ministry of Education and Research.

**Table 2.5 Organisational changes within the network of SSH-specific AS institutes**

Soviet-time AS Institutes	Institutes at the beginning of the 1990s		
	Lithuania	Latvia	Estonia
Institutes of Philosophy, Sociology and Law (in Latvia: Institute of Philosophy and Law)	1991- Reorganised into the Lithuanian Institute of Philosophy and Sociology and establishment of the Institute of Law (under the Ministry of Education and Culture)	1991- Reorganised into the Institute of Philosophy and Sociology (under the Ministry of Education)	(1988- consolidation of the Institute of Economics and the Institute of History into the Institute of Philosophy, Sociology and Law)  1993- renamed as the Institute of International Social Studies (IISS)
Institutes of Economics	1991- Reorganised into the institute of Labor and Social Research under the Ministry of Social Security and Labour	Continued working as the Institute of Economics (under the Ministry of Economics)	
Institutes of History	Continued working as the Institute of History (under the Ministry of Education and Culture)	Continued working as the Institute of History (under the Ministry of Education)	
Institutes of Language and Literature	1990- Reorganised into the Language Institute and the Institute of Lithuanian Literature and Folklore (under the Ministry of Education and Culture)	1991- Reorganised into the Literature, Folklore and Art Institute and Latvian Language Institute (under the Ministry of Education)	1993- Reorganised into the Estonian Language Institute and the Centre of Literature Under and Tuglas
Institutes of Pedagogy	1992- Reformed into Vilnius Pedagogical University	1993- Reformed into Daugavpils Pedagogical University	1992- reformed into Tallinn Pedagogical University
Institutes of Agricultural Economics	Continued working as the Institute of Agrarian Economics (Ministry unknown)	Continued working as the Institute of Agrarian Economics (Ministry unknown)	Continued working as the Institute of Agrarian Economics (Ministry unknown)

*Source: Author's compilation. Based on research institutes' webpages (also: The Internet Archive).*

Major differences emerged between the institutes of Philosophy, Sociology and Law (in Latvia: Institute of Philosophy and Law), Institutes of History and Institutes of Economics. In Lithuania, with the law of the Republic of Lithuania on Research and Studies, adopted in 1991, the Lithuanian AS was defined as a state-supported institution that brings together the most

prominent Lithuanian and foreign scientists connected to Lithuania (source: LitLRMSI 1991, Article no. 6). The same year, a new Statute of the AS was published. According to these changes, the former AS institutes were transformed into state research institutes, mostly under the Ministry of Education and Culture. The Institute of Philosophy, Sociology and Law was reorganised into two research institutions: Institute of Philosophy and Sociology and the Institute of Law. The latter was founded by the government for coordinating the legal system and judicial reform. Not all the institutes remained under the governance area of the Ministry of Education and Culture. Some of the former branch-institutes were kept under the sectorial ministries where they received funds on a contractual basis (Kristapsons *et al.* 2003, 44). However, it seems that some of the former AS institutes were also transferred under the sectorial ministries. The Institute of Economics was transformed into the Institute of Labor and Social Research under the Ministry of Social Security. The Institute of History was also preserved as an independent state research body but under the Ministry of Agriculture. In the Lithuanian research funding system, where the Parliament was the key decision-maker in research funding and the LitSC's formal aim was explicitly directed towards "supporting the development of fundamental science and related research" (Berg-Andersson 1997, 65), all of these institutes were guaranteed by state budget financing.

In Latvia, with the Law on Scientific Activity (source: LvLRL 1992) the AS institutes were defined as independent research institutes, but their juridical status remained ambiguous. It was only in 1994 when the administration of research institutes was handed over to the Ministry of Education, which had been renamed as the Ministry of Education, Culture and Science one year earlier (Kristapsons, Millers 1995, 73). HEIs were defined in the specific law act in 1995 (source: LvAL 1995). On the basis of the Institute of Philosophy and Law, in 1991 the Ministry of Education and Sciences founded an independent Institute of Philosophy and Sociology. Similarly, the Institute of Economics and the Institute of History became independent research institutes (we do not have information under which Ministry governance areas these institutes were transferred). However, with the established funding system, regular state support for these institutions was scarce. The public funding both for applied and basic research was allocated by the LvSC to institutions mainly through two instruments: "fundamental and applied projects" and "cooperation projects" with the former being the most important out of the two. As a result of Danish evaluation and subsequent estimations of the LvSC on the quality of research groups, the SSH disciplines received around 20% per cent of all funding allocated through the "fundamental and applied projects" instrument. Due to the

lack of subsequent evaluations and international peer-review, the funding remained unchanged in the following years. Moreover, support for projects was often allocated based on the number of research workers, and grants were small and pre-fixed within a wide range of sub-scientific areas.

In Estonia, the AS research institutes were decoupled from the Academy only in 1995 after the adoption of the Law on Research Organisations. With this law the administration of the AS research institutes was transferred to the Ministry of Culture and Education, and institutes were defined as public R&D institutes. Change in the Estonian AS institutes network was already underway though. In 1988 the Institute of History (with sociology and philosophy sectors) and the Institute of Economics (with law and political science departments) were consolidated. The new institute was named the Institute of Philosophy, Sociology and Law, and renamed some years later in 1993 as the Institute of International Social Studies (**IIS**). Subsequently, with the creation of the EstSF, the portion of project funding both for fundamental and applied research increased progressively from 5% in 1992 to 24% in 1994, with the share of funding allocated to SSH around 19,4%. Grants to individual researchers remained small, and grants were decided at relatively independent expert commissions. For example, in 1995 the EstSF allocated EUR 2,88 million to 883 projects out of 1211 submitted applications.

Compared to the period before the political turmoil, the number of institutes in Lithuania increased from six to seven, remained the same in Latvia and decreased in Estonia from five to four. Although the system of research funding differed from country to country, the first research funding settings had a limited organisational impact on the research institutes in the SSH. Moreover, it seems that regular state funding of research institution was preferred over competitive principles. Although the project-funding system was implemented, the share of project funding was low in Estonia and Lithuania. Even in Latvia, where almost the totality of funding was allocated through the project-based method, their small size and plurality were potentially beneficial for a high number of scientists. We can therefore see that funding instruments were thus not designed to enable scientific competition between research groups or individuals, but were more like instruments of preservation.

### 2.3.3. A decrease in the number of researchers

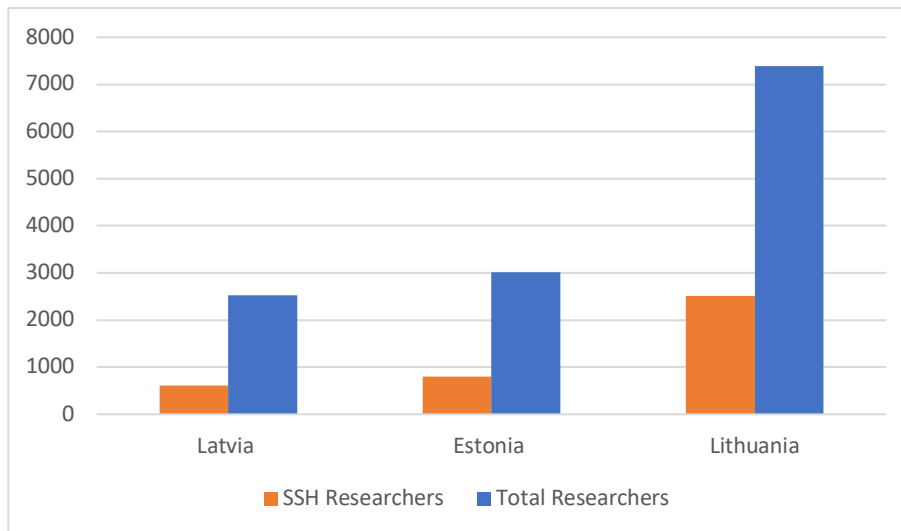
Like other post-Soviet states, the political turmoil had a harsh impact on the Baltics' academic personnel. After dismantling linkages between the Soviet and Baltic academic

systems, the number of researchers dropped in all three countries<sup>131</sup>. It is estimated that the most significant decrease of researchers occurred in Latvia where the total number of researchers fell from 17 700 in 1990 to 4000 in 1993 (Kristapsons, Tjunina 1995, 307), and by 1996 only 2520 were left – a total decrease of about 86%. At the same time in Lithuania, the number of researchers fell from 15400 in 1990 down to 7500 in 1996 (a total decrease of about 51%). In Estonia, it fell from 7000 in 1990 to 3000 in 1996 (a total decrease of about 57%) (source: CSC 2001). Yet, such numbers are not specific to the Baltics. It is estimated that from 1989/90 to 1992/93, the reduction of the total personnel in post-Soviet countries' research systems varied roughly between 20% and 60%, and the reduction of active researchers between 10% and 40% (Schimank 1995, 40).

The Latvian case was unique in the Baltics when considering SSH researchers. Contrary to Lithuania and Estonia where the number of SSH researchers dropped proportionally to other disciplines, the numbers in Latvia decreased drastically from around 3000 in 1990 to 600 in 1996 (Kristapsons, Tjunina 1995, 307). The trend is notable, as a similar decrease was observed only in the number of engineers who quit the sector in the context of Latvian industrial reorganisation and scientific policy reforms. In Estonia, the number of SSH researchers dropped from 1271 in 1990 to 800 in 1996 (source: CSC 2001). Although we have no information about the number of SSH researchers in Lithuania in 1990, it seems that it remained high despite the change in regime: 2513, or 34% of all researchers, in 1996. For comparison, in Estonia SSH researchers made up 27% of researchers, and in Latvia, 24% (**Figure 2-4**).

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<sup>131</sup> The following text may contain inaccuracies that could arise from using different data sources. As the Baltic statistical offices hadn't harmonised their data collection methodologies until the mid-1990s, there are few sources detailing the size of scientific communities at the beginning of the 1990s. Also, these sources do not specify their data collection methodologies. If not referred otherwise, we refer to the data published by the statistical office of the EU ([Eurostat, rd\\_p\\_perssci](#)). All data about the size of research communities retrieved from Eurostat is presented for the HE and government sector and in full-time equivalent units.



**Figure 2-4 Share of SSH Researchers in 1996**

*Source: Statistical office of the European Union (Eurostat 1996, rd\_p\_perssci).*

Moreover, the difference between the three countries increased over time. For example, in 2014, the share of SSH researchers in Lithuania reached 39% in Estonia 32% and Latvia 24% (**Table 2.6**). Trends in the numbers of social scientists can also be observed on the level of the sociology discipline (changes in the sociology structures will be discussed more precisely in Part 3).

**Table 2.6 Low share of sociologists amongst SSH researchers**

	Lithuania	Estonia	Latvia
<b>Total researchers in 2014 (all disciplines)</b>	<b>6641</b>	<b>2976</b>	<b>2972</b>
Total SSH researchers in 2014	2611	965	711
Total humanities researchers in 2014	1108	527	310
Total social science researchers in 2014	1503	438	401
Sociologists in 2017	56	33	29

*Source: Author's compilation. Based on Statistical office of the European Union (Eurostat, 2014 rd\_p\_perssci) and list of individuals working in the sociology-related academic structures in 2017.*

Although the AS structures continued their activity, they experienced important changes and instability in the composition of their staff members. Altogether, the drop-out of SSH researchers at the beginning of the 1990s was linked not only to overall economic and political changes, but also to research funding policy. There is good reason to believe that the broad involvement of the Parliament and its institutional funding flows created better conditions for

the preservation of SSH disciplines in Lithuania than in Latvia or Estonia. Then again, the Latvian and Estonian cases are more complex. Both the initial conditions of SSH researchers and the newly established funding policy organisational settings differed in two countries. Yet, in the case of Latvian sociologists, their previous dependence on industry contracts combined with science policy reforms with high involvement of the AS could have created the conditions for the higher drop-out of SSH researchers than in Estonia.

## CONCLUSION: CHAPTER 2

This analysis of Baltic post-independence scientific fields exposes that the “replacement” of the Academies’ function with new organisational forms was not automatic and not implemented in a similar way in all three Baltics. In all countries, the AS were converted into scientific society types of institutions. At the same time, the role of science funding, previously held by the AS, was transferred to the different organisational locations: to the newly established science foundation in Estonia, the science council in Latvia, and the Parliament in Lithuania. Also, while in Lithuania it was the Parliament, and in Latvia the AS, then in Estonia it was the universities that held the key role in these post-Soviet public research funding organisational setups. In that way, the implication of different institutions in these organisational setups differed in the Baltics.

We have shown that differences between the three countries were highly relevant to specific characteristics of the pre-independence period scientific communities. According to our study, the three major factors that we analysed in the previous chapter – western relations, integration with communist power structures, and the industrial complex – are the key elements for understanding the immediate post-independence national research funding settings. These factors were interdependent, but the role of each of them varied from country to country.

First, the access to western contacts during the Soviet period. The strict CP policies in Lithuania and Latvia during the Soviet era limited these countries’ scientists’ Western contacts and thus reduced their capacity to create links with Western actors after the collapse of the Soviet Union. Notably, in Estonia, both Tartu State University and the AS had provided openness for Estonian scientists to create Western contacts already during the Soviet era. After independence, the university provided the emerging national political elite and, next to the AS, claimed its role in research funding in the post-independence period. Estonian research funding was streamed through a science foundation, established on the example of the US model.

Next, integration with communist power structures was not similar in each country. While Estonian and Latvian scientific communities were not directly integrated into the power structures (the CP was directly linked to the occupational power in these countries), Soviet-era science communities in Lithuania were partially integrated with communist power structures. When the former CP politicians formed a majority in the new government in Lithuania, the former science administrative elites were interested in stability via politically streamed funding

distribution. Hence, despite the creation of the science advisory council in the 1990s, research funding was streamed through the Parliament.

Third, scientific communities' connection to the Soviet industrial complex was not similar. The Latvian economy had the strongest links with the Russian military industry. This had an impact on the types of cooperation that Latvian scientists could develop. It also defined "problems" that Latvian reform actors were confronted with during the political turmoil – notably, the elimination of academic science from Russian industrial research. The Soviet disintegration in Latvia allowed the reinforcement of national AS science administrative elites in the new research funding structures that eventually imitated the former AS in the form of a science council.

The post-independence models of research organisation in the Baltics were thus not solely deliberate acts of national liberation as it is usually described (Kristapsons *et al.* 2003, 50-51; Mayntz 1998, 7), but were embedded into the broader socio-economic and political characteristics inherent to these countries.

Besides the differences in the organisational forms and power-relations in these organisations, it seems that on the level of practices, the research funding allocation for SSH research was not substantially modified in the Baltics, even if the number of researchers decreased greatly in Latvia and Estonia. Stability in Lithuania could be explained via greater political support to SSH research that enabled SSH research groups to exercise their activity even after independence. On that point, however, our study faced an important limitation. As it did not include the comparison of funding allocations before and after the restoration of independence, we could not analyse any structural differences that may have occurred in research funding allocation between the disciplinary areas. However, a detailed analysis of funding instruments and allocation procedures, paired with evidence from interviews, enables us to conclude that post-Soviet research funding was foremost used for preserving the existing branches of sciences including the SSH (notably in Estonia and Latvia, where this information was available). This continuity of practices could be due to the relative continuity of national science administrative elites – all the emerging science administrative elites were already in AS structures during the Soviet era. Thereby, it is important to point out that our study did not include systematic research on the changes in the science administrative elites in these countries. We are thus unable to prove to what extent there was a change in this category of actors. These assertions enable us to question more broadly the influence of the political rupture on Baltic research funding policies.

## CONCLUSION: PART I

The aim of this first part of the thesis was two-fold: to lay down the "basis" for understanding the subsequent policy developments in the Baltics, their similarities and differences, and to question the role of the collapse of the Soviet Union as a "turning point" in Baltic public research funding policies. To this purpose, we analysed the transformation of Baltic public research funding policies, institutional development, and practices between the late 1980s and 1994.

As a result of political independence, Baltic academic research funding flows shifted from the central Soviet institutions, such as the AS, towards other national-level organisations. Then again, there were differences in organisational innovations. While in both Latvia and Estonia the budget allocation role was granted to the newly created research funding councils, in Lithuania it was granted by the Parliament. Hence, if we can observe a rupture from Estonian and Latvian research funding organisations due to the transformation from a state-planned research funding system into the "parliament of scientists" type of system (Polanyi 1962), then this was not the case in Lithuania. We have shown that these differences are linked to the composition of the post-independence national science administrative elites in the Baltic countries. In turn, these reflected the position of national scientific fields in Soviet political and industrial spheres. These then resonated in the power relations in post-Soviet research funding organisational settings. In Lithuania it was the Parliament, in Latvia the AS, but in Estonia it was the universities who held the key role in the post-Soviet public research funding organisational setups.

For context, the fact that formal ties with the AS were cut in the Baltics was unique amongst the former Soviet Republics. For instance, the Ukrainian National Academy of Sciences with its sectorial academies was still the key scientific organisation in Ukraine in 2016. Also, the Baltics formally cut ties with their counterparts in the East. None of the Baltic Academies of Science continued to associate with the International Association of the Academies of Sciences, which was an umbrella organisation for post-soviet Academies founded in 1993. By their organisational forms, the setup in Estonia and Latvia were similar to those in Czechia and Bulgaria (Simeonova 1995). Thus, a variety of foreign references, notably from the US and Nordic countries, were used and appropriated. Lithuanian funding policies resembled those in Poland, where research funding management was related to state structures

and not uniquely determined by elected members of the scientific community (Jablecka, Lepori 2009).

Despite the formal changes in research funding organisational setups, the international involvement in research funding allocation (for example, international experts in the peer-review process) as it was suggested by Scandinavian and other countries' scientific authorities, was not implemented. Instead, even if the recommendations of Western partners were followed in the organisational setups in Estonia and Latvia, they were applied only so far as was needed to achieve their aims at the national level, where policy struggles ensued over funding instruments.

Whereas practices linked to the trajectories of individual and collective actors are not analysed in the institutionalist works, our study allowed us to offer a new perspective on research funding policies in the Baltics. Our analysis suggests that the political rupture did not necessarily generate a substantial reform in these countries' public research funding sectors as it is hypothesised by (neo)historical institutionalist authors (Collier, Collier 1991; Mahoney 2002). Instead, there is good reason to believe that political turmoil rather revealed and formalised the prevailing disciplinary hierarchies and characteristics that had existed before independence in the Baltics and were embedded into broader socioeconomic and political differences in the region. Similar reasoning is described by G.Eyal (2003; Eyal *et al.* 1998), who throughout his works insists on the need to take into consideration longstanding elite power configurations for understanding the post-communist elite transformation in specific societal contexts. This part showed that this is also relevant when analysing sectoral policies.

At the same time, institutional developments and the practices of the science administrative elites should not be over-estimated. The impact of the political rupture on research funding includes an overall drop in financial resources. Both the research funding that was available via the AS, and alternative sources for research that were formerly streamed through industry, were cut due to political restructuring of the sector. Although the Lithuanian institutional settings seem to be more "beneficial" for the SSH community the incomes of researchers in all countries dropped, rendering the sector less attractive as we will analyse more closely in Part Three of this thesis.

This analysis serves us a "starting point" for analysing the Baltic countries' reform trajectories (Bezes, Palier 2018). Indeed, more substantial policy changes were undertaken in the further decades after the collapse of the Soviet Union. Thereby, we would like to point out four postulates that are beside the analysed power configuration and crucial for understanding

the following analysis about reform trajectories. First, the Lithuanian science community was more integrated with political power structures before and after independence than other Baltic science communities. Second, the Estonian science community (notably the exact and natural sciences) had greater access to international cooperation than science communities in other Baltics. Third, Latvian science communities were the most integrated with industrial science and academic SSH was the least developed of the three countries. Fourth, the Lithuanian SSH community was more established than in other countries. Certain disciplines (notably Philosophy) were able to be more open to Western cooperation that was mostly managed through Poland. While we analysed more complex power configurations in the science administrative elite, and we consider individual action to be highly important, these four essential differences seem to be “always there” throughout the reform trajectories. Keeping them in mind will considerably simplify the understanding of developments in public research funding policy in the period between the mid-1990s and 2015.



## PART II REFORMS BETWEEN THE MID-1990S AND 2015: GENERATIONAL STRUGGLES AND STRUCTURAL CHANGES IN NATIONAL DISCIPLINARY HIERARCHIES

Now that we have learned that the “starting points” of public research funding reform trajectories were not analogous in the three countries, the second part of the thesis aims to analyse how these differences evolved in the period from the mid-1990s until 2015. This time frame covers major socio-economic and political events such as economic growth from the beginning of the 2000s and the economic crisis in 2008. It includes the intervention of the World Bank in national economic policies in Latvia and the addition of Estonia to the OECD in 2011. Most importantly, it covers accession negotiations to the EU and the addition of the Baltic states to the EU in 2004<sup>132</sup>.

Due to the intervention of a multitude of international organisations, the post-communist region has been qualified as a site of “probably the most massive international rule transfer in recent history” (Schimmelfennig, Sedelmeier 2005, 9). As such, the process of political and economic reform is most often associated with the EU accession. The question of Europeanisation (in the sense of EU integration) has also been a major topic in the literature on CEE research policy and funding policy (Lepori *et al.* 2009; Radošević, Lepori 2009; Jablecka, Lepori 2009). For example, S.Radošević and B.Lepori (2009, 661-662) assert that Europeanisation has had a major impact on these countries’ R&D policies since the collapse of the Soviet Union. The EU impact in national systems is seen in several developments such as “decentralisation of the decision-making system”, “externalisation of the R&D management into agencies”, “increase of competition-based funding”, “increase in diversity and flexibility of funding sources and the “promotion of excellent R&D performers”. In the case of Baltics, we would then expect to see the impact of EU accession in the decentralisation in research funding management (including reinforcement of research funding councils’ management capacities), increase of research funding council budgets and introduction of rules for promoting internationally “excellent” research. Also, the Europeanisation and learning of the EU rules and policies, as well as their creative adaptation and exploitation to a country’s benefit,

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<sup>132</sup> The Baltic states were the only countries of the former Soviet Union republics to aim for EU accession. All other former Soviet republics (12 of the 15 states) formed the Commonwealth of Independent States and most joined the Collective Security Treaty Organisation – bodies that functioned as intergovernmental organisations for cooperation in economic, political and military affairs in Eastern Europe and Asia. The Baltic states, together with many former satellite countries, focussed on the EU and The North Atlantic Treaty Organisation membership.

are considered by these authors as important factors for explaining the differences between the CEE countries' funding policies (Radošević, Lepori 2009: 661, 665). Hence, while suggesting that the impact of the EU has been limited but continuous, these works insist on the path-dependent nature of national institutions and national policies. In a similar way to other authors who take inspiration from historical institutionalism literature, they are "underlining the variation in the acceptance and transposition of EU norms by candidate countries, each of which has integrated new elements of the *acquis communautaire* in line with its distinct national traditions" (Pollack 2007, 14).

While measuring public funding policy developments according to their correspondence to EU policy objectives, these works tend to overlook other temporal and space-related analytical dimensions. They do not differentiate EU related policy developments from those that had already taken place in the early 1990s. In a similar way to post-independence period academic literature, which overemphasised the impact of the collapse of the Soviet Union in regional policy developments, these works tend to overemphasise EU accession. Also, they tend to overlook all other international actors that may have had an impact on the development of national policies. It is noteworthy that either explicitly or implicitly, the term "internationalisation" in these and other CEE countries' policy analysis is often used as a synonym for "Europeanisation" (Checkel 2005; Kelley 2004).

Following our approach throughout this thesis, in this part we continue to investigate Baltic public research funding policy trajectories "from below". For example, the more sociological literature on Europeanisation has suggested that national policy developments are more or less conscious results of translating EU policies, individual trajectories and action (Woll, Jacquot 2010). Europeanisation may be a resource as well as a limit for actors and their struggles on the level of national politics and policy-making (Neumayer 2006). What these works suggest is that studying the ways in which the EU is mobilised at the national level may help to understand the singularities in national policy trajectories. Keeping this in mind, we proceed with the analysis with a focus on the utilisation of foreign examples in national policy reforms. Therefore, our approach guides us to not just take for granted the EU's role in policy changes, but to see its role in the perspective of the multitude of foreign influences that were present in the region in the period from the mid-1990s until 2015.

More precisely, we question the temporality of the reforms in the three countries as well as their content. Thereby, we will differentiate research funding reforms from the broader national science reforms that were undertaken in all Baltic states. Indeed, the period under

observation saw the rise of groups of “reform actors” (defined according to the concept of “programmatic groups” (Hassenteufel, Genieys 2020) - see more in the general introduction of the thesis) who questioned the rules and norms that had been established after of independence. First, reform actors’ programmes aimed for the “Westernisation” of the institutional layouts of the national scientific fields (i.e. the creation of research universities) and of the organisational structures of research administration. However, due to established power-relations in the national scientific fields, and specific institutional paths of entry of the reform actors, these objectives were sometimes in conflict with their ability to carry out their programmes. We show that struggles in scientific fields resulted in original research funding organisational settings in each country (**Chapter 3**).

Second, reform actors’ programmes were aimed at “Westernisation” of the norms and standards that were prevalent in the scientific fields. They were notably insistant on the need for greater internationalisation. Hence, in the fourth chapter, we change the analytical perspective and dig deeper into research funding instruments. We will focus our analysis on the level of each country’s tools and the mechanisms of their research funding instruments. If current literature on research funding is mostly focussing on the global designs of funding instruments and their functions, we show that these funding instruments are appropriated in various ways in the national contexts. It shows to what extent reform actors and science administrative elites captured different elements from international contexts, such as the design of instruments, settings, and/or overarching ideas. In short, research funding instruments are not “stiff” but can be surprisingly “flexible” depending on the context of their use (**Chapter 4**).

The empirical data in this part of the thesis relies mostly on information collected from interviews conducted with individuals in policy-making organisations and institutions, and science intermediary organisations. Interviews are confronted and complemented with a database on organisational memberships of research policy related institutions and research institutions, and a database on the formal organisational development of research funding policy in the three countries between 1988 and 2017.

### Chapter 3. PUBLIC RESEARCH FUNDING INSTRUMENTS IN SERVICE OF THE DEINSTITUTIONALISATION OF THE ACADEMY OF SCIENCE

Between the mid-1990s and 2015, the governments of most European countries followed the recipes of NPM in HE and research funding policies. HE institutions and research organisations were increasingly steered at a distance through economic incentives. Transformations included the decentralisation of the research funding decision-making system into dedicated agencies and councils. Also, public research funding systems moved from core budgets (based on historical and input-related conditions) to an allocation based on performance and a higher share of project funds (Jongbloed, Lepori 2015; Stampfer *et al.* 2010; special issue: Lepori *et al.* 2007; Lepori 2006; Geuna 2001). In addition, there was a movement towards emphasising strategic research, priority areas or targeted research (Skoie 1996; Rip 1994; Braun 1993)<sup>133</sup>. Similar trends are seen in the CEE countries (Lepori *et al.* 2009; Radošević, Lepori 2009; Jablecka, Lepori 2009). In this chapter, we question whether these above-mentioned changes occurred in the Baltics, and if they did, then when? And how were they appropriated into the prevailing organisational and institutional arrangements in each country?

To address these questions, this chapter analyses the change in public research funding in the context of the broader reforms that aimed to transform the institutional layout. While focussing on organisational forms and power-relations, we assume that policy processes from problem formation to implementation are not orderly, but include complexity, uncertainty, and fluidity (Kingdon 2002, 99). The role of individual policy instruments may also vary throughout this process. Thereby, instead of focussing on a single research funding instrument, such as project funding as has been the focus of most studies on research policy, we opt to analyse the role of its transformation in the context of other types of research policy instruments. For example, research on university research funding has demonstrated that competitive funding principles are also increasingly implied within more traditional base-line funding instruments (Hicks 2012). Also, CEE countries have benefitted from EU funding instruments such as the ESIF (Lepori *et al.* 2009). Although their complementarity is often summed up in analysis of “national funding systems”, their mutual dependence in specific national contexts has garnered less attention. This is true for both Western and CEE research policy analysis in the above-

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<sup>133</sup> For example, both A.Rip (1994) and D.Braun (1993) analyse that especially during the “science-push period” after World War II, research councils seemed to be ‘captured’ by scientific interests. However, over time, research councils became more and more captured by political interests.

mentioned works . At the same time, analysing the interdependence between different funding instruments in the process of their construction is particularly interesting in the post-communist context, where the ground rules for research funding are more responsive to changes than they are in Western-European countries<sup>134</sup>.

The main thrust of the argument in this chapter is as follows. We start by demonstrating the rise of the new groups of reform actors. We analyse their professional trajectories alongside their paths of entry into science policy. With a capacity to integrate international resources and partners these reform actors were willing to undertake more profound structural reforms in the national scientific field than the science administrative elite before them (3.1). We then continue by analysing the changes in existing public research funding organisations and instruments (the base-line and project funding instruments). We show that changes in the public research funding organisations were partial and took bespoke forms. They were dependent on the paths of entry of reform actors and subsequent nation-specific configurations of reform coalitions (3.2). We finish by placing these existing funding organisations and instruments in the perspective of new funding instruments – namely EU funding – and showing their relative insignificance within the broader structural reforms of national scientific fields. Then again, looking only at the SSH, EU funding only had a limited direct impact on them (3.3). Throughout these sections, we expose temporal differences in the Baltic research funding reform trajectories and show that the period of most intensive reform in Estonia was around 1997, around 2009 in Lithuania, and in Latvia this period started only around 2013 and was ongoing at the time of our empirical research.

### 3.1. Reform actors: construction of policy problems and coalitions

Between the mid-1990s and 2015 the reforms were not conducted by the science administrative elite that emerged with the collapse of the Soviet Union. Instead, new groups of reform actors emerged. Informed by their professional trajectories in international academic contexts and/or EU institutions (3.1.1), these actors' perceptions of policy problems and solutions were similar in all countries (3.1.2). However, relative to their paths of entry to

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<sup>134</sup> For example, most of the Western-European countries' analyses of research funding focus on the introduction of project funding which, next to recurrent research funding, is seen as an innovation in the policy landscape. At the same time, after the collapse of the Soviet Union, both the transparent project funding and democratic recurrent funding were new for the newly independent CEE countries.

national science policy fields and their relation to dominant science administrative elites, the policy coalitions differed from country to country (3.1.3).

#### 3.1.1. Paths of emergence and profiles

A short account of the second wave of reform actors' "paths of entry" to the policy process and their profiles will give us a better understanding of their legitimacy, possibilities, and limits of intervention in reforming the national scientific fields.

The Estonian second wave of reform actors emerged in the mid-1990s in the midst of a national political crisis. Indeed, in the Estonian elections of 1995 the governing parties were heavily defeated. It was followed by turbulent years. The elected government, which was composed of several smaller centre parties (the Coalition Party, and the Estonian Centre Party established by the leader of the national Popular Front movement - Rahvarinne) and rural parties, collapsed in the same year after a political scandal. Consequently, the Centre Party was replaced by the liberal Reform Party in the government. This coalition suffered from internal disagreements and ended in 1996, when the Reform Party left government. The Coalition Party and its rural allies continued as a minority government until the next regular election, March 1999. After that, centre-right governments dominated, with the Reform Party as a leading political force.

As a result of this crisis, some of the former Centre Party ministers – including the Minister of Education and Culture – were replaced with members from the liberal right-wing parties. The shift in the political arena also opened up an opportunity for the emergence of new reform actors in the scientific field.

Indeed, before the political crisis, a group of actors more radical in their views on scientific policy had formed but remained inconspicuous at the EstSF and other science policy organisations. The new Minister of Education and Culture, a former member of the EstSF Jaak Aaviksoo (born in 1954) was one of these individuals. Notably, before his position as a Minister, he was working as a leading scientist at the Physics Institute of the Estonian AS (which was, as we saw in the previous part of the thesis, led throughout the late Soviet period by scientists open to worldwide scientific cooperation). With his candidate degree in Physics from Tartu University, from 1981 to 1994 he worked for short periods in many foreign institutes as a guest professor, namely the Novosibirsk Institute of Thermal Physics, the Max Planck Institute for Solid State Research in Stuttgart, Osaka University and University of Paris VII: Denis Diderot. After the restoration of independence, he was quickly engaged in science policy

matters and as a member of a group of younger-generation science administration activists he was elected vice-rector of the University of Tartu from 1992 and 1995. In parallel, he was also a member of the EstSF council and was elected as a member of the Estonian AS in 1994. It is also important to note that although he could keep his position only for one year, he returned to his position of Minister between 2011 to 2014<sup>135</sup> under the national-conservative Pro Patria party and was one of the key actors in Estonia throughout the analysed period. After he was appointed a Minister, many of the former staff members of the ministry were replaced, including those few (two to four officials) who focussed on issues of scientific policy. In this way, together with some members from the EstSF, staff from the ministry department formed a small core group of reform actors. This group was on the frontline of all of the major policy changes in the following years (as well as the later establishment of the research research funding council in 2012)<sup>136</sup>.

This group of actors had not been actively participating in the previous organisational structure, nor the Union of Scientists. At the same time, as individuals they shared similar profiles to their predecessors. Scientists in their early career stage, they were (previously) working at the AS Institute of Physics, Estonian Biocentre, AS Institute of Molecular and Cell Biology or the Psychology department of the Tartu University and, in a similar way to their predecessors, some of them were highly invested in academic research and the bibliographic monitoring of research outputs. This is also the case of one of the few representatives of SSH in the group. Psychologist Rein Aasma (born in 1949) tracked articles with citation indexes and journals in his area of research<sup>137</sup>. The Moscow Lenin library, in his words, was the best place for that: “We discovered this possibility in the 70s. So we went to the Moscow library, I went to the copying queue and we went to the renting place. We could copy 20 pages per day, ... sometimes we could copy the whole journal, sometimes just the citation. So we had to send a letter for the author to get the article”<sup>138</sup>. Since the mid-1990s, besides his academic work in

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<sup>135</sup> He also held other high political and administrative positions. He was rector of Tartu University between 1998 and 2006, Estonian Minister of Defence from 2007 to 2011 (as a member of Pro Patria Union) and in 2014 he was elected as rector of Tallinn University of Technology.

<sup>136</sup> EST56, EST36

<sup>137</sup> He studied psychology at Tartu State University, defended his candidate degree at the University of Moscow, and was working as a researcher in the Laboratory of Biophysics at the University of Tartu in the late 1980s. Although he was not able to travel to foreign countries during the Soviet period due to his family background, he did so right after the restoration of independence and rapidly formed contacts with expatriate Estonians in Finland and Canada (Toronto). In 1991 he also validated his PhD degree at the University of Tampere. in Finland. After the restoration of independence, he led the expert commission in social sciences in EstSF from 1993 to 1996 and was head of the Council of EstSF between 2003-2009.

<sup>138</sup> EST04

psychology, he became known in the Baltics as a bibliometric researcher and has regularly published bibliometric data on Baltic science where his colleagues and himself feature on top of the list of most published SSH researchers. This has given him a high degree of legitimacy as a reform actor and to be the key spokesperson for SSH in Estonian reforms since the mid-1990s. The pursuit of academic excellence in their careers was one of the main common denominators of this group.

The appearance of reform actors took longer in Lithuania. After the restoration of independence, the former CP (having been transformed into the Democratic Labour Party) have governed most of the independence period, except 1996 to 2001 when centre-right conservatives were in power. In the 2001 elections, the conservatives were defeated and the ex-communists, together with their election coalition partners, re-gained power. From then on, governments changed quickly until the unexpected change of government in 2008, when the European-minded conservative Homeland Union won the elections. Throughout this period, the Lithuanian Parliament was a key institution in research funding policy. Despite the political shift between 1996 and 2001, the power configuration in the research sector remained intact and only small changes were introduced in the policy sector<sup>139</sup>. It was only in 2008 when the Ministry of Education and Science was subordinated to the liberal coalition party that a more solid group of reform actors had the opportunity to emerge.

Indeed, several years before this political change, there was already a progressive emergence of individuals and collective actors who supported substantial changes in the HE and research policy sectors. These actors included individuals from opposition parties (conservatives), the President's office and some of the members from the board of the LitSC. They emerged under the guidance of political leaders from the Ministry and the board of the LitSC, where the new reform was planned.

In the context of the beginning of the new EU programme period, one of the concrete results of their action was a cross-party agreement over the objectives of these sectors, signed by the major political parties in 2007 (**Box 14**).

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<sup>139</sup> For example, in 1997 or 1998, a national evaluation of research activity in research institutes and in universities was organised in order to change the funding system and to introduce quality-based elements in research funding allocation principles. A similar attempt was made at the beginning of the 2000s, simultaneously with the HE reform.

#### **Box 14 Political agreement on the Lithuanian reform programme**

In June 2007 the biggest Lithuanian political party representatives accepted a common agenda on “Lithuanian Parliamentary political party agreement on scientific and study system restructuring principles”, where the main ideas of the reform to both HE and research were laid down. The agreement was signed by representatives of the Social Democrats, the Homeland Union, the Peasant People and Civil Democracy, the Liberal and Center Union, and the Liberal Movement. This was incentivised by a EUR 450 million investment from the EU ESIF from 2007 through 2013 for research infrastructure upgrades. Amongst others, the agreement stated the following: “Research activities shall be funded on a competitive basis through the implementation of research programs and projects, and funding shall be awarded to the results of research and artistic activities. The state supports the participation of scientists in international research programs and projects”, “the share of funds from the state budget and other sources of funding allocated for the financing of science and studies shall be consistently increased until 2012, reaching the EU average. Using the EU ESIF and state budget funds, the infrastructure of science and study institutions is renewed on a competitive basis, exclusive research centres and national integrated research programs are supported” and, “the functions of public funding of research and evaluation of scientific activities are delegated to two councils of science and technology and humanities and social sciences with a common administrative structure. Public funds for research activities are allocated through the Science Foundation subordinate to these councils. The Science Financing Strategy is set up by the Scientific Policy Committee headed by the Prime Minister and composed of representatives of both Scientific Councils” (source: LitMoES 2007).

Notably, this diverse group of actors contained individuals from different generations and scientific fields (chemistry, engineering, law and philosophy), and had previous academic experiences in foreign (Western) countries. These experiences differentiated them from the scientific administrative elites in place. One of the key actors, Ramunas Balkus, is a good example. Born in 1951, he graduated from the University of Vilnius in 1974 and received the degree of Habilitated Doctor of Physical Sciences in 1995. In Soviet times, he undertook his post-doctoral studies in Prague at the Institute of Chemical Technology but, in his words, due to his family history he could not travel further to the West. After the collapse of the Soviet Union he continued working as a researcher and was head of the Vilnius University Department of Organic Chemistry, Faculty of Chemistry between 1991 and 1996. Notably, because of a Swedish scholarship he was awarded for his research in 1992, he launched long-lasting cooperations between the two countries including study and exchange visits for his PhD students. He was also vice president of the European Science Foundation for two years and a chair of the EU commission supported research and development programme to protect the Baltic Sea (also known as “BONUS”) steering committee. He was also an expert group member of the ex-post FP7 evaluation in Brussels. From 2003 to 2013 he was working as a chairman of

the LitSC and took an active role in its organisational reform<sup>140</sup>. Foreign cooperation experience was also found amongst those with SSH backgrounds. For example, Regina Launakaite (born in 1971), is a major reform actor who studied at the Philosophy Faculty of the Vilnius University and earned her doctoral degree at the Lithuanian Philosophy and Sociology Institute in 2000. Holding a researcher position at the same institute, she was also occasionally a visiting researcher in Germany and France. Back in Lithuania, between 2004 and 2008 she was added to a team of advisors to the newly elected president V.Adamkus, who was known to recruit to his team only young people who had returned from emigration, and rose quickly as a public spokesperson for reforms<sup>141</sup>.

In a similar way to other Baltics, the Latvian second wave of reform actors emerged as a result of political shifts in the government. But in the Latvian case it occurred even later, in 2011, when the President dissolved the Parliament and a new centre-right government was appointed. Before that, and notably since the beginning of the 2000s, Latvian governments were dominated by centre-right political parties. However, established coalition governments were rather weak and the political situation highly unstable<sup>142</sup>. In parallel, the research policy sector had developed under the leadership of the LvSC and AS in relative stability and “autonomy” from stronger political intervention. Some changes in the research sector were introduced in the context of both a broader administrative reform and accession to the EU in 2005, when a new Law on Scientific Activity was adopted by the Parliament. The Law introduced a new base-line funding instrument, allowed the organisational merger of institutes and universities (including SSH-specific institutes) and introduced regular foreign assessment of research organisations. However, as they were initiated by the Minister (who was also a member of the AS) in cooperation with the AS and LvSC, these changes were only of a formal nature and/or represented former policy rationales<sup>143</sup>.

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<sup>140</sup> Subsequently, he held the position of Vice-Rector for Science of Vilnius University between 2013 and 2015.

<sup>141</sup> After the election of 2008, she was recruited as a vice-minister for education and science where she remained until another governmental change in 2012.

<sup>142</sup> For example, if Lithuania and Estonia had around 6-7 governments between 2000 and 2015, then Latvia had 12 governments during the same period.

<sup>143</sup> For example: even if the base-line funding was instituted, it was not designed to introduce any wider substantial changes amongst research organisations; even if some of the research institutes were attached to universities, the law designed regulations to keep their independent status inside the university structures; even if a requirement for a regular foreign research evaluation was introduced, it was not undertaken until several years later.

With the political crisis in 2011, the Ministry of Culture, Education and Science was replaced by an “external” non-partisan Minister Robert Kilis. Born in 1968, he earned his degree in philosophy from the University of Latvia in 1991. After that, he was working as an associate professor in social anthropology at the Stockholm School of Economics in Riga, and then continued his studies in the UK. He earned his doctorate in social anthropology from Cambridge University in 1999. Back in Latvia, he joined the strategic analysis commission under the auspice of the President of Latvia (V. Zatlers) in 2007. R.Kilis held the position of Minister from 2011 to 2013. After he was appointed a Minister, the former staff members of the Ministry were replaced, and the Ministry took a stronger coordinating role in research policy. In this way, R.Kilis, together with some of his elected officials, became a small group of reform actors. One R.Kilis’s closest associates was Ilze Jansons (born around the 1970s) who had earned her degree as an engineer in Latvia. She was awarded a Fulbright scholarship and continued her studies in the US (university unknown) where she earned her Master’s Degree in public affairs, and a PhD degree in science and technology policy. She also studied at the University of Liverpool. Back in Latvia, she was appointed as a director of the Department of Higher Education at the Ministry of Culture, Education and Science, where she became one of the leading reform actors in the HE and research policy sector.

Led by individuals who had earned their (SSH) degrees in highly competitive foreign contexts (prestigious US and UK universities), the profiles of this group differed sharply from the science administrative elite in place. Although the reform of the Latvian research sector was still in progress, these actors had already launched several substantial changes in the sector by the time we conducted our empirical research in 2015.

In sum, with the reforms between the mid-1990s and 2000s in all countries, new groups of reform actors emerged. They were small groups of reform actors that were composed of 3-5 individuals in each country. All of these groups seem to be rather similar: none of these “new entrants” (we use the terminology of J.Mahoney and K.Thelen (2010)) were affiliated with the Soviet-time CP, none of them actively participated in the initial reforms in the 1990s nor did they belong to the Union of Scientists. As a common characteristic, all of these actors had collected knowledge and social resources from foreign academic contexts that distinguished them, at least in Latvia and Lithuania, from the current science administrative elites. Also, compared to the science administrative elites of the immediate post-independence, more researchers with SSH backgrounds were integrated as leading members of these groups. This may be explained simply by the fact that in SSH (that was more restricted to international

cooperation in the Soviet period), it took longer for scholars to collect international resources. It also took longer for some of them to claim a role as a reform actor whose legitimacy, as we observed, was linked to their international resources.

Finally, it is important to underline that given their profiles and paths of entry, all the groups are positioned differently in their countries' scientific policy fields. In all countries, they appeared in the context of political change and with the support of European-minded centre-right liberal or conservative political parties. Then again, In Estonia, the group's profiles were similar to those of the existing science administrative elite and emerged out of the leading scientific organisational structures. In Lithuania and Latvia, the profiles of the group members differed from those of the science administrative elites in place. Moreover, in Lithuania, the group emerged as a minority out of the leading scientific organisational structures. At the same time, in Latvia, they emerged from external structures (none were previously linked to the LvSC or AS). These differences, as we will see further in this chapter, had a role in their opportunities and legitimacy to implement desired reform programmes.

### 3.1.2. The binary character of policy problems and solutions

Despite the reform actors emerging at different times, the construction of public problems and solutions via official reform discourse – the one presented in public documents – and non-official discourse – the one shared between reform actors that we could access only via interviews – were relatively similar in all three countries. In each country, they were motivated by shared policy rationales to modernise the national scientific field on the one hand, and on the other hand, by the perspective of elevating personal positions in the field.

#### *Naming and blaming the “academic oligarchy”*

Policy problems are mostly complex and open-ended (Head 2008). In their framework for analysing legal disputes, L.W Felstiner and colleagues (1980) have suggested that for disputes to emerge (in our case, “policy problems”) and remedial action to be taken, “an unperceived injurious experience” must be transformed into “a perceived injurious experience” (*Ibid.*, 633). In other words, it means that there needs to be a recognition on an individual or collective level that a particular policy situation is undesirable. As the most complicated part to observe, this phase in the process of public policy problem construction is often linked to personal experiences. In the case of the Baltics' second wave of reform actors, the undesirable national policy environment was recognised in their early careers.

“It was a shocking experience because I would have never imagined that there [Western European institutes<sup>144</sup>] were so many books that you could be interested in. Also, it was quite different how professors communicated with students, all academic communities and so on... so it was radically different. But during my work in the institute in Vilnius... I was disappointed in the education and research system. Because the system was old minded, people were the same and the mentality was the same as during Soviet times. So, I started to write in cultural magazines critics about the system”<sup>145</sup>.

After what is described as an “uplifting” experience in a foreign academic context the interviewee was disappointed in the academic conditions of her home country. This is only one example out of several testimonials that we gathered throughout our empirical research<sup>146</sup>. In all of these cases, interviewees perceived an incongruence between the “actual” and “desired” conditions in their professional activity. In some cases, this incongruity was more general, as in the previous example. In other cases it was seen to affect their careers in very concrete ways. For example, according to one of the reform actors who had earned his PhD from a well-known Western university, he was rejected from participating as a reviewer at the science council as he had previously written a negative review of one of the project proposals<sup>147</sup>. In that case, interviewees who had professionally “proven” themselves in a foreign academic context felt that it was unfair that they were underappreciated or even rejected in their home countries.

This “perceived injurious experience” also shaped their discourse and narratives on the grievance. Our interviews with reform actors revealed a critical discourse against scientific organisational settings and norms that prevailed before their arrival and political action. For example, Estonian reform actors were particularly critical of the small role of universities in research. In contrast to more “Western” kinds of academic systems, where universities are the scientific centres, the AS and its institutes were considered a “Soviet construct” that “needed to be dismantled”<sup>148</sup>. They also criticised the role of the EstSF and its methods of funding allocation. The EstSF, in their words, allocated public resources “with no control” meaning that “there was no one who would be responsible for a purposeful use of taxpayers’ money”. Also, a big part of the grants, in their words, “were just wasted” because universities “have no control over their use” (Allik 2015). In Lithuania, the reform actors pointed out the existence of an autonomous “scientific-oligarchic system”, which was seen as working in cooperation with the

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<sup>144</sup> Institutes are not named in this work for the sake of anonymity.

<sup>145</sup> LIT15

<sup>146</sup> LV33, EST56, EST04, LIT14

<sup>147</sup> LV33

<sup>148</sup> EST56

Parliament. It means that certain groups of scientific elites (rectors of universities and directors of institutes, for example), who were also sometimes linked to the AS, Union of Scientists and the LtSC, were seen to have gained powerful positions through the Parliament which had the final word in the resource allocation process. As described by some of the reform actors, “the whole system” functioned due to the rectors’ and directors’ influence on the science council and rectors conference: “they could go to the Prime Minister, to Parliament, to make proposals and negotiate everything”<sup>149</sup>. Or as concluded by another: “it was a very clear system – if you were close to the director of the institute, your laboratory got money”<sup>150</sup>. Latvian reform actors’ criticism against their national situation was no different. The LvSC and AS were described as a “closed environment” that attributed financial resources with no precise rules. To get access to these resources one needed a “corresponding profile” and “corresponding social network”. It means that only projects that were presented by the AS institute researchers had a chance to be funded by the LvSC. The same with all scientific awards. According to reform actors, the beneficiaries were often older scientists who published in national outlets: “in a difficult economic situation, research funding was like a pension for them”<sup>151</sup>. In sum, the LvSC and the AS were seen to function together for the same aims and were described as an “unbreakable net”<sup>152</sup>. The perceived policy problems were linked to reform actors’ personal experiences, as well as their broader understanding of how national science policies should operate.

In sum, the major criticisms were of the system-level networks that manage financial resources (funding for research), professional resources (scientific degrees and positions), and symbolic resources (scientific awards) amongst the members of the networks. The group of actors responsible for this system included a bulk of university and research institute rectors who were linked to the AS or the Union of Scientists, designated under the common term of “scientific oligarchy” by the reform actors. According to L.W Felstiner and colleagues, this is the next step after recognition of incoherence: the transformation of this experience into a grievance. This phase can bluntly be described as “blaming”, which occurs when a person attributes an injury to the fault of another individual or social entity (Felstiner *et al.* 1980).

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<sup>149</sup> LIT09

<sup>150</sup> LIT14

<sup>151</sup> LV33

<sup>152</sup> LV32

In the official discourse, we can observe at least three major problem-solution rationales<sup>153</sup>. First, it was asserted by the reform actors that due to the small size of the countries, there is a need for a higher concentration of both monetary and human resources. To concentrate the monetary resources, it was suggested that the government needed to prioritise the areas of research that can be reached via higher competition. It follows that there is a need to declare that a national research policy. Amongst other characteristics, the discourse explained that the new system of research funding had to allow a questioning of the “status quo” of some of the research institutions (source: CSC 2001, 2). It goes in parallel with the elimination of “weaker research fields” and supporting the “strongest” research by consolidating the resources via the merger of institutes and universities. Another aim was the concentration of human resources. In all countries, it was clearly stated by the new minister that diminution of researchers is necessary for a higher salary (Martinson 2015, 270)<sup>154</sup>.

The second major argument for the reform was the need for greater transparency in research funding allocation. As analysed above, the insufficient transparency of funding allocation procedures was one of the main criticisms against research funding systems that were established after the collapse of the Soviet Union. As a solution, proposed changes in the research funding allocation system by the reform actors included the increasing use of funding criteria (in other words, automation and simplification of the project selection process) and accountability in research funding. Thereby, the logic of transparency was seen to complement the logic of resource concentration: “transparency” and “accountability” were perceived as key elements for fixing the rules of “competition”. Competition in its turn was expected to lead towards higher “concentration of resources” in scientific fields.

Finally, the third justification for the reforms focussed on the question of internationalisation. As it was suggested by the foreign actors from the beginning of the 1990s (e.g. see section 1.3.3), reform actors equated the logic of “internationalisation” as one of the “qualities” of science. They argued that reforms in the field of research should seek to increase the quality of research production and, considering the small size of the countries, the quality should be measured against the level of Western research (Martinson 2015, 292)<sup>155</sup>. Also,

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<sup>153</sup> The following analysis is based on secondary sources from the literature (Martinson 2015; Bileviciute, Zaleniene 2013; Rambaka 2012) and other sources (source: OECD 2016; World Bank 2014; CSC 2001).

<sup>154</sup> LIT15

<sup>155</sup> LIT15

“national and regional research and education limits are weakening and disappearing. Universities become a part of the world's science and research sector. Together, this means also growing international competition of universities” (Bileviciute, Zaleniene 2013, 125). In the research sector, this includes the organisation of foreign research evaluations, utilisation of foreign bibliometric indicators, and inclusion of foreign researchers in the public research funding allocation process.

The reform justifications therefore largely corresponded to the NPM-kind of administrative megatrends that are analysed by C.Hood (1991). The argument of resource concentration corresponds to a widely observed attempt in Western countries to “slow down or reverse government growth in terms of overt public spending and staffing” (*Ibid.*, 3). The argument of internationalisation corresponds to the “development of a more international agenda in research policy management” and the argument of “transparency” corresponds to the trend of “automation in the production and distribution of public services” (*Ibid.*). Then again, as was acknowledged by one of the reform actors, these policy rationales were not autonomous from their personal aspirations.

“We had this foreign evaluation, with an idea to evaluate the science. But there was also some personal gain in the story, basically, the strongest scientists wished to take money from the weaker ones. So basically, it [science evaluation] was a right thing to do, um...but there were some personal interests as well in the game”<sup>156</sup>.

Hence, in a similar way to policy problems construction, the construction of policy solutions was not only linked to reform actors’ broader understandings of how national science policies should operate but also to their personal aspirations in national scientific fields. In sum, the above-described formal and informal discourse served as a justification for reform actors to take direct political action by “claiming” (Felstiner *et al.* 1980) the consideration of their reform programmes in national scientific fields.

### 3.1.3. Differences in supporters and opponents of the reforms

These multifaceted policy objectives formed what we may call “policy programmes”<sup>157</sup>. To different degrees and for different reasons, these programmes created sharp divisions in the

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<sup>156</sup> EST56

<sup>157</sup> We use the term “programme” as it is conceptualised by P.Hassenteufel, and W.Genieys (2020), meaning that the problem analysis, orientations, arguments and instruments were common to all reform actors in each country. Also, it is important to underline that in the Baltic countries, policy objectives were not formulated

national scientific fields where we can observe the emergence of coalitions and oppositions. At the same time, these programmes were backed by several foreign actors.

### *National collaborations*

Beside the support from governing political parties and strong support from presidents in Lithuania and Latvia, the configurations of coalitions and oppositions in national scientific fields varied from country to country.

In the Estonian case, where the first part of the reform had already started in the mid-1990s, the overall opposition against the reform was lower compared to other Baltics. This could be due to the political context where, since the beginning of the 1990s, the Estonian political parties had supported radical transformations in different policy fields. Also, it was due to the rather high legitimacy of the reform actors in the national science administration: they shared similar trajectories as well as general policy objectives with the groups of actors that had been leading the legal-structural reorganisation of the organisational settings of science policy a few years earlier. Also, many of the HE and research organisations' leaderships were replaced in the early 1990s. Indeed, according to interviews conducted with reform actors and their opponents, the Estonian reform actors were supported by the major actors in the scientific field: the biggest national university rectorates (in particular, Tartu University, whose leadership was replaced as early as 1989, and from whence some of the reform actors came) and the AS praesidium (whose leadership was fully replaced by 1994)<sup>158</sup>. At the same time, the prospect of losing stable financial support was perceived as more or less attractive, depending on the scientific level of the institutes, their resources, and disciplinary areas. For example, institutes and research groups with a lower share of foreign contacts such as in agricultural sciences or SSH were opposed to the reform<sup>159</sup>. Also, while some members of the EstSF council did agree overall with competition, internationalisation, and consolidation in science, others (we do not know who exactly) were against the increasing role of the government in science policy (Martinson 2015).

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into cohesive policy programmes that were then, for example, voted by the Parliament (although new law acts were adopted, the reforming activity was also reflected in smaller changes in the rules on the level of research councils). Hence it is difficult to point to specific documents that define the exact "reform programmes" in each country.

<sup>158</sup> EST36

<sup>159</sup> EST36

In Lithuania, the biggest academic institutions were divided on the question of reform. Some of the largest university rectorates in Kaunas, including Vytautas Magnus University, which was re-established by expatriates, and Kaunas Technological University, where the leadership was replaced and management radically reformed, were in support of the reforms. Then again, the main opponents in Lithuania rose from within universities and research institutes, including the rectorate of Vilnius University. Many of the opponents were linked to the former CP and its transformed version in the Democratic Labour Party (since 2001 part of the Social Democratic Party of Lithuania), who wished to keep the existing research funding mechanisms with its focal point in the Parliament<sup>160</sup>. According to several interviews, along with agricultural sciences, the SSH community was the strongest force against the reforms. For example, an obligation to publish in international outlets was announced in public as a direct “threat to Lithuanian language and culture”<sup>161</sup>. Consequently, the LitSC members were also split. Although the AS praesidium was against the reform at the beginning, in the words of the reform actors, due to the change in its leaders and change of its organisational form, the AS remained moderate in regard to the reform<sup>162</sup>. At the same time, the Lithuanian reform actors’ principal partners were liberal business organisations and non-profit associations such as Lithuanian Free Market Institute<sup>163</sup> and Knowledge Economy Forum<sup>164</sup>.

In Latvia, where the reform actors emerged from the government institution and not from science representative organisations, the opposition to the reform plans was the greatest compared to the other two Baltics. The reform programme lacked support from the biggest

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<sup>160</sup> Lithuanian HEs were/are often led by politically engaged rectors. For example, the four biggest Lithuanian universities (Vilnius University, Kaunas Technological University, Mykolas Romeris University, Vilnius Gediminas Technical University) had altogether 13 different rectors between 1990 and 2017. Five of them were former CP members and had engaged in party politics during the independence period. Some of them were/are members of Lithuanian Parliament. Notably, Danielius Zukas (who had a background as a linguist and philosopher, and was Vilnius University rector between 1990-2000) was a member of the Parliament (under the social liberal New Union party) and a member and chairman of the Committee on Education, Science and Culture between 2000 and 2004. Moreover, at least three out of 13 rectors have been involved in public scandals due to illegal elections, plagiarism in their academic degrees, or former cooperation with the KGB.

<sup>161</sup> LIT32

<sup>162</sup> LIT14

<sup>163</sup> The Free Market Institute presents itself as a private, non-profit, non-partisan organisation to promote ideas of individual freedom and responsibility, free market, and limited government intervention. The organisation conducts research on key economic and policy issues, develops conceptual reform packages, drafts and evaluates legislative proposals, and aids Lithuanian governmental institutions by advising them on how to implement free market principles.

<sup>164</sup> Knowledge Economy Forum is a professional non-profit organisation. It brings together politicians, researchers, industry experts and citizens, and acts as a think-tank for the country’s societal and economic progress in the areas of knowledge society, innovation and education.

universities and research institutes. With the support of the Latvian Trade Union of Education and Science, 18 rectors signed a letter to Prime Minister V. Dombrovskis and the Parliament in 2012 demanding the resignation of Minister R.Kilis due to his “chaotic activities...lack of a higher education reform plan” and “unwillingness to engage in dialogue with universities and students” in the reform process (source: Delfi 2012). Confronted with the prospect of losing their capacity in resource allocation, the LvSC and the AS were also against the reforms. At the same time, according to Latvian reforms actors, their principal collaboration partner was the Latvian Chamber of Commerce and Industry<sup>165</sup>.

The actor configurations in national scientific fields, and their aggregate support for reforms, were not fully similar across the Baltics. SSH, together with the representatives of agricultural science, was perceived by reform actors as the strongest opponents of the reforms in the three countries. Nevertheless, their mobilisation differs from country to country – it was weakest in Estonia and strongest in Lithuania. There is also good reason to believe that due to the support of the Social Democratic Party, the Lithuanian social scientists found greater representation in the reform process. However, the reform programmes were not shaped and discussed with national actors alone.

#### *Extensive implication of foreign actors*

Reform actors were backed with political support from a variety of external reform partners, their expertise and financial resources. Thereby, it is important to underline that the intervention of different actors, including the EC, OECD, World Bank and others was particularly active at the beginning of the 2000s and notably, around the economic crisis of 2009. One of the major paths of intervention was an organisation of different types of “research system” evaluations and assessments, as is illustrated in the table below (**Table 3.1**). While most of them were conducted from the perspective of evaluating the economic dimension of national R&D, they also addressed the academic research structure. Otherwise, the implication of the specific foreign actors depended on the period of the reform, the political association of the countries in the international organisations, and the personal networks of the reform actors.

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<sup>165</sup> LV33

**Table 3.1 Ad hoc foreign evaluations in the Baltic countries between 1990 and 2015 (organisation and the title of evaluation)**

Estonia	Latvia	Lithuania
<p><b>1986-1990</b> Royal Swedish Academy of Science (scientific system and research institutes assessment)</p> <p><b>1997</b> European Commission (“Research and development systems assessment”)</p> <p><b>2000</b> Research Institute of the Finnish Economy (ETLA) (“Evaluation of Estonian innovation system”)</p> <p><b>2000-2003</b> EstRDC (“International research institutes assessment”)</p> <p><b>2001</b> European Commission (“Innovation policy in six candidate countries”)</p> <p><b>2002</b> Technopolis B.V. Amsterdam (“Competence Centre Programme Feasibility Study” (Dutch experts))</p> <p><b>2003</b> Manchester Business School and Policy Research in Engineering, Science and Technology (PREST) (“Research Development Technology and Innovation and system assessment”)</p> <p><b>2004</b> International Organization for Knowledge Economy and Enterprise Development (IKED) (“Competing in the Single Market – SMEs and Innovation in the Baltic Countries and Poland” (Swedish experts))</p> <p><b>2006</b> Technopolis Consulting Group Belgium (SPRL) (“Evaluation of the design and implementation of Estonian RTDI policy”)</p> <p><b>2006</b> European Commission (“Strategic Evaluation on Innovation and the Knowledge-based Economy in relation to the Structural and Cohesion Funds”)</p> <p><b>2007</b> European Commission (“Evaluation of Estonian RTDI Policy Mix”)</p> <p><b>2007</b> OECD (“Review of tertiary education”)</p> <p><b>2009</b> Results of regular evaluation of research institutes are bound to public research funding</p> <p><b>2012</b> European Commission European Research Area and Innovation Committee (ERAC) (“Peer-Review of the Estonian Research and Innovation System”)</p>	<p><b>1992</b> Danish Research Councils (scientific system and research institutes assessment)</p> <p><b>1997</b> European Commission (“Research and development systems assessment”)</p> <p><b>2003</b> European Commission (“Innovation Policy in Seven Candidate Countries: The Challenges”)</p> <p><b>2004</b> World Bank (“Creating a 21st Century National Innovation System for a 21st Century Latvian Economy”)</p> <p><b>2004</b> International Organization for Knowledge Economy and Enterprise Development (IKED) (“Competing in the Single Market – SMEs and Innovation in the Baltic Countries and Poland” (Swedish experts))</p> <p><b>2006</b> European Commission (“Strategic Evaluation on Innovation and the Knowledge-based Economy in relation to the Structural and Cohesion Funds”)</p> <p><b>2010</b> European Commission (“Evaluation of Latvian RTDI Policy Mix”)</p> <p><b>2013</b> Technopolis (“Research Assessment exercise” Research system, innovation system and institutions assessment)</p> <p><b>2014</b> World Bank (“Higher Education Financing in Latvia: Final Report”)</p>	<p><b>1995</b> Norwegian Research Council (scientific system and research institutes assessment)</p> <p><b>1997</b> European Commission (“Research and development systems assessment”)</p> <p><b>2003</b> World Bank (“Aiming for a Knowledge Economy”)</p> <p><b>2003</b> European Commission (“Innovation Policy in Seven Candidate Countries: The Challenges”)</p> <p><b>2004</b> International Organization for Knowledge Economy and Enterprise Development (IKED) (“Competing in the Single Market – SMEs and Innovation in the Baltic Countries and Poland” (Swedish experts))</p> <p><b>2006</b> European Commission (“Strategic Evaluation on Innovation and the Knowledge-based Economy in relation to the Structural and Cohesion Funds”)</p> <p><b>2006</b> European Commission Scientific and Technical Research Committee (CREST) (“Encourage the reform of public research centres and universities, in particular to promote transfer of knowledge to society and industry”)</p> <p><b>2007</b> European Commission (“Evaluation of Lithuanian RTDI Policy Mix”)</p> <p><b>2009</b> World Bank and Danish Agency for Science (“Technology and Innovation report”)</p> <p><b>2014</b> European Science Foundation (“Organisational Evaluation of the Lithuanian Research Council”)</p> <p><b>2013</b> Lithuanian Research and Higher Education Monitoring and Analysis Centre and Technopolis (“Research Assessment exercise” Research system, innovation system and institutions assessment)</p>

*Source: Author's compilation.*

The Estonian case where the reform took place the earliest, was singular. The role of the previously conducted full research assessment of research units by the Royal Swedish AS and Swedish Research Councils persisted, and even increased within the reform. Notably, some of the individuals who were associated with the changes in the early 1990s and had commissioned the Swedish evaluation formed the core of the second wave of reform actors<sup>166</sup>. In the later phases of the reform, other foreign reports and recommendations were used, notably the recommendations of the OECD, which Estonia joined in 2011.

The Lithuanian and Latvian cases, where the reform took place later, appeared similar. In these countries, multiple foreign actors and their recommendations and assessments were mobilised including the EC, World Bank and UK based Technopolis Group. In Lithuania, one of the key documents was the “Stocktaking of Lithuania’s science, technology and innovation system” published by The World Bank and The Danish Agency for Science, Technology and Innovation in 2009. The report aimed to “summarise recommendations” of previously conducted international studies on Lithuanian science, technology and innovation, “report on the progress achieved to date” and “point to priorities for the future” (source: World Bank 2009, 6-7). The referenced international reports were: The Norwegian Research Council’s evaluation of Lithuanian research systems, requested by the Government of Lithuania within the support of the Nordic Council of Ministers and published in 1996, the World Bank report on the knowledge economy published in 2003<sup>167</sup>, and the EU Scientific and Technical Research Committee (**CREST**) panel report published in 2007 (source: CREST 2007). In addition, a new comprehensive Research Assessment Exercise (**RAE**) was commissioned by the UK based private consultancy company Technopolis Group<sup>168</sup>, but their results were not yet used at the time of our empirical study.

It seems that in Latvia, where support for the reform amongst national scientific field actors was low, mobilisation of foreign actors and resources had an even more important role than in the other two Baltics. One of the main foreign partners was the Technopolis Group, which was commissioned to conduct an RAE of Latvian science in 2012. The group had already been involved in the EU CREST policy mix peer review exercise, which Technopolis organised

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<sup>166</sup> EST60

<sup>167</sup> The report was requested by the Government of Lithuania, more precisely by the Lithuanian Knowledge Economy Team, coordinated by the Prime Minister's Office (we have no further information about the circumstances of this assessment) (source: World Bank 2003).

<sup>168</sup> Technopolis group founded in 1989 in Brighton (UK) as a consultancy focused on the evaluation of science, technology and innovation.

in 2009. According to the Erawatch<sup>169</sup> report published in 2013, the evaluation was “expected to provide operational expert recommendations for pursuing the envisaged structural reforms in science” (source: Erawatch Latvia 2013). The Technopolis group’s intervention was the first foreign assessment of Latvian science after that of the Danish Council of Sciences at the beginning of the 1990s. The new assessment was also linked to the Nordic Council of Ministers, which was set as a formal client of the assessment<sup>170</sup> “so that no locals would have any say what will be done”<sup>171</sup>. The involvement of the Nordic Council of Ministers can be understood as a kind of double legitimisation by the reform actors.

The conceptualisation of these foreign actors as coalition partners for reforms is justified as their role was not only to provide knowledge resources, but their representatives were actively in contact with reform actors throughout the reform process as we will see below. The involvement of these international organisations (EU, World Bank and the OECD) was obvious due to their political ties to the Baltics. However, other foreign public or private actors were involved via the reform actors’ personal networks.

“Before I assumed this position [Director of the Department of Higher Education, Science and Innovation at the Latvian Ministry of Education and Science], I was commissioned by the Minister to run the research assessment...And we reached this mutual understanding with [name of the head of the Technopolis group] which is not surprising because we both come from the same line of thought and school of thought, both of our PhDs were in ST policy which is a great school of thought. And there are conferences where people go from our field, one of them is the Atlanta ST conference, and the other one is EU spread networks conferences. This is essentially where we meet”<sup>172</sup>.

The Latvian second wave of reform actors mobilised their social resources from the science and technology networks in the US and UK. Also, while we haven’t identified the direct cross-country cooperations between the Baltic reform actors, we can however observe a circulation of foreign “expert groups” in the region. For example, in a similar way that the Estonian reform actors “launched” the Scandinavian research assessment at the beginning of

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<sup>169</sup> Erawatch is a joint initiative of the EC’s Directorates General for Research and Joint Research Centre. The main objective of analytical country reports is to characterise and assess the performance of national research systems and related recent policies.

<sup>170</sup> According to the agreement between the research ministry and the Nordic Council of Ministers, the latter shall “perform the assessment of the Latvian science and innovation system and facilitation of further cooperation of the scientific institutions registered in the Register of Scientific Institutions in the Baltic Sea Region, inter alia revise the legal status and role of the Latvian Council of Science” (source: Technopolis 2014).

<sup>171</sup> LV33

<sup>172</sup> LV32

the 1990s, the Latvian second wave of actors “launched” the UK Technopolis RAE in Latvia, which was then “overtaken” by Lithuanians. Similarly to how Estonian reform actors had used their networks, Latvian reform actors used theirs to engage the Technopolis. This circulation was facilitated either by Baltic actors, or directly by foreign actors who could “transfer their experience” from country to country, as explained by one of the Technopolis experts we managed to meet during our fieldwork in Latvia<sup>173</sup>.

It is important to underline that throughout the periods of intensive reform, the mobilisation of foreign actors and resources was also institutionalised in the form of obligatory foreign assessments. In Estonia, an obligation to conduct a regular evaluation of research (once every seven years) was introduced with the Law on Research Organization (source: EstTS 1994, §17). In Latvia, the same obligation (but once in six years) was introduced with the Law on Scientific Activity in 2005 (source: LvZDL 2005, Section 38, §3), but according to reform actors, was never applied. The Lithuanian Government introduced regular evaluation of research institutes (once in six years) with the adoption of Law on Higher Education and Research in 2009 (source: LitLRMSI 2009, Article 43)<sup>174</sup>. In all cases, the laws brought in an obligation to include foreign partners in the evaluation process. By setting the criteria of internationalisation of research in the heart of the assessment criteria these evaluations allowed the reformers to problematise the research policy situation in each country, and published recommendations were often directly applied as a roadmap for reforms. In that way, these foreign actors can be seen as “cooperation partners” to the second wave of reform actors.

As it will be demonstrated several times in the further text, these foreign actors did not always agree with the reforms, or with each other on some elements of the reforms. It is important to underline that the categorisation of actors into those who “cooperate” and those who “oppose” the reform is conditional. Cooperation or opposition depended on several elements: reforms were complex, and scientific field actors could simultaneously support parts of the reform and be neutral or against other parts of it. Also, not all of the analysed actors formed singular positions in regards to reform plans, and their positions could evolve. However, this rough categorisation is useful because it demonstrates the unique national configurations of reform coalitions and oppositions. These configurations resulted from the paths of the emergence of reform actors, their profiles, and post-Soviet power configurations in national

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<sup>173</sup> LV13

<sup>174</sup> Also, the Lithuanian Research and Higher Education Monitoring and Analysis Centre (also known as “MOSTA”) was established as a science evaluation body in 2007. It monitors and assesses research, HE and innovation to take into account the needs of the State, society and economy.

scientific fields. Thereby, it gives a simplified basis for understanding further reform paths in the Baltics. Indeed, supported by their national coalitions and foreign partners, all of the reforms addressed existing public research funding settings and the “success” of changes was highly dependent on configurations of reform coalitions and oppositions.

### 3.2. Re-organisation of public research funding organisations and instruments

The reforms undertaken in each of the Baltics tackled the existing public research funding organisation and instruments. Although they were carried out in different periods, their common feature was to reduce the role of the existing science councils in the research policy-making process and research funding. The most notable cases are Estonia and Latvia, where the role of the funding councils decreased significantly (3.2.1). In parallel, new organisations such as the Lithuanian Research Council (**LitRC**) (established in 2010) and Estonian Research Council (**EstRC**) (established in 2012) were created (3.2.2). We can therefore see a change in the profiles of members of the research funding councils in Estonia and Lithuania, but not in Latvia (3.2.3). Finally, the rise of central government institutions (notably, research ministries) and their role in research funding policy brought along shifts between different funding instruments and national public research funding institutional “models” (3.2.4).

#### 3.2.1. The decline of the “old” science councils

The reforms reduced the administrative capacity of the EstSF and LvSC, their functions were minimalised, governing boards reformed (in particular in the LvSC), and the extent of funding channelled through these organisations was decreased. Finally, the statuses of these organisations were put under question or even eliminated - as was the case of Estonia during the later period of the reform.

##### *Estonian Science Foundation*

In Estonia, it was the base-line funding stream (officially named “Targeted Funding”) that was tackled by the second wave of reform actors. Allocated in a block-grant principle to the biggest research organisation, the funding stream had so far been administrated by the EstSF. However, within the new Organization of Research and Development Act developed by reform actors and adopted in 1997, the funding stream was shifted from the EstSF to the management of the Ministry of Education (source: EstTAKS 1997). According to the reform actors, “the aspect of scientific autonomy should not be too much expressed in this funding

stream”, and instead, this funding stream shall be the “way for the ministry to realise governments’ political aims” (Martinson 2015, 264-265, 284).

The change in funding streams was supported by other organisational changes in resource allocation. Instead of the EstSF, the key organisation in Targeted Funding allocation became the newly established Council of Scientific Competence (CSC)<sup>175</sup>, which was formed as an advisory council for the Minister of Education. The council comprised nine members from different scientific fields (elected for three-year terms) (source: EstTAKS 1997, §12). Candidates to the council were submitted by public universities and the AS, and the choice was made by the Minister and approved by the Government (source: EstCSC 1997). Altogether, according to its regulations, this small council became responsible for working out the budget allocation strategy and principles, administration and evaluation of proposals, and advising the research ministry in funding allocation. The CSC also advised the Minister in other science funding and policy issues such as infrastructure costs in R&D institutions under the tutelage of the Ministry of Education, submission of proposals for the funding Master’s and Doctoral research, data collection for its activity, and publication of its suggestions and decisions (*Ibid.*, 16). In that way, the transfer of base-line funding under the ministry reduced the direct influence of the biggest universities and the AS in public research funding allocation. In that way, the establishment of the CSC brought along a major shift in the power configuration in public research funding policies.

Although the majority of the EstSF council members agreed with the general direction of the reform to increase the competition amongst research units, the radical methods taken by the government were criticised by some of them<sup>176</sup>. For example, a cleavage emerged right before the shift in the Targeted Funding budgets in 1997. To “support the structural reform of science” the Ministry ordered the EstSF to allocate resources one last time, but with the newly established competitive criteria. In the words of one former EstSF official, in that way “the bloodshed (hard work) was left to the EstSF... eight research institutes were closed, four of them in the field of agriculture” (Martinson 2015, 273). This meant a considerable reduction of funding for researchers who protested against the activity of the EstSF. As a result of the conflict

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<sup>175</sup> In the interviews, reform actors did not identify any specific model of funding they were referring to in establishing the CSC. Nevertheless, the recently established Strategic Research Council in Finland seems to have similar principles. The government (plenary) decides yearly upon its “themes and emphasis points”, based on a proposal made by the SRC. The SRC then distributes the funding to 3-6 year projects through open application. Formerly, the funding instrument was under the Academy of Finland.

<sup>176</sup> EST05, EST59

with the Ministry, the head of the EstSF stepped down. Subsequently, the legal status of the EstSF was put under question and councils' administrative expenses were reduced progressively. One of the former leading figures of the EstSF has summarised the whole process as follows: "since 1990, the main principle in Estonian research funding was the creation of an autonomous, researcher based decisive organ where elected representatives of researchers evaluate and design the Estonian scientific field and decisions taken couldn't be influenced by changing Ministers and their opinions. However, since 1995, every new month showed that these democratic principles are not going to work in Estonia. These reforms did not take into account the fact that the next minister could be, for example, an excellent primary school teacher or violinist" (*Ibid.*, 280-281). The shift in the management of the research funding streams under the Ministry was perceived as a loss of autonomy in the research funding organisation, and hence a threat to scientific freedom.

Hence, the organisational relocation of the funding stream was not only a formal change but reflected a shift in powers inside the national scientific field towards giving the reform actors a larger role at the research ministry. Since the role of the EstSF was reduced in 1997 the organisation was dissolved by the same reform actors in around 2011, when the EstSF was merged with other research policy-related organisations into a new research funding agency. Although its juridical form was officially preserved, the name of the organisation, its management system, and research funding procedures were reviewed and modified. This organisational change will be discussed below.

#### *Latvian Council of Science*

In Latvia, since the adoption of the Law on Scientific Activity in 2005, the role of the LvSC in science policy was progressively transformed and diminished. With the law of 2005, the LvSC was altered from a collegial organisation to a state institution under public law (under the auspice of the Ministry of Education and Science), and the LvSC became accountable to the Ministry of Finance in its funding activity. In 2009 the Ministry of Education and Science separated the functions of evaluation and administration of the grants. While the LvSC kept its evaluator role, the administration of the grants was shifted to another government organisation – the Latvia Study and Science Administration. Finally, with the creation of the Strategic Council of Research and Innovation in 2014, the LvSC lost its central role as a government advisory body.

Besides a reduction in its functions, the Ministry brought in external, government-supported, members to its council. A major change was undertaken in 2010 when the council's membership was expanded<sup>177</sup>. While previously, the LvSC council was mostly comprised of research organisations' representatives, since 2010 it included academic representatives from National Scientific Institutes Associations, Latvian Union of Scientists, Latvian Association of Young Scientists, Latvian Employers' Confederation, but also political representatives appointed by the Prime Minister, Ministry of Economics, the Ministry of Health, the Ministry of Environmental Protection and Regional Development, the Ministry of Agriculture, and the Ministry of Culture at the Employers' Confederation of Latvia. At the same time, by the demand of the LvSC administration, it was stated that the chairperson shall be the representative of the Latvian AS.

This major change was encouraged by the logic of resource allocation. While the share of the base-line funding was progressively increased, the grant funding allocated through the LvSC was kept constant, despite the inflation and economic progression at the beginning of the 2000s. According to our interviews with the LvSC representatives, this trend was one of the main sources of conflict between the LvSC and the Ministry, particularly during the reform of 2013:

“It [the decision to freeze the budget] was done democratically by people who are not able to compete with others. As if the competition was not a good thing! And they were able to argue in the government that this is the right way. So now the mainline of funding goes for organisations - called basic funding: it is around 25 or 27 million euros. And last year, we had only around 4 million for project funding! So, we do exist, but we have no money to distribute<sup>178</sup>”.

If the Ministry representatives, as explained above, denounced the LvSC funding allocation practices, the LvSC representatives justified their complaints through the function of the LvSC.

Finally, a new system of disciplinary nomenclature, namely the OECD Frascati Manual<sup>179</sup> categorisation of scientific disciplines, was adopted. According to the second wave

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<sup>177</sup> It was only in 1998 when a representative of the Ministry of Education could join the board. Before that, the Ministry was not directly involved in science funding. The 2005 law stated that the LvSC shall include representatives delegated from: the Ministry of Education and Science - one; Latvian AS - four; Latvian Union of Scientists - one; Rectors' Council - one; scientific commissions - one from each commission (source: LvZDL 2005).

<sup>178</sup> LV34

<sup>179</sup> First developed in the 1960s, the Frascati Manual is an OECD document setting forth the methodology for collecting and using R&D statistics.

of reform actors, in contrast with more Soviet-style fragmented categorisation, the OECD categorisation should contribute to modifying the composition of the commissions of the LvSC: “It was another way for us to reform and to remove the power structure that was in place in terms of fields. This [adoption of Frascati categories] means they [LvSC] have to change their commissions, if they change commissions, there will be also an opportunity for general directional change. So it’s all about breaking networks, and once it’s broken, there is a window of opportunity and someone else can get in”<sup>180</sup>. Nevertheless, on the example of the 2013 LvSC elections, although five expert committees were formally formed, 13 scientific sub-categories were preserved inside the committees meaning that elections considered a higher number of scientific branches<sup>181</sup>. The LvSC was therefore hampered by a low budget, and the potential of reform actors within was limited.

### 3.2.2. Country-specific appropriations of the “new” funding agencies

Instead of more autonomous science councils that were fully run by representatives of the scientific community, reform actors invested in the “executive agencies” type of research funding organisations, meaning that they are structurally separated from the government offices but “close enough to permit ministers/secretaries of state to alter the budgets and main operational goals of the organization” (Pollitt *et al.* 2004, 10 as cited in Bach *et al.* 2012, 184). Compared to the science councils that were established in the early 1990s, both organisations – LitRC and EstRC – had more complex structures with separate governing bodies or “arenas” (Braun 1998) for strategic governance and evaluation, which had a multitude of functions and were accountable to the government. Their appropriations reflect country-specific power configurations in the science policy field: the LitRC was “attached” to the Lithuanian Parliament, and the EstRC to the Estonian Ministry of Education and Research.

#### *Establishment of the Lithuanian Research Council in 2009*

The Lithuanian reform project was prescribed with an aim “to provide internationally recognized research output quality” (Bileviciute, Zeleniene 2013, 130). This included an orientation towards external (international) expertise in tenders and the evaluation of research results and switching from long-term research funding to competition-based state research funding. To this aim, the funding allocated through project competition was gradually increased

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<sup>180</sup> LV32

<sup>181</sup> Based on the results of the LvSC election in 2013 (source: LvSC webpage 2021).

to 30% in 2009, and 50% in 2011 (source: OECD 2016, 89-94). Together with increasing the share of project-based funding, the new funding agency – LitRC – was established. It took over research funding functions from the LitSSSF<sup>182</sup>, along with part of the functions of the previous Agency for International Science and Technology Development Programs (EU funding programmes management agency), which was subsequently reorganised into the Agency for Science, Innovation and Technology (also known as “MITA”)<sup>183</sup> (source: ESF 2014). With the reorganisation and concentration of other institutions, the LitRC functions were as follows: making proposals on the implementation of research policy, evaluating research activities, carrying out institutional assessments of research institutes, and evaluating scientific production. Contrary to Latvian and Estonian funding arrangements, the LitRC did not only allocate funding through one or two instruments but several, including instruments funded via EU ESIF and national research programmes<sup>184</sup>. All of these functions and activities were supported by the employment of numerous new officials (at least 40 officials were working at the LitRC during the period of our empirical research). With the establishment of the LitRC, the Lithuanian public research budget distribution was, at least partly, decentralised for the first time.

To design the organisational structure of the LitRC a systematic study of different countries’ examples was conducted, analysed, and debated. In this process the head of the LitSC, Ramunas Balkus, who cooperated closely with the EC institutions, had a major role in structuring the new agency. Having personally visited Finnish, Norwegian, Swedish, German, Dutch and “other” science councils, the major reference, in his words, was the European Research Council (**ERC**).

“When we adopted our regulations, we saw some ideas from different countries but principally what we took from European Research Council was the quality of research – we wanted to fund only top-quality research<sup>185</sup>”.

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<sup>182</sup> As we saw in the second chapter of this thesis, in the beginning of the 1990s the LitSSSF had a role as a research funding council. In 1998 it started issuing loans for students. However, its role in research remained scarce. In 2003, for example, the foundation received only 4% of the funds allocated for research and HE in the state budget. Between 2008 and 2010, its functions were altered. The research-specific functions were transferred to the LitRC and the foundation – now the State Studies Foundation - was oriented toward administrating study loans and other financial issues in the HE sector.

<sup>183</sup> The Agency for International Science and Technological Development Programs (established in 2002, since 2010: Agency for Science, Innovation and Technology) was responsible for administration and coordination of the EU FP, management of technological development and innovation and other financial schemes.

<sup>184</sup> The national research programmes instruments will be dealt with in the next sub-section of this thesis.

<sup>185</sup> LIT14

Drawing inspiration from the ERC, the LitRC was supposed to fund only the "top-quality research" – we will further discuss the more detailed settings of LitRC funding council in the next chapter. Thereby, the organisational structure also resembled the ERC example. Similarly to the ERC, the LitRC structure consisted of separate vice-chairmen and commissions, with one specialised in SSH projects. More precisely, the LitRC was composed of the board, research council with two expert committees – the Committee of the Humanities and Social Sciences, and the Committee of Natural and Technical Sciences – and the research foundation, which was responsible for implementing council research and project funding decisions, and carrying out administrative duties of the council. In contrast with the former LitSC, Council member selection was changed from nomination via research institutes, to direct appointment of the members. Notably, the 29 members of the council were appointed by Parliament following a proposal by the Government, and the selection of the members was managed by the research ministry. Members were appointed with a five-year mandate, with the possibility of a five-year extension. It was compulsory to rotate half of the members of each committee every two and a half years. The board was also composed out of a mix of science representatives and external (government representative) members. The nine-member board included the Chairperson of the council and the chairs of the two expert committees, an appointed representative of the Parliament Committee on Education, Science and Culture, a representative of the Government, of the Ministry of Education and Science, the Ministry of Finance and the Lithuanian AS. With these measures, the research council was kept closely linked to the Parliament.

“There were so many people who didn’t want to have research council...the Ministry of Economy who until now they want to take money from research council and give it to enterprises, also the Ministry of Agriculture. And we were not sure who will become Minister of Education and Research [pause] to have it under the ministry, would be very vulnerable to political influence. So the idea was to make it as autonomous as possible from political influences”<sup>186</sup>.

Contrary to Estonia, where stronger government control over research funding flows was seen by reform actors as a guarantee for reforms, in Lithuania, it was perceived as a risk of political influence. Inspired by foreign examples in which science councils are autonomous government agencies, this structure was thus appropriated to the specific Lithuanian science policy context in the form of the LitRC.

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<sup>186</sup> LIT15

The organisational change of 2012 was another phase in reorganising the research policy organisations and funding instruments in Estonia. Undertaken by the second wave of actors, the change of 2012 consolidated funding instruments under one funding agency – namely the EstRC. According to the reform plan, the consolidation was supposed to help to “avoid duplication”, “ensure the interaction” between the funding instruments and therefore “guarantee the better functioning” of the whole public funding system (source: EstKBE 2007). The policy rationale was linked to international organisations’ recommendations of enhanced coordination over various institutional and organisational boundaries. Promoted by the OECD, which Estonia joined in 2010, this trend involves various coordination-oriented reorganisations and instruments, such as organisational mergers into large multifunctional units, the strengthening of coordinating “centres” and other coordination bodies, and a comprehensive “whole-of-government” perspective to public administration (Barré *et al.* 2013; source: OECD 2011)<sup>187</sup>.

The EstRC was designed as a multifunctional government agency. It combined the EstSF with several departments of the Archimedes Foundation (EU funds management agency), such as the bureau of the CSC<sup>188</sup> and the Research Cooperation Centre. With around 55 officials, it became responsible for the assessment of grant effectiveness, international research cooperation (National Contact Point for Horizon 2020 FP), cooperation programmes, and national science communication with youth and the general public. According to our interviews, the consolidation plan was largely inspired by the Finnish Academy example. It was considered by the reform actors as an “obvious example” for Estonia due to its “similar culture” and “well-functioning administrative systems”. Hence, as it is in Finland, the new agency was imagined more as a “competence centre” rather than a “foundation”<sup>189</sup>.

Besides its multitude of functions, the EstRC was also characterised by its more complex organisational structures than the previous EstSF or CSC. Its organisational structure was composed of expert panels, an evaluation committee, and the council. As in Finland, the expert panels were formed in four fields of science – natural sciences and engineering, bio and

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<sup>187</sup> Estonia joined the OECD in 2010. One year later, OECD published a public governance review where it was recommended that the Estonian government execute a wider public-administration reform on the basis of the “Whole of Government” approach.

<sup>188</sup> In 2006 the administration of the CSC was externalised from the Ministry to the Archimedes Foundation. The Archimedes Foundation was the EU ESIF implementing Agency in Education and Research founded in 1997 (more precisely, the bureau of CSC was located to its Centre of Scientific Cooperation).

<sup>189</sup> EST25

environmental sciences, health, and culture and society. In addition, panels for post-doctoral research and core research facilities applications were created. Then, the EstRC Evaluation Committee was introduced as a second decision-making arena. The 15 members of the committee were elected by the council of the EstRC in concert with the Minister, selected from candidates submitted by research institutions. Finally, the council of the EstRC was the highest supervisory body in planning the activities of the EstRC, organised its management and carried out supervision. Most of the members of the council were appointed by the research ministry with a term of office of five years. This kind of structural unit didn't exist in the former funding organisations and was introduced for the “separation of evaluation and the strategic roles” of the agency.

Within this organisational structure, the ministry could interfere in appointing the EstRC Council and participate indirectly in the election of the members of the evaluation committee. The role of the Ministry remained high regarding the former CSC funding stream. Even if this instrument was “decentralised” (as before it was under the direct control of the Minister), the Ministry didn't give up its final decision-making authority to the EstRC. The relatively high involvement of the Ministry was not unnoticed by the EstRC staff members. In our interviews, several aspects of the agency were criticised: its hierarchical management structure and lack of autonomy from the Ministry, high level of competition that created frustration amongst researchers applying for funding, and the lack of freedom to design the requirements for funding instruments as they were all “prescribed” by the Ministry<sup>190</sup>. As one of our interviewees explained: “In Finland, the Academy has complete liberty to create new instruments, target research topics and so on, but here in Estonia, we have prescribed instruments and topics we can deal with and that's it!”<sup>191</sup>. Despite the Ministry's formal ability to directly influence the design of the funding instruments, it is important to note that science representatives had de facto autonomy in deciding the funding. The Minister vetoed the decision of the council only once – in the early 2000s (source: CSC 2003).

The 2012 changes, regarded by the second wave of reform actors as “a follow-up” to the reform of 1997<sup>192</sup>, took a further step towards a larger governmental role in research funding policy. It seems that at least two factors explain the specific timeframe of the Estonian reform path: the support of the external actors (EU, OECD), and access to the positional resources of

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<sup>190</sup> EST12, EST54, EST17

<sup>191</sup> EST54

<sup>192</sup> EST56

some of the reform actors (for example, the above-described changes were undertaken under the same minister J.Aaviksoo who lead the ministry between 1995 and 1996). Thereby, despite attempts to reinforce the coordination role of the formal centre as proposed by the OECD, the Estonian reform path was continuously addressing more “horizontal” research steering, where the Ministry of Education and Research held the main influence in policy coordination (Tõnismann, Virtanen 2021).

### 3.2.3. Partial change in the profiles of council members, since the early 1990s

To better grasp the change in the Baltic science councils, we analyse the profiles of members from both the “policy arena” and “selection arena” of these councils (Braun 1998)<sup>193</sup>. As we did for the 1990s (i.e. see Table 2.3 and Figure 2-2 in section 2.1.3), we compared the funding councils’ members profiles in 2015. We analysed the profiles of the EstRC evaluation committee members (altogether 13 individuals), the LvSC council members (22 individuals), and the LitRC council members (29 individuals). These organisational units were not always the final decision-making “arenas” in the funding councils (in some cases, the board or the Minister gave final confirmation for the funding decisions), nor were they the first “selection arenas” of the funding councils. Sitting between these two arenas, these units, also known as the “policy arena” by D. Braun, were responsible for the second step review (due to the particularity of the Lithuanian council, the given “arena” also includes the SSH expert committee) and thus had major weight in the council’s decision-making process. More precisely, we focussed on their educational and professional experiences, membership of foreign associations, and publication practices (**Table 3.2, Figure 3-1**). We complement this analysis with available data about the “selection arena” members’ foreign experiences<sup>194</sup>. The selection arena is where SSH funding projects are selected by either anonymous scientific referees or by scientific peer review groups.

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<sup>193</sup> According to D.Braun (1998, 814-914) “In the ‘selection arena’ funding projects are selected by either anonymous scientific referees email review, or by scientific peer review groups. Administrators are participating as brokers within these review groups. All decisions made are entirely the affair of scientists [...]. In the ‘policy arena’ we find the same scientific boards responsible for the second step review and, occasionally, additional boards. The term policy arena indicates that it is the function of these boards to define the ‘intermediate goals’ as well as the strategies to realise them by taking into account the ‘constitutional’ mission of the funding agency”.

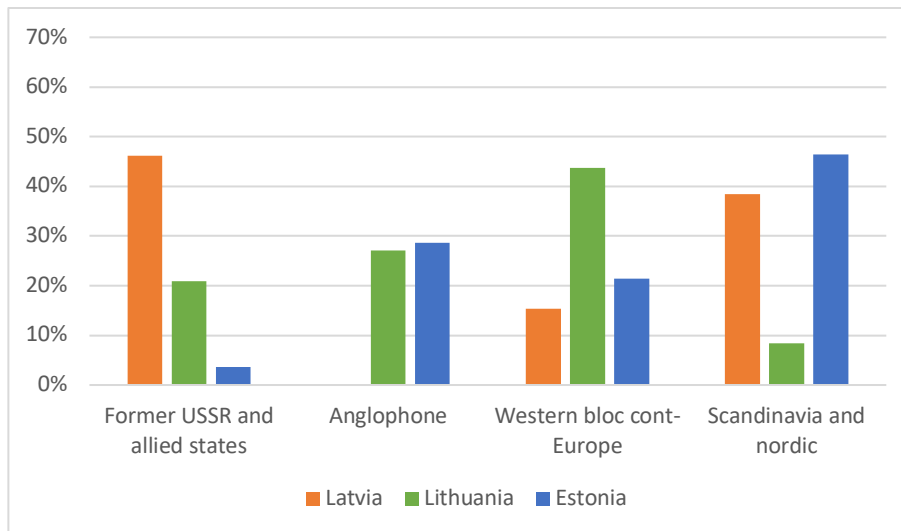
<sup>194</sup> In Latvia and Lithuania, the full data on commission members was unavailable for our study.

**Table 3.2 Overview of science council members' foreign experience by 2015**

	Total members	Foreign study experience	-Visited Eastern-Bloc countries (times visited)	-Visited Western countries (times visited)	Foreign work experience	-Visited Eastern-Bloc countries (times visited)	-Visited Western countries (times visited)	Members of foreign scientific associations	-Geographical dimension of associations	Articles published in the WoS database	-Collaboration partners (First five, times partner occurred)
<b>Latvian Council of Science</b>	22	5 (3 in western, 2 in East)	RUS (2)	SWE (1) DEU (1) NLD (1)	6 (5 in western, 2 in East)	HUN (1) POL (1) EST (1) MDA (1)	DEU (4) SWE (2) FIN (2) ESP (1) GRC (1)	8	Inter (5) Europe (4) USA (4) Baltic (2) Nordic (2) SWE (2) DEU (1) HUN (1) Nordic-Baltic (1) RUS (1) ITA (1) EST (1)	8 had published in the WoS journals Average H index: 2,4 (for total members) and 16,37 (for 8 authors)	Sweden (56) Germany (50) USA (41) UK (29) France (25)
<b>Lithuanian Research Council</b>	29	10 (7 in western, 5 in East)	RUS (4) TUR (1) LVA (1) POL (1)	USA (5) DEU (3) AUT (2) FRA (2) CAN (1) SWE (1) GBR (1)	12 (11 in western, 4 in the east)	POL (2) CZE-SVK (1) CHN (1) RUS (1)	DEU (6) USA (5) SWE (3) ITA (2) CHE (2) BEL (1) AUT (1) DNK (1) FRA (1) GBR (1)	8	Inter (5) Europe (6) Nordic (2) USA (1) Baltic (1) LVA (1) GBR (1)	8 had published in the WoS journals Average H index: 3,8 (for total members) and 6,63 (for 8 authors)	USA (22) Germany (16) Netherlands (9) Romania (9) Denmark (8)
<b>Estonian Research Council (evaluation committee)</b>	13	6 (6 in western)	-	FIN (2) GER (1) NLD (1) CHE (1) USA (1) FRA (1) SWE (1)	10 (10 in western, 1 in East)	RUS (1)	FIN (5) SWE (4) GBR (4) USA (3) JPN (3) NOR (1) FRA (1) NLD (1)	10	Europe (7) Inter (4) FIN (4) Baltic (2) SWE (2) MEAE (1) EST-RU (1) USA (1) HUN (1) RUS (1) KAZ (1) BGR (1) DEU (1) LVT (1) LTU (1)	13 had published in the WoS journals Average H index: 23,23	Finland (177) UK (163) Sweden (155) Italy (120) USA (155)

Source: Author's compilation. Based on available information in the CVs and conducted interviews.

Note: In the sections "Foreign study experience" and "Foreign work experience" only longer-period experiences (more than 6 months) are counted. The section "collaboration partners" represents the number of articles published in collaboration with researchers in the given country.



**Figure 3-1 Distribution of science council members' travel experience in 2015**

*Source: Author's compilation. Based on Table 3.2.*

The most significant change in this period occurred in Lithuania, when looking at the profiles of LitSC members at the beginning of the 1990s. Instead of the previous destinations of former USSR and allied states, LitRC council members in 2015 had mostly travelled to continental European countries. This change may indicate the change in council member nomination principles after the reform of 2009. Then again, despite the change in the “policy arena”, the SSH committee profiles still reflect mostly national experiences. For example, out of 11 LitRC SSH committee members between 2009 and 2011, only four had studied or trained in different Western universities and research institutes (Stockholm University, University of Illinois, University of Oxford, London Royal College, Universities of Berlin)<sup>195</sup> and one of them in an Eastern European university (Lomonosov State University). This suggests that the “right” profiles in the committee were considered to be crucial for sustaining LitRC activity as it was planned by the reform actors:

“The SSH committee is very delicate. Last year there was a situation where some politicians tried to influence the council and as a result, some people wanted to leave the council. I saw the list of the candidates that would have replaced them and I told them not to leave: if they are replaced, it's finished what we have achieved in the last 5 years. So...um...I also made some efforts on who is nominating the election committee and tried not to agree to some candidates. So,

<sup>195</sup> Based on the CVs of SSH committee members (the list is not exhaustive) (source: LitRC webpage 2021).

there are still forces who like to come back to a previous life...to fund without peer review.<sup>196</sup>”

The committees can be seen to be under the pressure of political influence; and keeping reform-minded committee members was a key goal “after” the period of intensive reform.

In Latvia, the profiles of the LvSC members are similar to the those in the 1990s. Although the share of LvSC members who have travelled to the Western countries (in particular to the Scandinavian and Nordic countries) has increased, Eastern European countries persist as the main destinations – for the SSH committees especially. The age of SSH representatives (10 individuals in 2015) is rather high (average 53 years) and their international educational and professional experience is rather low when looking at the institutions where they studied and worked. Only one out of ten members (a researcher in the history of art) had several short international professional experiences<sup>197</sup>. This can be explained by the fact that the reform actors’ activities had only a minor impact on the LvSC structure and, contrary to Estonia and Lithuania, a new funding council was not established in Latvia.

Finally, the Estonian EstRC members' profiles differ from the other two Baltics. As was the case of EstSF members in the 1990s, the EstRC members had travelled mostly to the Scandinavian and Nordic countries. EstRC member profiles differ from other countries also in terms of their scientific output. Unsurprisingly, their overall productivity, measured in terms of articles published in WoS journals, increased in all countries. Collaboration in scientific publications was mainly carried out with Western countries instead of Eastern European countries, as it was in the 1990s. However, the Estonian council members’ overall scientific productivity, measured in the H index (23,23) exceeds Latvian (16,37) and Lithuanian (6,63) council members’ productivity<sup>198</sup>. Similar trends can be found in the “selection arena”. In 2015 the EstRC SSH committee comprised 11 members. Most of them were men (only 3 of 11 were women), in their 40s. Most of them had earned their diploma (MA, PhD or both) from the biggest European universities (Ecole des Hautes Etudes en Sciences Sociales, Humboldt University, University College, Cambridge University or Oslo University). Four members earned their diplomas solely from Estonian universities but used special scholarships during

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<sup>196</sup> LIT14

<sup>197</sup> Based on the CVs of SSH committee members (the list is not exhaustive) (source: LvSC webpage 2021).

<sup>198</sup> Although the Latvian H index is more than twice as high as Lithuania’s, it is boosted by a few individuals. Taking into consideration all of the council members, the average H indexes in Latvia and Lithuania remain low (between 2,4 and 3,8).

their studies for shorter trips to foreign universities (Oxford Centre for Hebrew and Jewish Studies, Lund University, Helsinki University). All of them are also successful publishers in various peer-reviewed scientific journals. In their scientific profiles, we can find a list of more than 100 individual and collaborative publications. All in all, they are young, educated in foreign universities, publish in highly ranked peer-reviewed journals, and quickly held professorships in their home-country universities. As such, their profiles correspond to the criteria already laid out by Estonian reform actors in the mid-1990s.

#### 3.2.4. Changes in the funding ratios between different instruments

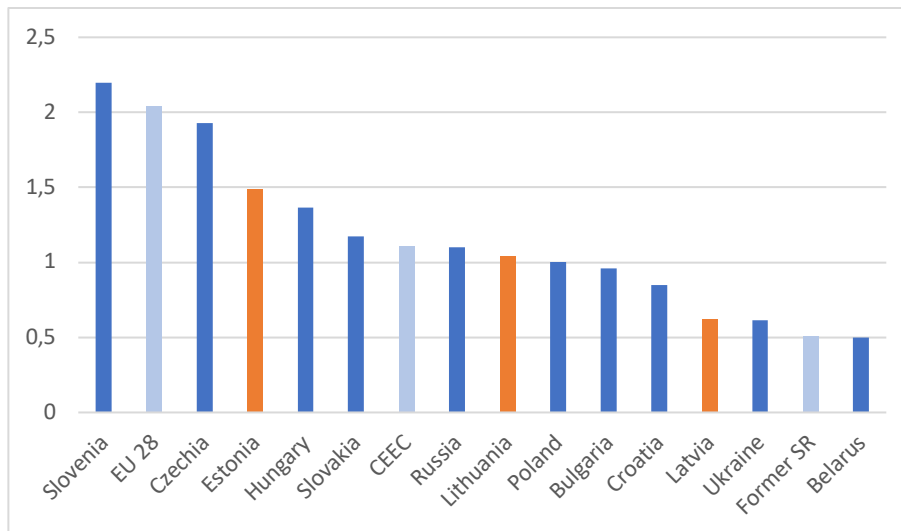
As a consequence of organisational changes in research funding policy, the shares allocated to different funding instruments changed as well. Thereby, it is important to underline the differences in the budgets of public research funding. In Estonia, it was around EUR 51,7 million, in Lithuania EUR 35,8 million, and in Latvia only EUR 26,4 million in 2015. Mostly linked to the government decisions during the economic recession, the differences also reflect the overall differences in R&D investments in the Baltics (**Box 15**).

#### **Box 15 Differences in the Baltic countries' R&D investments**

During the first years after the collapse of the Soviet Union and restoration of independence, the primary sources of R&D investments in the Baltics were explicitly public funds (Berg-Andersson 1997; Kristapsons *et al.* 2003, 89). However, after the economic crisis negatively affected the Baltics' economic growth, government spending for research decreased as well, but not to a similar extent in all three countries. Latvian government support remained particularly low. At the time of the economic crisis, the total Latvian state budget for research decreased by 60%. At the same time, the budget was reduced by 20% in Lithuania and remained relatively stable in Estonia. In the words of officials of the Latvian Ministry of Education and Science, the harsh cut of the budget was a result of the Latvian government's negligence in the matter of "science and technology-based economic development"<sup>199</sup>. This reduction in national public R&D budgets due to fiscal austerity measures was compensated for — particularly in Latvia and Lithuania — with the substantial use of the EU ESIF, which had the effect of creating a dependency on foreign funding for research system development. For example, right after the economic crisis, in 2010, public funding for R&D (allocated from within the budget of research ministries and excluding ESIF funding) reached up to EUR 73 million in Estonia, EUR 47 million in Lithuania and only EUR 17.2 million in Latvia (source: Erawatch Latvia 2013; Erawatch Lithuania 2013). The difference between the three can be still observed in 2015 (**Figure 3-2**). The gross domestic expenditure on R&D as a percentage of GDP in Estonia (1,48) is above average compared to other CEE countries, average in Lithuania (1,04), and one of the lowest in Latvia (0,62).

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<sup>199</sup> LV32



**Figure 3-2 Gross domestic expenditure on R&D (a percentage of GDP in 2015)**

*Source: Author's compilation. Data are from The United Nations Educational, Scientific and Cultural Organization Institute for Statistics (UNESCO 2015, GERD) and Statistical office of the European Union (Eurostat 2015, rd\_e\_gerdtot).*

Besides the differences in global public research funding budgets between the three countries, there were also differences in how these budgets were allocated in each country. As a result of organisational changes in Estonia, the role of EstSF project funding in public research funding allocation decreased progressively throughout the reform (**Table 3.3**). Before the reform of 1997 the EstSF distributed the totality of the public research budget; by the year 2009 it distributed only 33% of resources. The role of project funding in Estonia increased only after the organisational change initiated by the second wave of reform actors in 2012. After this the EstRC distributed 82% of public research funding via project-based instruments.

**Table 3.3 evolution of public research funding instruments in Estonia (EUR millions, percentages)**

	Project funding	Provider	Base-line funding	Provider
<b>1995</b>	2,88 (22%)	EstSF	10 (78%)	EstSF
<b>2009</b>	15,79 (33%)	EstSF	7,8 (17%)	Ministry
	23,89 (50%)	CSC, Ministry		
<b>2015</b>	42,4 (82%)	EstRC	9,3 (18%)	Ministry

*Source: Data for 1995 are from an Estonian Science Foundation publication (EstSF 1996, 14) and Council of Scientific Competence report (CSC: 2000, 12), for 2009 and 2015 from the Estonian Research Council (EstRC webpage 2019).*

Note: The table does not include other minor funding measures such as infrastructural funding in 1995; it does not include national research programmes.

Initiated by the second wave of reform actors, the Lithuanian 2009 reform represented an important shift in the management of the research budget (**Table 3.4**). The project-based part of the public research funding allocated by the LitRC was increased from 30% in 2010 to 50% in 2011 (source: OECD 2016, 94). According to our data, the LitRC allocated 41% of total public research funding in 2015 (excluding resources from the EU ESIF). Moreover, it was not achieved by adding supplementary to the research sector, but by reducing the base-line funding budget in favour of the project funding instrument<sup>200</sup>. At the same time, the state budget allocation for base-line funding was EUR 21 million in 2015<sup>201</sup>.

**Table 3.4 evolution of public research funding instruments in Lithuania (EUR millions, percentages)**

	Project funding	Provider	Base-line funding	Provider
<b>1995</b>	n/a (1-3%)	LitSSSF	n/a	n/a
<b>2015</b>	14,8 (41%)	LitRC	21 (59%)	Ministry

*Source: Data for 1995 are received from the interview with a research ministry official (LIT09), and for 2015 from Lithuanian Research Council (LitRC 2015a, 12).*

Note: Due to the lack of documentation we could not collect budget information for the 1990s. Due to the particular definition of the LitRC funding portfolio, the data for 2015 includes national research programmes and the Global Grants programme funded by ESIF (see also chapter 3.3 and 4.3).

The Latvian public research budget increased substantially with the reform of 2013. While the budget the LvSC was responsible for was kept relatively stable (around EUR 4,5

<sup>200</sup> LIT14

<sup>201</sup> LIT08

million), the base-line funding instrument managed by the Ministry of Education and Science increased significantly (**Table 3.5**). The increase was almost EUR 10 million between 2012 and 2015 and kept growing in following years (the amount of base-line funding reached EUR 27 million in 2016). In that way, the share of the resources streamed through the LvSC dropped while those allocated by the Ministry increased.

**Table 3.5 the evolution of public research funding instruments in Latvia (EUR millions, percentages)**

	Project funding	Provider	Base-line funding	Provider
<b>2012</b>	4,69 (29%)	LvSC	11,58 (71%)	Ministry
<b>2015</b>	4,38 (17%)	LvSC	22 (83%)	Ministry

*Source: Data for 2012 is from report about science funding and science development in Latvia (LvTUESE 2013), and for 2015 from European Commission report about Latvian research funding (EC 2018, 57).*

In a way, compared to the early 1990s, we can observe changes in the organisational structures of public funding as described by B.Lepori and colleagues (Lepori *et al.* 2009) (e.g. see section 2.3.1). The immediate post-independence Lithuanian organisational settings corresponded to the “core funding” model, and in 2015 it was more of a mix between the “core funding” and “project funding” models. Post-independence Latvian settings corresponded to the “project funding” model, and in 2015 they corresponded to the “core funding” model. Finally, post-independence Estonian settings previously corresponded to the “vertical integration” model, but in 2015 they resembled the “project based” model.

However, despite the differences in the total research funding budgets in each country, and different institutional “models”, looking from the perspective of power-relations the overall trend was similar in all countries. Notably, the budget streams that were under the direct control of the Ministry or were channelled through the reformed funding agencies saw an increase. On the contrary, the budget streams that were channelled through autonomous funding councils established at the beginning of the 1990s decreased. The given observation is interesting if placed in the context of the emergence of the reform actors. The invention of new funding instruments (such as the CSC), establishing new funding agencies (such as the EstRC or LitRC), or simply freezing certain funding streams (such as the LvSC) enabled these reform actors not only to modify the organisational settings of the research funding policy, but also to “take under their control” the resource flows in public research policy.

Finally, to further understand the role of the project funding and base-line funding instruments in the broader policy reforms (as well as the transformations of their settings in SSH, analysed in chapter IV), we would also need to relativize them next to the introduction of other funding instruments that appeared in each country progressively between the mid-1990s and 2015. Indeed, the changes in project funding and base-line funding instruments were not always central in the broader structural reforms of national scientific fields.

### 3.3. New funding instruments and organisational changes in scientific fields: towards the singularisation of SSH ?

Alongside the base-line funding and project funding, the period between the mid-1990s and 2015 saw an increase in other research funding instruments. The most important in the context of the structural reforms of national scientific fields was the EU ESIF funding. It appeared as one of the key resources for conducting organisational reforms in each country. Besides simply providing supplementary funds to Baltic research units, it also contributed to defining national research policy objectives. Insisting on the prioritisation of research fields and a greater link between research and economic development, SSH was not the focus of these instruments (3.3.1). In parallel, another type of funding instrument – national research programmes – were formulated. With their high dependence on national political authority, these instruments prioritised SSH research to a different extent in each country (3.3.2). Together with existing public research funding instruments and implemented legal-administrative changes, the EU ESIF had a major role in transforming the institutional layout of national scientific fields, but their impact on SSH related institutes was limited (3.3.3).

#### 3.3.1. The prioritisation of exact and natural sciences within EU financial resources

The EC's interest in CEE countries dates back to the early 1990s when, for the first time, the EU was opening up its financial resources to the region. In particular the EU ESIF, or its preceding programme PHARE, was part of a suite of EU post-Cold War policies that were supposed to contribute to the “economic upgrading” of the less developed peripheral areas of the EU (**Box 16**). R&D was, and still is, seen as one of the key contributors to reaching this objective (Jourdain 1996). To reinforce its regional presence, the EC co-funded the establishment of EU funds management agencies in candidate countries and later member countries (Estonia in 1997, Lithuania in 2002 and Latvia in 2007). With their administrative staff partly funded and educated by the EU institutions, these agencies were not only neutral

funding management organisations, but important mediums in transferring policy ideas from the EU to the national policy fields. Hence, in a similar way to other CEE countries, the Baltics could benefit from financial resources for boosting their economies via targeted investments in infrastructures and human resources.

### Box 16 EU funds in CEE

The EU R&D and Innovation funding to the Baltic states, as to other CEE, countries are mainly distributed via two sources: the ESIF (European Structural and Investment Funds) and the FP (Framework Programmes). The ESIF is dedicated to improving social cohesion and economic well-being across the EU, and notably within its less-developed regions where most of the funds are streamed. Under the umbrella of ESIF, CEE countries are mainly benefiting from Cohesion Funds, the European Regional Development Fund, and European Social Fund instruments. Funds were allocated within the following “programming periods”: 2000-2006, 2007-2013, 2013-2020. Also, before the accession, other “pre-ESIF funds” (such as PHARE<sup>202</sup>) were allocated to candidate countries. In order to benefit from the ESIF, countries must develop national action plans at the beginning of each programming period. Thereby, the EC may establish particular guidelines that shape the member states’ investment priorities. For example, to receive funding from the European Regional Development Fund from 2013 to 2020, countries were incited to develop national “Smart Specialisation Strategies”, strategic policy plans that are supposed to contribute to the Europe 2020 objectives of “smart, sustainable and inclusive growth by enhancing EU regional and national potential in research and innovation” (source: EU MCAA webpage 2021).

Contrary to the ESIF, the FP resources are always centrally allocated – this means there is no *principe de juste retour*. One programme runs for several years before it is closed and new topics are reformulated for the next. The first FPs for CEE countries were opened in 1993 (PECO-Copernicus under the FP3 and INCO-COPERNICUS under the FP4), but only for cooperative research between the EU and CEE countries. The entire programme was, for the first time, open to participation with the FP5 (1998–2002). SSH projects are not exempt from the scope of the program and have been included since the beginning of the 4th edition in 1994. Mostly due to the “structural deficiencies” of CEE R&D and innovation systems, specific programmes for the CEE countries were also preserved in subsequent programming periods (Schuch 2014).

Besides modifying the organisational structure of the national scientific policy field, the EU policies contributed to (re)defining national policy objectives. They also made new funding instruments available for the reorganisation of national scientific fields. National reform actors had key importance in the implementation of these financial instruments.

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<sup>202</sup> The PHARE was initially designed as a specific EC programme to provide economic support to the emerging Polish and Hungarian democracies. It then developed into the EU's main financial instrument for accession of the CEE countries with the aim is to help these countries achieve market economies based on free enterprise and private initiative.

Estonian reform actors had mobilised the EU funding by the end of the 1990s. The EU management agency – Archimedes Foundation – was established in 1997 and was responsible for the implementation and coordination of EU educational, science, and youth programmes. Although the country had not yet joined the EU, the government received around EUR 2,8 million from the PHARE budget between 1996 and 1999 to conduct the HE and science reform<sup>203</sup>. According to the contract, the reform project aimed to “encourage the integration of universities and research institutes” and develop “existing scientific potential in priority fields”, defined as genetic engineering, material sciences, environmental technology and information technology (source: CSC 2000, 22). Intending to “consolidate science potential” in these four fields of science, the programme supported the establishment of technology competence centres in universities in Tartu and Tallinn. Also, it supported the return of young scientists to Estonia (*Ibid.*, 10). Then, as a continuation to the PHARE funding, another funding program was launched by the research ministry in 2001. In total 10 Centres of Excellence, selected in cooperation with the Finnish Academy, were established and supported with around EUR 1,2 million of extra funding available between 2001 and 2006 (*Ibid.*, 5-6). With the exception of one SSH-specific centre (Estonian Literacy Museum in the topic of Estonian culture and folkloristics), beneficiaries were mostly exact and natural sciences research groups and institutes. In 2001 the Estonian Parliament approved the joint Research and Development and Innovation Strategy 2002-2006: “Knowledge-Based Estonia”, which stated that Estonia was to convert to an “innovation-based” economy. In the following years, other similar strategies were developed.

Similarly to Estonia, the availability of European resources had a key role in launching the reform in Lithuania. It was one of the motivations for the cross-party agreement signed in 2007<sup>204</sup>. However, by the time of the political change in 2009, there was still a delay in the implementation of the EU ESIF funds in the research sector (by August 2010 less than 2% of

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<sup>203</sup> According to our interviews, such targeted funding for research reform from the PHARE funding was unique. EST36

<sup>204</sup> The agreement included a cooperation plan to engage investments from EU ESIF during the period of 2007-2013 (altogether EUR 450 million). The largest part of the EU funds was dedicated to the “Valleys Programme”, designed as a joint initiative of the Ministry of Education and Science, and Ministry of Economics. The programme supported five “integrated science, studies and business centres – valleys”: i) ‘Santara’ in Vilnius specialising in biomedical research, ii) ‘Saulėtekis’ in Vilnius specialising in laser technologies and material science, iii) ‘Santaka’ in Kaunas specialising in material science, chemistry and mechatronics, iv) ‘Nemunas’ in the Kaunas region specialising in agro-science, and v) the Integrated Marine Science and Industry Centre in the Klaipeda region. Universities were seen as the main stakeholders, and eventually the whole programme focused on the needs and interests of universities (source: OECD 2016, 119).

funds were used) (source: Erawatch Lithuania 2010, 35). The implementation of the EU programmes was thus a key resource for the reform actors, but resources had to be spent rapidly<sup>205</sup>. Their subsequent actions were radical. They set an objective that no independent research institution in the priority sectors should have less than 200–300 PhD researchers (*Ibid.*, 35). Also, only research institutes that agreed to merge could get access to the supplementary resources: “we said that they will not get ESIF money if they will not join...it was a little bit not democratic, but it worked”. At the same time, these rules were not applied to SSH: “SSH didn’t get any structural money because all this big money went to natural sciences institutes. We didn’t play this money thing with them”<sup>206</sup>. The non-support of SSH could be due to the resistance of the SSH institutions against consolidation, but also the overall design of the ESIF programme areas did not flag SSH as priority areas for economic development. Also, the SSH could keep gaining funding through direct support from the funding council. In that way, it was only with the structural funding programming period of 2007-2013 (and not earlier) that the Lithuanian government developed a strategy for maintaining, upgrading, and establishing new research infrastructures (in all scientific fields) (*Ibid.*)<sup>207</sup>. Subsequently, one of the more comprehensive policy planning documents was adopted by the government only in 2013 - The Program for Development of Studies and R&D: 2013- 2020<sup>208</sup>.

The EU resources formed important leverage for Latvian reform actors. The Latvian State Education Development Agency was established in 2007 and was responsible for supervising the funds allocated to fundamental and applied research via EU Structural and Investment Funds. Two years later another institution – Study and Science Administration – was established to manage the State Research Programs, house the EU national contact point for FP7, and managed fellowships. However, according to the World Bank report that analysed the period before the reforms, the EU funds used in the Latvian research sector were not “performance-oriented”, did not contain “clear and transparent incentives for diversification of

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<sup>205</sup> The information provided by the Ministry of Education and Science in 2009 indicates that “currently, we have a unique opportunity to use the EU structural funds to reorganize our science and study system. We are planning to allocate 150 million euros to optimize the network of HEIs only. Two or three years later there will be no such opportunity” (source: LitMoES Webarchives 2009).

<sup>206</sup> LIT15

<sup>207</sup> For the ESIF period, a list of Joint Research Programs in different exact and natural sciences was approved by the Government.

<sup>208</sup> However, contrary to its Nordic neighbours, Lithuania has been modest in developing policy papers. The Ministry of Education increased its role in policy coordination in 2002 when the Higher Education and Science department became an integral part of the Ministry. At the time, a first policy document was drafted (“Lithuanian Science and Technology White paper”) and the Science and Technology Commission was created as a government advisory body.

institutional profiles, consolidation activities between HEIs, collaboration between research organizations or with external partners” (source: World Bank 2014, 14-46). Instead, the EU funds were used to support the existing research organisations and research fields. Also, although strategic policy documents were developed for EU budgetary planning, none of them were adopted at the government or parliament level (Rambaka 2012, 112). Criticising the previous use of EU financial resources, the reform actors aimed to reverse the former practices. As concluded by one of them, after the EU accession “resources arrived in large masses” to Latvia, but “nobody was checking the quality of how this money was spent”<sup>209</sup>. To alter the way in which resources were allocated, several actions were taken. First, the results of the RAE were utilised to prioritise research fields for distribution of the ESIF. These fields were also defined as specific areas of “smart specialisation”. According to the Guidelines on Research, Technology Development and Innovation 2014–2020, approved by the Government in 2013, the main priorities and specialisation areas of the “Smart Specialization Strategy” were: knowledge-based bioeconomics, biomedicine, medical appliances, bio-pharmacy and biotechnology, advanced materials, technologies and engineering systems, smart energy, and ICT. Secondly, consolidation of research institutions was set as a precondition for gaining investments from the ESIF in the programming period 2014–2020 (source: LvNRP 2014, 20). Consequently, the EU ESIF resources were provided to only 14 scientific organisations which had received higher scores in the RAE assessment. Hence, in a similar way to the other Baltics, the SSH was excluded from the list of beneficiaries<sup>210</sup>.

An interview with one of the Estonian reform actors allowed a better understanding of the exclusion of the SSH from policy priorities. When we asked in what way the EU policies were influencing the national policies, the interviewee explained the following:

“We had to develop several research strategies. And there we had to write down our priority fields. As these fields were said to be priorities at the EU level...for example in the Framework Programmes and also in structural funds programs...then it was reasonable to have the more-less same kind of priority fields in Estonia. So we were pragmatic in developing these policies here, we added the same fields as priority fields in Estonia, so then there’s more funding and we don’t need to find this funding from...I don’t know where [thinking] Maybe in the end we had too much all this biotechnology and physics, maybe it was even too much for a small country. But then again, this is how these priority

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<sup>209</sup> LV33

<sup>210</sup> LV08

fields have developed...in whole we made rational choices and implemented rational policies”<sup>211</sup>.

Hence, similarly to other CEE countries (Virtasalo, Järvinen 2010), in the context of promoting EU funding opportunities, and using the ESIF within the highly competitive funding system, the development of SSH and particularly of social sciences as a strategic scientific field remained in the background during the formation of Baltic national science policies.

### 3.3.2. National research programmes and “national sciences”

While the SSH disciplines were out of the scope of EU ESIF priorities, they had a major role in other research funding instruments developed by each country’s governments. These include State Research Programmes in Estonia, National Research Programmes in Latvia and Lithuania, and specific humanities-targeted programmes in Lithuania (hereafter, all these are commonly referred to as “national research programmes”).

Despite several attempts, the project of establishing national research programmes received rather moderate support in Estonia. In Estonia, the first national research programmes project was developed with the law of 1994. In 1994, the EstRDC had agreed on two priorities in SSH: the state should support “research which owns significant international achievements”, and research “whose existence is important for sustaining Estonia as a nation-country”. These comprised computational linguistics, folkloristics, political science, psychology, Estonian culture, linguistics and history, semiotics and culturology, law, economic and social processes of a transitional society. Also, specific programme topics were proposed: a national defence programme (perception of Estonian foreign policy in neighbouring countries and perception of neighbouring politics in Estonia), Estonian ethnical problems, migration processes, and crisis and aid systems. A specific programme was proposed for developing dictionaries, publications on Estonian history and culture, and preserving and creating Estonian cultural achievements (source: EstSC 1994, 5-7). However, these programmes were not implemented (at least not fully). With the rise of reform actors and the adoption of the 1997 law, the responsibility was given to sectoral ministries to design specific programs in their fields. However, this initiative was unsuccessful. In the words of the second wave of reform actors, at least two issues blocked the implementation: the disinclination of sectoral ministries to invest in research programs

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<sup>211</sup> EST32

(ministries were short on money) and the “reluctance of the science elite to invest in applied research”<sup>212</sup>.

While a more wide-scale, centrally managed national research programme did not find support in Estonia, several smaller initiatives were undertaken (mostly for the support of the humanities disciplines). For example, several sectoral ministries launched separate research projects over which they had full control – unfortunately there is no systematic data available regarding these programmes. By the end of the 1990s, one such programme – Estonian Language and National Culture – was launched (1999) and in the following years others were developed, mostly culture, history, and language-centred programmes (**Table 3.6**). As we saw above, the programme was supplemented two years later with the Centre of Excellence in Estonian culture and folkloristics. In addition, a “collegium of national sciences” (literal translation) was established at the University of Tartu<sup>213</sup>. While we do not have budget information on the Centre of Excellence in Estonian culture and folkloristics, or larger budgets allocated to support material for HE studies, most of these programmes remained rather insignificant next to the global budget allocated for public research funding.

**Table 3.6 State Research Programmes in Estonia**

Name	Funding period	Budget
Estonian language and national culture/memory	1999-2003; 2004-2008; 2009-2013; 2014-2018	EUR 3600 (for one funding period)
Estonian language technology	2006-2010; 2011-2017	EUR 4700 (for one funding period)
Humanitarian and natural science collections	2004-2008	EUR 3600
Estonian language terminology	2008-2012	EUR 1100
Estonian language HE materials	2008-2012	EUR 1,25 million

*Source: Data are from Estonian Ministry of Education and Research webpage (EstMoES Webarchives 2019).*

<sup>212</sup> EST56

<sup>213</sup> It is notable that the establishment of the national science specific research units is not exposed to international readers. Instead of “collegium of national sciences” as on the Estonian-language website, the Tartu University English-language website provides the following name for the collegium: “Collegium for Transdisciplinary Studies in Archaeology, Genetics and Linguistics“. The Estonian language website also dedicates a section to explaining the definition of “national sciences” (which is not the case on the English-language website): “national sciences are sciences related to the study of Estonian history, Estonian language, literature and folklore, and art, which have a direct impact on the Estonians self-definition and identity” (source: TU webpage 2019).

In a similar way to Estonia, Latvian national research programmes were defined at the beginning of the 1990s but remained non-funded for several years. In 1997 a decree was adopted to establish National Research Centres within priority areas to encourage researchers to address current industrial and economic problems (Adamsone-Fiskovica *et al.* 2011, 239), but information about the actual establishment of such centres is absent. There was also a project to utilise the established priority areas as guidelines for research funding via the LvSC project funding mechanisms, but no change in the actual LvSC budgets followed<sup>214</sup>. Finally, the budget for the national research programmes that were linked to so-called national “priority areas”<sup>215</sup> was made available via specific programmes designed by the Ministry of Education and Science in 2005.

However, contrary to Estonia, the programmes were designed to take into consideration a wide range of areas. Chosen because of “historical heritage” (source: Erawatch Latvia 2009, 22–25) or as a result of interest expressed by the sectoral ministries to develop research in their respective areas (Adamsone-Fiskovica *et al.* 2011, 239), the programmes funded several scientific areas: environmental science, energy sector, computer science, material science, biomedicine and pharmacy, medical science, agro- and biotechnology, forestry and finally, “Lettonica”. Lettonica (or “Latvian studies”) comprised studies in Latvian language, history and culture. Lettonica received around EUR 1 million each year (**Table 3.7**). Notably, at the time of Latvian reforms in 2014, the area “Sustainable development of the state and society” was added for funding research topics in “society, governance, resources, economics, demography, and environment” (we have no information on its budget size). In that way, the humanities were supported since 2005, and the social sciences since 2014, from separate state budget resources.

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<sup>214</sup> Author's calculations, based on the LvSC reports (source: LvSC webpage 2021).

<sup>215</sup> Officially, the “priority areas” were defined already since the end of the 1990s. For example, between 2002 and 2005, 6 priority areas were defined: Forestry and wood sciences, material sciences, information technology, organic chemistry and bio-medicine, stimulating institutional collaboration and linking the regional and European R&D networks, and lettonica (Latvian language, history and culture). Similar areas were also defined for the next years (source: Lv Cabinet of Ministers 2021).

**Table 3.7 share of “Lettonica” in Latvian National Research Programmes (2006-2009)**

	<b>Total budget (EUR millions)</b>	<b>Lettonica</b>
2006	2,28	18% (0,42)
2007	9,06	13% (1,21)
2008	13,77	15% (2,13)
2009	8,80	16% (1,43)

*Source: Data are from Latvian Ministry of Education and Science webpage (LvMoES Webarchives 2021).*

In Lithuania, two types of national research programmes were developed: National Research Programmes, and National Development Programme for Lithuanian Studies 2009-2015 (**Table 3.8**). Although launched simultaneously with the establishment of the LitRC, with the LitRC being responsible for the administration of the programmes, both of them had to be approved by the Ministry of Education and Science. At first, as it was in Latvia, the National Research Programme scheme was developed in a multitude of scientific areas: future energy, chronic non-infectious diseases, Lithuania’s eco-system, climate change and the human factor, safe and healthy food, Social Challenges to National Security, and The State and the Nation: Heritage and Identity (source: Erawatch Lithuania 2013, 14). SSH received around 27% of funding under this scheme. Two sub-schemes were dedicated to SSH. Under the scheme of Social Challenges to National Security EUR 2,79 million was allocated to 44 projects between 2010 and 2013 with one in every two proposals accepted. Under The State and Nation: Heritage and Identity scheme EUR 4,83 million was allocated to 61 projects between 2010 and 2014 (two out of three proposals were accepted). Overall, considering the two schemes together, the main beneficiaries were sociology (received ~EUR 1 million, or 14% of funding), history (12%), economics (7%) and linguistics (7%). Other disciplines (philosophy, psychology, political science) received less than 5% of funding.

Secondly, the National Development Programme for Lithuanian Studies 2009-2015 (the programme continued after 2015), also called “Lithuanistics”, was mostly humanities-specific. Around EUR 9,68 million were allocated to 486 projects between 2009 and 2015 (contest rate unknown). The aim of the programme was defined as to “develop and promote the research of Lithuanian studies, to help implement the priority of Lithuanian research, to strengthen the contribution of the results of Lithuanian research to the development of state humanities, to provide the scientific basis for the development of national consciousness and the protection of the Lithuanian heritage” (source: LitRC 2012a). The main beneficiaries were history and philology.

**Table 3.8 National research programmes in Lithuania**

	Scheme	Period	Budget	Projects	Beneficiaries in SSH (number of projects)
National Research Programme	Social Challenges to National Security	2010-2013	EUR 2,79 million	44	Sociology (32%), Economics (20%), Pedagogy (11%), Law (9%), Psychology (9%), Political science (7%), Other (11%)
	The State and Nation: Heritage and Identity	2010-2014	EUR 4,83 million	61	History (19%), Linguistics (11%), Arts and architecture (9%), Philosophy (5%), Political science (4%), Sociology (4%), Literature (2%), Other (7%)
Lithuanian Studies Development Programme	-	2009–2015	EUR 9,68 million	486	History (36%), Philology (36%), Art criticism (11%), Philosophy (6%), Ethnology (5%), Political science (2%), Sociology (2%), Communication (2%), Others (around 1%)

*Source: Author's compilation. Data are from Lithuanian Research Council (LitRC 2016).*

Note: Data for beneficiaries in SSH is approximate. It represents the number of projects allocated to each disciplinary area. The project allocation data was manually processed and categorised into discipline areas according to the CVs of the project leaders.

Developed in parallel with the increasing role of project-based funding instruments in public research funding and the utilisation of EU funding instruments, national research programmes were not fully project-based nor base-line funding type of instruments. In all countries, the funding was allocated for specific projects and was temporary, with defined start and end dates. Even if these programmes were administrated by science councils as in Lithuania, the research ministries were the key actors in the design of the programmes and the final decision-making process (their more precise allocation methods are not public). Similar funding programmes were only rarely observed in Western countries' national science policies (Braun 1998). It is also worthy of note that some disciplines within the humanities including history, language, culture, and also philosophy in Lithuania, which were sometimes defined as “national sciences” were given an outstanding role in these programmes. At the same time, the social sciences were only prioritised in Lithuania and recently (since 2014) in Latvia. Alongside the EU ESIF that demanded international competitiveness, national research programmes were serving the immediate interests of governments.

### 3.3.3. The partial re-organisation of the former Academy of Science institutes

While our empirical work was not focused on analysing the process of organisational mergers, there is good reason to believe that the strategic reorganisation of the funding instruments portfolio had an unprecedented impact on the overall organisational layout of scientific fields. Paired with legal-administrative changes, and supported by other public research funding instruments, these instruments were imposing mergers between research organisations (between different research institutes, and between universities and research institutes), therefore facilitating the demise of autonomous research institutes on the one hand, and the establishment of research universities on the other hand. Then again, further differences emerged regarding SSH-specific institutes (**Table 3.9**).

**Table 3.9 Merger of SSH-specific AS institutes with universities**

<b>Soviet-time AS Institutes</b>	<b>Lithuania</b>	<b>Latvia</b>	<b>Estonia</b>
Institutes of Pedagogy	1992- Merged with Vilnius Pedagogical University	1993- Merged with Daugavpils Pedagogical University	1992- Merged with Tallinn Pedagogical University
Institutes of Philosophy, Sociology and Law (in Latvia: Institute of Philosophy and Law)	1991- Preserved and reorganized as Institute of Philosophy and Sociology, the establishment of the Institute of Law (under the Ministry of Education and Culture)  2002- Lithuanian Institute of Philosophy and Sociology is reorganized into Institute for Social Research (since 2010 Lithuanian Research Centre)	1991- Preserved and reorganised as Institute of Philosophy and Sociology (under the Ministry of Education)  1998- Merged with the University of Latvia as an independent unit (since 2009 as a public agency)	1988- consolidation of Institute of Economics and Institute of History into Institute of Philosophy, Sociology and Law  1993- Renamed as Institute of International Social Studies (IISS)  1997- Merged with Tallinn Pedagogical University
Institutes of History	Preserved as Institute of History (under the Ministry of Education and Culture)	Preserved as Institute of History (under the Ministry of Education)  2006- Merged with University of Latvia as a public agency.	
Institutes of Economics	1991- Preserved and reorganised as Institute of Labour and Social Research under the Ministry of Social Security and Labour (later renamed as Labour market Research Institute)	Preserved as Institute of Economics (under the Ministry of Economics, later as an Independent non-profit research organisation)	
Institutes of Language	1990- Preserved as Language Institute (under the Ministry of Education and Culture)	1991- Preserved as Latvian Language Institute (under the Ministry of Education)  2006- Merged with University of Latvia as a public agency.	1993- Preserved as Estonian Language Institute
Institutes of Literature	1990- Preserved as Institute of Lithuanian Literature and Folklore (under the Ministry of Education and Culture)	1991- Preserved as Literature, Folklore and Art Institute (under the Ministry of Education)  2006- Merged with University of Latvia as a public agency.	1993- Preserved as Centre of Literature Under and Tuglas under the AS

*Source: Author's compilation. Data are from research institutes webpages.*

Note: Merged institutes are given a darker background in the table.

Organisational changes were the most extensive in Estonia. It seems that the centralisation of public research funding instruments in 1997 (establishment of the CSC), the introduction of the PHARE funding, and simultaneous legal-administrative changes in the statutes of research institutes and universities<sup>216</sup> had a major role in this. With some exceptions, at least 17 former academy institutes were united with four universities between 1997 and 1998 (Kristapsons *et al.* 2003, 53). The merger included one of the biggest SSH-specific institutes, the IISS, which had formed from the merger of the Institute of History (with sociology and philosophy departments) and Institute of Economics (with law and political science departments). The IISS joined Tallinn University in 1997, but at the time of our empirical research the legal merger had been only recently achieved. As an exception, the Institute of Language and Institute of Literature, which had separated at the beginning of the 1990s, were not merged with universities: the Estonian Language Institute was transformed into a public institution under the Ministry of Education and Research, and the Centre of Literature transferred to the AS.

In Lithuania, organisational change was partial and almost uninteresting in SSH-specific institutes. As in other countries, one of the prerequisites for the reform was a legal-administrative change in HEIs' statuses. With the reform, the legal status of Lithuanian HEIs was switched from "budgetary entities" into "public entities". Thus the separate state budget lines for research and HEIs were abandoned and HEIs gained expanded rights to manage the property entrusted to them by the state. Also, legal preconditions for the competition of research and HEIs for resources were created (source: Erawatch Lithuania 2010, 39). The major instrument of consolidation was the EU ESIF. With the reform of 2009, the total number of Lithuanian research institutes decreased from 47 to 13<sup>217</sup>. Nonetheless, the SSH-specific institutes remained untouched by the consolidation. In 2015, there were at least seven public or state research institutes with history dating back to the Soviet period: Lithuanian Language

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<sup>216</sup> First, with the Law of Universities Act adopted in 1995, universities were granted financial autonomy. Research institutes were transferred to the Ministry of Culture and Education and were defined as public research and development institutes (source: EstÜ 1995). In parallel, the Estonian Academy of Sciences Act was approved in 1997 and redefined the Academy as a public legal person. Also, the Research and Development Organisation Act of 1997 established a legal way to merge state research institutes with public universities (earlier it was possible only via terminating the activity of research institutes). The law granted institutes a six-month period to make a decision and stated a five-year period in which institutes kept their independence under the auspice of university (source: EstTAKS 1997).

<sup>217</sup> Lithuania's high number of institutes can be explained by preservation of the Soviet-time "branch institutes". These institutes were kept under the sectoral ministries where they received funds on a contractual basis (Kristapsons *et al.* 2003, 44).

Institute, Institute of Lithuanian Literature and Folklore, Labour Market Research Institute, Institute of Agrarian Economics, Lithuanian Institute of History, Institute of Law, and Lithuanian Social Research Centre. Hence, besides some reorganisations and name changes, the network of institutes that was established during the Soviet period remained.

The consolidation process is the most complicated to follow in Latvia, where the financial autonomy of universities was granted by law in 2005. It seems that several attempts were made for the integration of research institutes to the universities (these occurred between 1996 and 1998, in 2006, 2010, and 2014). Nevertheless, information on these attempts remains controversial. Some sources refer to major integration between 1996 and 1998 when 21 former Academy institutes, and institutes under the supervision of ministries, were consolidated within universities. The remaining institutes became public or state institutes, or transformed into independent scientific centres (Martinson 2015, 156; Kristapsons *et al.* 2003). Other sources indicate a significant reorganisation of state research institutes in 2006, when 20 research institutes were incorporated into universities (Rambaka 2012; Adamsone-Fiskovica *et al.* 2009) – others suggest this number was as low as 10 (source: UNESCO 2006). On top of that, according to our interviews conducted with the second wave of reform actors in 2017, “most of the research institutes” were “still not incorporated into the universities”<sup>218</sup>. While the wider organisational layout remained unclear, it seems that the SSH-specific research institutes had been integrated within university structures between 1998 to 2006. These included the Institute of Philosophy and Sociology, Institute of History, Institute of Language, and Institute of Literature – all merged with Latvian University. By 2015, there was only one SSH-specific public research institution that was not affiliated with an HEI – namely, the Institute of Economics, functioning as an independent non-profit research organisation associated with the AS. All other institutes had been integrated as structural units of the University. Nevertheless, as was the case of the Estonian IISS, these mergers remained incomplete. Working as “agencies” (the official status of integrated institutes) they could keep their separate registration numbers, separate bank accounts and bookkeeping. This can also somewhat explain confusion in the general count of the number of institutes<sup>219</sup>.

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<sup>218</sup> LV32

<sup>219</sup> According to the Latvian Law on Scientific Activity (source: LvZDL 2005, Section 21), a scientific institute may be: 1) “a public agency”; 2) “a derived public person”; 3) “a structural unit of higher education institution”; or 4) “a private law legal person or a structural unit thereof”. A State scientific institute may be established “as a state agency” or “a derived public person”. The State scientific institute shall be “under the supervision of the Minister for Education and Science or the relevant sectors minister”.

In sum, the reforms undertaken by the second wave of reform actors resulted in unprecedented changes in the organisational layout of scientific fields in each country. Shifting from the Soviet-type research institutes model towards a more “research-university” model in the scientific field, the reforms comprised mergers between research institutes and between institutes and universities. However, from the point of view of SSH-specific institutes the reforms had only a limited impact on the organisational layouts – not all of the SSH institutes were merged with universities. Also, although in Estonia and Latvia the institutes were merged, they remained legally separated from the universities.

These observations do not only reflect the different degrees of “success” of reforms in each country. They also reveal the capacity of different disciplinary areas to establish their interests through the course of the reforms. The Lithuanian and Estonian cases are particularly significant. Lithuanian SSH institutes received the most versatile support from the government in the form of national research programmes and remained autonomous despite the organisational reform undertaken by the second wave of reform actors. In Estonia, the humanities received additional support from the government and humanities-specific institutes were also one of the few that remained untouched by the organisational restructuring undertaken within the reform of 1997. Hence, there is good reason to believe that the autonomy of all SSH institutes in Lithuania, language and literature institutes in Estonia, and economics-specific institutes in Latvia were not volatile and may reflect differences in the power-hierarchies inside SSH in each country.

## CONCLUSION: CHAPTER 3

In the period between 1990 and 2021, the Baltic states' scientific fields saw deliberate attempts to both decrease the role of AS-inherited networks in science administration, to consolidate HE and research institutions, and to establish new research universities<sup>220</sup>. It seems that besides more obvious preconditions of these structural changes in scientific fields (such as the existence of motivated reform actors and a favourable political environment as theorised by historical institutionalists (Mahoney, Thelen 2010)), there was another key element –the availability of the EU financial resources that conditioned the emergence of these reforms. Borrowing John W. Kingdon's (2002, 101-102) 'streams' metaphor, at least three elements were important in enabling reforms: "problem", "politics" and "policy solution" streams. As identified by Kingdon, all of these streams flow largely independently until circumstances lead to a confluence of the three streams. In the Baltic case, these conditions were met in 1997 in Estonia, 2007-2009 in Lithuania, and 2013 in Latvia. In these periods there were critical masses of policy actors who were willing to engage in reform activity and held sufficient knowledge, social, and positional resources to analyse the policy situations and define problems (this element corresponds to the Kingdon's "problem stream" that refers to policy problems in society that potentially require attention). Secondly, national liberal-conservatives and pro-European integration governments were dominant, and there was a political willingness to undertake the reforms in each country (this element corresponds to Kingdon's "politics stream" that refers to factors such as changes in government, legislative turnover and fluctuations in public opinion). Finally, there was the possibility for access to EU financial support in these countries (this element corresponds to "policy solutions" stream). Indeed, there are consistencies in the policy changes (and attempts at changes) in the Baltics: all of them occurred around 1997, 2000, 2007 and 2013 – periods that correspond to the beginnings of the EU PHARE and ESIF programming periods<sup>221</sup>. Hence, if Kingdon's vision of the "policy solutions" stream is linked to (national) policy-makers, experts and lobby groups, then in the Baltics the policy solutions originate from external actors.

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<sup>220</sup> Attempts to consolidate research institutions' networks were also made in Russia and Kazakhstan (Mohrman, Baker 2008).

<sup>221</sup> PHARE's total pre-accession focus was put in place in 1997. EU ESIF programming periods were: 2000-2006, 2007-2013, 2013-2020.

This chapter has shown that public research funding reforms were part of these broader structural reforms in the scientific fields. Indeed, the reform actors' activity also included multiple changes in public research funding policies.

First, we can see a decline in the role of autonomous funding councils in Latvia and Estonia, and the decline of the highly centralised (Parliament-centred) funding organisation in Lithuania, with an increase in the role of research ministries. Different reform paths could be observed. In Latvia, where since the 1990s the core decision-making capacity was held by the autonomous funding council, the reform of 2013 was shifting these capacities to the research ministry. In Estonia, a similar trend occurred in 1997. From then on, the research funding management was progressively and partially externalised to different agencies starting from 2006 when the CSC was externalised from the research ministry, and through the establishment of the EstRC in 2012. In Lithuania where, since the 1990s, the decision-making capacity was in Parliament, the reform of 2009 launched a decentralisation process in research funding policy (i.e. a reduction in the authority of national governments over policy-making), but also a rise in the management capacity of the research ministry. Also, even if the EU ESIF was a major financial measure that was used throughout the reforms, foreign references such as the Finnish Academy or ERC were mobilised to shape the concrete organisational settings. These trends were in parallel with the establishment of the EU ESIF funding agencies and the introduction of national state programmes, where decision-making power was held in the research ministries. Hence, the “hypothesis” of decentralisation in the decision-making system and externalisation of R&D management into agencies in the CEE countries (Radošević, Lepori 2009) is not fully relevant in the case of Baltics. The pre-reform settings differed from country to country and reform trajectories were singular in each national institutional context.

Second, the increasing role of the funding councils and project-based funding was not “evident” throughout the reform trajectories. On the one hand, reform actors used project funding to introduce more transparency and accountability when altering practices inherited from the Soviet period. On the other hand, the instrument was used only in Estonia and Lithuania where reform actors had higher legitimacy to undertake changes, and not in Latvia where the science council was in opposition. The actions of reform actors were conditioned by the institutional settings and, most importantly, by country-specific configurations of reform coalitions and oppositions.

Third, one could observe an increase in funding sources and a movement toward highlighting strategic research and priority areas in research funding (Skoie 1996; Rip 1994;

Braun 1993). Thus, while the SSH did not gain as much from the EU ESIF as other areas of science (and was thus less impacted by consolidations) , some SSH disciplines were prioritised within national research programmes that were opened under national liberal-conservative party governments. Thereby, the highest support for both social sciences and the humanities was found in Lithuania, strong support for the humanities (and only recently in social sciences) was found in Latvia, and Estonia only granted limited support for the humanities. As will be demonstrated in the next chapter, these differences regarding SSH became particularly visible within negotiations over the mechanisms and tools of public research funding instruments.

## Chapter 4. REFORMS OF THE MECHANISMS AND TOOLS OF FUNDING INSTRUMENTS: BETWEEN COLLECTIVE AND INDIVIDUALIST NORMS AND STANDARDS IN SSH

As we saw in the previous chapter, structural reforms in the scientific fields brought along changes in both the organisational forms and power-relations within research funding. However, the macro analyses of these changes are not sufficient to fully understand the transformations that took place in the observed period. Indeed, the reforms opened up possibilities to also make modifications on the micro level of research funding instruments.

The pre-reform public research funding settings in the Baltics were based on historical or/and quantity-oriented allocation. It means that financial resources allocated to research organisations were based on the amount of funding that was provided in previous years and/or calculated based on the number of elements such as the number of staff members or size of the organisation. However, from the point of view of reform actors, this traditional allocation method was not seen as sufficiently merit-based to ensure research excellence and international competitiveness. They set an objective to make sure that research funding should be distributed based on “quality”, rather than on historical and quantity-oriented parameters—and that this “quality” should be systematically measured and evaluated by foreign experts. The application of these standards polarised debates and was a subject of significant controversy in all countries.

The movement towards quantification and standardisation of evaluation is a wider global trend in public research funding policies. While research funding standards are rarely discussed in academic literature (compared to peer review for journals, for example (Bornmann 2012)), they have also been an object of reforms. The major change is visible in the project funding peer-review process. Since the establishment of research councils and project funding in 1960 in Western countries, the peer-review has held the role of a central regulatory mechanism in national science policies. According to A. Rip (2000, 467), it has constituted the *raison d'être* of funding agencies that work as intermediary sponsors between the state, and individuals and institutions, at the research performance level. Recently, however, the funding council's evaluation mechanisms have increasingly become subject to new, more “qualitative” or “performance-based” standards (Bornmann 2012; Besselaar, Leudersdof 2009). These changes include the introduction of bibliometric criteria to the evaluation process, and consideration of past performances. In a similar way, performance criteria are also being introduced to the traditional institutional funding mechanisms. Many governments have turned

towards a formulaic approach with contract funding, where formulas may vary in their unit of analysis, methods of measurement, frequency and census period (Söderlind *et al.* 2019; Zacharewicz *et al.* 2019; Boer *et al.* 2015; Hicks 2012; Nieminen, Auranen 2010; Lepori 2008; Geuna, Martin 2003; Kaiser *et al.* 2001; Geuna 2001). In SSH, the preferred evaluation methodology tends to be WoS Social Science Citation Index bibliometrics (Hicks 2006). It is asserted that the EU integration brought along the “promotion of excellent R&D performers also in the CEE countries” (Radošević, Lepori 2009, 661-662). However, analyses of these trends are often separated from discussions around organisational forms and power relations in the funding policies.

This chapter focuses on changes in the standards of public research funding instruments. Hence, we analyse the level of mechanisms and settings of these instruments. More precisely, we question in what way the new standards were used in research funding regulation modes and how they were shaped to favour (or not) internationalisation in the SSH. Under the notion of “standards” we analyse the bibliometric criteria, peer-review, and disciplinary classification systems. Hence, we approach the notion of “standards” in its broader sense; it is not only about the precise criteria used in evaluation (called “evaluation standards”), but also the design of instruments and more detailed evaluation procedures. These specific elements are chosen because our interviews reveal that these were the main topics in the negotiations over the norms of evaluation in SSH.

Due to the complexity of the topic, and the differences in the Baltics’ research funding regulation modes in terms of periods and types of change, the following analyses are built around three cases. In the Estonian case, we will analyse the evolution of the EstSF grant funding and base-line funding criteria throughout two periods: from the beginning of the 1990s until the mid-2000s, and from the mid-2000s to 2015 (4.1). In the Latvian case, we will analyse the evolution of the LvSC grants and later introduced base-line funding criteria throughout two periods: from the beginning of the 1990s until 2013, and from 2013 until 2015 (4.2). In the Lithuanian case we will analyse the evolution of base-line funding criteria from the 1990s until 2009, and base-line funding and project-based funding criteria from 2009 until 2015 (4.3). At the end of each section, we analyse the impact of these changes on individual SSH disciplines.

#### 4.1. Early application of external research evaluation in Estonia

Two periods shall be analysed to understand changes in the research funding standards in Estonia: the period from the beginning of the 1990s until the mid-2000s, and from the mid-2000s to 2015. Firstly, Estonia was the only country out of the three where incentives for internationalisation were embedded into funding instruments already since early 1990. However, they were not fully applied to all SSH disciplines and notably not to the humanities, which were seen to have greater "political importance" than other disciplines in the recently independent country (4.1.1). Secondly, from the mid-2000s to 2015 we can observe greater movement towards harmonisation of evaluation standards within the SSH, and their reconciliation with standards in natural and exact sciences (4.1.2). This highly competitive research funding environment was constructed as a result of the intervention of reform actors. Thereby, some of the more traditional SSH disciplines, including sociology, were the most disadvantaged by these changes (4.1.3).

##### 4.1.1. From singularisation of humanities...

As explained in the previous chapters, the majority of Estonian public funding in the early 1990s was earmarked through intermediary instances, such as universities, ministries, and the AS. Each institution was responsible for the allocation of specific budget lines and no centrally agreed formulae existed. In this context, the proportion of project-based funding was low, and the settings indicate that it was made easily available for all SSH researchers. Even when the reform of 1997 brought along more strict budget allocation rules (with the creation of the CSC), they were not applied equally to all SSH disciplines.

##### *EstSF grants as "social welfare" for researchers*

Although some elements in the design of the EstSF grants indicated the willingness of the science administration to support internationally relevant research, globally its resources remained highly accessible for all SSH researchers.

Since its inception, the EstSF grant funding was designed with defined research funding standards. For example, it used peer-review and the precise project evaluation criteria were developed as a mix of the grant forms used in Sweden and the US National Science Foundation<sup>222</sup>. Amongst others, the "originality of the project", "correspondence of research

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<sup>222</sup> Source: transcript of the EstSF Council meeting on 26.02.1991 (EstSF archive 1991).

method to world level research”, research “scientific qualification” but also the “importance of the research for science, the Estonian State and its culture and economy” and “possibilities for application” were in listed in the funding criteria. Each of these elements was rated on a nine-point rating scale where approximately 20% of the final score came from the international reach of the project (broadly, 20% out of final score) (source: EstSF 1995).

From 1994 all project application forms were written in English language and researchers had to apply in English in all scientific fields. In addition, project proposals with a cost of more than EUR 6391 were peer-reviewed by foreign researchers<sup>223</sup>. This was considered especially important for a small country like Estonia, where “everyone is closely linked to each other” (Allik 2015). In 1996, 10% and in 1997 29% of grant applications were sent to the Finnish Academy of Science and Swedish Research Council, which were carrying out peer-review with no charge (source: EstSF 1996, 17). The reasoning of this position is explained by one of the former EstSF officials:

“[In the Soviet era] scientists were used to getting funding and getting elected back to their positions. Nobody evaluated if their results are world-level results or not. But in the EstSF the expert commissions evaluated if their results are on the world level or not. And indeed, in the beginning, there was a softer approach. It was needed to teach people how to apply for money. Nobody ever asked for money for their projects before that, you had your salary and that was it, there was no fighting for money! But now [at the EstSF] everybody had to stand individually for themselves and to prove the value of their work via evaluation. So, at the beginning, the evaluators were Estonians and then foreigners. I was all the time criticised because of that, scientists asked me why they should write in English, they didn’t understand at all how important it was - you have to, otherwise, your demand will be set aside and you’ll get nothing! - I responded”<sup>224</sup>.

The conflict between undesirable “collective” and desirable “individualist” norms corresponds to a similar conflict between undesirable “national” and desirable “world level” norms in research funding. It follows that incentivising internationalisation alongside competition in research funding settings is perceived to be the best way to increase the national standards of research.

The application of these standards was therefore problematic for the SSH. In the words of the former science administration members, SSH researchers were the “main opponents” of the reform<sup>225</sup>. For context, in our interviews SSH was often perceived by the science

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<sup>223</sup> Source: transcript of the EstSF Council meeting on 12.09.1994 (EstSF archive 1994).

<sup>224</sup> EST05

<sup>225</sup> EST59

administration members as “primitive” and “soft sciences”, that must be relatively “easy” to learn and work on: “I know very well what is SSH, it’s so easy! I’ve done it, you just have to take a huge pile of materials, read it through, point out [the] important [parts] and voilà, you are a scientist!”<sup>226</sup>. On the other hand, it was recognised that “literature and language and all these similar things...” are “politically important” for Estonia.

The “problem” of SSH is also reflected in the decision-making process when fixing the budget shares for disciplinary areas. The EstSF meeting minutes reveal that during the council meetings, disciplinary ratios are re-discussed several times. Although the SSH is mentioned only rarely (the main “problematic” topic being agricultural sciences), the majority of the council members (including, in particular, the representative for the social sciences) agree that money should be invested mainly into “quality” research with potential for having an “international reach”. Humanities in particular is brought up at least once during the council meetings by one of the humanities representatives. At the council meeting of December 1992, a comparative report on the disciplinary ratios in these countries’ research councils. Amongst others, the report concludes that compared to the Nordic countries, Estonian SSH disciplines are “underfunded”. It notes: “social sciences in Estonia are funded with 8 %, while in “Nordic countries” (Sweden, Norway, Finland) it is 11-18 %; humanitarian sciences are funded with 7 %, in Nordic countries its 6-16%”<sup>227</sup>. Finally, in 1994 the council adopted the classifications within the OECD Frascati Manual and defined six major fields of sciences: Natural Sciences, Engineering and Technology, Medical Sciences, Agricultural Sciences, SSH. Also referring to the need to follow the “Nordic model” (Swedish, Norwegian, and Finnish examples were commonly referred to by council members as the “Nordic model”), the share for SSH was eventually raised to around 19,4% (Social sciences 9,8% and humanities 9,6%)<sup>228</sup>. Hence, there was a contradiction between the willingness of science administration members to fund only “quality” research and the willingness to follow foreign examples in the matter of budget shares. Paradoxically, it seems that following the foreign models in the design of the grant funding instrument established a fixed and higher budget allocation for SSH than it would have been otherwise.

Finally, despite emphasising the internationalisation/individualism-centred norms in funding settings, other elements such as the size of the grants seemed to conflictingly reflect

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<sup>226</sup> EST05

<sup>227</sup> Source: transcript of the EstSF Council meeting on 26.02.1991 (EstSF archive 1992).

<sup>228</sup> Source: transcript of the EstSF Council meeting on 26.02.1991 (EstSF archive 1993c).

the opposite. For example, in 1995, the EstSF allocated EUR 2,88 million to 883 projects (out of 1211 submitted applications) (source: EstSF 1996, 8). This is around EUR 3261 per project. As the size of the grants was small and the number of grants high, the competition for each grant was rather small and the success rate high. In addition, as most of the project sizes were small, the integration of the rules of foreign peer-review was also partial. In the words of the former secretary of the EstSF grants became a kind of “social help” for researchers (Martinson 2015, 182).

As we have no statistics on EstSF project funding from the late 1990s, there is good reason to believe that the logic in funding allocation persisted also after the reform of 1997. The reform of 1997 and the creation of the CSC further increased the competitive element of Estonian public research funding.

#### *Partial change in SSH evaluation standards within the CSC Targeted Funding instrument*

With the reform of 1997, the former base-line funding mechanism was transformed into a funding instrument called Targeted Funding. Placed under the competence of the Ministry of Education, its budget allocation principles were also transformed. Former quantity-oriented allocation principles were abandoned and new, more quality-oriented rules were defined.

Supervised by the CSC, the Targeted Funding was designed to support only a limited number of “best” research groups. The budget amounts were assigned to research groups based on the proposed topic (for both basic and applied sciences) and for specific periods: for a period of 3 to 5 years or more. However, the instrument was presented as a “stability instrument” - an argument that made sense in the context of the economic difficulties of the 1990s. As a sharp contrast to EstSF grants, the budget size for each topic was fixed around EUR 25 000 to EUR 108 000 per year (source: CSC 2001, 2). The number of supported projects was also smaller. For example, out of 284 submissions, the CSC funded 255 research topics with altogether around EUR 10 million in 2000<sup>229</sup>. Before submission to the CSC, the topic had to be confirmed by a research institution. In that way, the Targeted Funding was not fully curiosity-driven but was used by reform actors to reinforce the specialisation of research organisations, and eventually their consolidation. In essence, this resembled the base-line funding mechanism in these applications. Since the reform of 1997 the portfolio of Estonian public research funding instruments did not comprise any such “classical” institutional funding mechanism. This was

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<sup>229</sup> Excluding post-doctoral funding of up to 20 topics (source: CSC 2003, 8).

the case even though in further years the Ministry allocated supplementary resources for a new “base-line” funding mechanism (**Box 17**).

### **Box 17 Competitive base-line funding and the exception of humanities**

Estonia was the only country out of the Baltics where no classical base-line funding existed throughout the mid-1990s to 2015. This situation was often criticised by foreign actors and national universities as too “radical” (for example, the lack of the base-line funding instrument was outlined in the Manchester Business School evaluation of the Estonian scientific system, commissioned by the research ministry (source: PREST 2003).

It was not until 2005, at the time of economic progression, that the Ministry of Education and Research introduced a new base-line instrument. However, the established financial instrument was allocated to institutions uniquely for “realisation of their strategic development goals”, particularly “in foreign (such as the EU projects) and national co-financing of projects” and “opening new research directions” (source: EstTAKS 1997, §2). The funding was allocated directly by the Ministry of Education and Science and confirmed annually by the decree of the Minister. Designed to take into account publications and patents (50%), grants and contracts (40%) and defended PhD theses (10%), it was highly competitive. As an important addition, the regulation of the base-line funding stated that a part of the budget [unknown] would be allocated directly to disciplines in the humanities without taking into account the criteria mentioned above.

Besides the exception made for humanities, this formula resembled the one adopted in Finland in 2010 (Söderlind et al. 2019)<sup>230</sup>. A short comparison with other countries shows that the implemented formulae were the most radical out of performance-based formulas in use in European countries at the time (Geuna, Martin 2003). In that way, even if another funding instrument was introduced, it remained competitive.

The Targeted Funding project evaluation criteria were similar to the ones already used at the EstSF. The CSC evaluation council had to take into account elements such as “the scientific justification of the topic”, “principal investigators’ qualifications and competencies” or “the importance of the topic to Estonian economy and culture”. At the same time, it was underlined that “the utility of scientific research topic without quality is not sufficient argument for funding” (source: CSC 2001, 2), reflecting the willingness of reform actors to support “world-level” research over national issues. Other criteria were “Interdisciplinarity of the topic and following the scientific ethics” and “previous results of principal investigators research in terms of peer-review on their research, conference communication and other realizations” (source: EstMoER 1999). The leader of the topic and the principal investigators had to submit 5 to 10 articles “preferably in peer-reviewed publications” that were published during the past

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<sup>230</sup> We have no information about the transfer of base-line funding models between Estonia and Finland. Nonetheless, the high similarity of these models suggests Estonian and Finnish reform actors' cooperation in the matter.

five years. With this criterion, the reform actors ensured that the control over resources falls into the hands of researchers who had the capacity to publish peer-reviewed articles since the early 1990s. This included individuals who, in a similar way to reform actors, mastered foreign languages had access to world-level literature in their research areas already during the Soviet era. However, although Estonia was relatively more open to foreign cooperation during Soviet times than the other two Baltics, by the end of the 1990s only a minority of researchers had developed their career in international scientific spaces and published in peer-reviewed journals. The Target Funding was thus designed to support only a minority of researchers and their research groups, including in SSH. In the words of the second wave of reform actors, harmonisation of funding criteria was intentional and justified by an overall “low-level performance” in SSH.

Finally, not all SSH disciplines were considered equal in the Targeted Funding instrument. On the one hand, an important element in the design of the Targeted Funding instrument was its unique approach to budgetary ratios. In its regulation, it was declared: “contrary to EstSF grant funding, no precentral distribution between scientific fields or institutions is set” (source: CSC 2001, 2). However, despite this declaration, yearly budget allocations demonstrate relatively stable budgetary shares between broader research fields. Markedly, compared to the EstSF support for social science decreased significantly. For example, between 1998 and 2006 the CSC allocated around 9% to 10% of its total resources to humanities (EUR 0,89 million in 2000) and only 6,0% to 7,0% to social science (EUR 0,6 million in 2000) (source: CSC 2006, 11; 2003, 26; 2000, 17). When we interviewed the reform actors on this topic, they remained concise on the matter. One of them declared “unfortunately the shares of Targeted Funding for SSH were higher than they should have been. I think both of them should get only around 5% of total funding”<sup>231</sup>. This opinion is informed by foreign evaluations, personal experiences and shared opinions amongst the second wave of reform actors who considered SSH as the “weaker” sciences. Other interviews revealed that the humanities representatives were the most active in mobilising against the new rules<sup>232</sup>. As we saw above, the humanities were also sometimes considered to be more politically important by the science administration. These elements could explain the decrease of the social sciences’ budgetary shares in the CSC.

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<sup>231</sup> EST36

<sup>232</sup> EST36, EST56

With its hybrid character between project-based and institutional funding, criteria relying on past performance, and re-evaluation of funding ratios between the disciplines, the Targeted Funding instrument introduced a shift in public research funding principles. Then again, despite its declared policy aims of harmonising funding criteria, it seems that humanities were singled out for special treatment. Hence, changes in the Estonian public research funding followed two underlying logics: supporting the most internationalised research groups (including in social science) and, given their distinctive status in the national research policy, making exceptions for the humanities. The question of humanities disciplines was tackled by the reform actors with further changes in funding policy.

#### 4.1.2. ...to harmonisation of evaluation standards

Two further policy innovations – the creation of a national research funding system and the consolidation of expert committees – reinforced the harmonisation of research funding criteria across all scientific disciplines, including within the SSH.

##### *Creation of a web-based research information system*

If hitherto the research evaluation in Estonia was undertaken manually, the second wave of actors invested in automation of the evaluation process.

Similarly to other countries such as Norway, Finland, Denmark and the Flanders region in Belgium, a web-based national research information system was developed in Estonia in 2004<sup>233</sup>. The information system – Estonian Research Information System (**ERIS**) – was developed by the Ministry of Education and Research and collated information regarding R&D institutions, researchers, research projects and various research results.

The ERIS system was given a key role in regulating and normalising the procedures of public research funding allocation. For example, to render the evaluation more “effective”, a precise classification scheme for scientific publications was established within the ERIS<sup>234</sup>. It was designed as a hierarchy categorising six major types of publications, common to all disciplines: “1. journal articles”, “2. books or monographs”, “3. articles in proceedings or chapters in a book or a collection/specific research publication”, “4. editing scientific

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<sup>233</sup> The use of the research information systems varies from country to country. Generally, they help identify publication patterns in the different fields and apply assessments and/or weighting procedures to publication channels, mainly journals and scholarly book publishers, thereby enabling “evaluation in context” (Toledo 2018, 3).

<sup>234</sup> EST20

publications”, “5. published meeting abstracts” and “6. other publications”. Each category comprised several sub-categories (altogether 22 in 2006) that were also hierarchised. Following this scheme, the highest valued category was “1.1” articles.

In subsequent years, these categories were modified several times to the benefit of SSH disciplines. For example, while initially referring only to the WoS core collection, the category “1.” was progressively expanded with mentions of the WoS Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Indexes. Also, a reference to the Scopus database (which includes more publishers than the WoS) was added, as well as a category of “peer-reviewed scientific articles in journals important for Estonian culture” and scholarly articles in the major Estonian-language journals (**Table 4.1**). At the same time, it is notable that more recent databases, such as the European Reference Index for the Humanities (ERIH)<sup>235</sup>, which was used in Latvia for example, was not included in the Estonian publication categorisation system. This may be due to their broader approach to indexed publications.

**Table 4.1 ERIIS 1st category publications in 2015**

1.1 Scholarly articles indexed by Web of Science Citation Index Expanded, Social Sciences Citation Index, Arts & Humanities Citation Index, Emerging Sources Citation Index and/or indexed by Scopus (excluding chapters in books)
1.2 Peer-reviewed articles in other international research journals with an ISSN code and international editorial board, which are circulated internationally and open to international contributions
1.3 Scholarly articles in Estonian and other peer-reviewed research journals with a local editorial board; peer-reviewed scientific articles in journals important for Estonian culture or scholarly articles in Akadeemia, Looming, Vikerkaar

*Source: Estonian Research Information System (ERIS webpage 2021).*

All Estonian R&D institutions were required to submit data to the national information system from 2007. In that way the ERIS, and in particular its research output categorisation, could be employed directly in the process for submitting and processing grant applications and for submitting and confirming project reports: “Applications are submitted through the web. So, if you don’t have a sufficient number of articles in the right ERIS categories, then you just cannot apply for funding”<sup>236</sup> explains one of the former CSC SSH expert committee members.

<sup>235</sup> ERIH (now ERIH PLUS) was established by the European Science Foundation in 2014. Its official aim is to provide a comprehensive record of scholarly communication and publishing in SSH, enabling researchers to better disseminate their work in national and international languages. Only scientific periodicals/journals may be included in ERIH (source: ERIH webpage 2021).

<sup>236</sup> EST18

Moreover, the ERIS portal was applied to the regulation of several other academic matters. For example, it was appropriated by universities in the recruitment of staff members.

The establishment of the above-mentioned publication categories also represented a shift towards harmonising the norms of publication in the SSH with those in the exact and natural sciences. Therefore, the ERIS was not just a neutral system of information, but by prescribing the norms in the evaluation of SSH disciplines it progressively grew into a key element in the organisation of research funding.

#### *The consolidation of the expert committees at the EstRC*

Another element in the harmonisation of evaluation standards was the consolidation of expert committees within the project evaluation process. This change was especially prominent in 2012 when the two major public research funding instruments were consolidated under the EstRC.

With this organisational change the EstSF grants were redefined as “Personal Research Grants”, and Targeted Funding grants as “Institutional Research Grants”. Compared to the former EstSF grants, the Personal Research Grants supported only “high level” personal research projects, or research projects of small groups of researchers. The funding instrument was transformed based on the example of the ERC instruments, where instruments are categorised based on the researchers’ career situation. In a similar way, the Personal Research Grants were split into three types of grants: the “search grant” – for innovative, high level and high-risk projects, the “starter grant” for young scientists creating their research, team and the “postdoctoral grant” for post-doctoral research. Compared to the former EstSF grants, the design of the Personal Research Grants criteria put much more emphasis on the ratings of foreign experts. Project applications were evaluated based on the following elements: “justification of the project”, “track record of the principal investigator”, “quality of the infrastructure” and “research environment and justification of the budget”. Importantly, out of the maximum 13 points that a project application can receive, the share of the points given by foreign experts who scrutinise only two elements (the justification of the project and track record of the principal investigator) could be as high as 10 points (source: EstRC 2015a). This had a significant impact on application success. Before the reform around 160 projects were funded per year, but after the reform only 40 projects were funded each year on average – the number of beneficiaries decreased at least four times (source: EstRC 2015b).

In comparison to former CSC Targeted Funding, the evaluation criteria of Institutional Research Grants were further complexified. Similar to the Targeted Funding, the evaluation included assessment of elements such as the research topic, research team, research infrastructure, institutional and national relevance and research budget. Each element had a different weight in the final calculation: the first two elements – "assessment of the research topic" and "research team" – were scored by a five-point rating scale, while other elements were scored on smaller scales. However, with the goal of “ensuring stable funding” for research organisations, unlike the Targeted Funding, other mechanisms were added. For example, it was stated that the “strategically important research topics earmarked by the R&D institution will be awarded 2 points on top of the score”. Also, “each funded institution can’t lose more than 15% of funding compared to the previous year” (source: EstRC 2014). Hence, although the weight of foreign peer-reviewers’ ratings in the project’s evaluation process was high (they decided 10 points out of a total of 20), the funding mechanism was also designed so that the budget would follow the national priorities in research and areas of specialisation of research organisations. As concluded by one of the EstSF officials, with its complex structure the funding mechanism was unclear: “it was like a “two-in-one” instrument: the application was submitted by the principal investigator but it had to be prioritised and approved by the institution – our foreign peer-reviewers had difficulties in understanding the logic”<sup>237</sup>.

Despite the complexification of the project evaluation procedures, the SSH allocation ratios in both instruments remained constant throughout the organisational change. SSH received around 15,8% of funding from the CSC Targeted Funding instrument in 2009 and the same ratio from the EstRC Institutional Research Grants in 2015. SSH received around 19,2% of total funding from EstSF grants in 2009 and around 19,9% from the EstRC Personal Research Grants funding in 2015 (source: EstRC web page 2021).

More importantly, a major step was taken towards harmonisation of the funding criteria by modifying the classification of scientific fields. A new classification of scientific fields including only four scientific areas – bio and environment sciences, natural sciences and techniques, health sciences, and social sciences and culture – had been introduced by the council of the EstSF on the example of the Academy of Finland’s system in 2007. The system was generalised in the EstRC, meaning that the number of expert committees was reduced as well:

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<sup>237</sup> EST54

“The idea was to break down the existing protected areas. In that way, agricultural scientists had to compete with biologists and technical scientists had to compete with physicians and chemists. And that’s why it was reasonable to bring together social scientists and humanitarians as well. Social sciences had developed somewhat faster [than humanities] since the 1990s and became used to international cooperation. So, even if the [project evaluation] criteria remain a bit different, it wouldn’t end up being too contrasting if they [social sciences and humanities] are under the same committee. The committee members just cannot award simultaneously someone for his/her nice blue eyes<sup>238</sup> and someone who has made an effort to work hard...so, it was about competition.”

The shift from the former OECD Frascati Manual classification to the Finnish model was intentional. Humanities research is perceived as a complex and politically delicate topic. Therefore, the diminution of disciplinary fields was considered beneficial and “reasonable” for increasing competition between different disciplines within these branches.

“What I see is that the humanities think that their disciplines are there to protect our constitution. They study our soil, Estonian glove patterns and all such things so they think that they have a right for existence! Indeed, their visibility and position differ from other scientific branches. No politician would like to say something bad about humanitarians.<sup>239</sup>”

As humanities are considered to be less internationalised, reform actors believed the merger of the two commissions, may “pull up” these disciplines to the level of the social sciences. Thereby, the structural consolidation of two commissions could also avoid public discussions on the matter.

The idea of a common committee and common standards was not always appreciated by EstRC SSH expert committee members. Several committee members argued that some elements of research evaluation such as the “participation in international projects, counting 1.1 articles, looking at h-index” are particularly “inadequate in humanities research”<sup>240</sup>. Although we did not research the topic systematically, it seems that there are ways to “soften” or even bypass the impact of these regulations in the committee. One of these methods concerns the choice of peer-reviewers, as explained by one of the interviewed SSH committee members:

“We have a great responsibility...it is clear that foreign evaluators have different expectations for projects. There are friendly neighbouring countries, for example, Finland, where they make more friendly evaluations than from somewhere else.

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<sup>238</sup> A metaphor in Estonia for expressing a situation when someone is getting what they want without doing or giving anything in return.

<sup>239</sup> EST04

<sup>240</sup> EST24, EST22, EST15

Their evaluations are less demanding also because their context is not so competition based as it is for example in the US or Great Britain”<sup>241</sup>.

Final evaluation scores can be kept higher by selecting foreign peer-reviewers based on their home countries’ research evaluation systems. At the same time, it is important to underline that in the Estonian context, where the project funding evaluation process was highly regulated, the role of the EstRC committee members seems to be considerably lower than in Latvia or Lithuania. For example, if Estonian EstRC committee members held meetings four to five times per year, their homologues in Latvia and Lithuania met almost every week (as we will see in the next sections).

All in all, with the introduction of the research information system, innovation in the disciplinary classification system, application of project evaluation criteria and choice of foreign peer-reviewers, these more detailed and “technical” level matters were core negotiation topics in the debate over the SSH project evaluation process.

#### 4.1.3. Budget decrease in “traditional” social sciences?

We end this section with an analysis of changes in the budgetary shares.

As we saw above, the budget share allocated to the SSH in Estonia fluctuated within the reform. The major shift in the shares occurred in 1997. While the EstSF allocated 9,8% of its budget to the social sciences and 9,6% to the humanities, with the introduction of the Targeted Funding the overall budget share for SSH decreased. This ended up impacting social science more than the humanities. Only 7,0% out of the total Targeted Funding budget in 1998 and 6,0% in 2000 was allocated to social science. At the same time, the share of humanities was higher: between 10,0% and 9,2%. These shares remained unchanged after the establishment of the EstRC and modification of the funding tools in 2012. The shift in the budget shares between the social sciences and humanities was also significant because of the differences in the size of budgets allocated through these funding tools. For example, while the EstSF support was altogether EUR 0,55 million for SSH in 1995, the CSC Targeted Funding support was EUR 24,9 million in 2009. Hence, although we have no discipline-specific budget allocation data on the base-line funding prior to 1997, this is a good reason to believe that the overall state support for the social sciences decreased with the reform.

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<sup>241</sup> EST24

A more detailed study of Estonian budgetary shares also reveals a shift between individual disciplinary areas (**Tables 4.2 - 4.4**). The main beneficiaries from the EstSF social science budget in 1997 were economics (26,1%), psychology (17%) and sociology (15,5%). However, in 2009 economics received only 5%, psychology 7 % and sociology 6% of the total Targeted Funding allocated to the SSH. In a similar way, these areas benefited less from the EstRC Personal Research Grants funding than disciplines within the humanities. Instead, social science, political science and public administration seemed to emerge as the main beneficiaries in the EstRC Personal Research Grants funding. Although these shares are not directly comparable, the reforms seem to have advantaged the humanities and disadvantaged more "traditional" social science disciplines.

**Table 4.2 Distribution of EstSF grants in SSH (1994-1999)**

	1994	1995	1996	1997	1998	1999
<b>Social sciences</b>						
5.1 Economics	25,5%	26,1%	24,9%	26,1%	22,5%	24,0%
5.2 Law	9,8%	10,2%	9,2%	9,8%	9,0%	9,8%
5.3 Sociology	16,1%	15,7%	14,3%	15,5%	15,1%	15,5%
5.4 Demography	5,6%	4,9%	6,6%	5,6%	7,5%	5,4%
5.5 Pedagogy	15,1%	14,1%	11,7%	12,0%	12,5%	13,6%
5.6 Psychology	15,6%	15,1%	16,6%	17,7%	15,5%	15,2%
5.7 Political science	7,3%	8,4%	7,7%	7,6%	8,4%	8,6%
5.8 Human, social and economic geography	0,3%	1,5%	1,2%	1,3%	4,3%	0,9%
	100%	100%	100%	100%	100%	100%
<b>Humanities</b>						
6.1 History	35,8%	34,2%	38,5%	34,0%	26,5%	25,2%
6.2 Philosophy	2,8%	5,0%	5,0%	4,7%	4,7%	5,0%
6.3 Linguistics	33,8%	27,7%	25,1%	19,8%	21,9%	20,1%
6.4 Folkloristics	8,6%	15,2%	14,4%	12,5%	11,2%	13,1%
6.5 Literature	9,6%	10,3%	9,4%	10,7%	11,4%	11,1%
6.5b Art	4,4%	3,7%	3,3%	4,2%	4,2%	4,0%
6.5c Music	4,7%	3,9%	3,6%	3,2%	3,5%	4,0%
6.6 Theology	0,2%	0,0%	0,7%	4,1%	4,5%	4,0%
Other				6,8%	2,0%	3,3%
Archaeology					10,1%	10,1%
	100%	100%	100%	100%	100%	100%

*Source: Author's calculations based on the Estonian Science Foundation archive materials (EstSF archive 1994-1999).*

**Table 4.3 Distribution of Targeted Funding in SSH in 2009**

Total Targeted Funding	EUR 24,9 million
Share of SSH	15,9%
Main beneficiaries in SSH (budget size)	Cultures Research (25%), Philology and Linguistics (20%), History and Archaeology (19%), Psychology (7%), Political Science (6%), Sociology (6%), Economics (5%), Philosophy (3%), Demography (3%), Education (2%), Communication and Information Sciences (2%), Law (1%), Anthropology (1%)

*Source: Author's calculations, data are from Estonian Ministry of Education and Research (EstMoER 2009).*

Note: Data for beneficiaries in SSH is approximate. The project allocation data was manually processed and categorised into discipline areas according to the CVs of the project leaders.

**Table 4.4 Distribution of EstRC Personal Research Grants in SSH (2014-2015)**

	Projects funded	Projects in SSH	Main beneficiaries in SSH (number of projects)
2014	30	7 (including 5 in Tartu University)	History, Linguistics, Philology, Cultural Studies, Economics, Social Policy, Political Science
2015	53	10 (including 7 in Tartu University)	Ethnology (2), Philosophy, Philology, Linguistics, History, Art History, Law, Political Science, Public Administration

*Source: Estonian Research Council (EstRC webpage 2019; 2021).*

Note: Data for beneficiaries in SSH is approximate. It represents the number of projects allocated to each disciplinary area. The project allocation data was manually processed and categorised into discipline areas according to the CVs of project leaders.

To sum up, it seems that Estonian science funding evolved into a highly competitive system where all scientific fields were assessed on a similar basis. Humanities were thereby subordinated to similar rules of evaluation than those of the social sciences through change in the disciplinary classification system and the automation of research evaluation via a new national research information system. While the discourse on internationalisation began to diffuse in the early 1990s, it was only at the middle of the 2000s that this harmonisation occurred. This reform path is not surprising given the specific character of the Estonian scientific field and the paths of emergence of the reform actors. Emerging from the EstSF, the reform actors gained a rather degree of high legitimacy in carrying out changes in science policy. Their perception of SSH did not oppose that held by the existing science administration but supplemented it. Indeed, both of these groups shared backgrounds in bibliometrics – some regularly counting their citations at the libraries of the scientific centres of the Soviet Union, and others investing in bibliometric monitoring practices throughout the Soviet period. Hence,

action undertaken by these reform actors was informed by their common experience in the international scientific field and a firm belief in world-level norms in science evaluation. Importantly, the given path seems to have had an impact on the financial support for SSH disciplines. The humanities were “preserved” for a longer period of time. The budgetary shares allocated to the social sciences decreased. Also, with the progressive implementation of competitive elements into the funding criteria, reforms evoked a shift within the area of social science. Some of the disciplines that were supported in the early 1990s, such as sociology, found themselves at the bottom of the funding hierarchy after the reforms. All things considered; Estonian reforms were more radical than those undertaken in the other two Baltics.

## 4.2. The recent and partial application of external evaluation in Latvia

In the Latvian case, the research funding standards should be analysed throughout the following two periods: from the beginning of the 1990s until 2013 and from 2013 until 2015. Since the beginning of the 1990s and for almost two decades, the LvSC funding standards were relatively loosely defined. The grants were used as a stability mechanism to protect the SSH from incentives for internationalisation (4.2.1). With the 2013 reform, the base-line funding formula that was previously under the direct control of the research ministry was radically reformed, but the funding council instruments (under the control of the former members of the science administration) experienced few changes (4.2.2). As a result, research funding instruments were divided along the lines of evaluation standards (4.2.3).

### 4.2.1. LvSC project-funding as a stability mechanism

The Latvian public research funding organisation at the beginning of the 1990s was probably one of the most controversial of the Baltics and post-Soviet countries.

After achieving independence, no institutional funding instrument was officially established and the research budget was distributed only via project funding<sup>242</sup>. It wasn't until 2005 (the same time as Estonia) during the period of economic growth that a proper base-line funding mechanism was introduced for the first time. Set up by cooperation between the Ministry of Education and Science and the LvSC, the Latvian base-line funding was designed as a classical institutional funding mechanism that was allocated to research organisations based on quantitative indicators (such as the number of workers or surface of the building) for their

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<sup>242</sup> At the same time, there were several funding streams to support the libraries and the botanic garden.

normal functioning<sup>243</sup>. According to one of the officials responsible for the law draft, it was done for balancing purposes: “while institutes were trying to survive with their grants, universities, from their part, had enjoyed a stable institutional funding from the HE budget”<sup>244</sup>. Hence, the new funding mechanism was designed to support foremost the research institutes, including the former AS institutes. In the subsequent years, smaller changes were added to the base-line funding. For example, regulations adopted in 2008 defined a more explicit link between funding and bibliometric criteria, with publications in WoS journals having greater value (source: Erawatch Latvia 2009). Then again, according to several reports published by international organisations, the formula included several elements that were vague or only formal. According to the EC Erawatch 2011 report: “the threshold of peer-reviewed publications upon the distribution of institutional funding has been set at a rather low level (0.5 publications in the last five years per scientist) and this criterion has not been strongly enforced in the allocation of competitive funding either” (source: Erawatch Latvia 2013, 11). Also, the World Bank report published in 2014 outlined that the base-line funding “appears to be in the end allocated based on historical distribution [...] there is a use of performance indicators “behind the scenes” which does not become transparent and hence does not lead to substantial impact” (source: World Bank 2014, 71).

Apart from the quantity-oriented and ambivalent base-line funding mechanisms, the major part of the state budget for both applied and basic research was allocated via the LvSC. However, several elements indicate an unclear role of the LvSC in Latvian science policy and its relation to institutional funding.

First, the council mainly allocated the budget via two “bottom-up” mechanisms: Fundamental and Applied Research projects (since 2008: Thematic Projects) for individual researchers, and Collaboration Projects to research groups. Expert committee members, who were elected democratically by the scientific community and were not remunerated, held powerful discretion in the project evaluation process. They were in charge of: “1) providing opinions regarding scientific research projects and programs submitted to the LvSC and the financing thereof; 2) formulating and improving the evaluation criteria of scientific research projects and programs; 3) formulating and improving evaluation criteria of the effectiveness of the work of scientific institutions, and 4) preparing and providing opinions regarding the

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<sup>243</sup> LV14

<sup>244</sup> LV14

situation in the relevant scientific fields in the Republic of Latvia” (source: LvSC webpage 2021)<sup>245</sup>.

Second, the project evaluation process was loosely regulated. It was only at the end of the 1990s that the council introduced some requirements of bibliometric monitoring for research performance. For example, according to the Erawatch report published in 2008, a list of journals (much more inclusive than the one used by the WoS) was introduced by the LvSC in 1999 and was subsequently applied as a criterion at the defence of doctoral theses and in reporting by research units. According to the report, this, in turn, implied “a strong disincentive for pursuing publications at the internationally prestigious journals enlisted by the WoS”. It notes: “this list included practically all local editions, which further implied a disincentive for the national journals to pursue a determined policy aimed at securing their place in the above-mentioned list of the WoS (source: Erawatch Latvia 2009, 26)”.

Third, contrary to the EstSF where (although partially) a foreign peer-review of research projects was implemented from the beginning of the 1990s, the LvSC opted for a more national scale review practice. Indeed, a list of “national experts” was formed and used to undertake project evaluation. The decision not to use foreign peer-review was explained by a lack of resources (LvSC used only 1% of its budget for administrative matters) and foreign contacts:

“One of the reasons [not to use international peer review] was that it takes money and money was short. Also, relations with international evaluators were not very tight...except for the Danish Council of Sciences [thinking] but that was maybe our fault that such practice [national peer review] continued not only in the first years, which is understandable, but also later. Later it became how to say...a tradition. At the time, the council distributed funding, and the Ministry agreed”<sup>246</sup>.

National scale project evaluation was less demanding than including foreign experts. This “tradition” persisted at least twenty years before foreign peer-review was introduced progressively between 2009 and 2012. Undertaken as an initiative of the Ministry of Education and Sciences after consulting their Estonian counterparts, the aim of this progressive introduction was to “show our researchers, that international experts will evaluate the same way then Latvians because researchers were afraid”,<sup>247</sup> as explained by one of the former official working on the topic. The “fear” in this context refers to the risk of losing resources due to the different evaluation criteria that external peer-reviewers might have compared to the national

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<sup>245</sup> LV08

<sup>246</sup> LV34

<sup>247</sup> LV14

ones. To allay the fear, the introduction of foreign peer-review did not immediately result in changing budget allocation practices as in Estonia but started as more of a formal change.

Finally, no less important was the LvSC's fragmented approach to budget allocation and its fragmented disciplinary classification. As it was in the Estonian EstSF, the financial resources allocated to each project in Latvia were comparatively low, due to the limited amount of overall funding available and the high demand for resources. Between 1990 and 1992 the LvSC supported at least 830 Fundamental and Applied Project propositions and declined only 154. In 2006 around 685 research projects were still being funded annually, which points to a proliferation of many small grants. At the same time, the number of projects supported via Collaboration Projects decreased. In 2010 only 11 projects were supported against 22 projects two years earlier in 2008) (Rambaka 2012, 92). Moreover, these small grants were then scattered between multiple disciplinary areas. Altogether 14 disciplinary areas and 44 sub-disciplinary areas were defined, based on a survey of researchers conducted in the early 1990s – this is reflective of the number of AS institutes and departments<sup>248</sup>. To define the budget shares for each disciplinary area, the LvSC administration relied on the results of the Danish evaluation of Latvian sciences and other countries' models. As a result, the SSH received around 19% of the total budget:

“The distribution was first based on the Danish evaluation, and then we came together and discussed longer time about how to distribute amongst the branches. And then each branch decided how much to allocate for specific disciplines. [...] And why the ratio remained similar was that we expected that the science budget should rise, but it was wrong. The government didn't support us. So, we understood that project funding is not a solution and institutes also need funding maintenance etc. Also, sometimes institutes need to support other groups who were not successful. So they subtracted 30 or even 40% of project funding money for institutes use. Otherwise, the institutes could collapse. It was necessary. So, therefore, formally the project principle remained, but implementation was partly distributed amongst the institutes. Therefore we kept the same proportions<sup>249</sup>”.

We see that the LvSC accepted a somewhat flexible funding mechanism, and the shares of funding that were fixed at the beginning of the 1990s were kept constant throughout the following years to provide financial security for research institutes.

All of these elements: the loosely regulated project evaluation process, national scale of the peer-review process, a high number of supported projects, and fixed shares of disciplinary

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<sup>248</sup> LV31

<sup>249</sup> LV34

budgets, indicate that although the base-line funding was not introduced to Latvia until 2005 the project funding mechanism was already fulfilling the role of classical institutional funding from the early 1990s. The funding was allocated to research organisations for their normal functioning and it was left to the steering body of the organisation to decide how to allocate funds (Lepori *et al.* 2009). This, somewhat “protective” role of the LvSC funding towards research groups (including in SSH), was in sharp opposition to policy aims set by the reform actors.

#### 4.2.2. Reform of 2013: segregation of instruments along the lines of evaluation standards

Within the reform of 2013 stricter evaluation standards were introduced in the SSH funding. While a major change occurred in the base-line funding formula under the direct control of the Ministry of Education and Science, they were not applied to the LvSC research funding.

##### *Singularisation of the SSH within the LvSC*

Reform actors faced strong opposition when attempting to modify the LvSC funding allocation standards for the SSH.

One of the issues was the size of the projects allocated via LvSC. Within the reform, the number of supported Thematic Project propositions decreased, and the size of the budget per project increased. In 2009, 333 projects were funded altogether, but in 2013 only 67 projects were funded, meaning that the average size of the projects increased from EUR 17 000 to EUR 48 000<sup>250</sup>. At the same time, as the SSH were considered as “non-experimental sciences” by the LvSC administration, budgets allocated for projects in these disciplines remained smaller, around EUR 14 000<sup>251</sup>.

Differentiation of the SSH from other disciplinary areas also appeared in bibliometric monitoring requirements. To qualify the previous research output of project leaders, the administration of the LvSC used for the WoS and Scopus databases in the project evaluation process. An exception was made in the case of SSH, where monographs and articles published in the ERIH databases were also counted. Moreover, all of these databases were used together,

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<sup>250</sup> Author's calculations, based on the LvSC data (source: LvSC webpage 2021).

<sup>251</sup> LV08

in their entirety. For example, research output in the WoS Conference Proceedings Citation Index (**CPCI**) had an equal value to the SSCI in the project assessment process<sup>252</sup>.

Finally, the research ministry introduced the OECD Frascati manual classification system to reduce the number of disciplinary areas. However, the fragmented disciplinary classification system was not fully consolidated. While the LvSC administration followed the request of the Ministry of Education and Science to form five expert commissions (Natural Sciences and Mathematics, Engineering and Computer Science, Biology and Medicine, Agriculture, Environment, Earth and Forest Sciences, and Humanities and Social Sciences), the former scientific sub-categories (altogether 13) were preserved internally at the expert commissions (source: LvSC webpage 2021). Moreover, the support ratios for the SSH were kept constant in the LvSC throughout the reform. This is explained by one of the LvSC officials, who was also one of the leaders of the formal structural reorganisations in the science sector in the early 1990s, as follows:

“There was a huge struggle for these percentages. The redistribution was made after the Technopolis evaluation in 2013, it was a basis for re-evaluating the funding distribution. It was very difficult. In fact, somehow it appeared that if we are looking from an international viewpoint, then natural sciences are doing much better than they are receiving [funding] from the LvSC. And then there [at the LvSC] was an argument that natural sciences can get money from different sources and that we have to take into account differences between natural sciences and social/humanities, especially languages that have few possibilities to get funding from the Framework Programmes. So, as I told you, we decided that these sciences must be protected. The humanities and social sciences are not yet internationally recognised...so we decreased their share, but only just by 1% and not more. Before their share was 19% now 18%.<sup>253</sup>”

The role of the LvSC was to “protect” the SSH. This role is justified by the overall lower level of internationalisation in SSH, the lack of external funding for these disciplines, as well as their role. Indeed, some of the LvSC officials noted that researchers in SSH have “other obligations and working practices” in society<sup>254</sup>, referring to the role of the humanities in sustaining national consciousness, or the role of social science in participating in the policy-making process.

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<sup>252</sup> LV08

<sup>253</sup> LV31

<sup>254</sup> LV08

This given policy rationale at the LvSC was thus radically different from the one supported by the reform actors, who stood for implementing more strict standards of internationalisation to the research funding settings.

#### *Harmonisation of base-line funding criteria*

Contrary to the LvSC funding, the base-line funding mechanism was substantially modified by the reform actors.

One of the major modifications stood in linking the base-line allocation with the results of external research assessment that was conducted by Technopolis Group. In 2014, just before the publication of the RAE results, the base-line funding allocation regulation was modified as follows. It stated that “based on an international evaluation of the operations of the scientific institutions organised by the Ministry of Education and Science for a period of six years [...] the Ministry of Education and Science shall calculate and allocate additional funds (in the amount of 10 % from the [base-line funding] allocated in the state budget for the current year) to such scientific institutions that have been graded with “4” and “5” in the abovementioned evaluation”. Further: “the Ministry of Education and Science shall not allocate the financial reference amount to the scientific institutions that have received “1” and “2” in the international evaluation of the operations of the scientific institutions” (source: Lv Cabinet of Ministers 2013, §11). The new regulations were thus highly disadvantageous for SSH and enabled a major consolidation of research organisations. Out of 30 units in social sciences assessed altogether, 20 were assessed with “2” or “1” point(s), 8 with “3” and two units were considered “insignificant” meaning that they did not undertake any research. The situation was no better in the humanities. Out of 17 units assessed, only one received “4” points. At the same time, the assessment was advantageous for other scientific fields, except that of agricultural research (source: Technopolis 2014).

Markedly, following the path of research funding rationale in the UK and integrating assessment results to the base-line funding formula occurred despite foreign experts’ recommendations. On the one hand, as concluded in the final RAE report, the Technopolis experts supported the policy but were against the 222instrumentalization of the RAE: “the Education Ministry should now consider what incentives to use to promote consolidation – taking care that it does not in the process needlessly damage individual fields [...]. The next step should therefore be to invite groups themselves to propose mergers and transitional arrangements. More widely, the ministry should be reluctant to tolerate the perpetuation of

parallel research and academic units in or near the same university in the same field. The EU ESIF funding sources provide a transitional opportunity to support such change”. And further: “It would not be wise to make a one-to-one translation of RAE scores into resource allocation – and it would be especially unwise to top-down decide who should merge with whom” (*Ibid.*, 47). This position opposed the reform actors’ more radical reform plans:

“When I arrived in the Ministry, they [administration] were already violating the law through paying institutions without external peer review, although it was demanded by the law. So what I did, was that [pause] I saw this is an opportunity to get rid of institutions. You know, in Latvia you could create an institution with five PhDs., so it’s silly. Then we agreed on this review of institutions [...] I hope I did so much damage to the previous system, that it cannot be turned back”<sup>255</sup>.

Referring to an obligation of regular foreign assessment that was established in 2005 but not followed, the RAE is perceived as one of the key resources in the reform process. Hence, despite foreign partners warning against using too much authority in applying the results of the RAE in the reform, the radical measures were precisely what the reform actors were looking for.

As well as implementing two funding instruments, the reform included change in the base-line funding methodology. A more detailed funding formula was introduced (**Figure 4-1**).

<p>The base funding for one calendar year shall be calculated using the following formula:</p> $B_{inst} = (I + P) \times A_t \text{ where}$ <p>I – Financial resources for the maintenance of a scientific institution<sup>256</sup>;</p> <p>P – Financial resources for the remuneration of the scientific staff employed by the scientific institution – leading researchers, researchers and scientific assistants;</p> <p>A<sub>t</sub> – Development coefficient of the scientific institution.</p>
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**Figure 4-1 Latvian base-line funding formula**

*Source: Procedures for Calculating and Allocating Financial Reference Amount to Scientific Institutions (Lv Cabinet of Ministers 2013).*

<sup>255</sup> LV33

<sup>256</sup> The financial resources for maintenance of the scientific institution (I) for the funding period is calculated taking into account the number of full-time employees, the standard of work space for one employee, maintenance costs of one square meter of premises used for scientific activities, and the industry coefficient (which is lower for SSH). For “science, engineering and technology industries, medical and life sciences, agricultural and forestry sciences” the industry coefficient is 2.0, while for the “humanities and social sciences” it is 1.3. Hence, the difference reaches up to 35%.

One of the major novelties in this formula (altogether 15 pages) was an introduction of the “development coefficient of the scientific institution”. The development coefficient of the scientific institution is summarised as  $(A) At = 1 + Ss \times 0.06$ . The “Ss” is calculated according to three main elements: R&D projects, results of scientific activity (publications, patents and plant varieties), promotional theses and Master’s theses. Each of these elements is then divided into sub-categories, giving a total of 12 points. Out of 12 points, 7 (or 58%) are given to institutions based on indicators requiring practices linked to internationalisation. These include participation at the EU FP R&D projects and other international research projects, and publication of research in journals listed in the WoS and Scopus databases (the latter element gives 3 points). In each category, institutions are benchmarked against others so that only the institution with the highest results are provided with points. In addition, the same rules are applied to all disciplinary areas.

No less important was the inclusion of research-specific elements into the HE funding formula. This was possible due to the research ministry’s integrated approach toward HE and research policies (**Box 18**). On the request of the reform actors, the World Bank proposed a new HE funding model to the Latvian Government, where HE funding was awarded within an ex-post assessment; the “results” of the HEIs would be compared against planned performance criteria established between HEIs and Ministry (source: World Bank 2014, 73). Insisting on a greater research “performance”, the final budget allocated to HEIs also included indicators of resources received from both the base-line and funding council mechanisms. As a side note, not all foreign actors agreed with the new model. For example, the EC experts stated that “It appears problematic that [the performance part of the funding model] focuses mainly on research productivity and not the broader set of performances expected of the universities. If productivity and quality of teaching are not considered in this type of performance-based funding, then HEIs and especially academic staff get the message that teaching and learning are secondary missions” (source: EC 2018, 61).

## Box 18 Integrated approach to HE and research policy in Latvia

There is good reason to believe that an integrated approach to HE and research funding was possible due to the overall structural reform of the Ministry of Education of Science, which included consolidation of the HE and science-specific departments. With the appointment of the new Minister, the internal organisation of the Ministry was reformed. The Ministry's 12 to 13 departments and 29 sub-departments were cut down into 6 departments. In the words of the reform actors: "before, the ministry was a kingdom of bureaucracy so that you would get higher pay. We got rid of all heads and also heads of people who were from associated institutions. We wanted to create a flat management system, so we reorganised the Ministry drastically"<sup>257</sup>. Many officials were dismissed (around 50) and others replaced, including the majority of the HE and research department officials. Moreover, these departments were consolidated into one. The former head of the science department (who was working part-time as a teacher), was replaced as well. Salaries were increased due to the reduction in the number of officials.

Hence, by linking the base-line funding with the Technopolis RAE results (as it is in the UK<sup>258</sup>), modifying the allocation methodology and inclusion of the research-specific elements into the HE funding formula, the base-line funding mechanism was modified following the standards proposed by international organisations.

### 4.2.3. Division of instruments along the lines of evaluation standards

These changes also altered the financial gains in disciplinary areas. However, the change in budgets for individual disciplines can be tracked only within the project-based funding instruments. Due to the increasing importance of the base-line funding in the Latvian public research portfolio since 2005 and then in 2013, it is difficult to fully estimate the impact of the reforms on SSH disciplines.

The impact of the reform is the best visible within the LvSC Fundamental and Applied Projects (since 2008: "Thematic Projects") funding mechanism. With its yearly budget of around four million euros throughout the observed period, it was twice as big as the Collaboration Projects funding mechanism, and hence the major mechanism for research funding in the LvSC. From its inception at the beginning of the 1990s until the year 2015 around 18% to 20% of the resources allocated through the Thematic Projects was assigned to the SSH. At the same time, a more detailed account of the budget allocations demonstrates an internal

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<sup>257</sup> LV33

<sup>258</sup> In the UK the results from periodic national research assessments drive part of the core funds of the university. These RAEs (Barker 2007) provide a post hoc evaluation of research units within universities (approximately corresponding to departments), each of which is given a numerical score.

shift between SSH disciplinary areas in 2013 (**Table 4.5**). The budget share for social science decreased four percentage points – from 9% to only 5% – while the share for humanities increased from 11% to 13%. Hence, out of 14 SSH projects funded via the Thematic Projects scheme in 2015, only four were in the social sciences<sup>259</sup>. While our empirical research did not cover the precise reasons behind this shift, there is reason to believe that it was linked to the introduction of the social sciences’ specific priority to the national research programmes in 2013. In that way, an increase in the humanities in the LvSC budgetary shares balanced out the additional resources for the social sciences.

Although the LvSC budget for the social sciences decreased, the support ratios for individual disciplines remained relatively stable. Since the establishment of the LvSC, economics (28%) and to some extent sociology (7% - 9%), were the main beneficiaries of the budget allocated to social sciences from the LvSC primary funding scheme (**Tables 4.6 - 4.7**). In parallel, disciplines such as pedagogy, psychology or law received only around 3% or 4% of funding. Even after the reform, half of the funding distributed to the social sciences was received by researchers in economics and managerial sciences. This distribution is interesting when compared against the latest RAE results conducted by Technopolis Group in 2013. In this assessment economics, political science, and sociology were considered by foreign evaluators as “marginal fields” of research. Instead, the “key strength of social science” was found in education and pedagogy (source: Technopolis 2014). Hence, from the perspective of the foreign assessment, since its inception the LvSC has supported the “weakest” disciplines and inversely has not supported the “strongest” ones. The LvSC funding strategy reflects and confirms the above-analysed role of the LvSC as a “protector” of disciplines/research groups against increasing state incentives for scientific internationalisation.

**Table 4.5 Decrease of LvSC budget for social sciences**

	<b>2011-2012</b>	<b>2013-2016</b>
Humanities	11%	13%
Social sciences	9%	5%

*Source: Data from the Latvian Council of Science (LvSC webpage 2021).*

Note: The table represents Fundamental and Applied Projects.

<sup>259</sup> Project budgets allocated via the Thematic Project mechanism were unavailable for the years between 2011 and 2015.

**Table 4.6 Distribution of LvSC Fundamental and Applied Projects in SSH (2000-2010)**

	2000-2006	2008	2009	2010
Total budget (EUR million)	0,61 – 0,64	0,74	0,49	0,45
Share of SSH projects	18% to 20%			
Beneficiaries in SSH (budget size)	Economic science and Demography (26-28%), Sociology (7 -9%), Pedagogy (3-4%), Psychology (3-4%), Legal Sciences (3%), Communication (1-2%), Philosophy (15%-17%), History (15%-17%), Literary science and folkloristics 7-9%), Linguistics (8-9%), Art 4%			

*Source: Author's compilation, data from the Latvian Council of Science (LvSC webpage 2021).*

Note: Data from 2011 onwards was not available.

**Table 4.7 Distribution of LvSC Thematic projects (formerly Fundamental and Applied Projects) in SSH in 2015**

	Total number of funded projects	Research areas (number of projects)
Humanities	10	Linguistics (3), Philosophy (2), History (2), Literature (2), Folkloristics
Social sciences	4	Political Science, Anthropology, Economics and management (2)

*Source: Data from the Latvian Council of Science (LvSC webpage 2021).*

Note: Data for beneficiaries in SSH is approximate. It represents the number of projects allocated to each disciplinary area. The project allocation data was manually processed and categorised into discipline areas according to the CVs of the project leaders.

A lack of detailed information about the funding allocations of national programmes and base-line funding (major funding instruments) meant it was hard to fully evaluate the role of the reform in each discipline. In short, we could observe only the following: the LvSC budget for the social sciences decreased; the national research programme budget for social science increased; and the reform did not have an impact on disciplinary ratios inside the LvSC (for example, sociology kept its average position in its budget). All funding instruments considered, the humanities were better positioned in the national funding hierarchy than the social sciences both before and after the reform.

More importantly, although the Latvian reform was still ongoing at the time of our empirical research, it seems that two major policy rationales were guiding the research funding in SSH. On the one hand, there was project-based funding allocated by the LvSC, in which the funding standards remained largely unchanged and protective towards SSH. It was

supplemented with national research programmes. On the other, there was a base-line funding mechanism that was designed to support “excellent” research and research “internationalisation”. Hence, within the reform, Latvian research funding instruments were divided along lines of evaluation standards. Fragmentation in the funding instruments corresponded to the fragmented power relations within the Latvian science administration. With public and private foreign organisations as their main collaboration partners, reform actors penetrated the science administration through the research ministry but lacked the support from the science administration members who had administrated the funding sources since the early 1990s. In that way, the divide between groups at the ministry, and the AS and LvSC, had a direct impact on the evolution of public funding instruments.

Finally, the overall budget for research, including SSH, in Latvia remained low compared to the other Baltics’ research funding budgets. In that respect, the Latvian case was in striking opposition to Lithuania where these disciplines enjoyed a singular position in science policy.

#### 4.3. The persistence of “in-house” research evaluation in Lithuania

In the Lithuanian case we will analyse the period from the 1990s until 2009 and from 2009 until 2015. Since the early 1990s, research funding was a subject of bargaining (4.3.1). With the reform of 2009, new standards of internationalisation were introduced in the base-line funding. Although the new funding council was created, project funding standards remained loosely defined and did not correspond to international standards of research evaluation (4.3.2). Overall, the total budget allocated to SSH in Lithuania was almost as twice as important as in Latvia or Estonia. Also, contrary to its neighbours, some classical social science disciplines, including sociology, were rather well-placed in the hierarchy of research funding (4.3.3).

##### 4.3.1. Mobilisation of SSH representatives and unsuccessful changes in funding instruments

In Lithuania since the early 1990s, research funding was allocated by Parliamentary decisions based on historical allocation. Institutional research funding also included teaching funds. After a decade of stability, the first attempt to introduce supplementary criteria in base-line funding occurred within the HE reform of 2000. With this reform, and with the support of the PHARE funding programme, the Ministry of Education and Science attempted to increase the performance-based component in the HEI funding formula (Dobbins, Leišyte 2014; source:

LitLRAMI 2000)<sup>260</sup>. According to the new formula 50% of funds allocated to each HEI was based on historical earmarking, and the remaining 50% was calculated according to the increase in student numbers, demand for research and capital activities, teacher qualifications, and the ratio of students per teacher. The reform also aimed to implement bibliometric indicators for scientists in all fields of science so that “they would publish outside of Lithuania and use foreign languages in their work<sup>261</sup>”, as concluded by one of the research ministry officials.

However, despite the plans of the research ministry, these requirements were not fully applied. Opponents of the reform in SSH (prominent Lithuanian SSH scholars) put forward several arguments to block the changes in research funding allocation regulations<sup>262</sup>. For example, it was stated that bibliometric criteria could “endanger Lithuanian language” which had, particularly since the restoration of independence, enjoyed the status of a scientific language in Lithuania. It was also claimed that bibliometric evaluation is “not equitable”. Having no relations with Western scientists in the Soviet period, SSH scholars argued that they were not “properly equipped” (with material and knowledge resources) or simply, “ready” to publish results in the international market. Actively discussed and shared amongst the majority of SSH representatives, these arguments were translated by the science administration as proof of the “lack of professionalism” within SSH. In the words of one official, “they understand that their articles will not be published [in the Western outlets] and therefore they were fighting against these rules<sup>263</sup>”. Hence, a conflict over the quality standards in SSH research emerged in the early 2000s.

Due to the harsh opposition, the precise funding formula was changed several times and eventually accommodated the SSH. In the words of research ministry officials, SSH had “easier” requirements in the formula<sup>264</sup>. For example, although the principle of accountability of research output was implemented, no foreign peer-review nor strict foreign bibliometric indicators were applied. It was only in 2006 that a reference to publications indexed by the WoS was introduced to the funding formulae. However, its share remained insignificant compared to other loosely defined criteria, such as papers published in “internationally recognised journals” or simply “peer-reviewed” journals (Maskeliūnas *et al.* 2015). To fulfil the requirements researchers extensively used in-house publication strategies (**Box 19**). Hence, as

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<sup>260</sup> The precise HE funding formula was not available for this research.

<sup>261</sup> LIT32

<sup>262</sup> LIT09, LIT32

<sup>263</sup> LIT08

<sup>264</sup> LIT08

previously identified: “although the funding formula encouraged competition, the state seemed to intervene to uphold the principle of equality. One can detect re-adjustments of research money among universities not necessarily based on research output” (Leišyte 2006).

### **Box 19 Ambiguous bibliometric assessment of research in Lithuania**

By imposing the pressure on authors to publish in WoS and Scopus journals, even larger pressure was put on numerous national journals that had bloomed since the 1990s. As a result, a bulk of Lithuanian national editors invested in indexing their journals in international databases. For example, in the period between 2004 and 2013, 10 Lithuanian SSH journals were indexed in the WoS and 16 in Scopus. At the same time in Latvia these numbers were 1 and 0, and in Estonia 7 and 14 (Pajić 2015, 10). Journal indexing necessitated a list of actions such as the formation of international editorial boards, implementation of peer review and increasing use of English-language on journal webpages. At the same time, according to science management (the LitRC administration responsible for bibliographic assessment), this resulted in the inclusion of journals of dubious quality. In many of the listed journals, changes remained only formal: international editorial boards were formed by inviting colleagues from Poland or Latvia, and to bolster their citation indicators many journals established “consortiums” by cross-referencing each other’s articles. After a long process of verification, a small number of national journals were indeed eliminated from further indexing in the Thomson Reuters database. Meanwhile as a response, the LitRC constructed a separate list of journals including those “that were listed in the WoS or Scopus but were not counted as such in the bibliometric assessment”. Considering the rapid changes in editorial strategies, during our empirical research, the list was updated at least twice a year<sup>265</sup>.

It seems that similarly to the bargaining activity that allowed lobbyists to “water down” the output-based differentials between institutions during the 2000 reform (Dobbins, Leišyte 2014), it also allowed blocking the future application of the criteria. Several sources indicate that the key actor in the bargaining activity was the Rectors Conference<sup>266</sup>. One of the former higher-level Ministry officials agreed to open up the process as he perceived it during his mandate in the early 2000s:

“When the members of the Parliament are voting the budget, they are aware of how much each institution gets each year. It’s not going through Ministry programs [...]. The Ministry suggest the government the budget, the government takes all the suggestions in one piece showing how much then they can spend on education. But afterwards, it is in the Parliament they [heads of institutions] are trying to receive some extra support. They are going directly to the committees,

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<sup>265</sup> LIT08

<sup>266</sup> According to the official website, the aim of the Rectors Conference is to “promote the development of science, studies, culture and economy in Lithuania, cooperation between higher education institutions, mutual and international relations of higher education institutions, and to cooperate with the authorities of government and local government”. Importantly, the rectors’ conference gathers around 9 times per year, showing an active role of the association in its activity (source: LitRecC webpage 2019).

and the committee of education is usually very friendly. So, there is bargaining in the budget committees about which institution should be supported or not. It is strange, but sometimes they are just not following the rules”.

The same interviewee then proceeds with a more general analysis of the Lithuanian scientific field:

“Institute rectors and academicians are very influential in society. They can influence the members of the Parliament. Members of the Parliament, from their side, try to be very polite because they are elected by them. So as a member of the Parliament, you can go visit institutions and make a speech and so on. So, of course, they are trying to keep good relations with rectors”<sup>267</sup>.

Several factors facilitated the bargaining activity in Parliament: a specific institutional setting for funding allocation (HEIs and research institutions were funded one at time from the state budget); a lengthy budget approval process at the Ministry of Finance, the Cabinet of Ministers, and the financial committee of the Parliament; and coordinated activity of the heads of the HEIs and research institutions. All of these elements gave lobbyists influence over the decision-making process to block quite a few attempts at drastically changing the funding formula, and to gain supplementary funding for institutions they were leading. Therefore, the distribution of the HEI and research funding followed logic similar to the Soviet period. As we saw in the first chapter of this thesis, in the Soviet system where the formal rules were assured by a one-Party government, such negotiations were an ordinary practice in the HE and research sector.

#### 4.3.2. Persistence of national peer-review practices throughout the reform

Similar confrontations also emerged within the Lithuanian reform of 2009. Albeit with different intensities, these conflicts crystallised both in the base-line funding and the newly established LitRC funding criteria.

##### *Implementation of “informed evaluation” in base-line funding*

With the reform of 2009 a new methodology of base-line funding allocation was introduced. Adopted in 2010, in this new formula 50% of funds allocated to each HEI and research institute was based on the number of employed researchers, and the remaining 50% calculated according to bibliometric indicators and peer review-based evaluation. Another

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<sup>267</sup> LIT32

novelty was a separation of funding formula by six research fields: Social sciences, Humanities, Art, Natural sciences, Medical and health sciences, and Technology. However, as Lithuanian institutional funding also included teaching funds (as in Norway, for example) the overall formula was more complex. The funding formula was constructed as follows: first, the core funding for HEIs and research institutes was divided into two parts – 38% for administrative purposes and 62% for R&D activities. The latter 62% was then processed through a scheme of criteria that were applied according to different scientific fields. The scheme took into account four aspects: 1) a quality assessment based on a mixture of peer-review and bibliometric indicators; 2) monetary value of contract research performed with or for the industry; 3) value of income from international research programs; and 4) value of income from new contract research (**Figure 4-2**). The budget was measured as a running three-year average<sup>268</sup>. The process of assessment was performed by the LitRC, and the methodology was approved by the order of the Minister of Education and Science.

	Humanities	Social sciences	Physical sciences	Bio-medicine	Technology	Agriculture	Arts
Share of funding	4%	11%	25%	19%	21%	6%	4%
Quality assessment based on a mixture of peer-review and bibliometric indicators	80%	80%	55%	55%	35%	40%	Allocated only through assessment of arts activities
The monetary value of contract research performed with or for industry	10%	5%	25%	25%	30%	35%	
The value of income from international research programs	5%	10%	10%	15%	20%	15%	
The value of income from new contract research	5%	5%	5%	5%	15%	10%	

**Figure 4-2 Lithuanian base-line funding formula**

*Source: (Personal archive 2016).*

In the SSH, the new methodology focused on the quality assessment, based on a mixture of peer-review and bibliometric indicators (80%). According to research ministry officials, the “mixture of peer-review and bibliometric indicators” means that “around one-third of the final evaluation was based on the bibliometric indicators and the rest of it on expert evaluation”. Hence, around 13% out of the total budget allocated for SSH-specific institutes was dependent

<sup>268</sup> LIT09

on bibliometric outputs with a specific focus on articles published in the WoS<sup>269</sup>. Also, while the application of the expert evaluation in the base-line funding was an original approach (a similar system only found in the UK (Hicks 2012)), in Lithuania, it opened up a possibility for multiple interpretations of quality standards in disciplinary-specific evaluation committees<sup>270</sup>.

Besides modifying the methodology, the legal status of research institutions was also altered with the reform. With the new status, the system of research and HE funding allocation as a separate budget line was renounced. Hence, the direct role of the Parliament in funding allocation decreased and the former bargaining activity had less impact on the final decision-making. With this change, as mentioned in previous works on Lithuanian HE policy reforms, universities' funding allocations shifted more towards a formula with a stronger mixture of input- and output-based indicators, in which research performance became even more important than before (Dobbins, Leišyte 2014; source: Erawatch Lithuania 2010, 16-17).

The changes in research funding evaluation criteria were more difficult to implement within the newly established research funding council.

#### *LitRC: Social sciences under the “protective wing” of the humanities*

Research at the LitRC was funded through multiple mechanisms. The major part of the LvSC budget for research was allocated mainly via two “bottom-up” funding mechanisms (meaning topics were defined by applicants) that were administrated and evaluated at the council: the Researcher Team's Projects and Global Grant programme. With a funding period of three years, the Researcher Team's Projects was addressed to research groups. With a funding period of two to three years, the Global Grant programme was designated for individual researchers. As a difference from other funding mechanisms, the Global Grant programme was funded by the EU ESIF with objectives to: “encourage international research and mobility of experienced and young scientists”; “attract high-level foreign researchers to the Lithuanian Research Area”; and to “promote Lithuania's scientific progress and competitiveness in the world”.

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<sup>269</sup> Since 2008, the bibliometric assessment formulas were standardised between different science areas (SSH and other). Since 2009, expert commissions were introduced in the evaluation process (we have no further information about this commission and their criteria of evaluation). Since 2011, evaluation was undertaken once in three years (instead of previous one-year cycles) (Maskeliūnas *et al.* 2015). LIT09

<sup>270</sup> According to our information, peer-review evaluation standards were not fixed within the funding methodology.

Besides these two major mechanisms, the LitRC also administrated national research programmes, including “Social Challenges to National Security” and “The State and Nation: Heritage and Identity” and a separate “National Development Program for Lithuanian Studies 2009-2015”. In addition, other smaller funding mechanisms (mainly covered by EC resources) such as postdoctoral fellowships, funding for “researchers’ practices”, and for “other activities” were made available. Altogether, in 2014 the LitRC managed approximately 20 programs for “research and other scientific activities”. Between 2009 and 2012 over 130 calls for proposals were announced and over 6000 proposals were received, out of which over 2200 were funded (source: ESF 2014, 16). Moreover, multiple supports could be accumulated simultaneously.

Besides fragmentation in funding schemes, the project evaluation criteria were not homogenous between disciplinary areas. The variation was supported by the specific structural design of the council and its internal regulations regarding budget allocation procedures. The project evaluation was separated between two expert committees: the Committee of the Humanities and Social Sciences, and the Committee of Natural and Technical Sciences. One of the key architects of the 2009 Lithuanian reform (with SSH background) justified the choice of separation of the Committees as follows:

“You know, in research council, we have these two Committees; it was such a big achievement. Representatives of social scientists and humanities were fighting at least for ten years to have different quality evaluation systems, to have different funds, to have anything separated. Because before that [establishment of the LitRC] the quality evaluation system was quite the same for the natural sciences and there was always competition for the same money. And if you imagine competing in natural science then you will not get much. So, these two Committees change quite a lot<sup>271</sup>”.

Hence, even if it was expected that the creation of the LvSC would increase the transparency of budget allocation and the quality of projects, the disciplinary differences were already formalised in the organisational layout of the council. The more precise project evaluation procedure was set up as follows: for each project call, the Committee had to choose between the “single-step” or “two-step” project assessment method. In the single-step method, the committee appointed a temporary expert group (around four individuals) who evaluate if the research and researchers satisfy the criteria: “in line with the conditions set out in the call”, “the overall level of sufficiency of the application” and “activities related to ethical issues”. In the two-step method, experts had to additionally follow formal assessment criteria. More

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<sup>271</sup> LIT15

precisely, on a scale of zero to five (with five signifying “high international level”<sup>272</sup>), they had to evaluate: the “significance and validity of the idea”, “competence and experience of executors” and “validity of project costs and significance of results” (source: LitRC 2011). Also, while the Committee of Natural and Technical Sciences applied WoS data and foreign peer-review in their evaluation process (source: LitRC 2012b), these elements were not obligatory in SSH-specific evaluations. Therefore, in the two-step method the evaluation of the “level” of “internationalisation” of the project and its leader was loosely regulated. Instead, specifically for the Committee of Humanities and Social Sciences, some quantitative elements were put forth (**Box 20**). Finally, the selected proposals were sent to the LitRC Council who accepted the final list of projects to be funded.

One exception to this evaluation procedure was the Global Grants scheme. Funded directly by EU ESIF financial resources, in this scheme the requirements for researchers had to be “lined with the European Research Council requirements”, meaning that successful SSH project leaders had to present “at least three monographs, one of them translated and published abroad” or “papers published abroad”<sup>273</sup>.

#### **Box 20 Extensive research production within Lithuanian national research programmes**

All Lithuanian national programs were designed to complete specific aims in research and were measured with quantitative indicators (source: LitRC webpage 2021). Programme reports of these mechanisms displayed an extensive production of tangible research outcomes. This exposition of “overachievement” was a standard in the Soviet era Lithuanian scientific field, as we saw in the first chapter of the thesis.

For example, the Social Challenges to National Security mechanism supported 44 projects between 2010 and 2013 (total budget: EUR 2,79 million). The results of the mechanism were measured in the number of publications, number of “methodologies” (for example, methodology for forecasting labour market situations, assessing personalities, individuals’ cognitive abilities or psychological well-being), as well as the number of “recommendations” (for example, recommendations for modernising population and family policies, social welfare and labour market surveillance systems, recommendations for control and prevention of criminogenic processes). The programme report shows that all these quantitative indicators were surpassed at the end of the programme in 2013. The target of 25 publications was easily surpassed – altogether, 112 publications were published. Also, instead of six “methodologies”, over eight “methodologies” were developed. Finally, instead of three “recommendations”, 20 were developed within the funded projects.

The State and Nation: Heritage and Identity mechanism allocated around EUR 4,83 million between 2010 and 2014 to different projects (number unknown). According to the programme report,

<sup>272</sup> The scale was as follows: 5 - excellent (high international level), 4 - very good (average international level), 3 - good (high national level), 2 - satisfactory (average national level), 1 - unsatisfactory (lower than average national level), 0 - not classifiable.

<sup>273</sup> LIT04

the results of the mechanism were measured in terms of multiple scientific outputs: scientific monographs, scientific studies, theoretical and synthetic research, scientific articles, book chapters, articles published in peer-reviewed journals, source publications, dictionaries, manuals, encyclopaedias, biographies, bibliographies, study guides, and other scientific articles. The report puts forward that altogether 757 different outputs were achieved with the help of the programme (source: LitRC 2015b).

The Lithuanian Studies Development Programme allocated around EUR 9,68 million between 2009 and 2015 to different projects (number unknown). In total, within the program, approximately 400 books, including 172 monographs and joint works, 130 publications of fundamental sources, 58 collections of articles and continuous studies, 25 translations of Lithuanian works from/into foreign languages, and 19 articles in Lithuanian academic journals were published. In addition, approximately 30 databases and 139 voluminous digital resources were prepared, 50 international Lithuanian conferences were organised and 227 researchers received funding for expeditions and trips (source: LitRC 2016, 5-6).

With its loosely defined evaluation standards, the Committee of Humanities and Social Sciences had a high power of discretion in the project evaluation process. According to our interviews with two of the committee members, despite the high workload (weekly meetings) and low remuneration (EUR 20 per month), participation at the committee is perceived to be highly prestigious. Committee members are involved in the decision-making processes regarding the objectives of national research programmes, meaning that they have an ability to define the “problems” that are addressed with these funding mechanisms. The main weight and responsibility are seen in the selection process of the peer-reviewers<sup>274</sup>. For example, while the majority of peer-reviewers are Lithuanians, sometimes, particularly for Global Grants, foreign-Lithuanians are also invited to be experts. In that way, the national language is kept as a working language. Despite these exceptions, the use of local experts remains a controversial topic at the Committee.

These loosely defined standards in the project evaluation process, including the lack of foreign peer-review, together with the relatively high power of national peer-reviewees, received criticism both from foreign and national policy actors. In 2014 the European Science Foundation evaluated the LitRC and concluded that “despite the fact that internationalisation is characterised as a horizontal priority, hardly any funds are made available by the LitRC from the national budget for internationalisation activities. In addition, the state budget share for LitRC international research programs and international commitments has decreased since 2010” (source: ESF 2014, 32). Although the critiques were addressed to all scientific fields, as

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<sup>274</sup> LIT02, LIT04

we saw above when discussing more precise evaluation mechanisms, the SSH evaluation was unique.

The reform was also seen to be partial by the Lithuanian reform actors, including some members of the board of the LitRC and the research ministry officials:

“Our main mistake for the social sciences was that we used the same criteria for the social sciences as for the humanities. In humanities it is understandable, there is the language question and so on...but [it is mistake] when we use the same criteria we use for Lithuanian history to evaluate our sociology or economics disciplines<sup>275</sup>”.

Thereby, it is compelling that criticism is not targeted toward the whole SSH area. Similarly to other conducted interviews, the central object of the criticism is social science whose in-house evaluation practices are seen to be unjustified. At the same time, humanities are somewhat “naturally excluded” from this criticism as we can note in several interviews<sup>276</sup>. Hence, if in Latvia and Estonia we could see a level of harmonisation of the funding standards for the social sciences with those of the exact and natural sciences, in Lithuanian research funding they were harmonised with the standards applied to the humanities.

It seems that stronger opposition against international criteria amongst the SSH community, and its continuous mobilisation against the reforms, are reflected in the actual financial resources allocated to these disciplines from the state budget resources.

#### 4.3.3. Strong support for the “traditional” social sciences

While we have no exact data on the base-line funding allocations, a brief overview of the budget allocation for SSH disciplines exposes Lithuania’s singularity compared to the other two Baltics (thereby, change in the budgets for individual disciplines can be tracked only within the project-based funding instruments<sup>277</sup>).

First, the LitRC budget for SSH greatly surpassed the budgets allocated through project funding mechanisms in Estonia and Latvia, and social sciences were better funded with these instruments than the humanities. At least 29% of the resources (or EUR 5,7 million between 2011 and 2012) allocated through the Researcher Team's Projects mechanism went to SSH

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<sup>275</sup> LIT09

<sup>276</sup> LIT14, LIT09, LIT08, LIT05

<sup>277</sup> Before the reform of 2009, the Lithuanian public funding for research was mostly allocated through the base-line funding mechanism and the data about the shares of budget allocated to different disciplinary areas in this period was not available for our research.

disciplines, and around two-thirds of that was allocated to the social sciences. At least 30% of resources (EUR 10,7 million between 2009 and 2015) from the Global Grant scheme was allocated to SSH disciplines. Around half of that was allocated to the social sciences and the other half to the humanities.

Yet again, to fully understand the budget shares allocated to SSH, these instruments need to be considered together with the following national research programmes: 1) the Social Challenges to National Security (with a budget of EUR 2,79 million between 2010 and 2013) mostly funded the social sciences; 2) the State and Nation: Heritage and Identity programme (with a budget of EUR 4,83 million between 2010 and 2014) supported mostly the humanities, and 3.) the Lithuanian Studies Development Programme (with a budget of EUR 9,68 million between 2009 and 2015) also funded the humanities. Hence, the major support for the humanities originated from national research programmes. Considering their relatively larger budgets than the ones allocated through competitive mechanisms at the LitRC, it seems that when considering all instruments the humanities were better funded than the social sciences. However, as we have no data on the Lithuanian pre-reform situation when institutions were funded with block-funding, it remains difficult to estimate the structural influence of the reform on SSH disciplines.

Besides the structural differences between the two major SSH disciplinary areas, a more detailed study of LitRC project funding instruments and national research programmes reveals that some of the social science disciplines were/are particularly well supported by the LitRC (**Tables 4.8 - 4.10**). Notably, sociology is one of the best-funded disciplines (for example, it received a major part of the funding from Social Challenges to National Security and Global Grant programmes). Not far behind are psychology and political science. Economics and management (if considered together, as is the case in Latvia and Estonia) remain between the two extremes, and the disciplines receiving the less support are law and pedagogy.

**Table 4.8 State budget allocation through LitRC funding mechanisms (EUR millions)**

	2009	2010	2011	2012	2013	2014	2015
Researcher Team's Projects	-	2,8	5,3	5,3	6,0	8,1	6,9
National Research Programmes	-	4,5	5,7	6,9	6,2	3,5	4,0
Lithuanian Studies Development programme	-	1,0	1,5	1,6	1,6	1,7	1,5
International cooperation programs	-	4,9	0,9	0,3	0,3	0,3	1,0
Technological development projects	-	-	-	0,4	0,4	0,4	0,5
Support for scientific activities and other programs	0,4	0,7	0,6	1,1	1,5	3,9	1,9
Total	0,7	13,0	14	15,6	16	17,9	14,8

Source: Data are from Lithuanian Research Council (LitRC 2015a, 12).

Note: The table only represents state budget instruments.

**Table 4.9 Distribution of LitRC Researcher Team's Projects in SSH (2011-2012)**

Budget	Total projects	SSH projects	Contest rate	Beneficiaries in SSH (% of projects)
EUR 19,82 million	272	29%	3,6	Psychology (16%), History (14%), Political Science (14%), Sociology (12%), Management (8%), Economics (7%), Law (6%), Philosophy (6%), Philology (4%), Comm. And Inf. Sciences (3%), Pedagogy (3%), Artwork (2%), Linguistics (2%), Other (5%)

Source: Author's calculations according to Lithuanian Research Council website data on funded projects (LitRC webpage 2021).

Note: Data for beneficiaries in SSH is approximate. It represents the number of projects allocated to each disciplinary area and not the budgets. The project allocation data was manually processed and categorised into discipline areas according to the CVs of the project leaders.

**Table 4.10 Distribution of LitRC Global Grants in SSH**

Budget allocated	Number of projects	Share of SSH projects	Beneficiaries (% of projects)
EUR 10,7 million	33	30%	Sociology (30%), Linguistics (20%), Archaeology (20%), Artwork (20%), Ethnology (10%)

Source: Author's calculations according to Lithuanian Research Council website data on funded projects (LitRC webpage 2021).

Note: Data for beneficiaries in SSH is approximate. It represents the number of projects allocated to each disciplinary area and not the budgets. The project allocation data was manually processed and categorised into discipline areas according to the CVs of the project leaders.

To conclude, even though the majority of Lithuanian reform actors hoped the LitRC would fund “only top-quality” research once established, SSH kept its unique status within the funding council. In parallel, slightly more strict funding regulations were introduced with the base-line funding formula, which reduced the bargaining power of the Parliament committees. It seems that the singularisation of the SSH both in the LitRC project funding evaluation process, and the base-line funding methodology, was linked to the specific characteristics of the Lithuanian scientific field and the low degree of legitimacy of reform actors in defining rules and regulations for SSH. Although our study did not systematically cover the activity of SSH communities, it seems that the bulk of SSH representatives was strongly against harmonised evaluation criteria and internationalisation. Paradoxically, the stronger support for the social sciences in Lithuania in terms of budget allocations and their “protection” from external criteria has enabled them to better support traditional social science disciplines such as sociology.

## CONCLUSION: CHAPTER 4

The above analysis of changes in the Baltic countries' research funding standards exposed a variety of elements that could be used to either favour or disfavour researchers' internationalisation within the project funding and base-line funding instruments.

To begin with, one of the major issues was the use of bibliometric criteria: formalising and hierarchising a list of journals to be incorporated into evaluation criteria, while excluding others. In some cases, international bibliometric databases (in particular the WoS) were fixed as the standard for research outputs. Then again, other practices such as the utilisation of locally defined lists of journals in research evaluation, excessive indexing of local journals in international databases, selective utilisation of the databases (including the ERIH, which accepted local journals), and flexible use of these databases (for example, equalising the values of research outputs published in the WoS, SSCI and CPCI collections) "reduced" the impact of bibliometric monitoring.

The second element of conflict evolved around the standards regarding peer review. The application of foreign peer-review, and therefore increasing the requirement of English-language in project applications, was used to bring in foreign perspective to national project evaluation practices. At the same time, limiting the application of foreign peer-review only to the bigger projects, or making selective choices over foreign peer-reviewers (for example, requesting evaluators from foreign diaspora or countries where competition is perceived to be lower) served to relativize the role of foreign peer-review in the evaluation process.

The third major issue regarded the disciplinary classification systems. Application of comprehensive disciplinary classification standards (thereby preferring the OECD classification over the Soviet one, or the Finnish classification over the OECD's) led to a merger of evaluation committees and an increased competition between scientific disciplines. Then again, the application of extensive disciplinary classification systems and micro-level prescription of budgetary ratios was also used to decrease competitiveness and ensure "protection areas" for individual disciplines.

Besides these elements – the use of bibliometric criteria, peer-review and disciplinary classification systems – other settings were also used to increase or decrease the competition between researchers, such as limiting the size of the research projects and defining the funding ratios for disciplinary areas. Hence, the incentive for internationalisation was not only promoted via the application of bibliometric monitoring and reducing the role of the peer-review, as it is

traditionally discussed in research funding literature (Bornmann 2012; Besselaar, Leudersdof 2009; Hicks 2006). Instead, incentives were embedded in the design of the instruments, their evaluation procedures, and criteria. Besides the standardisation of evaluation in the name of objectivity, internationalisation was also suggested via smaller, more “hidden” modifications that increased competition between different disciplines. All of these elements were the object of negotiations between different actors in each national context. As is widely known in the case of bibliometric monitoring in the CEE countries (Pajić 2015), the role of these elements could be decreased and worked around in several ways by local policy actors.

We see that standards evolved throughout the observed period and they could fluctuate significantly between the funding organisations, research funding councils, and research ministries. Paradoxically, if base-line funding instruments are generally regarded as stability instruments that allocate funding for the normal functioning of research organisations, and project funding is a competitive instrument, then in the Baltics the situation was reversed. It seems that the EstSF, LvSC and LitRC project-funding instruments were designed to “protect” SSH and the post-reform base-line funding instruments imposed more strict incentives for internationalisation. Following the trends in Western countries (Hicks 2012), the performance-based base-line funding method was implemented in all three countries and overall, the number of funds allocated through the performance-based base-line funding in the Baltics was higher than in Nordic countries (Söderlind *et al.* 2019)<sup>278</sup>. Project funding was to both preserve researchers from the hazards of internationalisation (EstSF funding at the beginning of the 1990s, LvSC and LitRC funding), and to create a highly competitive research environment (it was the case with CSC and EstRC funding, and to some extent with the LitRC Global Grant instrument). Funding instruments could be strikingly flexible.

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<sup>278</sup> The amount of funds allocated through the PRFSs is similar in Denmark and Sweden, where about 20 per cent of the institutional research funds are performance based. Because HEIs in Denmark and Sweden receive separate institutional funding for teaching and research, the percentages of resources allocated by the PRFSs are not directly comparable with those in Norway (6%) and Finland (33%), where institutional funding also includes teaching funds.

## CONCLUSION: PART II

The second part of this thesis analysed reforms that were undertaken between the mid-1990s and 2015. The articulation of research funding reforms – instruments on the one hand and the standards of funding instruments on the other hand – exposed at least two conflicting “policy paradigms” (Hall 1993) within the Baltic research funding policy instruments. Firstly, we observe a “competition seeking” paradigm. Informed by professional socialisation at the biggest European and US universities and research institutes, groups of policy actors who supported this rationale emphasised universality in standards and the international dimension of research work. According to this logic SSH researchers should try to reach excellence via publishing in indexed journals and participating in the “world-level” scientific discussion, just like other science fields. We also observe a conflicting view that emphasises the uniqueness and localism of SSH. According to this “preservation” and “autonomy-seeking” paradigm, research in SSH has specific roles in society including the preservation of national language, researching objects with “national importance” (objects that “have no interest to other countries’ scientists”) and participation in the national policy-making process. According to this logic, SSH research should be foremost addressed to national communities. Standing for distinct professional standards in SSH, holders of these visions in the Baltics distinguished themselves from their opponents through specific classifications. Supporters of internationalisation labelled their opponents as “weak”, and not willing to “make an effort” to publish in foreign outlets. National-minded actors regarded internationalisation supporters as not willing to consider broader values in public policies, and inappropriately prioritising economic and competitive values. In this sense, the conflict in the Baltics’ research funding policy fields was not only over internationalism and localism, but about broader norms and standards that sit in the heart of public resource distribution. It was a conflict between equity and excellence (Hicks, Katz 2011), and more broadly between “individualist” and “collective” principles in science policy.

As a result, competitive standards were applied to research funding instruments that were primarily under the influence of reform actors. For example, in Latvia and Lithuania where it was challenging for reform actors to change the standards of project funding, other channels were found – namely the base-line funding – to reach their goals by circumventing the inaccessible project funding system. Project funding was strategically used to carry out policy reforms only in Estonia. In the same vein, the funding models that developed throughout the

reforms resulted more from power struggles between different groups of actors than from simple implementations of pre-defined models or systems to national contexts. If public research funding reforms in the CEE countries are often described and evaluated based on the share of public budgets allocated via research funding councils (hence, the increase in project funding) (Lepori *et al.* 2009; Radošević, Lepori 2009), then for the Baltic case it is the complementarity between different funding instruments that best demonstrates changes in research funding policies.

The reforms in research funding differed by their temporalities as well as the extent of changes in SSH research funding. Borrowing the terminology of historical neo-institutionalist authors (Mahoney, Thelen 2010, 25) we could observe different “kinds” of change actors and changes.

In short, Estonian public research funding differed from the other two Baltics due to the early changes made in the research funding organisation and progressive application of incentives for internationalisation in evaluation methods. In Estonia, the *insurrectionary* type of change actors emerged. This type of change actors seeks to eliminate existing institutions or rules by rejecting the institutional status quo. They are linked to abrupt changes. As a result of their activity, the base-line funding instrument was transformed into project-based funding. This process aimed to break down the former system of research field preservation by allocating the funding to a limited number of specific researcher profiles, supported and represented by the reform actors. Hence, there was a paradigm shift within the funding instruments, as well as the settings (funding criteria), instruments and their policy objectives. It can be seen as a partial *displacement* kind of institutional change, meaning that existing rules were removed and the new rules were introduced. It was partial, as only a part of the funding was concerned (the former base-line funding) and not the totality of it.

On the other extreme, Lithuanian research funding evaluation concerning SSH remained, despite the reform of 2009, mainly “in-house”. In Lithuania, the change was undertaken by a *subversive* type of change actors. Subversives seek to displace an institution, but in pursuing this goal they do not themselves break the rules of the institution. They instead disguise the extent of their preference for institutional change by following institutional expectations and working within the system. The reform resulted in both a *layering* type of change, where new rules were attached to the old ones and changed how the original rules structured the behaviour of base-line funding, as well as a *displacement* kind of institutional change through partial transformation of base-line funding into project-based funding.

The Latvian case was more moderate: the public research funding evaluation methods were reformed recently, but only partially. In Latvia, the reform was undertaken by an *insurrectionary* type of change actors. The change refers to a layering kind of change: supplementary rules were added while the instrument remained in place (i.e. the modification of base-line funding). Hence, the policy situation in Latvia in 2015 is similar to the one in Estonia between 1997 and 2006 when the EstSF was protective regarding SSH, while the Targeted Funding (institutional funding in Latvia) included strict criteria and incentives for internationalisation.

The differences between the countries were connected to the periods of the emergence of reform actors and their capacity to undertake reforms. Substantial policy changes took place only if they were “led” by groups of actors with former international socialisation. This is why more competitive policy settings were introduced at different times in these three countries: in the late-mid 1990s in Estonia, and more progressively and only recently in Latvia and Lithuania. Also, while the EU accession was an important event in the Baltic countries’ recent political history, its effect on public research funding policy was more complex and indirect. The availability of the EU financial sources was one of the major motivations for the mobilisation of the reform actors, but it was not a sufficient condition for the reforms on its own.

The above-discussed developments highlighted important cross-national differences in public SSH funding policies – notably the support for “classical” disciplines such as sociology. As a result of reforms, the position of the social sciences differed from country to country. In Estonia, where there was an early shift in research policy-making power configurations, the shares allocated for sociology (but also economics) dropped within the reform. In Latvia, where there was a recent but only partial shift in powers (and no shift within the funding council) the inter-disciplinary shares allocated to the social sciences at the research council remained constant. The major part of the budget was allocated to economics and management, while support for sociology remained moderate. Finally, in Lithuania where a shift in research policy-making power configurations did take place, but where SSH communities were strongly mobilised, the support for the social sciences remained important. Sociology was a major beneficiary of the newly established research funding mechanisms here, surpassing even the budget allocated for economics. Hence, it seems that the position of “classical” social science disciplines in the national hierarchy of research funding depended on the “success” of NPM inspired policies. This conclusion shall continue to be tested with the example of the discipline of sociology.



## PART III SOCIOLOGISTS IN THE FACE OF REFORMS: SIMILAR ORIENTATIONS, NATIONAL VARIATIONS

As we saw in the previous part of this thesis, Baltic public research funding reforms were undertaken with different rhythms and temporalities, and they resulted in a specific mix of funding instruments and evaluation criteria in each country. We also saw that these distinct funding policies were linked to broader power struggles between different groups of actors over the definitions of legitimate scientific practices. In this process, traditional science disciplines did not always gain higher positions in the national disciplinary hierarchies. With a focus on internationalisation in sociology, in this third part of the thesis we propose to investigate the reforms to public research funding from the perspective of scientific disciplines.

The role of research policy has not been systematically analysed in post-communist science studies. In the literature on SSH development in general, and sociology development specifically, the collapse of the Soviet Union is often depicted as a rupture with internationalisation treated as a contextual element that homogenously benefitted scientific communities through “further maturation” (Slavova 2014; Koleva 2014; Masalkov 2014; Keen, Mucha 2004; Tarifa 1996). Following similar works from the Western scientific field (Gouldner 1957), authors have also distinguished between scientists who are involved in international research collaboration (“internationalists”) and those who are not (“locals”) (Kwiek 2020b). Only a few works have studied the role of internationalisation as a structuring element in the development of post-communist disciplinary communities (Roger 2021; 2017; Kirtchik 2012). Notably, a study on Romanian rural sociology conducted by A. Roger (2021) demonstrates complex internal struggles in the sociology community that can be identified based on their social properties and epistemological orientations: notably, between sociologists who study rural populations to formulate general arguments, and those who claim greater specialisation. Amongst others, this work shows that the logic of internationalisation cannot be understood with a simple binary division between “internationalists” and “locals”, because the international dimension may be integrated into their work in many ways (for example their research agendas, forms of collaboration, or preferred publication media). As these works draw on single case studies, they do not provide a broader national perspective that would allow a better understanding of the impact of national policies on researchers’ practices.

The question of the role of public policies is pertinent in the case of the Baltic states where the national reform trajectories, as we saw previously, have not been homogenous. As a reminder, the funding portfolio was reformed in Lithuania in 2009. New standards of internationalisation were introduced in base-line funding mechanisms that comprised around half of the total funding portfolio. At the same time, the funding council project standards remained loosely defined for SSH disciplines, with some exceptions being programmes funded by the EU. The total budget allocated to SSH in Lithuania was almost twice as high as in Latvia or Estonia. Contrary to its neighbours, some classical social science disciplines in Lithuania, including sociology, were rather well-placed in the hierarchy of research. In Latvia, the public research funding portfolio reform began around 2013 and was ongoing during our empirical research. The SSH funding portfolio included a bigger share of competitive base-line funding, and a smaller share of project funding instruments and national research programs where evaluation standards were loosely defined. The total budget allocation for SSH remained scarce in Latvia. Finally, in Estonia, the composition of the national research funding portfolio was reformed in the late 1990s. SSH funding was composed of a high proportion of competitive project funding instruments allocated via the research funding council, and a smaller competitive base-line funding instrument. Compared to other Baltics, Estonia's total budget allocation for SSH and sociology remained average.

We now focus our analysis on publication practices of sociologists in this context. Focussing on publication makes sense due to the unique practices that were inherent in Soviet SSH research. In the Soviet Union, the CEE countries' SSH scientific production was not measured with publications; at least, not in a systematic way. Instead, according to some authors, Soviet era publication practices contained a political dimension. The opportunity to publish was a privilege bestowed by the authorities in an uneven way to scholars: only researchers who were part of the official scientific hierarchy could publish their research. Hence, contrary to Western countries where high levels of publication activity indicated scientists' higher professional qualifications, in the Soviet Union it indicated their proximity to the political party (Shlapentokh 1987, 55; Mongili 1995, 556). Without political endorsement, publishing was rather complicated: the publication process was slow, the number of outlets was limited, and authorship was often accorded to the collective rather than any individual(s). To publish outside of the USSR a myriad of visas and authorisations were needed (Mongili 1995, 556). For all of these reasons, CEE researchers entered the 1990s with a considerable lack of

tradition in a scientific publication. We therefore ask: to what extent has the Baltic policy context had an impact on sociologists' publication practices?

The given question is not original to our work. Indeed, an increasing number of scholarly works have focused on the impact of funding systems on researchers' publication practices. Designed often as large-n country comparisons, some analyses have confronted publication and citation indicators with the specific research funding policy systems (Auranen, Nieminen 2010; Himanen *et al.* 2009; Aghion *et al.* 2009, Liefner 2003). However, with some exceptions (for example, P. Aghion and colleagues (2009) detect a positive effect of competition for research grants on university output), no clear causal link between the degree of competition in a science system and its publication performance and efficiency has been ascertained (see also analysis on the topic by B. W. A. Jongbloed and B. Lepori (2015, 453-454)). Other, single case studies have discussed the influence of specific instruments. For example, some authors have demonstrated that the adoption of the RAE and of other performance-based funding instruments had a noticeable effect on publication behaviours (Paye, Renisio 2016; Hodder, Hodder 2010). This includes the convergence toward the article format, compared to other types of communication, which is also fostered by an increasing trend towards co-authorship in publishing across all disciplines. A notable study was conducted by G. Laudel (2006, 503) who, on the example of experimental physicists working at Australian and German universities, studied researchers' connections between their funding conditions and adaptation strategies, and their changing working environment. He demonstrates that it is not a specific regulation or funding system that produces the different effects (decreasing quality or the avoidance of risky research), but a situation in which scientists completely depend on external evaluations to acquire their funds. Thus, while observing a "drive" towards increasing the quantity of research outputs authors do not hesitate to question whether rhetoric around performance-based funding raising the quality of research is justified in research policies. Altogether, in contrast with works mentioned previously, this literature emphasises the role of institutional settings in publication activity.

We propose to investigate the topic from the perspective of research funding and publication practices. More precisely, we propose that to better understand Baltic sociologists' responses to research policy reforms we shall relate their academic socialisations with their research funding and publication practices, in the context of their national research policy environments. We start by analysing sociologists' research funding practices. While underlining the importance of academic socialisations in the distribution of research funding

sources throughout the sociology community, we show the existence of a small group of sociologists who are able to grasp the projects both from internal and external research funding sources (**Chapter 5**).

Second, we show that while a similar pattern can be observed in publication practices (meaning that most of these individuals are also authoring the majority of articles published in international journals), distinct cross-national differences in the Baltic sociologists' publications are still observable (**Chapter 6**).

Three types of empirical data will be mobilised. First, based on their CVs, we collected educational and career information about sociologists working in Baltic sociology-related academic structures in 2017. Altogether, 118 individuals worked at sociology-related academic structures in 2017: 56 in Lithuania, 33 in Estonia, and 29 in Latvia. Due to the lack of systematic overviews in English or Estonian about Baltic sociologists under the Soviet Union and at the beginning of the 1990s, this information was not available for earlier periods (earlier data was available only for Tartu University). However, the analysis of this data in 2017 enabled us to gain a better understanding of the academic socialisations of Baltic sociologists (the exact data is presented in the following chapter of this thesis)<sup>279</sup>.

Our second primary source of information is a series of interviews conducted between 2016 and 2020 with two groups of scholars. The first group of interviews were conducted with the 26% of sociologists active in 2017, and includes 31 biographical interviews: 13 in Lithuania, 9 in Latvia, and 9 in Estonia. Interviewees were selected, where availability permitted, to cover a multitude of profiles in terms of their professional socialisations. Interviewees were initially selected from all national sociology-related structures, then we progressively drew our focus toward the biggest research units in each country (Vilnius University and Lithuanian Social Research Centre in Lithuania, Tallinn University and Tartu University in Estonia, and the University of Latvia). In that way, other smaller structures or structures whose staff members were simply not available remained out of our focus (Mykolas Romeris University and Riga Stradins University in Latvia). In one case (Vytautas Magnus University in Lithuania), the interviews conducted did not produce sufficiently rich information to deepen the case analysis. Even if these structures will be not discussed in analysis of research units, interviews with their scholars are taken into consideration throughout the following analysis. Altogether, we

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<sup>279</sup> The estimated number of sociologists does not include those individuals who identify themselves as sociologists but work in different academic structures. According to the interviews conducted their number is not significant.

interviewed 10 Professors, 4 Associate Professors, 11 researchers (including leading, senior and junior researchers), 1 Scientist Emeritus, 2 lecturers, 1 senior consultant, 1 project manager, 1 programme director<sup>280</sup>. In these interviews, we were particularly interested in sociologists' educational and professional trajectories, their project resources and publication practices.

The second group of interviews with 24 scholars (13 in Estonia, 8 in Latvia and 3 in Lithuania) were conducted with former sociologists and other social scientists. These interviews were about specific topics such as the historical development of the discipline or the academic research conditions in other SSH disciplines. The high number of interviews conducted is justified by the low number of existing empirical works about social science developments in the Baltics.

Finally, besides conducting interviews with Baltic sociologists, we use the data retrieved from the WoS core collection for the period between 1992 and 2017<sup>281</sup>

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<sup>280</sup> Interviews were conducted with six scholars from Tallinn University, three scholars from Tartu University, seven scholars from Latvian University, two scholars from Riga Stradins University, six scholars from Lithuanian Social Research Center, four scholars from Vytautas Magnus University, two scholars from Vilnius University, and one scholar from Mykolas Romeris University.

<sup>281</sup> I am grateful for Professor Yves Gingras who helped me with extracting data from Web of Science for bibliometrics research and provided me insightful suggestions on how to present this data in my research.

## Chapter 5. WHEN REFORMS GO UNNOTICED: CHANGE AND CONTINUITY IN RESEARCH FUNDING PRACTICES

Although many authors have been interested in research funding policy analysis or the impact of policy models on research performance (as we saw above), studies of funding practices have garnered less attention.

Recent literature has discussed the impacts of changing research funding environments on researchers' working practices at the organisational level (Barrier 2011; Jouvenet 2011; Hubert, Louvel 2012). Based on the French and Swiss examples, these works show that the instability of research funding has, amongst other outcomes, instilled within researchers a reluctance to "take risks" by embarking on the exploration of new themes, methodologies or hypotheses for which scientific results are highly uncertain. Changes in researchers' working conditions also include the increasing need for strategic prioritisation of collaborations and networks, or the need to redefine the division of work inside research units. On the example of UK universities, other authors have analysed researchers' adaption strategies through principal-agent theory and underlined the increasing role of researchers in their budget management (Morris 2003; Morris Rip 2006). These and other authors have also observed a trend of redefinition and re-orientation of research topics and agendas toward project-funding calls (Barrier 2011; Leisyte *et al.* 2010; Gläser *et al.* 2010; Morris, Rip 2006; Morris 2000). Hence, these works show that trying to ensure financial stability and the continuity of their scientific investments, researchers in developed countries are increasingly limited by constraints that are imposed by project funding mechanisms. However, because of the focus of this literature on specific research groups (and, contrarily, their generalisation of the topic), it tends to suggest that project funding mechanisms have a similar impact on researchers. These perspectives also rarely take into account the whole of a scientist's resource base. Instead, they tend to focus uniquely on project-based instruments or refer to a more general "changing research funding environment" that is characterised by growing competition for external research funding, research priorities being set by external funders, RAEs, and growing expectations regarding the socio-economic impact of academic research. In that way, these works do not offer an analysis of the role of project funding amongst other funding instruments available for researchers. An important contribution to this subject is made by G.Laudel (2006) who demonstrated that it is not external funding that causes these adverse effects, but the combination of the lack of

recurrent funding, and “external funding” (in the sense of “non-recurrent” funding) accessible only by meeting its special conditions.

Following these observations, this chapter aims to better understand the effects of research funding reforms on the Baltic sociologists' research funding practices in the context of the plurality of their available funding sources. We are particularly interested in professional orientations that are linked to their funding practices. The question of sociology funding in the CEE countries is discussed very little overall. It is well-known that after the collapse of the Soviet Union the CEE countries' SSH research environments were highly dependent on a plurality of external funding sources (Kovács, Kutsar 2010, Kramberger, Mali 2010, 194). As identified in several country-level descriptions of Baltic sociology development, sociologists were faced with decreasing resources, which were previously allocated by central academic institutions, ministries or state enterprises. In the context of scarce national funding, academic staff became increasingly dependent on Western financial support, and notably, EU funding had an essential role in sustaining research activity in these countries (Titma 2002; Tabūns 2002; Vosyliūtė 2002). Also, the literature on SSH development in these countries focuses on the role of EU support through programs such as PHARE and FP (Kovács, Kutsar 2010). Country-specific studies remain general on the topic, either underlining the lowest international project participation and cooperation with Western researchers (such as in Albania or Bulgaria) (Tarifa 1996; Gornev 2010) or the great importance of this in cases such as Slovenia (now also member of the EU) (Kramberger, Mali 2010, 194). Detailed analysis of more intermediate funding orientations are normally not in the centre of these studies.

To gain a better understanding of the composition of national sociology communities, we start by giving an account of the basic characteristics of individuals working at sociology-related academic structures in 2017. Despite the low public research funding these communities have seen relatively little generational change, which can be partly explained by the opening of sociology programmes, but these have been decreasing for several years (5.1). Research incomes, on the other hand, are mostly composed of a variety of internal and external research projects, contributing to professional instability. As a result of their professional socialisations, only a few sociologists stand out with their strong capacity to “bring in” resources from foreign contexts and gain resources from national public project funding mechanisms (5.2). Formed into small “teams”, the presence of these sociologists is also decisive in how the sociology structural units have responded to research funding reforms (5.3).

## 5.1. Limited generational change in the Baltic countries' sociology communities

The panorama of the development of sociology-related academic structures between the 1990s and 2017 indicates a rather limited generational change in small Baltic sociology communities (5.1.1). This is linked to continuity amongst the leading members who, despite the struggles around political and epistemological orientations, have kept their positions in these units with few exceptions (5.1.2). In the context of the shrinking HE landscape and high dependence on foreign resources, changing research funding policies add another element of instability to their funding portfolios (5.1.3).

### 5.1.1. Sociology as a small discipline: an account of the basic characteristics of the national research structures

We start by giving an account of broader changes in the Baltic sociology communities since the 1990s and continue with a more detailed analysis of the characteristics of these communities as we observed them in 2017.

Although limited, political turmoil had an impact on the structure of national sociology communities. In Estonia, the Tartu State University and AS institute research groups were of similar sizes at the end of the 1980s: they comprised 28 and 27 staff members respectively. By 1993, 70% of Tartu University sociologists had dropped out, but the department kept its size by including a bulk of newcomers<sup>282</sup>. By 1994, 48% of AS institute sociologists had left their positions<sup>283</sup> and the institute, now transformed and renamed, continued with around 15 sociologists. Notably, most sociologists left between 1993 and 1994 during the reorganisation of the Institute. In Latvia, around 20 people were actively engaged at the Latvian State University sociology department<sup>284</sup>, while the Institute of Philosophy and Sociology included only 4 to 6 sociologists, at the end of the 1980s<sup>285</sup>. In the words of local sociologists, the drop-off was remarkable amongst university sociologists whose incomes were dependent on

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<sup>282</sup> Source: comparison between the number of Tartu State University sociology employees in 1986 (more precisely: the Sociology Department, Educational Sociology Laboratory, Delinquency Laboratory and Family Research Laboratory) and Tartu University Philosophy Faculty sociology department employees in 1993 (University of Tartu archive 1986-1987; 1993).

<sup>283</sup> Notably, the biggest outflow of employees was from the social structure sector, and stability was seen in the life-styles sector. Source: comparison between the number of Estonian AS History Institute sociology department employees in 1988 (more precisely: social activity, social structure and lifestyles sectors) and International and Social Research Institute employees in 1994 (source: RASI archive 2019).

<sup>284</sup> LV22

<sup>285</sup> LV29

contracts with industry<sup>286</sup>. We have only little information about the numbers of Lithuanian sociologists, and no information on the size of university sociology groups. It is documented that around 40 sociologists worked at the Lithuanian Institute of Philosophy, Sociology and Law in the mid-80s but it is not clear if that number includes all of the Institute or only the sociology sector (Gaidys 1996). According to our interviews, due to continuous state support the dropout was only minor<sup>287</sup>. We see that the total number of sociologists dropped the most in Latvia, where industrial research was most widely practised in the Soviet period, and the least in Lithuania, which was the only country of the three where the state continued basic research support for SSH<sup>288</sup>. These trends seem to reflect global developments in the Baltics' broader SSH field, such as the higher number of SSH researchers in Lithuania and particularly harsh drop-out of researchers in Latvia at the beginning of the 1990s (i.e. see section 2.3.3).

However, in the early 2000s, generational growth in the research communities declined. This is associated with the declining popularity of sociology and unattractive accompanying salaries. Now, the share of younger generation sociologists is expected to grow; according to our interviews, the overall generational change has not been an easy process. The decrease of sociology study programs and the low (in Lithuania) or non-existent support (in Estonia and Latvia) for PhD students have severely limited the opportunities to "produce" new PhD students. For example, until 2010, only two sociology theses were written in Latvia. After that, there was a sudden outburst – 25 new sociology doctorates in the period 2010-2014 can be explained by the EU ESIF funding that allowed several people to take a year off from work and focus solely on their thesis (source: EC 2013). A related issue is brain drain, which has been relevant since the 1990s and is relevant still in 2017. For example, the Danish Research Councils noted in their assessment at the beginning of the 1990s that the "widening difference between academic and other salaries create a growing brain drain and enormous problems in recruiting promising young researchers for academic posts. Some of the brightest post-doctoral teachers/researchers and students have left for commercial jobs. Their decision may also be affected by the very high teaching load, by international comparisons, at the universities" (source: The Danish Research Councils 1992, 683). In all countries, several younger "brightest"

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<sup>286</sup> LV20, LV22

<sup>287</sup> LIT22

<sup>288</sup> Also, in Latvia and Lithuania, nostrification processes (the re-evaluation and recertification of degrees) were carried out, but nearly all degrees were nostrified.

or “stronger” students are recounted as having left for foreign (mostly US or UK) universities, or to work with international organisations, and had not returned<sup>289</sup>.

It seems that the trends of the 1990s deepened over time. The small Latvian sociology community narrowed down even more; in Estonia the drop-out was moderate; and in Lithuania, there was only a slight drop-out. As of 2017, 118 individuals (78% of them women) were working in the Baltics’ sociology-related academic structures: 56 in Lithuania, 29 in Latvia and 33 in Estonia (**Table 5.1**). Although different methods and periods of data collection mean these numbers are not fully comparable with the discussed total number of SSH researchers, according to available data (e.g. see section 2.3.3) and our interviews, the sociology community makes up only a minor disciplinary field in the Baltics next to other disciplines such as economics or law<sup>290</sup>.

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<sup>289</sup> EST40, LIT28, LV25, EST41, EST50

<sup>290</sup> LV20, EST22, LIT28. There are no available statistics about academic employees for different SSH disciplines in the Baltic States.

**Table 5.1 Baltics' sociology-related academic structures in 2017**

Research group	Total number of sociologists	Men/Women	Sociologists trained in the Soviet period	Sociologists trained in the independence period	Total foreign degrees	Foreign degrees old/young gen.	Number of higher academic positions (men/women)	Academic positions old /young gen.	Academic positions foreign degree/national degree
<b>Lithuania</b>									
Vilnius University Faculty of Philosophy Department of Sociology	11	4/7	4	7	1	1/0	4 (3/1)	4/0	1/3
Lithuanian Social Research Centre, Institute of Sociology	16	5/11	7	9	6	4/2	7 (2/5)	4/3	4/3
Vytautas Magnus University, Faculty of Social Sciences Department of Sociology	18	7/11	4	14	6	2/4	7 (4/3)	3/4	3/4
Mykolas Romeris University Laboratory of Sociological Research	11*	3/8	1	10	0	0/0	2 (1/1)	1/1	0
<i>Total</i>	<i>56</i>	<i>19/37</i>	<i>16</i>	<i>40</i>	<i>13</i>	<i>7/6</i>	<i>20 (10/10)</i>	<i>12/8</i>	<i>8/10</i>
<b>Latvia</b>									
University of Latvia, Faculty of Social Sciences, Sociology department and Advanced Institute for Social and Political Research (ASPRI)	12*	4/8	6	6	4	4/0	5 (2/3)	4/1	3/2
University of Latvia, Institute of Philosophy and Sociology	12*	3/9	3	9	3	2/1	3 (1/2)	2/1	1/2
Riga Stradins University, Department of Sociology and Psychology	5*	0/5	5	0	3	3/0	1 (0/1)	1/0	1/0
<i>Total</i>	<i>29</i>	<i>7/22</i>	<i>14</i>	<i>15</i>	<i>10</i>	<i>9/1</i>	<i>9 (3/6)</i>	<i>7/2</i>	<i>5/4</i>
<b>Estonia</b>									
Tallinn University, Institute of Social Sciences, Sociology study area and Institute of International Social Studies (IISS)	22*	4/18	6	16	7	3/4	3 (0/3)	1/2	2/1
Tartu University, Institute of Social Sciences, Chair of Sociology	11	3/8	4	7	2	1/1	1 (0/1)	0/1	0/1
<i>Total</i>	<i>33</i>	<i>7/26</i>	<i>10</i>	<i>23</i>	<i>9</i>	<i>4/5</i>	<i>4 (0/4)</i>	<i>1/3</i>	<i>2/2</i>
<b>Total Baltic states</b>	<b>118</b>	<b>33/85</b>	<b>40</b>	<b>78</b>	<b>32</b>	<b>20/12</b>	<b>33 (13/20)</b>	<b>20 (61)</b>	<b>15/ (39)</b>

Source: Based on available information in researcher CVs.

\*In multidisciplinary organisational structures the number of sociologists was estimated based on interviews. The estimated number of sociologists does not include individuals who identify themselves as sociologists but work in different academic structures. According to the interviews conducted their number is not significant.

Note: Foreign degrees include candidate or PhD degrees earned in a foreign country (including the Baltic countries). Higher positions include professors, associate professors, leading researchers, and senior researchers, relevant to the structural unit.

In 2017, sociology research was undertaken in two to four academic structures in each country. In Lithuania, these structures included the Vilnius University Faculty of Philosophy Department of Sociology, Lithuanian Social Research Centre Institute of Sociology, and Vytautas Magnus University Laboratory of Sociological Research. The major research topics in these structures were civil society, post-totalitarian values (including types and features of national values and elite values), family studies, the role of religion (power, sects, and people's religious provisions), public opinion on integration into the EU, culture research, social structures, social mobility, unemployment, and city-based sociological research (Vaičekauskaitė 2013). Latvian sociology structures comprised the University of Latvia sociology department and the Advanced Institute for Social and Political Research (**ASPRI**), the University of Latvia Institute of Philosophy and Sociology<sup>291</sup>, and Riga Stradins University Department of Sociology and Psychology. Research topics in these structures covered ethnicity and identity, regional and rural development, sociology of youth, migration and smaller topics such as oral histories, narrative analysis, and science studies (Kilis 2015, 122-125). Finally, the principal Estonian sociology research structures were Tallinn University Institute of Social Sciences with its IISS (Institute of International Social Studies), and Tartu University Institute of Social Sciences Chair of Sociology. The research was concentrated on topics including social stratification and mobility research, recreation (including cultural activities and family research), life paths, media sociology, civil society, integration, lifestyles and subcultures research (Opermann, Vihalemm 2017).

The composition of the national science communities varied between countries as well as between sociology structures. For example, around one-third of the 118 scholars (16 in Lithuania, 14 in Latvia and 10 in Estonia) earned their degree or had finalised their candidate degree studies before the 1990s. Therefore, these scholars experienced educational (and professional) socialisation under the Soviet regime. We hereon refer to these as the “older generation” of sociologists and, similarly refer to sociologists who earned their PhDs after the 1990s as “younger generation” sociologists. Although older generation sociologists were the minority in national sociology communities in 2017, they held the majority (61%) of higher academic positions within Baltic academic structures (i.e. professors, associate professors, leading researchers and senior researchers). The most significant example is Latvia where the majority of higher academic positions (seven out of nine) are occupied by the sociologists who

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<sup>291</sup> Hereinafter, the two structures are analysed separately. Due to its status as an agency, the Institute of Philosophy and Sociology has remained relatively autonomous from the faculty sociology.

had their socialisation under the Soviet order. The Lithuanian case resembles that of Latvia: 12 out of a total of 20 higher academic positions are held by older generation sociologists. The only exception is Lithuanian Vytautas Magnus University, where the majority of higher academic positions are occupied by the younger generation of sociologists. This university was re-established as a liberal arts university with the aid of expatriates, and this may explain the concentration of younger generation scholars in this institution. At the other end of the spectrum, in Estonia, the majority of higher academic positions (three out of four) are occupied by younger generation sociologists. This development in Estonia is relatively recent; all younger generation sociologists were granted their professorship between 2012 and 2016. The generational change has thus evidently been rather slow in all three countries.

Some scholars have also earned their scientific degrees from foreign academic institutions. Altogether, 32 out of 118 sociologists acquired foreign candidate or PhD degrees (20 from the older and 12 from the younger generation of sociologists). Those who were socialised under the Soviet regime mostly earned their degrees from the largest foreign universities such as Moscow Sociological Research Institute of the USSR AS, Belarus National University, and Leningrad University. As a degree in sociology could be defended only in a limited number of universities outside the Baltics during the Soviet era, the high share of older generation sociologists with foreign degrees comes as no surprise (50% of older sociologists working in 2017 have a foreign academic degree). These degrees were defended mostly in philosophy or sociology. However, for several reasons, including a feeling of illegitimacy in the title of the diploma, the specific areas of study in sociologists' CVs are not consistently recorded and thus are not extractable. It was only in 1988 that "sociology" was registered on the official list of academic disciplines in the USSR. Before this, the official degree could be "scientific communism" or "philosophy with a speciality in applied sociological studies" (Batygin, Deviatko 1994). As a result, "scientific communism" is sometimes presented as the "sociology" degree in their CVs. In addition to their "scientific communism" degree from Russia, some scholars also defended a second degree in the 1990s in local universities (this is the case for at least two scholars). In other cases the first degree was not defended, or is not displayed on the scholar's CV, while a PhD was defended only in the 1990s or 2000s (this is the case of at least six scholars). Hence, while 20 CVs for older-generation sociologists indicate foreign degrees, the number may be higher in reality.

While temporary international experiences are widespread amongst sociologists<sup>292</sup>, only 15% (12 out of total 78 younger sociologists) of younger sociologists have earned foreign PhDs. Estonian sociologists have defended their degrees in Finnish, Dutch or Swedish universities, Latvian sociologists in German universities, and Lithuanian sociologists in US, UK, French, Polish, and Swedish universities. It is notable that alongside the lack of generational change in sociology structures highlighted above, Latvia also stands out with a particularly low number of foreign degrees amongst younger sociologists – we count only one foreign degree in Latvia against six and five degrees in Lithuania and Estonia, respectively. Estonian and Lithuanian younger foreign degree holders tend to concentrate in specific academic research units: in Estonia it is Tallinn University where the IISS is located, and in Lithuania it is the Lithuanian Social Research Centre - both of them have grown out of former AS institutes. Finally, a high concentration of foreign degrees can be found in Vytautas Magnus University, which is the only sociology research structure where the younger generation of leaders also hold foreign degrees. However, many of them are only occasionally present in Lithuania and are not often directly invested in academic work in their research units<sup>293</sup>.

It is also noticeable that a foreign degree does not always guarantee a leading academic position in sociology structures. Only 45% of higher positions are held by individuals with foreign degrees and most of these individuals (10 out of 15) earned their degrees under Soviet rule, again demonstrating a continuity in Baltic sociology structures.

Finally, sociologists' disciplinary backgrounds can be best observed via their degree specialities (**Table 5.2**). The Soviet-era diploma and corresponding post-Soviet MA-level study specialities are good indicators for that. Out of 118 sociologists active in 2017, altogether only 31% of Lithuanian, 36% of Latvian and 48% of Estonian sociologists have defended their MA or diploma degrees in sociology. Due to the lack of specialised studies in the Soviet era, these shares mainly represent younger sociologists. There are also differences between countries. For example, we can observe a high rate of older sociologists with backgrounds in mathematics and other exact sciences in Estonia. Also, while older-generation sociologists in Estonia and

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<sup>292</sup> There are very few sociologists who had no international experience at all. For example, amongst younger sociologists, as well as those who have earned their PhDs in foreign countries several others spent at least 2 or more years in foreign institutions including at least 2 individuals in Lithuania, 5 in Estonia and 3 in Latvia.

<sup>293</sup> Despite several attempts to contact Vytautas Magnus University's younger sociologists who have studied in foreign universities (including at the time of our presence at the University), we did not receive any feedback from these individuals. This is one of the reasons why the Vytautas Magnus University case is not discussed in this thesis.

Lithuania have rather heterogeneous backgrounds, Latvian sociologists have all similar backgrounds – all of them have studied at the philosophy faculty of Latvian University.

**Table 5.2 Diploma and MA-level study specialities (number of individuals)**

	Lithuania	Latvia	Estonia
<b>Older generation</b>	<b>16</b>	<b>14</b>	<b>10</b>
Philosophy	3	13	-
History	3	-	1
Scientific communism	1	-	-
Psychology	4	-	2
Mathematics and economics	3	-	5
Other exact sciences (medicine, physics, engineering)	2	-	1
Unknown	1	1	1
<b>Younger generation</b>	<b>40</b>	<b>15</b>	<b>23</b>
Sociology	17	10	16
Journalism, communication	-	-	2
Business management	-	1	1
Public administration, political sciences	1	-	1
Public health	-	-	1
Economics	-	-	1
European studies	1	-	1
Philosophy	-	2	-
Law	1	-	-
Social policy	1	-	-
Religious sciences	1	-	-
History	2	-	-
Unknown	16	2	-

*Source: Author's compilation. Based on available information in the CVs of Baltic sociologists working at sociology-related academic structures in 2017.*

Looking at the basic characteristic of individuals working in the sociology structures in 2017 (their age, gender, educational socialisation and distribution of academic positions), Baltic sociology communities are small, majority-female, and with a relatively high rate of older sociologists who also hold higher academic positions. Considering the low number of younger sociologists in leading academic positions and a low number of foreign degrees, Latvia has a rather small and homogenous sociology community. We can imagine it particularly closed to

newcomers and generational change. The Estonian sociology community is also small, but less homogenous in its educational background. It is also the only one of the three where younger sociologists hold the majority of professorship positions in the country. The Lithuanian sociology community is more numerous and heterogeneous meaning that there are also divergences between different structures. A notable example is the Vytautas Magnus University sociology structure which, contrary to other Lithuanian structures, accommodates several younger sociologists with foreign degrees. Lithuania is also the only country of the three where men have proportionally significantly higher positions in sociology structures than women, which may indicate the higher position of sociology in the national disciplinary hierarchy. For a better understanding of these national characteristics, these basic characteristics shall be complemented with an analysis of the internal struggles of sociology communities.

#### 5.1.2. Internal struggles: change and persistence of leadership

In the context of the broader continuity in sociology communities, analysing the internal changes amongst leaders at the biggest national universities and AS institutes exposes both the political and epistemological polarisations that affected these communities throughout the 1990s until the mid-2000s.

##### *From political polarisation at the beginning of the 1990s...*

As in other CEE countries, the beginning of the 1990s was marked mainly by the political polarisation between researchers in local research groups (Slavova 2014; Koleva 2014; Tarifa 1996). In the Baltic states, the change amongst leaders of sociology groups was rather limited.

The most significant change was the removal of (Russian) communist “hard-liners”, or “pro-Russians” from the professorial ranks. The terms “pro-Russians” and “pro-nationalists” are the categories used by local sociologists to qualify their colleagues and former leaders. In general, someone is qualified as “pro-Russian” if he or she has been working in the higher CP ranks and has been identified as a supporter of policies reinforcing the integrity of the Soviet Union instead of reinforcing the identity of its republics<sup>294</sup>. Due to the higher politicisation of the AS sociology structures during the Soviet period, AS institutes seem to have also been the most receptive to leadership changes in the post-Soviet period. One example of such a change occurred at the Lithuanian Institute of Philosophy, Sociology. The late Soviet-time directors of

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<sup>294</sup> EST41, LIT26

the Institute (at least one of them was Russian) were both involved with specific CP educational establishments - one of them studied at the Academy of Social Sciences under the Central Committee of the CP, and the other held a professorship at Vilnius Higher Party School. Moreover, during the Second World War, one of them was part of the Soviet-style anti-fascist movement in Lithuania, and the other was one of the organisers of the coup in Vilnius on the 13<sup>th</sup> of December 1991 (source: LGGRTC webpage 2004). The appointment of Arunas Adomaitis (who is described by the locals as a “pro-national” sociologist) as director at the AS institute and head of the sociology sector<sup>295</sup> indicated a major change in the institute’s political leadership. His profile will be discussed in the next section. Russian-origin leaders were also replaced at the Latvian Institute of Philosophy and Law. The Soviet era leader of this Institute was the Deputy Head of the Propaganda and Campaigning Division of the Latvian CP Riga City Committee, vice-rector of the Latvian State University, then chairman of the Latvian Soviet Socialist Republic State Committee for Higher and Secondary Special Education and Minister of Higher and Secondary Special Education. In contrast, the new director elected in 1991 was not a member of the CP and had been working at the institute as a senior researcher since 1981.

Despite the replacement of “pro-Russian” leaders with “pro-national” ones, CP membership was not always a sufficient reason for the replacement of academic leaders. With the example of leading AS youth sociologists’ trajectories in Lithuania (Arunas Adomaitis) and Estonia (Tiit Kask), it seems that former CP members could hold their positions in Lithuania where the new government was formed by the former CP pro-national elite, but not in Estonia where the CP was dismantled (i.e. see section 1.3.2)<sup>296</sup>. However, as we do not presume to have all the information on sociologists’ CP membership, this logic may have been different at the level of individual researchers. On the other hand, University sociology departments who were less involved in the AS (even if they were members of the CP in the Soviet period) were less impacted by profound changes in leadership in the post-Soviet period. Small changes can also be observed on the level of sociological research group leaders. Indeed, local historiography and conducted interviews have put forward that in the Soviet period most sociologists managed to

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<sup>295</sup> We have no information about the pre-independence head of the AS institute sociology sector.

<sup>296</sup> The change in the Estonian IISS leadership took place only in 1997 when higher CP officials’ leadership was replaced with a more non-political one. The two heads who led the Institute between 1989 and 1997 had similar careers. Both of them had defended their degrees at Tartu University (degree unknown), and the Academy of Social Sciences of the Central Committee of the CP. One of them was head of the science department at the Estonian CP Central Committee, the other was secretary of the Komsomol Central Committee. In contrast, in 1997, the leadership of the institute was taken over by an individual with a mainly scientific background.

“avoid becoming shills for the regime and its ideology” (Tabūns 2002) and that “nobody believed in this scientific communism”<sup>297</sup>. It is argued that even if few sociologists (mostly leaders) were active members of the CP in the pre-1989 period, they were not “ideological bigots” (Vosyliūtė 2002) and their “national-mindedness was known to everybody”<sup>298</sup>, meaning that they were not working for and not viewed as working for the Soviet imperial project or communist ideology. While the given positioning can be seen as a part of the post-Soviet self-legitimizing strategy, it may also explain the continuity of research groups despite the patriotic-minded political and academic movements that gained ground in the early 1990s. Besides the general political polarisation between “pro-nationalist” and “pro-Russian” sociologists and the banishment of the latter, the political confrontations and their results were highly context relevant. Also, while some analyses of the development of sociology in the Soviet Republics tend to insist on the politicisation of universities (Shlapentokh 1987; Kratochvíl 1995), this does not seem to be the case in the Baltics where politicisation was strongest in the AS institutes.

*...to the polarisation of “Western” and “Eastern” representations in the 2000s*

If the early 1990s was marked by political polarisation, the 2000s was characterised by the struggle between Western and Soviet influences in sociology research. This was notably the case at universities, where internal restructuring of departments and faculties was opening up possibilities for change in the leadership and staff members. The key actors in this process were groups of individuals who identified themselves as “externals” from the former sociology establishment and were seeking to elevate their positions in the biggest universities’ sociology units. Nonetheless, the composition of these groups of “externals” or “new entrants” varied, as well as the extent of changes.

The most important change occurred in Lithuania. As a result of tensions between different groups of sociologists In Vilnius University the former department, together with its leadership and a part of its staff members, were replaced from the philosophy faculty. In the mid-1990s a group of former philosophy faculty students developed a parallel sociology department that was working next to the sociology department led by AS institute sociologists. The three key scholars in this process were in their early 30s and had recently finished or were about to finish their candidate/PhD degrees (their research topics were sociology of professions, sociology and criminology, and sociology of late modernity). In their words, they were

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<sup>297</sup> EST41, LV20, LIT29

<sup>298</sup> EST41, EST48, LV29

motivated to “establish a Western type of sociological discourse in Lithuania”, and through this to “help to survive the normal, classical sociology”<sup>299</sup>. Under their leadership and with the aid of G.Soros Open Society Foundation resources they succeeded in developing a new sociology unit at the university. The new department - the department of social theory - became responsible for the MA level students while the AS-led department was responsible for BA students. The complex organisation was simplified only after the faculty dean changed in 2002, when the former dean with a background in psychology was replaced by one with a philosophy background. The two departments were merged in 2003 under the Philosophy faculty, together with Philosophy, Psychology, and Asian studies (Jakutiene *et al.* 2009, 23). Later on, they reached other higher positions within the university (one of them was head of the sociology department from 2002 and dean of the Faculty of Philosophy from 2013), and at least two of them reached national level positions in liberal non-governmental organisations<sup>300</sup>. In addition, the former philosophy students from the Vilnius University philosophy faculty also took leading roles at Vytautas Magnus University, which was closed during the Soviet era and was reopened with the help of the Lithuanian diaspora from the US at the beginning of the 1990s. Moreover, as a singular case in the Baltics, an important role in the development of the department was given to foreign professors arriving from the USA, Bergen, Linz and Gothenburg. Some of the teachers from the former AS institute were also included. According to our interviews, such mixing up of staff members was voluntary and had an aim to spread “western sociology thinking” in Lithuania<sup>301</sup>.

The Estonian Tartu University sociology department was also confronted with reorganisations. Notably, the structural changes in the mid-1990s brought along a new, small, social sciences faculty that entered in competition with the former structural units. Supported by a young, freshly elected rector, a foreign Estonian political scientist established a small interdisciplinary faculty based on the Californian University Irvine section (source: Taagepera 2007). Amongst others, two foreign researchers (one foreign Estonian sociologist from Indiana University, and a sociologist from Yale University) were invited to establish the faculty. The project aimed to “westernise” the social sciences through the slow and progressive integration of former social science units to the new faculty (Rämmer *et al.* 2015, 28-29). However, the

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<sup>299</sup> LIT02

<sup>300</sup> For example, one of them became a member of the board of the G.Soros Open Society Foundation Lithuanian section. Another was one of the Lithuanian Liberal Union developers. He was also engaged with the international anti-corruption organisation Transparency International Lithuanian section where he was Chairman of the Board between 2000 – 2002.

<sup>301</sup> LIT29

project found harsh resistance from several groups of social scientists, including former youth sociologists, and was cancelled after the death of the rector of the university (who was supporting the reorganisation). As a result, the former philosophy faculty was merged in corpora with the new social sciences faculty. The foreign Estonian political scientist in question lost control over the choice of his academic staff and left his position. All in all, although the new faculty had an impact on the development of some areas that were further led by foreign Estonians such as political science, in sociology the former sociologists kept their academic positions. Instead, in the following years the department developed into several substructures. In 2000, the sociology department at the Institute of Sociology and Social Policy consisted of three chairs with four to six staff members: Sociology Theory and History Chair, Chair of the Methods of Social Analysis, and Chair of Practical Analysis. In 2002 a separate Chair of Social Policy was merged with the Institute. In addition to fragmentation, for over ten years from 2005<sup>302</sup> to 2015 the Institute had no sociology professor.

In both of these countries the confrontation emerged from the vision that sociology groups had of research and how they defined the objectives of sociological research. Referring to constructionism, French authors and German tradition in Lithuania<sup>303</sup>, or positivism and the US and German authors in Estonia<sup>304</sup>, the new entrants identified themselves as representatives of “western sociology” traditions. The new entrants also identified themselves as “liberal” sociologists and distinguished themselves from their predecessors who were seen as more conservative and politically dependent<sup>305</sup>. On the other hand, the established sociologists self-identified as more “experienced” and denied their support to the Soviet political regime. They insisted on the “national cause” or “material” interest as a justification for working in the Academy network and for the Soviet government<sup>306</sup>. Hence, while the established sociologists considered their works as “useful” for the country, according to their opponents they were only representing the “Soviet sociology” that they described as “impure”<sup>307</sup>, “too far from theoretical frameworks”<sup>308</sup>, or “limited only to Marx and Engels”<sup>309</sup>.

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<sup>302</sup> Until 2005, it was former youth sociologist Tiit Kask who held the status of Professor at the University while mainly working at the US Stanford University.

<sup>303</sup> LIT02, LIT06

<sup>304</sup> EST64, EST42

<sup>305</sup> LIT17, LV06

<sup>306</sup> EST41, LV29

<sup>307</sup> LIT27

<sup>308</sup> EST42

<sup>309</sup> EST64

Against these examples, Latvian sociology development is described (in our interviews) to be relatively stable. The major change was the structural reorganisation of the Latvian University sociology department in 2000. Undertaken by a strong leader in journalism studies, the reform aimed at more autonomous resource management capacity for disciplines that were considered “underpaid” compared to economics or law<sup>310</sup>. With this change, the sociology department, together with communication studies, political science, information and library sciences departments, were separated from the Philosophy faculty and merged with a newly established Social Sciences faculty. Shortly after, a new research institute – ASPRI – was created. As a result, several former sociologists left the university and continued their careers at other universities such as Riga Stradins University or the Academy of Culture. The group of three sociologists who supported the structural changes and had come to the department in the early 1990s from other Latvian sociology units, all reached the status of sociology professorship in the sociology department. However, considering their similar educational socialisations (both the leaving and “new entrants” all had studied philosophy at Latvian State University in the Soviet period and defended their degrees in scientific communism in Moscow), it seems that the change resulted more from interpersonal conflicts and less from scientific norms as was the case in Lithuania or Estonia.

In that way, the results of the university level reorganisations differed from country to country. While Latvian and Estonian sociologists preserved their role and formed the core of the sociology department, Lithuanian universities saw more changes. In all of the biggest universities, the established AS sociologists were replaced with former philosophy faculty students who identified as more “liberal” and “theoretical” oriented scholars (though it is important to mention that this was not the case at the AS institute). These examples may also explain some of the characteristics of the national sociology communities as observed by us in 2017, such as the homogeneity of the Latvian sociology community, the heterogeneity of the Lithuanian sociology community and the overall persisting distribution of high-level academic positions to scholars who have Soviet era educational socialisation.

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<sup>310</sup> LV06, LV20

### 5.1.3. Rise and fall of sociology studies and growing income instability

Before moving on to the analysis of research incomes, it is important to underline that the continuities in these research groups must be also considered in the context of the evolution of the HE sector.

Similarly to other CEE countries, the Baltic states' HE sectors saw a major expansion after the collapse of the Soviet Union. By 1999 the number of universities raised to 37 in Estonia and 33 in Latvia (but only 15 in Lithuania due to restrictions on the establishment of private institutions). Between 1993 and 1999, the increase of student enrolment numbers in all HE levels was around 45% in Lithuania, 60% in Estonia and 132% in Latvia. Around 40% to 44% of these students were studying social sciences, which was well above the average rates in industrialised countries. This was a reversal of the trend observed in the former USSR, where around half of all students studied engineering, while the proportion of students in the social sciences was less than 10%<sup>311</sup>. As in the Soviet Union, formal sociological study programs were non-existent until the 1980s, though social scientists were engaged in whole-university programs. In the 1990s, the number of sociology study programs multiplied as well. While we have no exact overview of the number of programs, according to our interviews at least five to six programs were opened in each country<sup>312</sup>. New programs were often financed by the private sector (student tuition) but also by the state. Growth of study programs was also supported by a "dual-track" tuition system installed in the early 1990s, meaning that HE institutions could gain additional financing by admitting fee-paying students beyond the state admission quota (Tomusk 2004). "Open universities" were also launched, where students were usually admitted without entrance examinations and were required to pay tuition.

Nevertheless, by the time of our empirical research in 2017 a demographic decline had also brought along a decrease in the HE sector. Although the overall share of SSH students was still high, compared to 2013 the total number of HE students had decreased 27% in Estonia, 21% in Lithuania and 12% in Latvia<sup>313</sup>. This was influenced by HE reforms diminishing the

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<sup>311</sup> Author's calculations based on OECD Education Reviews (source: OECD 2017; 2007).

<sup>312</sup> In Lithuania, the programmes were opened at Vilnius University, Vytautas Magnus University, Pedagogical University, Kaunas Technological University, and Vilnius Technological University. In Latvia, the programmes were opened at Latvian University, Latvia University of Agriculture, Riga Stradins University, Liepaja University and at the Academy of Culture. In Estonia, the programmes were opened at Tartu University, Estonian Humanitarian Institute, Tallinn Pedagogical University, Tallinn University of Technology and at Tartu University Institute of Law and Interior Defence academy.

<sup>313</sup> According to Statistical office of the EU (source: Eurostat 2013, 2017, educ\_uoe\_enrt03; educ\_uoe\_enrt04) in Estonia altogether 47390 students enrolled at tertiary education (ISCED levels 5-8) and 43%

capacity of universities to receive funding from fee-paying students. These developments also had also a major impact on sociology programs, whose number and size are generally decided at the university level. For example, HE policy reform undertaken in Latvia in 2012 significantly decreased the number of budget places in the HE system. Together with shrinking student numbers, the reform resulted in the closure of several sociology programs. By the time of our interviews conducted with Latvian sociologists, the Liepaja University sociology programme had already closed down<sup>314</sup> and other programs (in particular at the University of Agriculture and Riga Stradins University) were expected to shut down as well<sup>315</sup>. Only Latvian University could keep some budget places, while other universities lost them. A similar development took place after Lithuanian HE reforms in 2000 and 2009 when two sociology programmes were closed down: one at Kaunas Technological University and the other at Mykolas Romeris University<sup>316</sup>. By 2017, sociology study was concentrated mainly at Vilnius University and Vytautas Magnus University. Although we have less information about the closure of Estonian sociology units (in a similar way to research policy reforms, the HE reforms in Estonia took place earlier), by 2017 only two universities held sociology programmes: Tallinn University and Tartu University. Together with the closure of sociology-specific programs, many interviewed sociologists perceived an overall decrease in the “popularity” of sociology amongst students who are more interested in economics-related study programs<sup>317</sup>. In that way, increasing instability in teaching activity added to the already prevailing instability in research budgets.

These conditions have made sociologists shift between different disciplines, leave academia, or move towards more intensive research activities besides their teaching obligations<sup>318</sup>. In 2017, Baltic sociologists’ incomes were composed of two parts: basic salary and additional salary. The basic salary was composed of teaching activities, reached up to around 500 to 700 EUR (from teaching and/or research), and academic positions had little or

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of them in SSH fields (excluding Education “01”) in 2017. In Latvia these indicators were correspondingly 82914 and 43%, and in Lithuania 125863 and 45%. As a comparison, the same indicators for 2013 (the earliest available data from Eurostat) were 64806 and 45% in Estonia, 94474 and 50% in Latvia and 159695 and 53% in Lithuania.

<sup>314</sup> LV24

<sup>315</sup> LV22, LV30

<sup>316</sup> LIT24

<sup>317</sup> As a response, sociology programme leaders perceive increasing pressure to make their programs more attractive via advertising and internal modifications to study courses. For example, in Estonia a new interdisciplinary programme between sociology and computer science was in development at the time of our empirical research. EST22, LIT03

<sup>318</sup> LIT28

no impact on the basic salary. In Lithuania (at least in the Lithuanian Social Research Centre) sociologists also receive a basic salary for their research work. The rest of their salary is drawn from multiple projects or even multiple teaching positions at different HE institutions. Similarly to other Eastern Bloc countries such as Bulgaria (Simeonova 1995, 760), some scholars have created small firms, usually splitting their working time between private and public engagements. These bodies focus on satisfying the demand for data collection and analysis from foreign enterprises, research organisations, and government institutions but also conduct work related to socio-political research or various types of marketing and public opinion research commissioned by national private companies and government institutions. Hence, salaries may vary significantly within and between units, remaining mostly between 1000 and 1500 EUR per month. Compared to the high workload, these salaries are considered low and unattractive for newcomers, and may also be a result of the high gender disparity that characterises all sociology units, as was noted above.

To sum up, contrary to other SSH disciplines in the Baltic countries (such as political science) that relied on émigré staff members (Jokubaitis, Lopata 2015), sociology communities did not see any major changes in their composition post-independence. While progressively shrinking, the small sociology communities have been highly dependent on resources from teaching activities. Because of reforms to HE, by the time of our interviews in 2017 many of the sociologists characterised their incomes as unstable and their professional situation as unpredictable. Additionally, national research funding reforms, which we will explore below, have also been modifying working conditions. This overview of Baltic sociology communities serves as a basis for further understanding their research funding practices.

## 5.2. Small teams of “research entrepreneurs” in the frontline of seizing research projects

In the context of low to non-existent research funding and the shrinking of HE through reforms, research income is mainly obtained through a variety of research projects. This has engendered the fragmentation of research groups and individual research topics (5.2.1). At the same time, small teams of “research entrepreneurs” stand out with their strong capacity to “bring in” resources from foreign contexts and gain resources from national public project funding mechanisms. The analysis of individual trajectories demonstrates that if older researchers used their Soviet-era social, political, and symbolic resources to successfully join

foreign networks and seize international funds (5.2.2), they have also been key actors in transferring these networks to their younger peers (5.2.3).

#### 5.2.1. Project dependence

While the composition of salaries may vary between researchers (some of them gain their primary income from teaching and others from research), then the research component is mostly made up of multiple project incomes. Broadly, we can differentiate between national (internal) and foreign (external) resources and between public research funding resources (allocated via research councils and national research programmes), and commissioned research. Thereby, foreign partnerships offer opportunities to compensate for lost resources by the acquisition of resources from elsewhere. One of the major factors influencing researchers' resources was the range of Western actors that were actively intervening in the regional scientific fields (e.g. see section 1.3.3). The principal actors initiating contact with Baltic SSH communities were international scientific associations (such as ISA), regional organisations (the Nordic Council of Ministers and the EU), foreign governments, research organisations, and private and public foundations mostly from the US, Germany, or Scandinavian countries (including the Max Planck Institute and the Open Society Foundation). Interventions by these actors took place in the context where many Western foundations had an objective of promoting the institutional and political changes necessary to immunise European countries against the "communist temptation", by opposing intellectual traditions perceived as "ideological" and ensuring the promotion of "realistic" social sciences that held the promise of social reforms (Guilhot 2004, 39). They funded the establishment of new infrastructure (buildings, computers, academic literature), the translation of books, offered short mobility programmes and allowed the return of expatriates. This plurality of incomes is also observable in sociologists' CVs. While national project participation is not always included on CVs, participation in foreign projects is more often noted. For example, by the year 2017, 118 Baltic sociologists had participated altogether in foreign 407 projects, indicating a high reliance on foreign resources in their research incomes. Project funders included foreign governments, research institutions, associations and organisations, and a variety of EU institutions – including FP projects that are highly valued due to their international notoriety but remain controversial due to their low remunerations (**Box 21**).

## Box 21 Controversy over participation in EU FP projects

While the inclusion of CEE countries' researchers as project partners increases the success rate of FP project proposals, CEE countries' scholars are often only included in the Western scientists' FP projects as project participants. At least 30 sociologists out of 118 individuals who were working in the Baltics' sociology-related academic structures in 2017 have participated at least in one EU FP project, and some sociologists have made it their primary income. This is the case of the "Baltic Institute of Social Sciences" (led by a Latvian University sociologist), which has focussed on the EC FP projects since the 1990s. By 2017 this institute had been a partner for at least 15 FP projects. However, as Baltic scholars in these projects are often only given the credit of "project participants", the input of Baltic colleagues is portrayed as marginal compared to those of the Western-European countries' researchers<sup>319</sup>. Most importantly, as the researchers are funded according to their previous incomes, sociologists in the Baltics (and other CEE countries) are usually paid lower salaries than their Western counterparts.

This "project dependence" has impacted on the level of research groups as well on the level of individual researchers. On the level of research groups, the need for incomes from multiple sources has contributed to the individualisation of research work and the internal fragmentation of research groups. Research projects are usually "brought in" by the leading figures of research units. Then, other staff members including PhD students (or even BA or MA students)<sup>320</sup> are included in the project teams that can vary in size and lasting from months to several years. In that respect, Baltic research units follow formal developments similar to those of Western European research collectives. Analyses on the internal organisation of laboratories in Western countries have shown the increasing individualisation of research work compared to the heads of the research units. Construction of the collective is no longer ordered around the heads of the laboratories (as it was in the Soviet period<sup>321</sup>) but is more conceived as an association of colleagues who all ensure the collective management of financial resources (Barrier 2011, Jouvenet 2011, Louvel 2010). Then again, as Baltic sociologists' projects tend to be small, the fragmentation seems to be higher than it is described in the case of some Western countries. This may also explain the high number of "higher-level" academic positions (professors, associate professors,

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<sup>319</sup> EST42, LIT06, LV06

<sup>320</sup> LV27, LIT28. The preferred practice is the PhD student's participation in some of their supervisors' projects, which allows them to earn a living while also working for the PhD degree. Otherwise, due to the lack of state support, PhD students hold one or several jobs in parallel with writing their thesis. These conditions often bring disruptions in thesis writing due to the higher salaries proposed in private or public institutions, or long doctoral studies (sometimes up to 10 years) due to involvement in different "side projects" that are not linked to the PhD but provide income. In Estonia, as there are no limits on the duration of enrolment, some doctoral candidates have continued working on projects and set aside their studies. For example, out of all sociologists working in sociology related academic structures in 2017, at least 9 individuals in Estonia had only an MA degree (and no PhD), while this number was 3 in Latvia and 2 in Lithuania.

<sup>321</sup> The Soviet era research units had great statutory differences between juniors and seniors, and the head of the laboratory or research group decided on the distribution of work and topics amongst researchers. Contrarily to Western European research units, research group leaders were also accountable for the political supervision of research.

leading or senior researchers). These positions don't guarantee a significant increase in salary or stability in the organisation but mostly allow their holder to lead research contracts.

The high project dependence also has an impact on the capacity to choose research agendas. The majority of sociologists with whom the topic was discussed described their research topics as highly dependent on their financial resources<sup>322</sup>. According to the head of the Lithuanian Sociological Society: "in general, in Lithuania, people are contributing to different research topics that are not necessarily related to their research interests. They are also contributing to different research projects together with economists and political scientists"<sup>323</sup>. A good example of this is given by one of the Lithuanian Social Research Centre senior researchers:

"In general, I can concentrate on topics that I want. But then again, no. Because of research funding. You have to write different applications to keep your funding stable. Deadlines are in autumn or spring. Last autumn, I participated in two or three applications. Gender, social entrepreneurship... I have no idea what kind of projects I will get. Once I participated at the same time in three very different projects: one in gender, another in genetics and then in organisation innovativeness. It was impossible!"<sup>324</sup>.

A similar situation is well described by one Latvian University sociology professor: "For the most part, Latvian sociologists are involved in carrying out short-term projects, and therefore they are frequently compelled to shift their research themes and expertise. This intermittent "re-tooling" of sociologists is further fuelled by the fact that the state and its affiliated institutions may occasionally order research projects in fields in which Latvian sociologists have no prior experience. Sociologists affiliated with various institutions and universities frequently join projects with ever-changing research tasks. And, many sociologists may occasionally and simultaneously take part in several projects whose research objectives may be unrelated to one another" (Tabūns 2002, 461).

At the same time, contrary to Lithuanian University sociologists, dependence on research projects was not always problematised. Instead, it was often justified by our interviewees<sup>325</sup>. For example, some sociologists view the change in research topics as an opportunity to increase their knowledge on different societal issues<sup>326</sup>. Also, when the proposed

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<sup>322</sup> EST47, EST49, EST45, EST43, LV20, EST22

<sup>323</sup> LIT19

<sup>324</sup> LIT24

<sup>325</sup> LV20, LV19, LV24, LV28, LV25, LIT22, LIT24, EST22

<sup>326</sup> LV19

topic is not interesting, it is generally considered as a temporal problem: you can “grow into the topic” and it can “become interesting over time”<sup>327</sup>. It is considered normal when the “new topics grow out from the previous topics” because “you have to think about practical needs” while choosing the topic<sup>328</sup>. Other sociologists give more general justifications:

“I think our scientific interest is developed under possible and available financing...and they determine somehow what can we explore, and how far we can explore...so all this is connected to national research programmes, and this is about the renewal of society, what can we do to revitalise our rural areas. So I don’t think that my scientific interests are really clear. I think they are not. But also, I have studied other issues like creativity and innovative methods in schools and so on. I even think that we can't draw clear areas in our scientific interest in postmodern age”<sup>329</sup>.

The change in research agenda can be seen as a part of the broader development of science. This practice can also be seen to be “normal” due to the small size of the country:

“On the other side, following from the fact that it is a small country, and sociology has limited capacity. You can't afford to be professional only in one field - I can't be only a political sociologist. For example, I'm interested in ethnic relations [thinking] I am currently involved in projects about regional development...I have to become more knowledgeable about theories and subtopics”<sup>330</sup>.

Drawbacks have been noted, however. In some cases the dependence on projects is considered to limit the choice of topics, as well as the attention that can be given to working on a particular topic<sup>331</sup>.

“A good sociology is when you have time to think and analyse and time to write articles. If a person is working a hard time, and need to earn money, and if there are so many projects, then it's not possible to work and think. I don’t think that this would be the biggest problem of Latvian social sciences ...we are struggling... But we have no time to analyse data. That’s the biggest problem in my mind”<sup>332</sup>.

These examples tend to confirm previous analysis indicating that resource dependence and apparently lower achievements are strong factors influencing the problem choices of research units. When the unit’s performance and reputation are high, researchers tend to be

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<sup>327</sup> LV20, LV25

<sup>328</sup> EST47

<sup>329</sup> LV24

<sup>330</sup> LV28

<sup>331</sup> LV27, LV29

<sup>332</sup> LV29

successful in exploiting their professional autonomy also on the external market. F.Camerati (2014), for example, has demonstrated on the UK RAE reform example that researchers may “disguise” or even “change” certain characteristics of their research to be able to obtain funding. This is notably the case for applied research, and research having mainly indirect costs (*Ibid.*).

At the same time, due to the individualisation of research, with high heterogeneity of professional orientations and research topics, individual research funding practices may differ importantly between the countries and within the research units. Some notable sociologists have managed to be highly successful in attracting project funding from both external and internal sources. They include both younger and older generations of scholars, and their academic socialisation is the key element that distinguishes them from their peers.

#### 5.2.2. Utilisation of Soviet era social, political and symbolic resources

Some of the older sociologists used a variety of resources to shift their professional activities and gain research projects. For example, the trajectory of one of the leading Estonian sociologists is an emblematic case of how Soviet era social knowledge and resources were mobilised to join Western countries’ science networks. After studying applied mathematics at Tartu State University, Tiit Kuusk (born in 1978) integrated into the youth longitudinal study that was launched by leading sociologists at the AS Institute of History, Estonian AS. Working on the topic of youth social mobility, she earned her candidate degree from Belarus State University in 1983. Further, she actively co-authored a variety of publications with Russian, Estonian and Lithuanian publishers. Also, unlike her supervisor, she was not engaged to the CP. During the political turmoil she stayed in the background of the political and social movements, and instead was actively searching for opportunities to complement her professional knowledge in Western countries. Mastering (besides Russian) German as a foreign language, in 1991 she was granted a scholarship as a research fellow at Max Planck Institute for Human Development and Education, Berlin, where she could, in her words, enjoy new “contacts and research experience”. Back in Estonia, she continued to develop her partnerships based on previous research (also from the Soviet era) and she soon became a leading researcher and then Professor at the IISS. From the mid-1990s onwards she undertook her first major projects, first with German partners (notably with Hans Peter Blossfeld)<sup>333</sup>, and later also with

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<sup>333</sup> Hans Peter Blossfeld is specialist in longitudinal analysis. He worked as a Senior Research Scientist at the Max Planck Institute for Human Development and Education in Berlin (1984-1992).

the Michigan Population Centre in the USA, in a project that was developed as a continuation to the Soviet-time longitude research.

“I created my first biggest contacts at one conference. At the time I had already written to European Sociological Review. And it was the European Consortium of Sociological Research that funded participants from former socialist countries. So I got my funding from there, and then the head of the review, Blossfeld, came to talk to me and thanks to him we created contacts. Lots of projects where we have participated is led by him. He is sure in our quality”<sup>334</sup>.

Hence, experiences and knowledge resources gained from the participation in the longitudinal project during the Soviet era served to enable cooperation with Western researchers. In addition, previous interpersonal knowledge allowed Kuusk to launch rapidly into projects that covered all the Baltic states or other CEE countries: “we have added quite a lot of former partner countries’ participants into the projects that we have coordinated. We knew them, so we selected them voluntarily to participate”<sup>335</sup>. Indeed, expanding her topics on social stratification, inequalities, and sociology of education, Kuusk participated in several international collaboration projects in research, including over ten different FP projects. In parallel, she learned how to master academic English and acquired know-how in the EC’s bureaucracy – all “by her means”. Starting from 2005, she launched a project on the topic of lifelong learning in Europe that was the first FP coordinated by the Baltic countries’ sociologists. At this time, due to the administrative work and high teaching load, research was often conducted “at the expense of free time”<sup>336</sup>. Thereby, participation and coordination of bigger international projects, in this case, has been a strategic choice to sustain the research group. In 2015 she brought in to the Institute the EstRC Institutional Research Grant (EUR 0,4 million). However, national public funding is considered low and unstable. Finally, from the 1990s until 2017 she authored numerous articles - at least a dozen of them in foreign journals indexed in the WoS. She was also a member of the editorial board in *European Sociological Review* and was editor-in-chief of the *Journal of Transition States and Societies*.

In the above case, the Soviet-time youth longitudinal project participation was used to integrate into similar Western networks in the post-independence period, but the “convertible” Soviet-time resources were not only linked to the AS network. This is demonstrated by the trajectory of one of Vilnius University’s leading sociologists, Jonas Rubis (born in 1958). He

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<sup>334</sup> EST50

<sup>335</sup> LV01, EST06, LIT19

<sup>336</sup> EST50

was studying at Vilnius State University's philosophy faculty, which has been described as an "academic oasis" and the centre for studying Western-oriented philosophy in the Soviet period. At the end of the 1980s, similarly to many of his colleagues from the faculty, he participated in the Popular Front movement but never joined the political party. After the restoration of independence, he benefitted from several mobility grants offered by Nordic academies. In 1993, he was visiting researcher at the Institute of Political Science, University of Oslo in Norway, and in 1994 he was a visiting researcher at the Peace and Development Research Centre, Gothenburg University in Sweden. These experiences are considered particularly important for his further academic career because they contributed to reformulating his academic research topics: "I found some research topics. For example, I found Bourdieu, I was reading some of his books and now I am teaching it"<sup>337</sup>. His more specific topics are social inclusion, social services and social policy analysis. Identifying as liberal and Western-minded sociologists, Rubis and his colleagues could access support from the G. Soros Open Society Foundation, which enabled them to establish a new research group at Vilnius University (**Box 22**). As we learned from the internal struggles within the Lithuanian sociology community (i.e. see section 5.1.2), this support was used to establish the social theory department (which later on grew into a sociology department), and to invite foreign professors from the US and Germany to give lectures and conduct research:

"Soros Foundation helped us to establish a small infrastructure. I was on the Board of the Soros Foundation and working on educational programs and there was a network...they helped me to survive. At that time, salaries at universities were very low, about 10 dollars per month. So, this Soros funding was quite accessible and cheap because for 1 million dollars you could do more things here than in some Western countries. So, we used this money to establish ourselves and to search for our identities. We were using this money and resources to change our discourse [thinking] We could even say: introduce the discourse of sociology...as previously it was narrow, it was more linked to very simple working analysis. Our brand was to help to survive normal classical sociology"<sup>338</sup>.

Due to the lack of competition with other social scientists, acquiring these funds was considered to be relatively simple. Comparing their profiles with sociologists with AS backgrounds, he highlights what he calls a "cultural divide" in communication with foreign partners, meaning that contrary to their colleagues, he and his closest colleagues had an advantage linguistically

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<sup>337</sup> LV25

<sup>338</sup> LIT02

as well as in terms of “paradigms” of their foreign partners<sup>339</sup>. This capacity is linked to their specific educational socialisation at the Vilnius University Philosophy Faculty. With the help of this socialisation he became head of the Department of Sociology in 2002 and dean of the faculty in 2013. Moreover, he was also a member of the LitRC between 2010 and 2015, and thus related to the reform of 2009. Besides teaching activities, the LitRC projects are also the main income for research. Other than that, he has participated in several international projects such as the FP and has been project head for the EU ESIF project. By 2017, he had published 4 books (three of them co-authored, one individual; all in Lithuanian), edited several other books and published articles mostly in Lithuanian outlets.

## **Box 22 Disparate opportunities for gaining support from the Open Foundation**

Access to Open Foundation funding was not only available for Lithuanian social scientists. According to the foundation annual reports on its activity in the research sector, in Latvia, the Foundation supported economic sciences (the renovation of the Riga School of Economics) and was also used for the translation of foreign authors in sociology, philosophy and political sciences. It also supported medical science (source: DOTS webpage 2021). In Estonia, the Open Foundation aid was mostly used in the area of Law. The Foundation also supported the Chemical-Physical Institute and Biocentre in developing satellite channels between Estonia and Sweden, and medical science and infrastructure (source: OEF webpage 2010). In addition, it supported the development of a non-profit organisation for research on civil society that was led by a Finnish sociologist, who contributed to the development of the sociology programme at the Estonian Humanitarian University but returned to Finland in the mid-2000s, during the HE reform. However, the funds were not used for academic research in sociology<sup>340</sup>. Hence, it seems that the capacity to secure the Open Foundation support was not the same for all Baltic sociologists. Only these groups who were not associated with Soviet-era sociology and who identified themselves as “liberal” sociologists could profit from these resources.

Academic research was not the only possible outcome of resource conversion and successful post-independence funding strategies. Sometimes referred to as the “father of Lithuanian sociology”, the trajectory of Arunas Adomaitis (born in 1946) is an interesting “counter-example” to the previously analysed trajectories. During the Soviet era, Adomaitis was one of the most active Lithuanian sociologists. After gaining his diploma as an electrical engineer, he continued to work at the AS Institute of History where he earned his candidate degree in Philosophy (Scientific Communism) in 1985. Under the leadership of an Estonian youth sociologist, who was also his supervisor, Adomaitis was part of the group of Baltic youth sociologists. He remembers his cooperation with Estonians (and some Latvians) with nostalgia.

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<sup>339</sup> LIT25

<sup>340</sup> LV25

Together with other youth sociologists, he had travelled, in his words: “all around the Soviet Union”, had “deep methodological discussions” about research and published several books<sup>341</sup>. Moreover, as a member of the CP, he could participate at the ISA World Congresses in Uppsala (Sweden, 1978), Mexico City (Mexico, 1982) and Delhi (India, 1986). With the collapse of the Soviet Union, the cooperation between the Baltic youth sociologists ceased. At the same time, the political turmoil occurring when he joined the Democratic Labour Party gave him even more opportunities for professional self-realisation. First, he was elected as the Director of the Lithuanian Institute of Philosophy and Sociology. He held the position between 1989 and the late 1990s (date unknown), and between 2003 and 2012 when the institute was reorganised as the Lithuanian Social Research Centre. He also became the first head of the Department of Sociology at Vilnius University (between 1989-1990). Secondly, after the elections he joined the presidential team where he worked as an education, culture, science, and religion advisor to Democratic Labour Party President Algirdas Brazauskas, who was former Lithuanian CP leader (1993 -1998). Finally, he also founded the Public Opinion Research Centre under the Institute of Philosophy and Sociology in 1989 (later renamed as “Vilmorus”), where amongst other activities he was the leading organiser of polls for upcoming presidential elections:

“We made research about presidential elections. There were two candidates and I helped Brazauskas. I did it because during the time of perestroika I was in the supporting group of Brazauskas that was composed out of different researchers...physics but also artists, sportsmen and so on. And when he was elected as president, I was not invited personally to be in his team. I was there as a sociologist. Brazauskas was interested in this research because he wanted to know peoples’ opinions”<sup>342</sup>.

Hence, as a former CP member and sociologist in Soviet times, Adomaitis. had access to parallel positions in political, economic, and scientific spheres in the post-Soviet period. Later, after the political change, the company “Vilmorous” became his main income and recruited sociologists. In 2017 its staff consisted of around 10 full-time employees, 20 research coordinators and 150 interviewers all over Lithuania. At the same time, he also continued to hold his leading researcher position at the Lithuanian Social Research Centre, but with a low focus on academic research - we have no information on his participation in the LitRC programmes. By 2017, he had published 10 articles in WoS journals. Seven of these were published in the Lithuanian journal *Philosophia Sociologia*, and two in Russian sociology

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<sup>341</sup> LIT26

<sup>342</sup> LIT26

outlets. Hence, although Adomaitis was part of the same AS youth researchers' network as Tiiu Kuusk, his post-independence career was oriented towards commercial research instead of academic research. Thereby, many other individuals similar to him who had studied in Moscow chose to concentrate on commercial research (**Box 23**). Hence, in line with observed conversions amongst post-communist political elites (Mink, Szurek 1998), there is a good reason to believe that social and political resources collected in the academic and political centre of the Soviet Union (Moscow) allowed rather a simple conversion towards private-sector activity in the post-communist Baltics.

### **Box 23 Converting Soviet era social and political resources into private-sector research activity**

Entrepreneurship was often conducted in parallel with academic research to the point where some of these enterprises, at least in the first years of the 1990s, were formally attached to academic institutes or university departments. With a lack of legal framework and liberal approach to academic careers, private entrepreneurship allowed the mitigation of overheads otherwise allocated to universities. Academic position, on the other hand, has served as a symbolic resource when in contact with external partners who are looking for trustworthy collaborators<sup>343</sup>. In Latvia, one of the most well-known of these is the Baltic Institute of Social Sciences which undertakes market research, public policy and conducts EC projects and surveys funded by international associations and governments (such as the World Values Survey, European Values Survey and New Baltic Barometer). Other examples are the "Baltic Institute of Social Sciences", "Latvijas Fakti" (Latvian Facts), "AI Systems" and "Institute of Sociological Research". The best-known private body established by sociologists in Lithuania is "Vilmorus" which carries out public opinion polls on actual social topics, sociological studies and market research for Lithuania and other countries, but also "Baltic Investigations". Both bodies were established by Lithuanian Social Research Centre sociologists. Some of these private bodies were later bought by international enterprises or combined under international umbrella organisations<sup>344</sup>.

The orientation towards the private sphere seems to be linked to successful conversions of Soviet era resources into the new political context. Altogether seven Baltic sociologists who worked in sociology related structures in 2017 held a degree from Moscow Sociological Research Institute of the USSR AS. Such cooperation through private bodies is hence based, in the words of one leading Latvian University sociologist, on "business interest"<sup>345</sup> and presented therefore only minor academic interest for sociologists.

Hence, it seems that social and symbolic resources were used for academic collaboration and political resources were mobilised for commercial research activity. If these scholars could

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<sup>343</sup> LV06, LV35

<sup>344</sup> For example, Baltic Data House became the member of the TNS Global market research company and Baltic Investigations joined to international association of polling organisations, the Gallup International Association.

<sup>345</sup> LV06

count on their Soviet-time resources in establishing their post-independence careers, they also had a key role in socialising the new generation of sociologists into a project-based research environment.

### 5.2.3. The transfer of networks from older to younger generation sociologists

While several younger generation sociologists have earned their degrees from foreign universities, only a few of them have managed to bring in research projects and occupy leading positions in sociology structures. The following two examples are representative of these cases.

The first is Dace Krūmiņš (born in 1980). During her MA studies in sociology at Latvian University she was recruited to a research company (led by one of her professors) where she worked full time in parallel to her studies for at least three years. As working and studying were "almost impossible" to carry out simultaneously, she quit the company at the end of her studies. Contrary to many of her colleagues who were also recruited in private companies, she continued in a doctoral programme at the Institute of Philosophy and Sociology, where she earned her PhD in 2011 on the topic of political participation and the development of political attitudes in post-communist countries. This was also the first Latvian PhD in sociology to be written in English. Importantly, even though the degree was formally supervised by local sociologists, the academic work was undertaken under the supervision of several foreign colleagues. First, she managed to participate at ISA doctoral school and this, in her words, opened up "new horizons" in research. Then, in 2009 during the economic crisis, she lost a part of her salary when working as a research assistant at the Institute (salaries at the institute were cut 60 - 65%). Both of these events eventually guided her to participate in several international programmes where she could "gather a collection of knowledge what not many people have here [in Latvia]" <sup>346</sup>. She benefitted from a range of different scholarships and projects that allowed her to do research in foreign countries. These included participation at the ERC Starting Project in Warsaw, the Danish Government Scholarship at Aarhus University, and Fulbright Research Fellowship at the University of Washington. After earning her doctoral degree, she continued to cooperate with her foreign colleagues. For example, she was visiting researcher at the Leibniz Institute for Social Sciences, and from 2015 she was a post-doctoral associate at Yale University MacMillan Centre for International and Area Studies. These experiences, together with other science

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<sup>346</sup> LV26

administrative activities, have enabled her to gather knowledge resources for successful project writing for different stakeholders:

“For me, I have this benefit that I have reviewed EU grants, including the Horizon grants. I know what these grants should look like, and why it is difficult to get them. Sometimes I am laughing that here in Latvia they [other sociologists] say here in Latvia that their language is not good enough to write these projects and that maybe we should employ some editors...and so on...but honestly, the biggest problem is that the grants which get funded [from EU institutions] are just excellent in terms of understanding the problem, the methods they use, the depth of theoretical analysis, and people who get these grants are not like us here in Latvia...here we are jumping from one topic to the next...I mean my colleagues, me less...we have to jump from one topic to the next topic. We used to be more specialised before the economic crisis. In these conditions, you can’t expect to have deep knowledge about anything! You might know very well how to write them technically, but you will not get the grant”<sup>347</sup>.

In 2014 Krūmiņš brought to the Institute a project of around 0,5 EUR million from the EU European Social Fund on the topic of the Latvian emigrant community. Other than that, her income is composed of FP project participation and several national research programmes (including the LvSC projects and commissioned research for different Ministries). All of these projects are brought to the Institute of Philosophy and Sociology. Most of them are co-managed with her colleagues, including one of her older peers (a former youth sociologist) who used to be one of her first supervisors at the Institute of Philosophy and Sociology and to whom she considers herself an “academic follower” - despite having spent almost five years in several foreign academic structures. Between 2008 and 2015 she published at least 15 peer-reviewed articles in international journals (mostly indexed in the Scopus database), often in collaboration with her colleagues from the Institute.

While in this case the interviewee emphasised her autonomous attempts in integrating with the external scientific community, in the case of an Estonian sociologist Greta Liiv (born in 1975), a former supervisor had a key role in her process of internationalisation. When Liiv entered the sociology programme at Tallinn University, she was, in her words, quickly introduced to international projects and “pushed towards” foreign universities by her programme director, future PhD supervisor, and longitudinal researcher Tiiu Kuusk (see above). Further, she complemented her studies in sociology at Lancaster University, UK, where she earned her MA sociology degree in 2001. She earned her PhD in sociology in 2007 from

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<sup>347</sup> LV26

Tallinn University under the supervision of Kuusk (who she also calls her “academic mother”) and one Finnish researcher who had been working closely with Tallinn University since the 1990s. After her studies, she worked for at least four years in Southampton University and Cardiff University but preferred to remain in Estonia for “family and professional reasons”. In 2009 she received a professorship at the IISS. While explaining the construction of her international networks, she refers to both her supervisor and Hans Peter Blossfeld, the German longitudinal researcher.

“For me, one of the most important researchers is Blossfeld. It was my supervisor who introduced us. They are from the same generation. And my supervisor has always been a very supportive mentor who has always encouraged me. So my scientific cooperation today is very much linked to this German researcher and his students. He has organised several summer and winter schools for PhD students and researchers. And those who have been part of these projects are also often in my projects, and I am in theirs. So it’s a working network and helps us to do science even without the implication of the Estonian state. That’s very important”<sup>348</sup>.

The research network surrounding Kuusk, based on her Soviet-time social and knowledge resources, have evidently been transferred to Liiv through the supervisory relationship. These contacts are considered essential for gaining research income in the context of the scarce local public research funding. Calling herself a “research entrepreneur”, compared to many other sociologists she claims to have a “rare possibility” to choose her projects more according to her research interests, and less based on the need for research funding. By 2017 she had been participating or coordinating at least 25 different projects funded via external resources. These include commissioned projects funded by the EC, Max Planck Institute, European Science Foundation and FP projects. She has also coordinated one FP programme. In addition, she has brought in at least two EstRC projects. Between 2001 and 2017, she had authored over sixty publications, mostly in English (including 8 articles in the WoS journals). Thereby, as was the case in the previous example of Latvian sociologists, many of these projects as well as associated publications are co-coordinated with her former supervisor from the IISS.

In both of these cases, after completing their studies and professional career in foreign countries, sociologists have successfully managed to use these foreign resources in their national contexts. The affinities with their home-country supervisors, who support their ambitions and even “push” them towards the foreign academic context, seem to have a key role

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<sup>348</sup> EST49

in this process. These older generation scholars support their foreign travelling on the one hand, and on the other hand, they also keep in touch with them to make sure they return to their "home-institutions". The accumulated experiences and subsequent research projects are beneficial for the entire research unit. This factor – the strong role of the supervisor (and their networks) – in the younger generation sociologists' foreign socialisations may be one of the explanations for why most of these younger sociologists who have earned their degrees at foreign universities have not been outstanding with their capacity to attract foreign projects and publish in international journals. This is the case of some of the younger sociologists who were supervised by older peers with careers in commercial research. As a result, only a few teams in a few research units are capable of accumulating project-based resources to keep up a stable environment for research activity. With this in mind, we now focus on the sociologists' research funding practices in the largest research units in each country.

### 5.3. The impact of national research funding reforms on the sociology structures

National research funding reforms have had a high variety of impacts on sociology structures. In Lithuania, where research units are more dependent on national-level funding, the reform has contributed to the segregation of research units (5.3.1). In Latvia, where research funding has been the lowest, researchers have supplemented their resources with a variety of resources including incomes from commercial research (5.3.2). Public research funding is also low in Estonia, where research units have been oriented towards either national commissioned research contacts or foreign projects (5.3.3). We can roughly outline two types of responses in the face of research funding reform: units that are less (or even positively) affected by the reforms, and those that experience instability.

#### 5.3.1. High dependency of Lithuanian research units on national public funding and the segregation of research council programmes between them

While both of the biggest Lithuanian sociology structures, Vilnius University Faculty of Philosophy<sup>349</sup> and Lithuanian Social Research Centre, gain their resources from the research council, their project income varies within the different LitRC programmes.

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<sup>349</sup> According to some of our interviews, the case of Vytautas Magnus University is similar to Vilnius University. However, the case is not explicitly analysed in this section. This is because we did not succeed in

To begin with, during our empirical research in 2017 the Vilnius University Faculty of Philosophy budget was said to be around 1,3 EUR million. It included resources from teaching (around 0,5 EUR million) and research activity (about 0,6 EUR million). Around a quarter of these funds were related to the sociology department<sup>350</sup>. As foreign resources were scarce, resources for research activity originated mainly from the LitRC<sup>351</sup>. However, the department has not always relied on local resources. Before the research policy reform in 2009, it was mainly funded by external sources. According to our interviews, from the beginning of the 1990s until the early 2000s the primary research funding source for the sociology department was the Open Lithuanian Foundation<sup>352</sup>. The department's incomes changed progressively since the 2000s. Due to the accession of Lithuania to the EU, the G.Soros Open Foundation decreased its support to the academic sector. In parallel, compared to other sociology units that will be discussed below, Vilnius University sociologists' international cooperation remained rather stagnant. With some exceptions, the share of foreign resources in the budget has remained low (for example, only three sociologists out of 11 have participated in the EU FP programs). Some projects (such as in criminal sociology) are also oriented towards CEE countries such as Poland and Russia. Cooperation with international associations remains rare (only one sociologist at the department declares himself as a member of the European Sociology Association). Instead, it seems that lost resources are replaced with national incomes, particularly after the research policy reform in 2009 and the establishment of the LitRC. According to the head of the sociology department (who is also a member of the LitRC SSH committee), the department has "gained from the public research funding reform". Since its establishment, project resources from the LitRC are considered to be easily attainable and stable<sup>353</sup>. However, they are not considered to be sufficient for the whole department. Hence, in parallel, the department is also "trying to catch some international contracts"<sup>354</sup>. For example, a specific vice-dean position was opened within the Philosophy department whose role was "to find foreign contracts and help

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collecting a sufficient amount of information that would allow us to cross our data sources as we did for other research structures.

<sup>350</sup> LIT02

<sup>351</sup> LIT21

<sup>352</sup> Open Foundations are part of the network of G.Soros Open Society Foundation. As in other CEE countries, Open Foundations were established at the beginning of the 1990s in each of Baltics. At Vytautas Magnus University, besides the Open Foundation, the sociology department was also supported by the US international non-profit organisation Civic Education Project, which was also partially linked to the Open Foundation financial programme.

<sup>353</sup> LIT24, LIT23

<sup>354</sup> LIT02

researchers through the application process”<sup>355</sup>. This fragmentation of research income is highly problematised.

“In our times it's not possible what you want. You have to look at public preferences, which are announced by providers of funds, and you have to accommodate... and I'm not feeling that I am doing completely [the research] what I want. It's a kind of market...no, it is a market! This Lithuanian Research Council accumulates this policy and provides some directions, so you should look at what the buyer [the LitRC] is looking for. So it's becoming a bit similar to commercial social research. And in commercial social research, nobody does what he wants”<sup>356</sup>.

Hence, although sociologists have been gaining from the reform, their resource base is increasingly fragmented and the increasing need to apply for projects is perceived to be restricting their research agendas. Freedom of choice of topics is considered to be important for their professional identity<sup>357</sup>. This observation is important while observing sociologists' perception on the matter in other Baltic sociology units (notably in those groups where there is more continuity amongst staff members).

Similarly, the budget of the sociology institute at the Lithuanian Social Research Centre is composed of mainly national-level resources. The Lithuanian Social Research Centre is the only former AS research structure where scholars have, since the beginning of the 1990s, continued to receive the basic salary for research. However, by the time of our interviews in 2017, the salary had decreased over the past few years and, since the reform of 2009, no one at the institute has worked more than a 0,5 full-time equivalent position – this shows the need for supplementary research incomes is increasing. Financial difficulties supplement the argument for the closure of the centre that has been questioned since the HE and research sector organisational reforms in 2009<sup>358</sup>. Altogether, according to our interviews, in 2017 the Centre received approximately 60 000 to 70 000 EUR for the implementation of their research programme<sup>359</sup>, and this budget was divided between the Institute of Sociology, the Institute of Human Geography, and the Institute of Demography. This source is the basic salary (base-line funding for research). In addition, the sociology institute received support for three projects

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<sup>355</sup> LIT21

<sup>356</sup> LIT06

<sup>357</sup> LIT29, LIT28, LIT06

<sup>358</sup> LIT22

<sup>359</sup> LIT19

from the LitRC, with a total of around 112 000 EUR<sup>360</sup>. The head of the institute summarises the situation as follows:

“Over here, salaries are very low, so you cannot survive working only here. So that’s why most people combine different jobs. So people here are not altogether; they are very independent in what they do. So it’s a problem, so I am thinking of younger people, how to really make a collective... the younger generation is applying to make applications, but I hear more and more that it’s such small money even for projects, so they are not keen to do that...”<sup>361</sup>.

These supplementary sources are mostly gathered from teaching activities or different national research sources. For example, out of 33 projects carried out by the Sociology Institute since 2003, 46% were funded by the LitRC. 24% were national commissioned research projects funded by several ministries (Ministry of Education and Research, Ministry of Health of the Republic of Lithuania, Ministry of Economy of the Republic of Lithuania) and other institutions such as the Drug Control Department under the Government of the Republic of Lithuania, or the Office of the Government of the Republic of Lithuania (**Table 5.3**). Only 18% of 33 projects were funded with external resources. These include sources from the EU ESIF, EC (including the FP6 programme), United Nations Children's Fund and Finnish Academy of Sciences and Literature. Indeed, most of the Sociology Institute staff members’ CVs contain no trace or only a minor trace of international funding. International projects are perceived as hard to capture due to the lack of foreign contacts or “lack of interpersonal knowledge with foreign scientists”<sup>362</sup>. Exceptions to this rule are two younger generation leading researchers, who stand out with their high number of foreign projects. One earned her PhD under the joint supervision of Vytautas Magnus University and Nanterre University (she has participated in at least 12 foreign projects). Another earned her PhD from Kaunas Technology University and Vilnius University (she has participated in at least 7 foreign projects). These two have “brought in” the majority of foreign projects to the institute.

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<sup>360</sup> LIT19

<sup>361</sup> LIT19

<sup>362</sup> LIT19, LIT22

**Table 5.3 Social Research Centre Sociology Institute projects (number of projects, 2003-2017)**

<b>Total sociologists</b>	<b>16</b>
<b>Total number of projects between 2003 and 2017</b>	<b>33</b>
National grants (LitRC)	46%
National Commissioned research	24%
Foreign research contracts	18%
Other projects (origin unknown)	12%

*Source: Author's calculations. Based on the webpage of the Lithuanian Social Research Centre (LSRC webpage 2021).*

Since the Lithuanian reform in 2009, besides their basic salary, the main supplementary source of funding for the Social Research Centre Sociology Institute's sociologists come from LitRC projects. However, although both of these structures – Vilnius University and Social Research Centre – gain their resources from the LitRC, they are not always in competition with each other for the same budget lines. Vilnius University sociologists have received funding mainly from the Global Grant programme and Researcher Team's Projects<sup>363</sup>. At the same time, Social Research Centre Sociology Institute sociologists gained primarily from national research programmes and rarely from the Researcher Team's Projects<sup>364</sup>. The distribution of project sources can be better understood with insight given by Vilnius University Philosophy Faculty sociologists and a member of the LitRC SSH committee:

“We have different channels of funding in the research council. First of all, researchers prefer Researcher Team's Projects because in these projects they are free to write what they want. Of course, they have to prove that it's following the initial topic. If you receive such a grant for four years you can establish a research group. Another channel is national research programs. These are prepared by scientists themselves with some political [rephrases] in these programmes there is a mixture of science and political discourse, and there are some kinds of priorities and so on, for example, now we have this programme, so-called “welfare society”, so the topics [thinking and rephrases] so, then we have this Global Grant, that's big money for teams lead by good researchers”<sup>365</sup>.

<sup>363</sup> LIT25, LIT06

<sup>364</sup> Between 2014 and 2017, the Social Research Centre Sociology Institute was awarded three national research programmes projects and one Researcher Team's Projects. We have no information about attempts to obtain funding from other programmes (source: LSRC webpage 2021).

<sup>365</sup> LIT02

The established hierarchy is evident. While the Global Grants and Researcher Team's Projects are highly valued (these projects are said to be attributed only to “good” researchers), the value of national research programmes are downsized because of their pre-defined topics. The categorisation follows the one pronounced by former philosophy students who classified themselves as “liberal” sociologists, contrary to the established sociology community that was seen to be more “politically oriented” (i.e. see section 5.1.2). Besides the discursive differentiation, research project allocations from the LitRC are also seen to be following these categories. At the same time, at the Social Research Centre, the Global Grant is not seen as an option for research funding – due to their low international profiles, it is considered to be “out of reach”. Also, the decision-making process at the LitRC (where none of the Social Research Centre members belongs as a committee member) is perceived as ambiguous. One of them explains: “In the LitRC there are no evaluators who would be neutral because all of them are somehow related to one another. Sometimes when I applied, I was surprised that my colleagues from the Vilnius University already knew rumours who will get funds”<sup>366</sup>. Another notes: “I know one who got a project from the LitRC, while his wife was the member of the council!”<sup>367</sup>.

Thus, while the distribution of the LitRC budget remains controversial, the institute sociologists are losing in this process. Also, because of the smaller projects and lack of thematic connection, Social Research Centre sociologists consider their project incomes insufficient: “You get a project for two years, but one project is only around one-fourth of your income what you need!”<sup>368</sup>. All in all, the establishment of the LitRC has rendered their professional work more “intensive”<sup>369</sup>, and due to the constant need for new projects, also more “unstable”<sup>370</sup>. Hence, the reform of 2009 has progressively degraded Social Research Centre sociologists’ security.

### 5.3.2. Low incomes from public research funding and strong reliance on commercial research in Latvia

The Latvian University Philosophy and Sociology Institute and Latvian University Faculty of Social Sciences (including ASPRI and sociology department) sociologists' research funding practices are marked by dual practices between academic and commercial spheres.

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<sup>366</sup> LIT19

<sup>367</sup> LIT26

<sup>368</sup> LIT23

<sup>369</sup> LIT23

<sup>370</sup> LIT24

Latvian University Philosophy and Sociology Institute sociologists are highly dependent on conducting multiple research projects. For example, the RAE report identified the relatively strong trend of the institute towards internationalisation in terms of projects, publications and conferences (source: Technopolis 2013). In 2015, the institute project-based share of the budget was around 0,54 EUR million. Particular to this research institute, compared to the other Latvian research units, is its relative separation from teaching. Because of this, throughout the 1990s and 2000s sociologists have had to find financial income from a variety of sources. For example, in 2002 sociologists received more than half of the LvSC grants distributed to SSH (Tabūns 2002, 457). However, despite their success at the LvSC, public sources are scarce and perceived to be “insignificant”<sup>371</sup> compared to other funding sources. The website of the institute, as well as sociologist CVs, reflect rather active foreign project cooperation practices. These are mainly commissioned research projects funded by European-wide organisations or the EC, including surveys for Eurostudent, European Social Survey European Election Study and others<sup>372</sup>. Most of the projects attracted by the institute are commissioned research contracts that (particularly the surveys) have been in the portfolio of the institute since the 1990s. Due to scarce public research funding, some sociologists set up (individually or with their peers) small private (sometimes non-profit) bodies. Still, in 2017 at least three top Philosophy and Sociology Institute sociologists were leading two bodies: "AI sistēmas" (Artificial Intelligence Systems) and "Socioloģisko pētījumu institūts" (Institute of Sociological research). Due to the relative financial autonomy of the institute, changes in the public research funding allocations in 2013 are perceived to be insignificant. Instead, the major impact on their funding was the economic crisis in 2009:

“We started our conversation over whether there were reforms or not. The biggest change that happened was the cut in funding in 2009. Because before that if you look at the data...it was cut and although the crisis is over, it stayed on the same level. And we can try searching for different reasons but you can't squeeze good science out there. The level of funding corresponds to the level of sciences, many studies show that [...] Kilis [Minister of Higher Education and Science who initiated the reform of 2013] was trying to reform science, but the problem was

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<sup>371</sup> LV29, LV35

<sup>372</sup> Other projects include the European School Survey on Alcohol and Drugs, European Monitoring Centre for Drugs and Drug Addiction, international survey projects such as the International Social Research Program, and EC programmes such as Academic Network for Science-Based Prevention or DAPHNE III, which deals with the protection of children, young people and women (source: LUFSI webpage 2021).

that...he was saying was rotten here, but he introduced more problems than solutions”<sup>373</sup>.

Recently, additional projects had been brought in by a small “team” of researchers, as they call themselves, comprising two older and one younger generation sociologists. One of them earned his degree from Ural University in the Soviet Union and the other participated actively in Tiit Kask’s youth research projects. The team was notably formed with the arrival of a younger-generation sociologist, Dace Krūmiņš, who after studying in Latvia had completed her education in different Western countries (including Poland and Denmark and the US). As noted in the previous chapter, in 2014 she brought to the Institute a project of around 0,5 EUR million from European Social Fund. Her capacity to bring in research projects is thus linked to personal experience and socialisation in the Western academic sphere. However, the number of such scholars is low; for example, the interviewee did not know of any other scholar with a similar trajectory to hers. In her words, this is due to the “merit-based system [in the sense of “loyalty” between established scholars], old people not letting young people into the system...and also instability in the funding environment”.

Contrary to the Institute sociologists, the Latvian University faculty sociologists had been mostly focused on teaching. Research activity has become more important only since the mid-2000s when due, to the demographic gap, the number of paid study places decreased. If until then, research funding was perceived as “additional money”<sup>374</sup>, the changing HE environment directed sociologists to focus more on research activity. According to the ASPRI budget from 2006 to 2011, national research programmes were the main source of income for research activity (**Table 5.4**). Thereby, by the time of our interviews in 2017, faculty sociologists encountered several difficulties in gaining research projects. In contrast, the Philosophy and Sociology Institute sociologists felt that the support of the university structure was not transparent: “the way the last state programme was allocated...there was no competition, there was a consortium. The institute was left out of it. It was decided on a university level”<sup>375</sup>. Also, the income from the LvSC projects has been scarce. Some researchers confirmed to have “stopped relationships with the LvSC” due to the “lack of transparency” and low “willingness to open up the grants for external persons”<sup>376</sup>. A widely shared opinion is that as the former AS institute, the Philosophy and Sociology Institute has “closer relationships”

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<sup>373</sup> LV35

<sup>374</sup> LV20

<sup>375</sup> LV35

<sup>376</sup> LV06, LV19

with the AS and the LvSC, and it is therefore benefitting from the majority of allocated funds, leaving faculty researchers with empty hands<sup>377</sup>. Finally, in our interviews, the 2013 reform was only rarely mentioned. For example, the base-line funding is considered to be “insufficient and the small part which is allocated based on scientific achievements can be used only for young researchers and doctoral students”<sup>378</sup>.

**Table 5.4 ASPRI budget (2006-2011)**

Core (maintenance) funding	13%
State budget funding for research development in higher educational establishments	15%
Grants of the LvSC	9%
State Research Programs	35%
Contract research	7%
Funding from European institutions	19%
Other project funding	2%

*Source: Technopolis RAE report (Technopolis 2013).*

Note: The full budget between 2006 and 2011 was EUR 2,3 million. The budget is for all ASPRI researchers including sociologists, political scientists, media and communication sciences.

Another, more controversial topic is the income from foreign projects. According to the ASPRI budget between 2006 and 2011, only a small part of the income was formed out of foreign projects. The head of the sociology department (who is not personally involved in private bodies) explains that those bigger foreign projects are difficult to obtain: “internationally it is... you see, we cannot choose topics, and we cannot choose the people with whom we are working. It's usually a question of funding. We are not able to be, how to say, be *general partners* in projects. Because to prepare and to develop projects costs a lot of money, and we don't have such opportunities”<sup>379</sup>. Then again, in the formal ASPRI presentation from 2015, the Institute has received “external funding from Interreg IV C programme, FP7 programme, Marie Curie scheme as well as from EC, The European Parliament, Ministry of Culture, the Ministry of Foreign Affairs, the Ministry for Local Government and Regional Development, the Norwegian Financial Instrument, the Open Society Institute Think Tank Fund and others” (source: Personal archive 2015). There is good reason to believe that these projects are either

<sup>377</sup> LV06, LV19

<sup>378</sup> LV20

<sup>379</sup> LV20

managed by other disciplinary representatives or managed under private bodies. Indeed, at least three sociology professors manage private bodies that are oriented towards foreign contract funding. Throughout our interviews, it seemed that this is because researchers don't agree with university policies on budget distribution. Several interviewed sociologists pointed out a lack of trust and transparency between different echelons of the university management<sup>380</sup>. For example, it is claimed that while heads of the organisational units follow the lead of the central administration, they are not involved in the policy formation process. In that way, sociologists don't agree with reallocating project-based income to the other organisational units inside the university. Also, they don't agree with university policy, according to which each foreign project increases the university's shares of base-line funding, this base-line funding is not redirected to the structure where the foreign funding was awarded. Hence, it seems that due to the conflicts on the level of university management, these contracts are kept keenly in private bodies.

While the distribution of public research funding is a source of conflict between the two institutions, the role of this funding is considered to be rather “insignificant” by both structures. Hence, changes undertaken by the Government are ignored. Instead, the major impact has been the HE reforms that have considerably reduced the income of the faculty sociologists.

### 5.3.3. Estonian research units: between international and national research incomes

Trends in the Estonian sociology structures' incomes resemble those in Latvia.

Estonian Tallinn University sociologists have searched for their incomes mainly from external sources. The accumulated project funding income of sociologists working at Tallinn University (including IISS and sociology study area) in 2017 shows that 50% of their individual accumulated income originates from foreign resources. According to interviews, the average share of foreign funding in the budget each year is even higher, around 75%<sup>381</sup>. Also,

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<sup>380</sup> Such claims were made not only about Latvian University, but also about Stradins University. For example, I (author) faced a unique situation when during our interview one of the leading researchers from these institutions offered me a “deal”. The interviewee asked if I could investigate the budget formation on the central administration level of the university. They said that, in that way, they could also gain a better understanding about budgetary formation of the unit they were leading. In my understanding, such a proposition was not made only out of curiosity about budgetary process, but also of a desire to expose university-level management processes that our interviewed researcher considered may be illegal.

<sup>381</sup> EST49, EST50

participation in FP projects is their primary source of income. Other international projects include EU institution contracts, mostly with different EC policy departments (**Table 5.5**).

**Table 5.5 Individually accumulated project-based incomes of Tallinn University and Tartu University sociologists**

	Tallinn University	Tartu University
<b>Total sociologists</b>	<b>22</b>	<b>11</b>
<b>Total funding from projects between 2006 and 2017</b>	<b>EUR 4,9 million</b>	<b>EUR 1,8 million</b>
National grants (EstSF, CSC, EstRC)	32%	31%
National commissioned research	9%	58%
Other national projects	9%	3%
FP projects	30%	8%
EU commissioned research	9%	0%
Other foreign funding contracts	11%	0%

*Source: Author's calculations. Based on project data in the Estonian Research Information System (ERIS webpage 2021).*

Note: The data includes project participation of sociologists active in 2017. As an obligatory regular data submission to the portal has been in force since 2006, the counted projects include all projects awarded between 2006 to 2017.

Tallinn University sociologists' foreign orientation in research funding practices has developed since the end of the 1990s. According to our interviewees, with the 1997 research policy reform public resources had "dried up" – they were, due to increasing competition, "difficult to attain". Foreign resources were seen to be the "only possibility" to attract younger-generation sociologists to work at the institute and to build up the team that had shrank at the beginning of the 1990s<sup>382</sup>. According to our interviews, the reform process was undertaken under the leadership of active sociologist Tiit Kuusk (former doctoral student of famous Estonian youth sociologist Tiit Kask) who, via the contacts they developed during their activities in the Soviet Academy, strategically oriented her collaborations towards the Western countries' academic spheres. The Soviet era academic and social networks provided access to research groups in Germany and the USA that worked with longitudinal studies and subsequently offered a considerable competitive advantage for their members to enter broader research projects such as those funded through the EU FP<sup>383</sup>. Also, because of Kask's prior

<sup>382</sup> EST49

<sup>383</sup> EST46, EST41, EST50

experiences at Stanford and later at Michigan University, some of the longitudinal research in the 1990s was further conducted via US NSF grants and the Swiss private foundation Jacobs Foundation (Titma 2002). Over the years, her two former doctoral students (including Greta Liiv) who both complemented their studies at UK and US universities (both for at least three years) have become the most successful scholars in bringing foreign projects to Tallinn University. Notably, they have fully coordinated two EU FP projects, which is exceptional in the Baltic context.

Public research funding, be it in the form of project funding or institutional funding, is described as "trivial" in the budget<sup>384</sup> compared to foreign funding, as explained by one of the leading researchers:

"It is clear our destiny is to disappear if we were only to count on the EstRC...just taking account of their budgets, social science's position in their schemes is quite ridiculous as well as the proportion of social scientists in their councils, looking at their councils, it doesn't take a genius to figure out how decisions are made [...] The problem is that the way in which these criteria are set by these councils ...on the one hand it is said they are clear, but in reality, there is some space for subjective opinion. And each following council can but does not have to take into account the opinion of the former. All this system is extremely non-transparent...for example these 1.1 articles, you can sometimes say it's enough, and sometimes they don't count at all...so all this system is not clear. Over here we are rather successful in these schemes, but sometimes we feel that in an international project market where there is bigger competition, and...actually it's more transparent, it is also actually more realistic to get these grants"<sup>385</sup>.

Not only is national public funding considered too short and small, but there is also an overall discontent regarding the position of social sciences in national funding policies. The perceived lack of transparency in funding allocation at the national level can also be a result of the fact that between 2012 and 2017, and unlike Tartu University, Tallinn University sociologists have not participated in EstRC expert commissions. Hence, although national research budget funding makes up a part of the budget, foreign resources are viewed as a more pragmatic way to secure their research budget incomes. The multitude of resources also allow the combination of different financial resources and differentiation between "alimentary contracts" (with marginal scientific interest) and "exploratory contracts" (with higher scientific interest) – as is common for research groups with high dependence on external resources (Barrier 2011, 523-526).

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<sup>384</sup> EST49, EST50

<sup>385</sup> EST49

Tartu University sociologists, who had mostly concentrated on teaching since the 1990s, were faced with the transition from teaching to research activity. Parallel reforms in both HE and research policy (between 2012 and 2013) had destabilised their budget income, and financial resources for research were mostly gained from within Estonia. The accumulated project funding of sociologists working in 2017 exposes high dependence on national commissioned research (58% of total funding) and a low share of foreign resources (8%). Contractual work undertaken for various government institutions comprised mostly applied projects funded by various ministries (such as the Ministries of Justice, Social Affairs, and Education and Research) or other governmental institutions (e.g., the State Chancellery) (**Table 5.5**).

Although some sociologists already had international research contracts in the 1990s, these were established on an ad hoc basis and have not secured stable income for research. "As a rule, our international projects come in through consortiums. Each researcher finds his projects himself based on his networks. In some cases, professional project writers are used, or research development department, some kind of help...but in general, rescuing the drowner is the downers' own problem"<sup>386</sup>. In the words of the head of the sociology chair, there is a lack of "locomotives," an expression denoting staff members "whose CV enables them to become [a] project leader, [who] correspond to certain scientific qualifications, who thus have [a] bigger chance for getting support and who are also themselves more active, who could be project leaders, so they could lead the so-called wagons". Also, the role of "project partner" is often the only option seen to be available for sociologists. Leading larger, resource-intensive and high-risk international research projects such as the FP are "not even considered as an option"<sup>387</sup>. In addition, according to our interviews, the institute has been supported regularly with EU ESIF funding that has been replacing scarce base-line funding. The base-line funding has been essential for the continuation of research. For example, in comparing their financial situation with their southern counterparts one of the leading sociologists claims that the EU ESIF funding has so far allowed them to avoid a disaster in funding "as it has happened in Latvian University"<sup>388</sup>.

While the majority of research funding originates from commissioned contracts, public research funding has remained limited. Some older generation sociologists recall that the EstSF

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<sup>386</sup> EST46

<sup>387</sup> EST22

<sup>388</sup> EST40

grants were small but simple to get<sup>389</sup>, but after the reform of 1997 obtaining projects got more difficult. Also called "prestige grants"<sup>390</sup>, the EstRC funding mechanisms are perceived as particularly challenging<sup>391</sup>. Thereby, the major part of the EstRC funding in Tartu University is brought in by two younger generation sociologists holding Professor and Associate Professor positions. One of them earned her MA degree from Oslo University. Most importantly, both of their PhD supervisors were part of the sociology groups who, in the Soviet era, were well known of their Western-oriented contacts: family sociologists who cooperated with their Finnish counterparts, and former Tartu State University Laboratory of Sociology members. In our interviews, both of these scholars insist on the importance of their supervisors in socialising them with Western sociology networks. Although highly invested in teaching, both of them have been able to mobilise their knowledge sources to gain national grants.

Altogether, although Tartu University sociologists have been granted fewer national grants than Tallinn University sociologists<sup>392</sup>, in the context of the variety of individual funding sources these grants make up only around 30% of sociologists' income in both universities<sup>393</sup>. One of our interviews sheds light on this trend:

“I was a member of the board of the National Association of Sociologists. At this association, we have tried to negotiate that Estonia is small and we will not compete with each other. We need at least two institutions so that we would have somebody to evaluate you. Otherwise, you write a grant application and your colleague from the next room evaluates you<sup>394</sup>”.

Hence, to prevent evaluation by the closest colleagues, there is a need to keep several institutions alive. Instead of harsh competition, cooperation logic is also operating in the distribution of scarce national funding resources.

To sum up, some units - Vilnius University, Latvian University Philosophy and Sociology Institute, and Tallinn University - have managed a rather successful transition from the base-line funding to project-based funding. However, their research funding practices differ considerably. If Lithuanian sociologists have gained from the public research funding reform,

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<sup>389</sup> EST50, EST47, EST22

<sup>390</sup> EST40

<sup>391</sup> EST50, EST47, EST40, EST22, EST62

<sup>392</sup> Altogether, out of all Tallinn University sociologists in 2017, seven of them have held national grants including the EstSF, CSC and EstRC grants (with total budget of EUR 1,5 million). Out of Tartu University sociologists, three have held national grants (with total budget of EUR 0,56 million).

<sup>393</sup> These grants comprise project funding allocated by the EstSF in the early 1990s, the CSC since the end of 1997 and the EstRC since 2012.

<sup>394</sup> EST45

then Latvian and Estonian sociology groups have filled the lack of public funding with foreign resources. Also, while Estonian sociologists stand out for their success with EU projects the Latvian sociologists are alternating between academic and private spheres and grasp a variety of foreign resources. These practices are not independent of their previous socialisations – leaders of all of these units have successfully used their Soviet-time resources to reorient their incomes in the period of independence. Contrary to these examples, other more nationally oriented sociology units – Lithuanian Social Research Institute, Latvian University Faculty of Social Sciences and Tartu University sociologists – are disadvantaged by the reforms. In particular, with the decreasing base-line funding and organisational reforms, the Lithuanian Social Research Institute is at risk of closure. However, the impact of research funding reforms is not always direct. So far focussed on teaching, Latvian and Estonian university sociologists have been harshly affected by recent HE reforms, forcing them towards greater research activity. In order to compensate for the lost funds either national commissioned research is undertaken (as in Tartu) or a variety of resources are used (as in Latvia). These units are also the most resource-dependent while designing their research agenda.

## CONCLUSION: CHAPTER 5

To better understand the impact of public research funding in the Baltics, it must be viewed in the context of the sociologists' professional orientations. Although the collapse of the Soviet Union opened up new possibilities for research in SSH, only a fraction of Baltic sociologists oriented their professional careers towards academic research. Instead, in parallel with the multiplication of HE programmes, many of them focussed on teaching as the main income source for local scholars. In their research activity, only a few sociologists are undertaking purely academic research. Instead, many sociologists have adopted a more applied orientation in their research. They are working on a contract basis for government institutions or international organisations, or are undertaking commercial research for private enterprises. This assertion confirms previous observations that the role of funding which outside base-line funding mechanisms “finishes existing lines of research that cannot be pursued by recurrent funding” (Laudel 2006, 503).

Due to these heterogenous professional orientations, public research funding is not always the primary income for sociologists whose incomes are composed of salaries from both teaching and contract research for different government and foreign institutions. This is notably the case in Estonia and Latvia, where the base-line funding and public project funding sources constitute only small sources of income for sociologists. Despite the reforms, public research funding sources have remained the main income for Lithuanian sociologists. But there are also differences between the units. It seems that, as a general rule, a sociologist working in units that previously focussed on teaching and whose funding was more local (Tartu University, Lithuanian Social Research Centre and Latvian University social science faculty) are more affected by the increasingly scarce and competitive public funding resources. Sociologists from the Lithuanian Social Research Centre are also affected by the decrease in base-line research funding. At the same time, sociologists working in the units with a stronger focus on research (the former AS institutes in Estonia and Latvia, and the Vilnius University sociology department) have better coped with the reforms of national research funding. Their capacity to face the reforms on both the individual level and on the level of research units is linked to the activity of sociologists who have a high capacity to attract prestigious grants from both external and internal sources. This shows that resource distribution in Baltic sociology is not simply a dichotomy consisting of the “locals”, who grasp the national funding, and “internationalists” who seek external funding, as is sometimes suggested on the Polish example (Kwiek 2020b).

Notably, we can observe the existence of small “teams” composed of older-generation leading researchers with Soviet degrees and their younger-generation colleagues (often PhD students) with Western academic socialisation. These “research entrepreneurs” bring in the majority of research grants to their structures, including the EU FP projects, the EstRC grants in Estonia, the LitRC Global Grants in Lithuania. This has enabled them to “protect” their units against external changes – be they HE or research policy reforms. Therefore, research funding has not had a similar impact on all sociologists in the Baltics as it is suggested in the literature (Hubert, Louvel 2012; Barrier 2011; Jouvenet 2011; Morris Rip 2006; Morris 2003). Then again, even the most “successful” Baltic sociologists are struggling to secure their incomes and positions in their research units. As observed elsewhere (Laudel 2006), while they are able to avoid some of the worst impacts of reform they still feel the effects of their changing funding environment because they have a research programme that they want to realise and are less willing to compromise on their research by changing its content. Paradoxically, research units with the highest concentration of these “research entrepreneurs” are the former AS institutes, which are under pressure of closure and mergers with universities.

More broadly, the variety of external research funding sources has allowed many of the older-generations sociologists to reorient their funding sources and to keep their positions in the sociology-specific structures. Baltic sociology units lack generational change and remain, according to their leaders, unattractive for sociologists from the younger generation. Almost thirty years after the collapse of the Soviet Union, most sociology positions are occupied by prominent Soviet era sociologists who earned their degrees from the Soviet Union. Only in Estonia is there a rise of younger generation scholars in higher academic positions, since the reform of 2012. This can be explained by a very clear orientation of Estonian public funding that rewards only a few “high-level” research groups in the country.

Finally, the dependence on project funding resources in research has brought about a situation where sociologists are not able to fully follow their research agendas. Markedly, while project funding is highly problematised in the Western countries' science policy literature and seen as a “danger” to scientists' professional autonomy (Jouvenet 2011; Barrier 2011; Leisyte *et al.* 2010), the issue is rarely problematised in Baltic sociology communities. There is good reason to believe that this is due to the specific Soviet background of sociologists - the majority of Baltic sociologists lack any personal experience in working in stable financial environments where they can undertake research following their unique research interests. In the context of a hyper-dependence on external funding, applied research and the absence of any solid

disciplinary associations, sociology communities also have a low capacity to challenge their professional orientations and working conditions. All of these above-mentioned elements have repercussions on sociologists' publication practices.

## Chapter 6. AMBIVALENCE TOWARD INTERNATIONALISATION IN PUBLICATION PRACTICES

Whereas public research funding sponsorship is linked to the research outputs, scholars are also facing changing requirements related to their research publication practices.

The topic of publication can be associated with the literature on overall transformations in patterns of scientific production (Kwiek 2020a; Wagner 2018; Wagner, Leydesdorff 2015; 2005; Abramo *et al.* 2011; Wagner 2008; Georghiou 1998; Raan 1997; Luukkonen *et al.* 1992). Indeed, thanks to the availability of data from international journal databases, scholars have increasingly focussed on the analysis of changing research production practices either on the worldwide, regional or national scales. This research is the most often focused on the production of internationally co-authored publications, assumed as a proxy of international research collaboration. Notably, in *The New Invisible College* (2008), C.Wagner put forward a perspective in which the organisation of science is changing in fundamental ways from the national to the global level. SSH disciplines are not an exception to these trends. Scholars have shown that besides internationalisation, the major trend is also toward “articlisation” of research. Rather than publishing books or conference presentations, SSH scientists are increasingly publishing in reviewed articles that were first considered as the model of excellence in the mathematical, physical, and biological sciences (Fournier *et al.* 1988). At the same time, some authors have insisted on the analytical separation of collectivisation and internationalisation in analysing the publication trends (Kwiek 2020b; Maisonobe *et al.* 2016; Jeong *et al.* 2011). For example, according to M.Maisonobe and colleagues (2016, 424), the important phenomenon is not so much internationalisation per se but the general increase in collaborations, at both the national and international level. Hence, while the prevailing discourse is about the growth of the “global scientists’ network”, these collaborations do not occur to the detriment of national systems, nor of the major linguistic or cultural areas of the world.

With this in mind, this chapter aims to situate Baltic sociology communities' research production in the context of the global collaboration trends and associate it with their research funding practices. As we saw from the previous chapter, there are important differences in the Baltic sociologists' research funding practices. As a rule, sociologists with more international academic socialisation have reached higher autonomy in their budgets than those with national academic socialisation. Thereby, the analysis of research collaborations is often focused

uniquely on the country level of research output. Some works combine survey-based and bibliometric studies that, besides productivity patterns, also take into consideration scientists' professional internationalisation factors throughout their academic careers. These factors include travelling practices, conference attendance and research stays abroad (Kwiek 2020b; Rostan, Ceravolo 2015; Kyvik, Larsen 1997; 1994; Welch 1997). However, the sociological analysis of research publication practices is rare (Kirtchik 2012).

To better understand the Baltic sociologist's publication practices, we mobilise data retrieved from the WoS core collection between 1992 and 2017. Even if this database has been the subject of various criticisms relating to its American origins, its commercial status, its linguistic and disciplinary biases (Gingras 2014), it remains one of the most available sources for understanding research publication trends. Its usage is further justified as all three Baltic countries have progressively introduced WoS based metrics as a tool in policy-making. Then again, as the period of its introduction as a policy tool and the magnitude of its enforcement on research funding instruments differs from country to country, the WoS data can only partly reflect the Baltic sociologists' publication practices. In order to achieve reliability in the WoS data, we will use the database in two ways. First, we look into the Baltic researchers' publication patterns based on the WoS sociology journal articles (the WoS articles are categorised by discipline, including the "sociology" discipline journals). This is the most traditional way of analysing the WoS data to understand publication trends in different scientific fields (Georghiou 1998). Second, we investigate the sociologists' publications on the basis of individual publications published by scholars working in the Baltic sociology structures in 2017. Although the method exhibits limitations (for example, it does not account for articles published by scholars who were working in the sociology structures before the year 2017), it allows us to have a more comprehensive overview of sociologists' publication practices. It enables differentiation in publication practices between different segments of sociologists based on their age, socialisations and institutional affiliations. It is appropriate for smaller and interdisciplinary research structures.

We start by giving an overview of publication trends in the Baltics, including the principal similarities and differences between the three countries. While demonstrating the existence of an uneven distribution of outputs amongst Baltic sociologists (due to the activity of a small group of "highly performing" sociologists) (6.1), we show that there are still overall cross-country differences in the accommodations and adaptations to new research publication requirements (6.2). Also, the analysis of the collaboration practices and outlet choices

demonstrates that Baltic sociology communities' publication trends are not homogenous in regard to internationalisation and research collaboration (6.3).

## 6.1. National publication patterns

This is notably the case when publishing in foreign journals (6.1.1). Similarly, as we analysed in the research funding practices, only a small group of scholars with international academic socialisation manage to choose their outlets according to their research interest and publish in "high-ranked" international journals (6.1.2).

### 6.1.1. Difficult "articlisation" and limited internationalisation

Opportunities to publish research articles in both national and international outlets have increased for scholars in sociology. The existing journals were liberated from political control and new national disciplinary journals were established. Latvian and Lithuanian scientific fields saw the biggest increase in national-level journals. In 2017 Latvian sociologists could publish in *Latvijas Zinātņu Akadēmijas Vēstis* (Proceedings of the Latvian Academy of Sciences), which was first published in 1946, or *Humanities and Social Sciences: Latvia*, founded in 1992. They also had opportunities to publish in the journal *Ethnicity*, established by the Institute of Philosophy and Sociology, *Social Sciences Bulletin*, published by Daugavpils University, or *Latvijas Universitātes Raksti* (*Scientific Papers, University of Latvia*). The last of these is a collection of academic articles that are open to all scientific disciplines, and in the past 20 years at least 5 volumes (629, 701, 714, 736 and 769) have been devoted to sociology (Kilis 2015, 123). Lithuanian sociologists can also count on several national journals to publish their research. One of the most known is the *Problemos* (Problems), which was established in 1970 by Vilnius University philosophy scholars. There is also the journal *Filosofija-Sociologija* (Philosophy-Sociology), published from 1990 by the Lithuanian AS, edited by Arunas Adomaitis (one of the most well-known Lithuanian sociologists from the Social Research Centre), and dealing with philosophy, sociology, and demography. There is the journal *Sociology*, published four times a year by the University of Klaipeda and Vytautas Magnus University since 1997, dealing with social theory, sociology, and social philosophy (Vosyliūtė 2002). However, these are only some of the biggest local publications. According to our interviews, during the research reform of 2007-2008 there was a strong movement at universities to creating their own communication channels<sup>395</sup>, meaning that many other smaller

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<sup>395</sup> LIT17

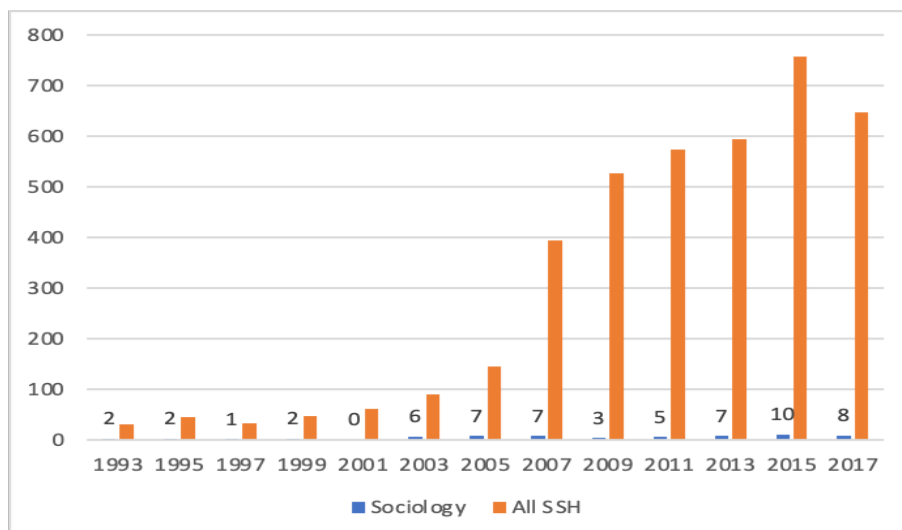
outlets may also exist in sociology. At the same time, due to national policies of internationalisation, most of the Estonian local academic outlets have been shut down by the science administration (Allik 2015). For example, the *Proceedings of Tartu University* was closed due to this reason in the mid-1990s. The only local journal, *Trames*, has been regularly issued since 1997 and publishes papers from a wide range of the humanities and social sciences with a lean toward interdisciplinary approach.

The number of foreign outlets has also increased. The collapse of the Berlin Wall brought along an establishment of specific 'European' SSH journals and associated networks (Heilbron *et al.* 2017, 10-11). The establishment of these regional journals opened up new possibilities for research publications for Baltic scholars as well.

Although the data on the totality of sociologists' publications were not available for our research, the analysis of the WoS dataset offers an overview of the Baltic sociologists' main publication trends since the 1990s.

To begin with, after the restoration of independence all Baltic countries saw an overall increase in the number of articles in SSH. For example, according to the WoS data, only around 30 articles were published yearly by all Baltic social scientists through the early 1990s. By the time of our empirical research this number had raised to 700. The increase in publication activity was particularly significant at the beginning of the 2000s. While before 2003 the article publication rate remained under 100 per year, the number increased exponentially in further years, reaching up to 500 articles in 2008. This increase in publication must be seen in the context of the EU accession of these countries. There is good reason to believe that after the Baltic states acceded to the EU (2004), scientists were participating more actively in the EU and European-wide scientific networks, which would explain the exponential increase in article numbers at the beginning of the 2000s.

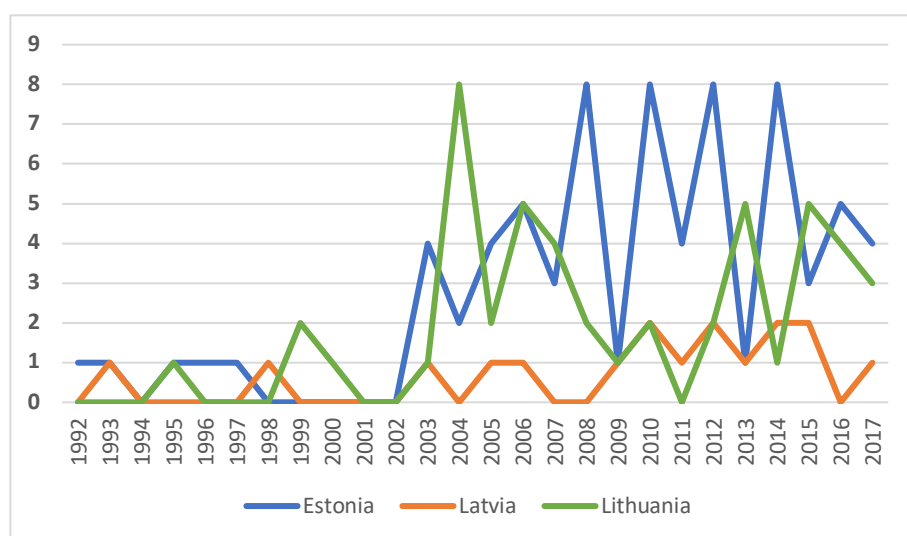
Despite this strong increase in articles in the social sciences, the number of articles published in sociology has remained relatively low throughout the post-independence period (**Figure 6-1**). Although there was a slight increase in sociology articles since the early 2000s, the overall number of total articles has remained low compared to other social sciences: only around 10 sociology articles per year are published by Baltic countries' scholars.



**Figure 6-1 Number of publications in sociology and all SSH thematic journals by Baltic authors in 1993-2017**

Source: Web of Science core collection 1992-2017.

Also, while the total number of sociology articles compared to overall articles published in the social sciences remains low in the Baltics, upon closer observation the WoS data shows important national variations throughout the 1990s until 2017 (**Figure 6-2**). Notably, the data indicates particularly low “productivity” for Latvian social scientists. While Estonian and Lithuanian authors have published 73 and 49 articles respectively, Latvian authors have published only 17 articles in the WoS sociology journals in this period (**Table 6.1**).



**Figure 6-2 Number of publications in sociology journals by countries**

Source: Web of Science core collection 1992-2017.

**Table 6.1 Total publications in sociology journals between 1992 and 2017**

Estonia	Latvia	Lithuania
73	17	49

*Source: Web of Science core collection 1992-2017.*

It is important to note that not all of the articles in sociology journals are authored by researchers working in sociology related academic structures. Comparing this data with the WoS publications of individual scholars working in the sociology structures in 2017 exposes that only around 36% of articles (10 articles out of 28)<sup>396</sup> in the WoS sociology-specific journals are published by individuals working at sociology-specific academic structures. Hence, the majority of the WoS sociology articles are published by representatives from various other social science disciplines<sup>397</sup>.

Further, approaching the publication data on an individual basis we count altogether 240 articles that were published between 1992 and 2017 by scholars who were working in the biggest sociology related academic structures in 2017. The number of articles is higher than in the WoS data because Baltic sociologists have also published in various other, non-sociology specific journals. The other journals where they publish include mainly geographical area-specific journals, general social science journals, psychology-related and education-specific journals (**Table 6.2**).

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<sup>396</sup> In Estonia: 4 articles out of 13, in Latvia: 2 out of 3, in Lithuania: 4 out of 12.

<sup>397</sup> These articles may also be published by sociologists who were working in the sociology-specific structures before 2017 and who are thus not represented in our sample. However, after a brief analysis of the background of these authors, the majority of them have not worked in the Baltic sociology structures and are instead representatives from various other social science disciplines.

**Table 6.2 Thematic distribution of publications by individuals working in sociology-related academic structures in 2017**

	<b>Estonia</b>	<b>Latvia</b>	<b>Lithuania</b>	<b>Total</b>
Philosophy	3	4	69	<b>76</b>
Sociology	23	7	13	<b>43</b>
Geographical areas	9	4	18	<b>31</b>
Social sciences	14	5	7	<b>26</b>
Psychology	11	1	1	<b>13</b>
Education	7	-	1	<b>8</b>
Management and economics	2	-	6	<b>8</b>
Demography	1	-	4	<b>5</b>
Social work	2	1	1	<b>4</b>
Communication	3	-	-	<b>3</b>
History	-	-	3	<b>3</b>
Political science and public administration	3	-	-	<b>3</b>
Public health	2	1	-	<b>3</b>
Geriatrics and gerontology	2	-	-	<b>2</b>
Other	2	2	8	<b>12</b>
<b>Total articles</b>	<b>84</b>	<b>25</b>	<b>131</b>	

*Source: Author's compilation. Based on Web of Science core collection 1992-2017.*

While the trend of publishing in thematically different journals is not surprising and follows global publication trends (Gingras 2002), it is however notable that Estonian and Lithuanian sociologists publish in more diverse thematic journals than Lithuanian sociologists. In the case of Lithuanian sociologists, their propensity to publish in philosophy journals can be explained by their disciplinary background. In the case of Estonian sociologists, we will see below that the publication outlets may be associated with longstanding requirements to publish in international journals (as publishing in different thematic outlets may be more accessible) but may also be linked to the overall broader disciplinary self-identifications of Estonian scholars (**Box 24**).

## Box 24 Estonian sociologists' vague disciplinary identification

If Latvian<sup>398</sup> and Lithuanian<sup>399</sup> interviewed sociologists considered themselves as “sociologists”, Estonian sociologists stand out with their vague disciplinary identification.

Vague disciplinary identification may be due to the heterogeneous backgrounds of the individuals working in the sociology related academic units. For example, instead of identifying themselves as sociologists, two older generation Tartu University Sociology Chair researchers we interviewed see themselves as “experts” in data processing in research methodology<sup>400</sup>. Although both of them held leading positions within the sociology department at Tartu University from the 1990s until the mid-2000s, their first-degree studies (diplomas) were in mathematics and cyber economics. Other examples demonstrate that educational background alone is not a sufficient explanation. Notably, sociology has not been part of the formal scientific classification system since 2006 and all social scientists in Estonia can refer to their profession as “social scientists”. For example, two leading young researchers, both in Tallinn and Tartu, remain ambiguous in their disciplinary classification. Although both of them have received MA and PhD level diplomas in sociology, they do not fully consider themselves sociologists. One of them explains that she is “a sociologist but a very flexible one, my articles are also published in social psychology journals and elsewhere<sup>401</sup>”. Another explains: “I consider myself more as a social scientist. But if someone asked me if I am or not a sociologist, then I wouldn’t say that I am not a sociologist. I am dealing with projects every day, I would consider myself more as a scientific entrepreneur<sup>402</sup>”. Against these examples, two interviewed researchers at the Tartu University Media and Communication Chair considered themselves clearly as “sociologists” or as “ethnic sociologists”<sup>403</sup>. One of them explains: “we can say that at this institute we have classical sociologists, media sociologists and information sociologists. But most of them are not working under the label of “sociologists”<sup>404</sup>. Media and communication chair researchers identify themselves with the former reactionist Tartu State University Sociology Laboratory, which was closed down in 1975, and whose most active members continued in journalism research.

Disciplinary erosion in Estonia is a complex matter. Given the policy changes that have progressively dissolved the individual disciplines through a classification-based system, identifying oneself as a “sociologist” seems to also be a matter of one’s politico-institutional affiliation within the scientific community.

A closer observation of Baltic sociologists' publication trends exposes that those scholars working at sociology structures that have grown out of the former AS institutes (Latvian University Institute of Philosophy and Sociology, Tallinn University and Lithuanian Research Centre) tend to publish more than their colleagues in other structures (**Table 6.3**).

<sup>398</sup> LV22, LV28, LV24, LV19, LV25

<sup>399</sup> LIT22, LIT23, LIT24, LIT30, LIT27, LIT17, LIT06

<sup>400</sup> EST46, EST41

<sup>401</sup> EST45

<sup>402</sup> EST49

<sup>403</sup> EST44, EST48

<sup>404</sup> EST46

This may be linked to their stronger concentration on research, contrary to university sociologists who have been mostly involved in teaching.

**Table 6.3 Distribution of publications by individuals working in sociology-related academic structures in 2017.**

Research group	Total number of sociologists	WoS publications	WoS publications in international journals	WoS publications in sociology journals
<b>Lithuania</b>				
Vilnius University Faculty of Philosophy Department of Sociology	11	21	11 (52%)	4 (19%)
Lithuanian Social Research Centre, Institute of Sociology	16	53	18 (34%)	5 (9%)
Vytautas Magnus University, Faculty of Social Sciences Department of Sociology	18	47	22 (47%)	4 (9%)
Mykolas Romeris University Laboratory of Sociological Research	11	10	4 (40%)	0 (0%)
<i>Total</i>	<i>56</i>	<i>131</i>	<i>55 (42%)</i>	<i>13 (10%)</i>
<b>Latvia</b>				
University of Latvia, Faculty of Social Sciences, Sociology department and Advanced Institute for Social and Political Research (ASPRI)	12	7	6 (86%)	0 (0%)
University of Latvia, Institute of Philosophy and Sociology	12	10	10 (100%)	6 (60%)
Riga Stradins University, Department of Sociology and Psychology	5	8	5 (63%)	1 (13%)
<i>Total</i>	<i>29</i>	<i>25</i>	<i>21 (84%)</i>	<i>7 (28%)</i>
<b>Estonia</b>				
Tallinn University, Institute of Social Sciences, Sociology study area and Institute of International Social Studies (IISS)	22	48	41 (85%)	20 (42%)
Tartu University, Institute of Social Sciences, Chair of Sociology	11	36	33 (92%)	3 (8%)
<i>Total</i>	<i>33</i>	<i>84</i>	<i>74 (88%)</i>	<i>23 (27%)</i>
<b>Total for Baltic states</b>	<b>118</b>	<b>240</b>	<b>150 (63%)</b>	<b>43 (18%)</b>

Source: Author's compilation. Based on Web of Science core collection 1992-2017.

Note: WoS international publications include publications only in non-Baltic journals.

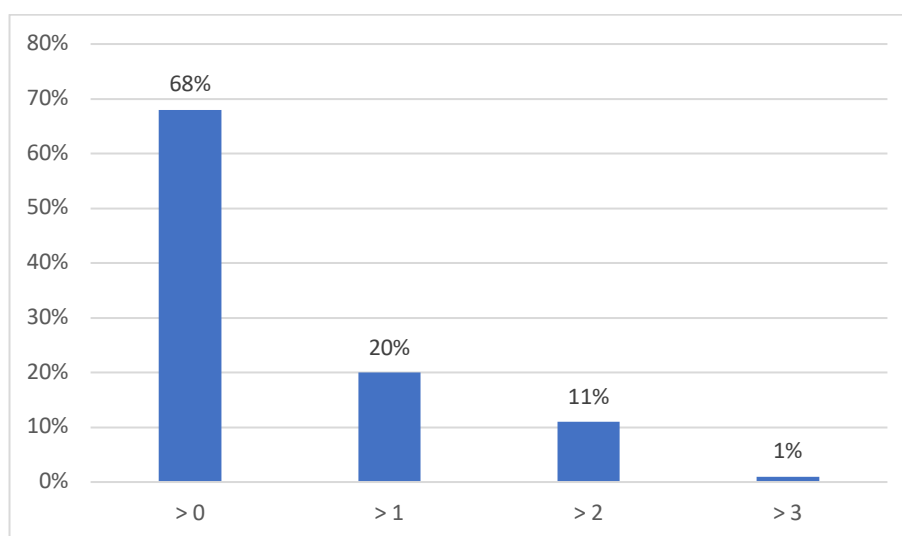
The dataset allows observation of important cross-national differences. For example, Lithuanian sociologists have published 131 articles, Estonian sociologists 84, and Latvian sociologists only 25 articles between 1992 and 1997. Therefore, Latvian authors' publications remain scarce both while looking at publications in the WoS sociology journals, and the accumulated individual publications in all WoS journals. According to other sources,

approximately 30 scientific articles authored by Latvian sociologists are printed each year in Latvian publications (Kilis 2015, 123). Hence, Latvian sociologists seem to be less invested in publishing than their homologues in neighbouring countries. There is good reason to believe that Latvian sociologists' research funding practices (with an orientation towards the private sphere), and strategies in circumventing publication requirements (as we will see below) are linked to this outcome.

Moreover, it seems that not all sociologists publish in international outlets and a high number of articles are also published in the local journals that are indexed in the WoS database. The most popular of such journals seems to be the Lithuanian *Filosofija-Sociologija* and *Problemos*, both categorised in the WoS as “philosophy” journals. *Filosofija-Sociologija* was indexed in the WoS in 2008 and was subsequently included in the Scopus database. *Problemos* was indexed in Scopus in 2002 and WoS in 2005. In both journals, contributions are accepted in English and Lithuanian. Some sociologists also publish in *Logos-Vilnius*, which is categorised as a “diverse humanities” journal in the WoS database. In addition, some sociologists publish in the Estonian *Trames*, which is categorised as a “general social sciences” journal in the WoS and only accepts English language publications. The excessive reliance on national journals and their indexing in international databases is not specific to Lithuania but is observed in other Eastern European countries where governments have established requirements for social scientists' publication practices. In the WoS Journal Citation Reports edition for the social sciences, the coverage of CEE journals has grown more than six-fold between 2005 and 2012 (Pajić 2015). In the case of the Baltics, when excluding these journals from our WoS dataset the number of Lithuanian sociologists' WoS journals publications decreases by more than half: from 131 to 55. At the same time, Estonian and Latvian publications decrease only slightly or not at all. Therefore, although the total number of Lithuanian sociologists' WoS publications is higher than in the other two countries, the majority of these publications are published in national reviews.

Finally, no less important is the “quality” of the published articles. This is notably interesting to take into consideration when analysing the Estonian sociologists' publication outputs, as they stand out with the higher number of articles and the strongest international orientation. To measure the rank of these journals, we can use the Scimago Journal Rank Indicator (**SJR**), which measures a journal's “impact” and “influence”. It expresses an average number of weighted citations received in the selected year by the documents published in the

journal in three previous years<sup>405</sup>. For context, the top 10 sociology journals according to SJR score between 3 to 5,8 (for example, *American Sociological Review* is considered one of the highest ranked journals with a score of 5.862), and the SJR may vary significantly between different disciplinary reviews. In the case of Estonia, out of the total 72 journals where sociologists were publishing, 68% were journals with an SJR lower than “1”. Only 12% of their outlets’ SJRs were higher than “2” (**Figure 6-3**). Hence, we see that not all journals where sociologists are publishing can be classified, according to the SJR, as “high-ranked” journals.



**Figure 6-3 Distribution of Estonian sociologists’ journals by ranking**

Source: Scimago Scientific Journal Ranking.

While the Baltic sociology communities' publication trends can be described with relatively low "articlisation" and limited internationalisation, it is also important to underline that the publications are not distributed homogeneously between the scholars who were active in 2017.

#### 6.1.2. Academic socialisation as a key to accessing “high-ranked” sociology journals

Further exploration into the data reveals an uneven distribution of publications within research units. An analysis of sociologists’ publication practices demonstrates higher research

<sup>405</sup> Due to the high workload that calculating the SJR for the national research community demands, we chose to focus only on the case of Estonia.

outputs for those researchers who earned their degrees from foreign universities (**Table 6.4**). Out of a total of 150 WoS international journal articles published by Baltic sociologists active in 2017, 80 of them are published by 32 scholars with a foreign degree. The remaining 70 articles are published by 86 individuals with national degrees. This means that the average number of articles published by sociologists with a foreign degree is 2,5, compared to 0,8 published by national degree holders. If this data indicates the strong role of academic socialisation on publishing practices, then a detailed overview of publication practices in each country reveals an even more uneven distribution of research articles.

**Table 6.4 Distribution of publications by academic degrees**

	Lithuania		Latvia		Estonia	
	Foreign degree	National degree	Foreign degree	National degree	Foreign degree	National degree
Number of WoS international publications	34	21	13	8	33	41
Number of individuals	13	43	10	19	9	24
Average number of publications per individual	2,6	0,5	1,3	0,4	3,7	1,7

*Source: Author's compilation. Based on Web of Science core collection 1992-2017.*

Note: "Foreign degree" includes both older and younger generation sociologists who have received their candidate/PhD degree from foreign universities, while "national degree" includes those who earned their degree in their home country.

We see that Lithuanian sociologists have altogether published 55 articles in the WoS international journals. However, more than half of these articles (35) are published by only six scholars from Vilnius University, Lithuanian Social Research Centre and Vytautas Magnus University. Three of these scholars are older generation sociologists and the trajectory of one of them – Arunas Adomaitis – was presented in the previous chapter. While linked to different sub-disciplinary groups and sociology research structures, they all have foreign candidate degrees (Leningrad University, Moscow AS Institute of Sociological Research, and Estonian Academy of Economics Institute). One has published in the *Sociological Forum* (SJR: 1,27), which is the "highest ranked" sociological journal where Lithuanian sociologists who were active in 2017 have published. The other three scholars are part of the younger generation group. One of them is an expatriate who earned his degree in anthropology from the University of California and is associated with the Vytautas Magnus University at the time of our empirical

research. The other two are both former students of sociologists who earned their degrees from the Moscow AS Institute of Sociological Research. In one of these cases, we can again observe supervisor-student cooperation in projects as well as research articles (as was shown in the example of Estonian and Latvian scholars in the previous chapter).

The number of publications and active researchers is lower in Latvia. All 21 WoS international publications are published by 29 individuals. At the same time, more than half of these publications (12) are published only by three individuals. One of them is an older generation sociologist working on the topic of rural sociology, who earned his candidate degree from Moscow AS Institute of Sociological research and established one of the most successful private research enterprises in Latvia after the collapse of the Soviet Union. The other two (one younger and one older generation sociologist) are part of a small “team” at the Latvian University Institute of Philosophy and Sociology research unit. One of them earned his degree from Ural University in the Soviet Union, and the other is Dace Krūmiņš (whose trajectory was presented in the previous chapter). Krūmiņš completed her studies in Western universities (but earned her degrees from Latvia) and considers herself the “academic follower” of one of her older peers (a former youth sociologist)<sup>406</sup>. Together with her colleagues, she has authored an article in the *Sociological Review* (UK) which with its SJR of 1,40 is one of the “highest-ranked” sociological journals where Latvian sociologists have published.

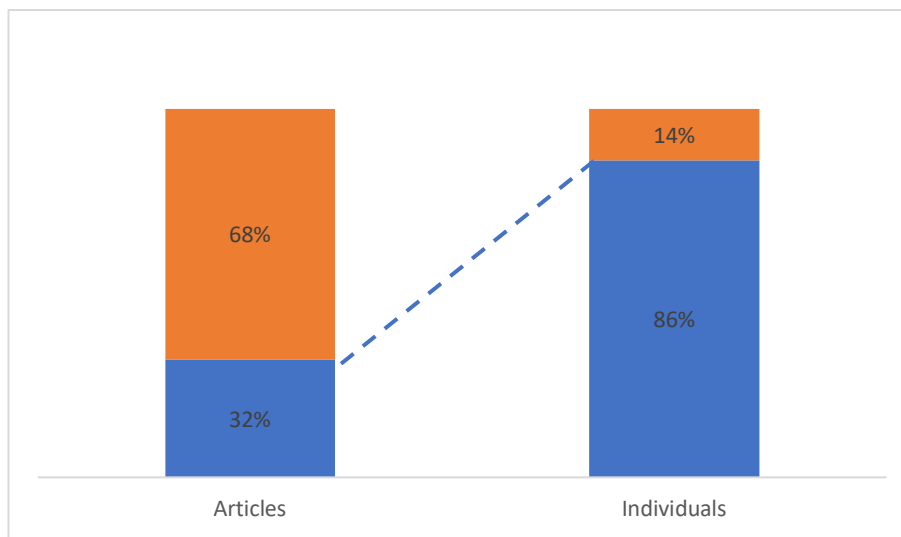
Finally, the 74 Estonian WoS international publications are published by 33 scholars. At the same time, 55 of these publications are published by only seven individuals, who work at Tallinn and Tartu University. Markedly, some Tallinn University sociologists are the only ones in the Baltics to have published in any of the 20 highest ranked sociology journals in the world (according to the 2019 Journal Impact Factor without journal self-cites in ISI Journal Citation Reports). These are the *Journal of Marriage and Family* (SJR: 2,20) and *European Sociological Review* (SJR: 2,24). Looking into this group of seven scholars, three of them are older generation sociologists who have earned their candidate degrees from either Belarus National University or Moscow AS Institute of Sociological Research. They have been supervised by noted Estonian youth researcher Tiit Kask, and are thus from the same “academic family” of longitudinal researchers. Their post-Soviet professional orientations were illustrated in the previous chapter, following the example of the trajectory of Tiiu Kuusk. Two other authors are both younger generation students, including Greta Liiv, whose trajectory was also

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<sup>406</sup> LV35

analysed above. Both of them were socialised in different international academic contexts (one earned her PhD from Vrije Universiteit Amsterdam and the other earned her MA degree from Lancaster University), returned to Estonia, and continued working at Tallinn University IISS where they work closely with their older generation peers (longitudinal researchers). Finally, another two younger generation sociologists research at Tartu University. Both of them have “grown out” from locally well-known academic groups: the family research group that stood out for its international reach and Finnish cooperation during Soviet times, and the media sociology group that has its roots in the controversial Soviet-era Tartu University Sociology Laboratory. Their supervisors are or have been leaders of these research groups.

As demonstrated, 17 Baltic scholars’ author the majority of articles (102) published by the Baltic sociologists who were active in 2017. In other terms, 32% of active scholars have published 86% of articles (**Figure 6-4**). With some exceptions, the majority of articles in sociology journals are published by the Baltic sociologists who worked in the former AS institutes and their students who have gained experience from foreign universities. Hence, as for the research funding practices, there seems to be a general practice that supervisors who the younger generation into their foreign (normally, Europe-wide) research networks. In contrast, other younger generation sociologists, even if they completed their studies in foreign academic institutions, are relatively inactive in their publishing practices. Some of them only recently defended their PhDs and can be considered to be too young for publishing activity. Others have continued the practices of their supervisors and invested in government-commissioned contracts and an occasional publication in various social science journals or have invested in private entrepreneurship.



**Figure 6-4 Uneven distribution of research output**

*Source: Author's compilation.*

Altogether, this small group of sociologists benefit from greater autonomy in their research activity:

“Well, I’m choosing on the focus that I’m doing. There is a publication about the new religion, publications about religion and state; there are different publications where I’m invited to contribute. And somehow, I have sometimes declined if I had no time. But these are mainly international publication houses. I’m always very carefully going through what kind of publication houses I will publish with: Routledge, Hasgate, Brils, California University Press”<sup>407</sup>.

Integration into international networks evidently offers liberty in choosing collaboration partners and outlets. This is not unique. Indeed, several other interviewed individuals claim to have a rather wide international network, and many of them claim to be invited to participate in international projects or collaborate in publications<sup>408</sup>. However, publishing in high-level international outlets means sometimes resisting other publication practices that allow the quick and simple accumulation of articles:

“I usually look where do people publish whom I am citing. And also thematically, I just go through these journals, and I see which one would fit better in terms of topic-wise [...] The ministry is trying to make our science more internationally competitive, so there are criteria for journals. So the main criteria are that the

<sup>407</sup> LIT28

<sup>408</sup> LIT06, LV35, LIT28, LIT06, EST49

journal should be in the Scopus or WoS. But the problem is that it is easy to hack this system. I just recently received an offer from a Lithuanian journal saying that if you want to publish with us, you can, it's safe publishing, the journal is in Scopus, and it costs you 800eur! Also, some conference proceedings are published in Scopus. People will always try to go around these rules if they have no internal motivation or urge to publish in these journals because it is difficult. People from here (Latvia) go for a safer option, rather than to try some tough journals where you most probably will be rejected<sup>409</sup>.

Resisting the option of “going for a safer option” makes sense in the context where these sociologists' publication performance is highly dependent on their funding resources:

“I have nothing against increasing requirements for international publications, but I think there are some dangers. There is a pressure ...there is the local community, local society and my impression are that sociologists should serve this society. And most of the things we are doing here is not so exciting internationally. It is not so easy to publish in international journal papers which are based on the Lithuanian case. You need an international level, and maybe you should stand more on the local level. I'm not against internationalisation. For several years I was publishing only English, but I am doing what is requested. You need these publications to get research grants. But well my feeling is that there is too much one-sidedly, that there's no balance between internationalisation and local problems. So I'm not an enthusiast. But I play by these rules”<sup>410</sup>.

“International publications” help to gain additional grants for the research group. An example of this is the case of leading sociology researchers at Tallinn University, who have gained their financial autonomy via EU FP projects, and have integrated article-writing into their everyday work. FP projects include scientific publishing on the topic of the programme, and publishing in “other than in high-level journals are not even under the question”<sup>411</sup> for these sociologists. Moreover, a high number of articles in the “right” journals plays a role within the university to justify the IISS sociologists' research-centred activity, rather than teaching, and gives access to EstRC funding.

Hence, similar to the demonstration by F.Camerati (2014) on the example of UK university researchers changing publishing practices, there is a group of sociologists in the Baltics whose publication practices “better” correspond to changing national requirements. As in the example of UK researchers, these Baltic sociologists seem to be better embedded in international academic networks and are thus capable of easily modifying their publication

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<sup>409</sup> LV35

<sup>410</sup> LIT06

<sup>411</sup> EST49

practices to meet demands. Although the national-level requirements are considered and taken into account, their primary criteria are the specificity of the article and the ranking of the journal in which the research results are published. While this small group of sociologists seem to be less influenced by the research funding reforms, the majority of Baltic sociologists say they are more impacted by the new publication requirements.

## 6.2. Adaptations and circumventions in publication practices

Publication requirements have influenced most sociologists whose incomes are tied to teaching or commissioned research. However, the publication policies, and responses to these policies, are not uniform in all countries. Adaptions to meet the requirements, as well as workaround solutions to avoid them, took different forms. Some of these responses may be similar in each country, but the general trends are as follows: Lithuanian sociologists have extended their publication outlets to the national journals that are indexed in international databases (6.2.1) and Latvian sociologists circumvent the new requirements by publishing in conference proceedings (6.2.2). In Estonia, where the requirements for international publications were already in place by the late 1990s, publication practices have been extended to a wider range of WoS or Scopus journals (6.2.3).

### 6.2.1. Persisting “in-house” publication in Lithuania

Traditionally, Lithuanian sociologists published monographs or articles in the Lithuanian outlets. At the time of our interviews in 2017, however, the majority of interviewed sociologists felt pressure to changing their publication practices. As a reminder, in 2009, the Lithuanian base-line funding formula was redesigned to reward research institutions based on their share of articles indexed in the Scopus and WoS databases. At the same time, LitRC requirements regarding research output remained heterogeneous. For example, the ex-ante evaluation of research production was applied only to the Global Grant programme and grant receivers had to publish in the journals indexed in the international databases. National research programme project holders, on the other hand, were required to publish monographs.

As a result of the reform, the number of publications indexed in the international databases has increased. Yet, there are differences in the perception of these requirements. For example, Vilnius University sociologists who gain grants from the prestigious Global Grants and Researcher Team's Projects have undertaken supplementary efforts to increase their number of publications.

“Now we are moving towards internationalisation...in the Scopus and WoS our publications are increasing...but still, national publications are ahead. It's for five years that we have been working on this issue, and we have now teams that are producing articles with citation indexes. For example, one of our leaders of psychologists' team, he has succeeded to produce this year even ten articles”<sup>412</sup>.

The interviewed sociologists do not agree with the research policies, and the term "produce" is pronounced with irony. Even if the publication requirements are not seen to threaten the stability of the research group, they have increased the need for the management of funding sources and research productions.

Accommodating the new publication requirements is more complicated for the Social Research Centre sociologists, who obtain their grants mainly from national research programmes. The change is explained by one of the older generation sociologists who started her career at the centre during the Soviet era:

“I can say that in my life it had changed very much. Because when I came to the demographic centre, I wrote in Russian, it was okay at the time, and there was no control for the quality. Let's say, what you wrote had to be similar to an article. But from then on, I saw very dynamic changes in the publication requirements. There was an idea that we should publish in a book, so it was easy. After that it was said it [publishing books] was not good, it's better to have articles in the periodicals...I think it was at the end of the 1990s when it started...and then there was an idea that it's better to have articles in the international journals. After that, there was an idea that it's better to have articles in the international databases...it was maybe around 2008...and now for two years, it's like [imitating] "everything is bad besides the WoS or Scopus articles" and "other publications are nonsense". So, requirements for qualifications have changed a lot. And you have to be clever to write funding applications”<sup>413</sup>.

As in other Baltic sociology research units, the changing requirements have increased the pressure for more strategic management of funding sources. At the same, resource management is not always simple:

“When I was young, we didn't find any place where to publish, but now everybody asks you to publish. In our science council, after every project you need to have a book, so every two years, we publish a book. So every project issues a book! [laughing] But at the institute, it's not valued in my report of scientific results. Here we have to have around two articles in the international journals per year. So, the data I received from the science council project is all about national context. So I should write articles based on this data. But I have

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<sup>412</sup> LIT02

<sup>413</sup> LIT19

no comparable data for international publication. So it's such a stupid system!"

<sup>414</sup>.

Institutional funding and the LitRC funding mechanisms require different outcomes – articles and books. Changes in research funding instruments and publication requirements have thus engendered confusion due to the incongruence between the different funding instruments.

To overcome these constraints, the majority of interviewed sociologists were extending their publication outlets with journals that are listed in the international databases. However, it is important to underline that in their descriptions of their publication practices, sociologists differentiate between three types of journals: the foreign journals listed in the international databases, then Lithuanian journals listed in the international databases, and finally Lithuanian local journals that are not listed<sup>415</sup>. For example, in our interview with one of the leading Lithuanian sociologists from Vytautas Magnus University, he explained that he “is not publishing only books but also articles in Lithuanian and foreign journals”<sup>416</sup>. It was only after a more detailed analysis of his publications that we realised these “international journals” were Lithuanian journals indexed in Scopus databases. While the terminology for designating different journals was sometimes confusing<sup>417</sup>, there is a clear hierarchy between different outlets:

“I publish mostly in the *Culture and Society* [a Lithuanian journal, not indexed in the WoS or Scopus]. That's a problem. I don't have Scopus articles. So now I aim to reorient my journals. It is because, when we are doing the projects, one of the outcomes is publications, and that's the easiest way to publish there. We have *Sociology and Philosophy* [a Lithuanian journal, indexed in the WoS] where we can publish, and its impact is higher”<sup>418</sup>.

“While I choose where to publish, I am looking at which journal accepts the easiest. Currently, it's better to have international publications. So the publication should be in English, and it should be in Scopus. And they don't accept Lithuanian journals in Scopus anymore, so articles should be in the international Scopus”<sup>419</sup>.

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<sup>414</sup> LIT22

<sup>415</sup> These journals have formally fulfilled the requirements for entering in these databases (for example, they have international editorial boards) but articles are published in Lithuanian. Due to the increasing listing of Lithuanian journals, the LitRC has published another list of journals designating those that correspond fully to the WoS and Scopus requirements: for example, accepting articles in English.

<sup>416</sup> LIT29

<sup>417</sup> Retrospectively, it is my impression that confusing terminology was also used to give a more prestigious impression of one's academic achievements or research unit.

<sup>418</sup> LIT27

<sup>419</sup> LIT30

The most valued journals seem to be the foreign journals listed in international databases; they are followed by the Lithuanian journals listed in the international databases, and finally by the local Lithuanian journals that are not listed. Publication strategies have thus shifted from publishing in Lithuanian journals that are not indexed in the international databases, towards national journals that are indexed in international databases or foreign journals. Then again, for sociologists who lack previous exposure to the foreign academic context the process of building a contact base in foreign countries and gaining knowledge about writing in international journals is considered inaccessible due to their lack of experience<sup>420</sup>. Another barrier is the short time frame of projects, as well as the cost of publications in international journals<sup>421</sup>. All of these elements may explain why the Lithuanian sociologists' publication practices are mostly nationally-oriented, as we saw previously on the example of the WoS data.

#### 6.2.2. Conference proceedings as a “solution” in Latvia

In Latvia, the major changes to publishing requirements were implemented within the reform of 2013. While the LvSC project funding conditions were only partly changed, the reformed base-line funding formula (in a similar way to Lithuania) was designed to reward institutions that had accumulated a higher share of articles in the Scopus or WoS journals.

Latvian sociologists' perceptions of changes in funding requirements vary based on their funding sources. It seems that the change in the base-line funding requirements has been almost unnoticed amongst sociologists whose main funding income derives from foreign commissioned research contracts. This includes sociologists who carry out commercial research in their small private companies, in parallel to their academic research. This is the case for one of the founders of the Baltic Studies Centre, who also holds professorship status at Latvian University. His response about his publication practices remained short: as there is “simply no funding for writing articles” then “article-writing is not my objective”<sup>422</sup>. Outputs of commissioned work undertaken for public and private sector institutions and enterprises, such as reports and recommendations, are often too specific or confidential for further publishing.

The pressure to publish is perceived more intensely by sociologists working in the Latvian University social sciences faculty, and who are not involved in commercial research.

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<sup>420</sup> LIT27, LIT19

<sup>421</sup> LIT27, LIT30

<sup>422</sup> LV06

As we saw earlier, their research income has been dependent on nationally and internationally commissioned research but has remained low due to the concentration on teaching.

“In the 1990s we were not so much about publishing as there was no pressure for publishing in Scopus. We were publishing together with our project colleagues. For example, we prepared a monograph, which was published in Germany in English. But in general, we were producing some project papers just for communicating our research. The situation has changed. We started publishing when the pressure increased in these past years...”<sup>423</sup>.

If before the reform publishing activity was irregular, and outputs were varied and included reports, books and articles, then changes in the research funding measures have increased the pressure to publish more regularly in the form of articles. We were given several practical reasons why the international publication is still low, despite this pressure. The first of them is linked to professional activity:

“Honestly speaking, it is only since these last few years I very consciously started to decide where to publish. More or less also because of this pressure to publish in Scopus or WoS journals because these are the only ones that count. But until then, I was quite light-minded and had a less ad-hoc approach, if the opportunity was there then I was publishing [...] But now, this pressure for publishing comes from university leadership. I would say it is a good idea. It is also good for the whole scientific system because you have to publish in really good journals. And it is highly competitive. But at the present moment, I am not very successful in this because I think I have no time to work for one article for so long and not being distracted for thousands of other duties to develop an article for journals with really high impact factor”<sup>424</sup>.

Due to the high workload including teaching and project management, sociologists have little time to concentrate on the article writing process. Those who have been awarded the LvSC projects (which are small, and thus always supplemented with other projects) have only a small timeframe to publish their articles. As explained by one of the sociologists: "by the end of the project the leader should have a publication that is either accepted or published, and if the timeline is 2-3 years and if you submit the best journals, the most likely outcome is rejection. But if you need to be sure that it is accepted, you will go towards lower-level journals to be sure it's accepted”<sup>425</sup>. Third, this and some other interviewees explained to us that even if they were to make an effort and increase article numbers, then due to the low base-line funding budget

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<sup>423</sup> LV20

<sup>424</sup> LV19

<sup>425</sup> LV35

and university policies only a small amount of the profit would find its way back to the faculty. Finally, there is a wide-spread perception that publications have almost no weight in the academic job market (sometimes only two WoS or Scopus articles are required to gain a professorship position), or, as concluded by one of the young generation sociologists: “It is not about your research output, but about your connections” that counts in the academic field<sup>426</sup>. For all these reasons, even if university sociologists claim to be more sensitive to the new governmental requirements it is not considered essential to make an effort to meet them<sup>427</sup>. Instead, sociologists have found innovative ways to circumvent the rules:

“We [Latvian University of Agriculture] have a conference every year and the proceedings of this conference are included in the WoS every year. So I write an article for that conference [pause] and then I have an international publication that counts as a WoS publication. Riga Stradins University also has every year its conference. When I was younger, I participated there, but as it's not "international" and it doesn't count for publications then I stopped participating there. It's useless to spend your money and time on activities that don't count [for publications in the WoS]. It's pragmatic. If I go to some conference, for example, the one organised at the Riga Stradins University, I have to spend the same time thinking about what I am going to present and sit there all day, it's exactly the same investment as if I participate at our faculty's international conferences<sup>428</sup>”.

To adjust their scientific production in a way that meets the new norms, most of the sociologists interviewed prefer to publish in conference proceedings<sup>429</sup>. Indeed, in Latvia, research output presented in the WoS CPCI, whose original aim is to "represent the leading edge of research – revealing emerging trends and new ideas before they appear in the journal" (source: Clarivate webpage 2021), is given equal value to the other publications in the WoS. Focussing on conference proceedings is considered to be a “comfortable” solution for responding to the policy requirements: “it is not so hard to prepare publications and put them into the WoS”<sup>430</sup>. These conferences take place in Latvia (and are often carried out in the Latvian language), but as they are developed in cooperation with foreign countries, are officially considered as international conferences. Selective participation at conferences may engender a situation where some international conferences abroad are skipped in favour of those held in Latvia.

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<sup>426</sup> LV25

<sup>427</sup> LV22, LV25, LV19, LV20

<sup>428</sup> LV22

<sup>429</sup> LV22, LV30, LV24

<sup>430</sup> LV24

“We are forced to publish in journals in WoS and Scopus. So what we do is highly rational. Even if our colleagues from other countries invite us to be part of conferences or to prepare some paper for the conference, we just think if the outcome will be published in the Scopus or WoS. So it is a very real, rational way of doing it. Because we have rules from Riga, AS and our Ministry of Education, and this is how they account and value our work”<sup>431</sup>.

The pragmatic orientation of these sociologists in their publication practices may also explain the overall low research articles in the WoS dataset. The WoS conference proceedings are not included in the WoS core collection, and Latvia is the only country out of the three where the national science authority has classified conference proceedings as WoS publication data.

### 6.2.3. Excessive article production in Estonia

With its publication requirements strongly incorporated into the research funding system, Estonian research policies have been divergent from its Baltic homologues since the late 1990s. Publications (mainly in the WoS and Scopus databases) are used for calculation of the base-line funding for research institutions and are counted when applying for grants from the research council. Researchers are guided to publish in international journals also via delimitation of national journals. Additionally, since the introduction of the national research information system in the mid-2000s (ERIS), academic outputs have been systematically listed and categorised not only for research funding allocation but also for recruitment and academic evaluation at research institutions.

At the time of our empirical research in 2017, the major novelties were the 2012 reform and the establishment of the EstRC that (while increasing the competition) further limited opportunities to gain supplementary research funding. The recent HE reform had also reduced the sociologists' salaries from the teaching activity. Against this background, the publishing requirements are perceived to be most demanding at Tartu University, where sociologists' incomes are mostly composed of teaching activity and various national and foreign commissioned research contracts. Our interview with one of the leading researchers, who is rather fruitful in her publication practices (we analysed her profile already in the previous sub-chapter), gives a good understanding of how these publication requirements are approached:

“I prefer to publish articles; their value as an academic capital is higher. But I also publish some project results such as the reports. In general, my choices about

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<sup>431</sup> LV24

publications are decreasing every year. I prefer high-level 1.1 category journals and 3.1 book chapters because only these are counted in the calculation of base-line funding. I, therefore, avoid 1.2 journals”<sup>432</sup>.

In the outlet selection, current national funding formulas are followed. Hence, not only are the research topic and scientific suitability considered, but also the categorisation of a specific journal in the ERIS.

For most sociologists, however, the major issue is the incompatibility of their research funding sources with publication requirements. For example, the empirical data that has been accumulated from commissioned projects are often confidential or insufficient for use in academic articles. Then again, even when the data is sufficient and non-confidential, the commissioned projects do not always cover salaries for preparation of academic articles, nor do they cover their publication fees. In the rare cases when a researcher has “time and motivation” to “squeeze out” academic content from the project, these articles are considered to have low academic value. Referred to as “by-products”, these articles are still published for the sake of recording an extra publication on the author’s CV<sup>433</sup>. Publishing requirements may affect a sociologist’s project collaboration choices:

“Now she is writing articles again, but a few years ago, one of my colleagues was working on the topics of living conditions and poverty - a project funded by Norway [Norwegian Fafo Institute]. It was quite intense work, so they didn’t publish it at the time. At the same time, Estonian research council grants have become very competitive. If you haven’t published articles for a certain period, it will be more complicated to gain these grants. So, participating in certain projects may end up being counter-productive.”<sup>434</sup>.

As publications are important in national research policies, sociologists may have to modify their research funding sources and collaboration practices. Although the issue seems to be more problematic at Tartu University, all interviewed Estonian sociologists deal with permanent resource management “for gaining time and money for publication activity”. For example, they make trade-offs between projects that may provide a high income with no scientific output, and projects that provide lower incomes but provide publishable scientific output. The latter is the case of the EU FP projects. These projects provide the opportunity to publish research articles but have low remuneration (i.e. see Box 21).

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<sup>432</sup> EST22

<sup>433</sup> EST40

<sup>434</sup> EST45

Excessive article writing is also often highly criticised. One of the older-generation sociologists, who has seen the major changes in publication requirements, calls her unit an “article factory”. She explains that the excessive publication activity is “easy to organise” and that it is “at expense of the quality of the published works”<sup>435</sup>. Therefore, even if Estonian sociologists’ publication output has increased greatly since the late 1990s, sociologists themselves admit this does not correspond to the increase in the quality of their research.

In summary, due to differences in national research funding systems and the variety of individual funding sources used, perception of the new publication requirements is highly variable amongst Baltic sociologists. In Lithuania, where sociologists have traditionally published in national outlets, we observe the persistence of “in house” publication practices. In Latvia, where the concentration of academic research has been low due to specialisation in commissioned research, sociologists tend to publish in conference proceedings that are counted as WoS publications. In Estonia, where international publication requirements were in place since the 1990s, sociologists are publishing in a variety of WoS or Scopus journals.

### 6.3. Internationalisation by coercion?

Altogether, Baltic sociologists have highly diversified international cooperation practices in their publication activity. The dependence on project funding resources has resulted, in these past decades, in a de-regionalisation of collaboration practices (6.3.1) and heterogeneous orientations in their choice of publication outlets (6.3.2). At the same time, on the level of discourse, the national character of sociology remained a core element in the collective identity of sociologists (6.3.3).

#### 6.3.1. De-regionalisation in the collaboration practices

A trend that is often articulated together with the increase in research publications, is the increase in international collaborations and the related collectivisation of research. In the social sciences, it means that more and more researchers are cooperating and publishing articles in co-authorship (Gingras 2002).

Before discussing the Baltic sociologists’ international collaboration practices, it is important to underline that in our discussions with sociologists, one of the major issues identified was their lack of research collaboration on the national level. As we saw earlier in

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<sup>435</sup> EST41

this thesis, by intending to increase the “competition” between the research institutions, most international and national research projects were constructed in a way that the budget would be declared only by one research institution or an individual. For example, in Estonia, the EstRC Institutional Research Grant funding is allocated to teams from only one university. The same is true for the LitRC grants. While the Latvian LvSC research cooperation grants and national research programmes enable national-level cooperation, these funding programmes do not constitute the primary income of sociologists. In all countries, the funding rules are said to be reducing opportunities for collaboration between the sociologists of different institutions. These rules are perceived to be “incomprehensible” or, considering the small size of the sociology communities, even “irrelevant”<sup>436</sup>.

In this context, social scientists’ inter-Baltic collaboration has remained low, notably in Estonia and Latvia where there is no base-line funding for research. Based on the WoS core collection publications in the sociology journals, Lithuanian researchers are most actively publishing in collaboration with each other. Around 41% of articles are published in national collaboration in Lithuania, compared to only 25% in Estonia and 0% in Latvia. On the other hand, 53% of these same articles are published in international collaboration in Latvia, 34% in Estonia and only 14% in Lithuania (**Table 6.5**). These numbers suggest that Lithuanian social scientists tend to publish their articles in national, and Estonians in international, collaboration.

**Table 6.5 Collaboration in WoS sociology journals**

	<b>Estonia</b>	<b>Latvia</b>	<b>Lithuania</b>
Number of articles without collaboration	20 (41%)	8 (47%)	22 (45%)
Number of articles published in national collaboration	18 (25%)	0 (0%)	20 (41%)
Number of articles published in international collaboration	25 (34%)	9 (53%)	7 (14 %)
Total articles published between 1997-2017	73 (100%)	17 (100%)	49 (100%)

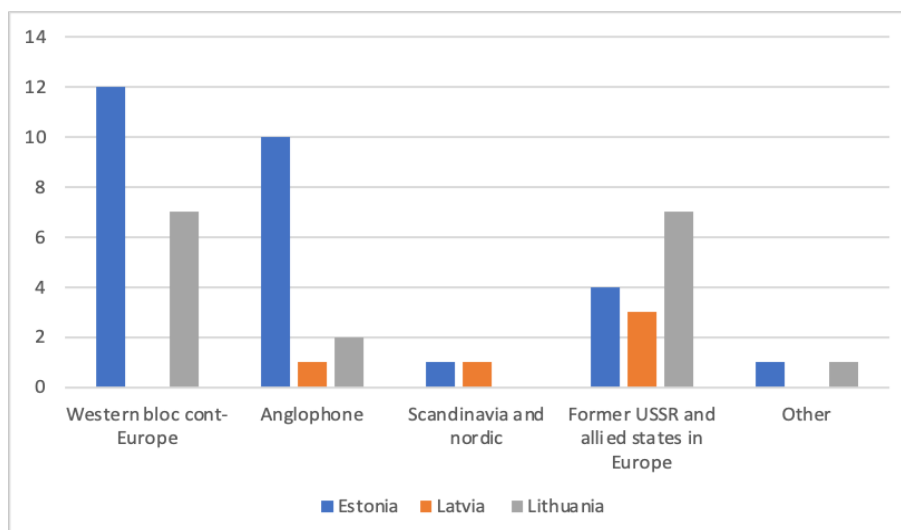
*Source: Web of Science core collection 1992-2017.*

Note: Articles published in national collaboration include articles published by two or more authors from the given country. It does not include the articles published by several national authors in collaboration with foreign authors. Articles published in international collaboration include all articles published in collaboration with one or more foreign authors.

The WoS data on collaboration practices in sociology journals also offers insight into the geographical orientation of these collaborations. Sociology articles in Estonia are published

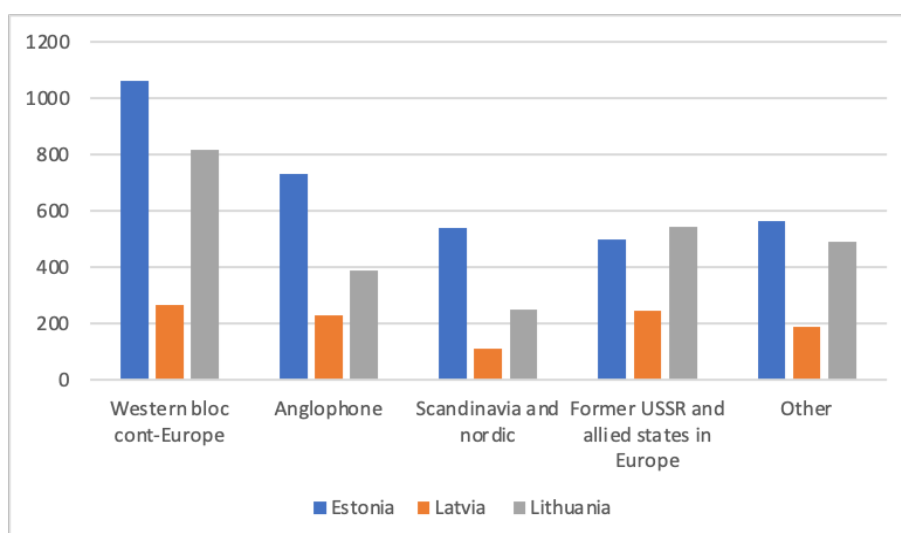
<sup>436</sup> LIT18, LIT27, LIT17, EST40, LV20

mostly in collaboration with the Central-European and Anglo-Saxon countries' scientists, and Lithuania and Latvia with the Central-European and Eastern European countries' scientists (**Figure 6-5**). This follows the trend present when considering the broader range of social science journals (**Figure 6-6**). Thus, while the CEE countries' scientists have held an important role as co-authors in Baltic social scientists' publications in the WoS sociology journals, their geographical coverage is not homogenous. The main collaboration partners are Polish, rather than Baltic scholars.



**Figure 6-5 Distribution of foreign collaboration partners in sociology in 1992-2017 (number of collaborations)**

*Source: Author's compilation. Based on Web of Science core collection 1992-2017.*



**Figure 6-6 Distribution of foreign collaboration partners in social sciences in 1992-2017 (number of collaborations)**

*Source: Author's compilation. Based on Web of Science core collection 1992-2017.*

Indeed, one of the most significant changes compared to the Soviet era has been regional scientific cooperation in the Baltics. In the Soviet period, practical cooperation mainly took place amongst the AS institutes. A notable example is the youth sociology longitudinal project led by Tiit Kask. Still in 2017, for those sociologists who participated in the project<sup>437</sup>, and those who did not<sup>438</sup>, this project has remained a reference for Baltic sociological cooperation. This cooperation was nourished by the Baltic Association of Sociologists conferences held every four years. Moreover, student conferences and other activities were organised in this time, and in some cases the collaboration resulted in scientific publications authored by groups of Baltic sociologists. After the restoration of independence, when sociologists had to start gaining their incomes from either teaching or various different projects, the systematic Baltic cooperation and researchers' publishing collaboration ceased. According to our interviews conducted in 2017, an initiative to restore cooperation was attempted by the same actors at the beginning of the 2000s, but only lasted for a couple of years as the "new generation lacked the common ground" and motivation for further networking<sup>439</sup>. Only a few younger-generation sociologists in all the Baltics claimed to have had contact with other Baltic countries' sociologists<sup>440</sup>. One of the Estonian sociologists' experiences on the matter is representative of this trend:

"Our cooperation with Latvia and Lithuania is unfortunately rather modest. Estonian science internationalised faster, and our partners started to emerge from elsewhere than from Latvia and Lithuania. I am cooperating with them in the context of a wider international network that covers all EU countries, so the cooperation is not so direct. So, it just hasn't developed...and these contacts which we had at the beginning of the 1990s...they have just disappeared"<sup>441</sup>.

The decline of Baltic cooperation practices is directly linked to the internationalisation of research activity. Inter-Baltic contracts are established within broader international projects that include, alongside other countries, the three Baltics. In the words of most sociologists with whom the topic was discussed, the lack of cooperation is linked to resource dependency. Notably, Estonian and Lithuanian interviewees identified the lack of resources as a "well-known problem" in Latvia<sup>442</sup>. This was confirmed by one Latvian sociologist: "I can't do cooperation with researchers simply because I wish it. Cooperation needs funding"<sup>443</sup>. The lack

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<sup>437</sup> LIT26, EST41, EST50, EST44, EST46, LV29

<sup>438</sup> LIT29, LIT23, LIT02, EST47

<sup>439</sup> LIT17

<sup>440</sup> LIT18, LIT24, LIT17, EST43, LV24

<sup>441</sup> EST22

<sup>442</sup> EST40, LIT06

<sup>443</sup> LV30

of resources to establish cooperation is not unique to Latvia, however, but is shared by the majority of Estonian and Lithuanian sociologists. The choice of partners does not only depend on scientific interests and trust between researchers, but also the requirements of the specific research contracts undertaken.

Although systematic cooperation between Baltic sociologists has ceased, some cooperation projects are occasionally set up between individual researchers. For example, some Estonian and Lithuanian criminology sociologists<sup>444</sup> and family sociologists<sup>445</sup> have occasionally met and “exchanged their ideas”. Sometimes Baltic colleagues are invited to participate as foreign experts in research evaluation processes<sup>446</sup>. However, the desire to collaborate in research publications or to extend one’s publication outlets to the neighbouring countries remains low, as was expressed by this Lithuanian sociologist: “If you publish in Latvia, you will not impress anybody. And in Estonia, there is no publishing outlet, only *Trames*. There are no places to publish”<sup>447</sup>. For these financial and academic reasons, the cooperation between Baltic sociologists is sporadic and takes place mainly in the context of broader international programmes.

### 6.3.2. Outlets: National, Eastern and Western journals

Along with the increasing variety in their collaboration partners, Baltic sociologists tend to target a range of journals. To better understand the origin of these outlets, as well as their specialisation, we can use data from Ulrich's Periodicals Directory – a database that provides information about popular and academic magazines, scientific journals, newspapers, and other serial publications. Crossing the WoS data on sociology articles with information about the origin of the journals from the Ulrich database exposes an important country-specific variation in social scientists’ publications practices. Notably, it seems that around half of the Baltic countries' sociology articles are published in the CEE journals (**Table 6.6**). Only Estonian authors have published the majority of their articles in the Western countries’ journals – over half of their articles are published in UK journals, while over half of the Latvian and Lithuanian social scientists’ articles are published in Russian sociology journals. Altogether, 78% of Estonian sociology articles are published in Western journals. At the same time, around only 29% of Latvian and 29% of Lithuanian sociology articles are published in Western journals.

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<sup>444</sup> LIT25

<sup>445</sup> LIT03, EST47

<sup>446</sup> EST40, LIT19

<sup>447</sup> LIT06

However, this observation is conditional. As mentioned earlier, the data on WoS sociology articles only partly reflects the practices of individuals who were working in the Baltic sociology-related academic structures in 2017.

**Table 6.6 Country of origin of sociology journals**

	Total sociology articles	UK	USA	CAN	BEL	NLD	RUS	POL	CZE
Estonia	73	59%	12%	5%	0%	1%	16%	1%	4%
Latvia	17	24%	6%	0%	0%	0%	59%	12%	0%
Lithuania	49	12%	2%	12%	2%	0%	57%	8%	6%

*Source: Web of Science core collection 1992-2017 and Ulrich's Periodicals Directory datasets.*

Another, somewhat more accurate way of analysing the origins of the articles published by Baltic sociologists is to look at the individual publications of scholars working in the sociology-specific research structures in 2017. Due to the high workload that such an exercise would demand, we chose to only analyse articles published in sociology journals. Altogether, Baltic sociologists have published 43 articles in sociology journals (e.g. see Table 6.3 in section 6.1.1). According to our analysis, half of these articles (51%) are published in the UK or US journals and 35% of them are published in the CEE countries' journals (**Table 6.7**). Also, while Estonian sociologists tend to publish mostly in the UK journals, Lithuanians and Latvians publish mainly in the CEE (Polish, Czech) journals. This data confirms the pattern from the WoS sociology journals, which exposed the stronger Western orientation of Estonian social scientists in their publication practices than their southern homologues.

**Table 6.7 Country of origin of the sociology journals published by individuals working in sociology-related academic structures in 2017**

	Origin	SJR (2018)	EST	LV	LIT
European Societies	UK	0,45	5	0	0
European Sociological Review	UK	2,24	5	0	0
Sociological Research Online	UK	0,46	1	0	0
Ethnic and Racial Studies	UK	1,00	1	0	0
Journal of Family Issues	UK	0,84	1	0	0
Journal of Marriage and Family	UK	2,18	1	0	0
Sociological Review	UK	1,40	0	1	0
International Journal of Comparative Sociology	US	0,80	2	0	0
Social Science Research	US	1,29	0	1	0
Acta Sociologica	US	0,85	0	1	0
International Sociology	US	0,57	2	0	0
Rationality and Society	US	0,43	0	0	1
Sociological Forum	US	1,27	0	0	1
Journal of Comparative Family Studies	CAN	0,22	1	0	
Canadian Journal of Sociology-Cahiers Canadiens de Sociologie	CAN	0,38	0	0	1
Journal of Comparative Family Studies	CAN	0,22	0	0	3
Sotsiologicheskie Issledovaniya	RUS	0,00	5	2	3
Polish Sociological Review	POL	0,15	0	2	1
Eastern European Countryside	DEU	0,13	0	0	1
Sociologicky Casopis	CZE	0,26	0	0	2

*Source: data crossed between Web of Science core collection 1992-2017 and Ulrich's Periodicals Directory datasets.*

### 6.3.3. Sociology as a national science – a persistent discourse

The results of the interviews with the local sociologists suggest that the propensity and ability to publish in foreign journals are linked to academic socialisation in the Soviet period. The professional trajectory of one of the Estonian sociologists, Roosi Viitman, is emblematic in this regard.

After studying mathematics and cybernetics, Roosi Viitman joined a research group at the Institute of History of the Estonian AS. There she worked as a data analyst in a longitudinal research project with an all-EU reach, led by member of the CP Tiit Kask. In the mid-1980s,

she earned her candidate degree from Belarus State University, whose sociologists also took part in this project. Like most of her colleagues she was not engaged with the CP, and although her supervisor was a Party member they all shared a common understanding of a “mission”: “Working in sociology was a sort of mission for us. Of course, nobody was whatsoever willing to support this Soviet thing, but we ‘scraped ourselves a cave’ to do what we wished to do”. She adds: “Moreover, Moscow funded us, but Estonia was our idea! We loved to see Estonia admired. We participated in these Soviet rituals because we wished to keep our work ongoing, that we would do better. Moreover, compared to others [other Soviet republics or Eastern bloc countries], we were also appreciated in the West”<sup>448</sup>. In other words, although the knowledge produced by Baltic sociologists was published in Russian, and was inspired through international references, it was perceived as “national” because their practices were linked to the researchers’ national network. While staying in the background of the political and social movements in the late 1980s, Viitman was able to grasp new opportunities to develop her professional career after the restoration of independence. Mastering (besides Russian) German as a principal foreign language, in the early 1990s she was awarded – in her own words, thanks to her previous participation in the longitudinal project – a Max Planck scholarship to spend a year as a research fellow in a German research institute. New contacts and know-how in data analysis provided her with further work in the Estonian academy where she specialised as a teacher of data analysis in the social sciences, and notably in sociology. She also participated in the development of a new data analysis programme that was further sold to Russia. From the mid-1990s until 2010, she was elected several times as the head of the institute. From the 1990s until 2017, she (co)authored numerous publications in Estonian and English: around 30 articles and book chapters, including six articles in foreign journals indexed in the WoS. Nonetheless, in our interview Viitman admits to viewing article writing as a pragmatic activity to keep up her CV. Looking back on her career, she claims to have been the most motivated in the early 1990s when she published her first study book in Estonian. Subsequent research policy reforms introducing incentives for internationalisation contradicted her vision of the mission of sociology: “Now, many research projects and articles are multicultural, but what is the point of knowing the position of Estonia amongst another 60 countries we don’t know of? They are interesting to make but many of these works don’t give deeper knowledge about the topic. And what is their use? They don’t give anything to the [Estonian] society, so, as a result, there are only politicians to describe and give sense to it”.

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<sup>448</sup> EST41

This example demonstrates that a critical attitude towards internationalisation is not incompatible with a successful domestic and international career. The perceived role of sociology is a key element in understanding this attitude. Other interviews with sociologists conducted in 2017 coincided in considering the mission of sociology as “to help the policy development”<sup>449</sup>. Indeed, most of our interviewees believed that because of their specific role in a national context, social sciences in general, and sociology in particular, are different from “exact or natural sciences”. The role and the value of sociology is considered to be in its capacity to be applied to the practical political decision-making process. This view of the role of sociology can be called “representative nationalism” (Gordin 2006, 300), meaning that the produced knowledge is perceived to be inherent to the members of the national collective or network. This vision of the role of sociology also conditions sociologists’ perceptions of national publication requirements:

“Yes, of course, I support that, but the level of sociology should be higher. But on the other hand, I don't support the idea that publications that are written in Latvian are not counted at all because while we have to think about what sociology’s mission is, I said it's to help the policy development. Will that help if we publish in Scopus? No, it will help only if it's in Latvian and it's published for the public. And of course, the third role which probably should be put in the first place is the development of science. We cannot help policy without developing science if we don't develop methodologically. I don't know the methodology, we are probably just doing something empirical, and we might get wrong decisions”<sup>450</sup>.

Hence, sociologists perceive a “lag” between the role of sociology and the publication requirements. This generates barriers to producing and accessing nationally relevant sociology research for the public, which in turn results in a lack of accountability in political groups to adopt and implement research-based policies. In several interviews with older generation Estonian<sup>451</sup>, Latvian<sup>452</sup> and Lithuanian Social Research Centre<sup>453</sup> sociologists our interviewees were critical of their countries' “ruling politicians”, and notably of their unwillingness to look to sociologists’ analysis on public policy matters. The disregard for sociological research is seen as a lack of competence in the political establishment on the one hand, and on the other hand a lack of mediators or “prominent sociologists” who could transfer research results to the

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<sup>449</sup> EST38, EST41, EST44, EST46, EST47, EST50, LV29, LV30, LIT22

<sup>450</sup> LV29

<sup>451</sup> LV30, LV29

<sup>452</sup> EST41, EST47, EST44, EST38, EST50

<sup>453</sup> LIT24, LIT22

political sphere. Instead, other disciplines such as economics or law are seen to have more influence over processes than sociology<sup>454</sup>.

A somewhat different perception of the role of sociology can be found amongst Lithuanian Vilnius University and Vytautas Magnus University sociologists. These were the only units where interviewed sociologists expressed their detachment from the political sphere.

“I think in our department a majority of people would say that it’s [sociologists’ role] one hand to provide society with empirically grounded knowledge about society, to be able to reflect its existence and based on this knowledge to think or build the future. Sociology is self-reflection and a contribution to the construction of the future of society. I see sociology not only as a science but also as a contribution to the life of society”<sup>455</sup>.

Sociologists emphasised the critical role of sociology in society<sup>456</sup>. In a similar way, the head of the Vilnius University Department of Sociology stated that whatever the role of sociology would be, “for sure it is not to help the government to govern the country”<sup>457</sup>. It was emphasised that there should be no “attachment” between the government and the sociology or the “need” for one another<sup>458</sup>. The particularity of these sociologists is their attachment to the national traditions in research in topics, as well as in the methodology of research.

“I publish in the Lithuanian journals and then books. It’s hard to publish in international journals because of the language. Lots of people share this idea that if you are working in social sciences, especially in sociology, you are not only presenting data, but you are also presenting arguments and in the meaningful structures and in meaningful representations about what is going on. And sometimes when moving to other languages, you discover that your linguistic capacities are not enough to do a clear translation. So...you can talk, but what message do you have and to whom do you address it? So if you would like to move to an international context, you have to have a more interesting empirical case. For example, post-communist transformation is interesting, but that’s it”<sup>459</sup>.

Sociology as a scientific discipline is thus seen as being intimately linked to the national context, and therefore can only be practised on a professional level in the national language. Hence, while sociologists are expected to increase their publication activity in international

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<sup>454</sup> EST41, LV30, EST43

<sup>455</sup> LIT28

<sup>456</sup> LIT23, LIT02, LIT17, LIT28, LIT25

<sup>457</sup> LIT02

<sup>458</sup> LIT17

<sup>459</sup> LIT17

outlets, this imperative is contradicted by a widely shared opinion that research should be communicated in national languages, referring to "linguistic nationalism" (Gordin 2006).

In all of these cases, internationalisation and publishing in international outlets are seen to be irrelevant due to the claimed national "character" or "role" of the discipline. However, as an exception to the majority of interviewed sociologists, some of the younger-generation sociologists presented a different view of their discipline. For them, the role of sociology is not linked to the political decision-making process, and its critical dimension is not emphasised either.

“Sociology aims to contribute to the scientific understanding of societal processes, meaning based on the data. It should be able to make forecasts and recommendations for the future. At the moment, for example, we would need to deal with bigger societal challenges.<sup>460</sup>”

While explaining the role of sociology, these sociologists make references to the EU institutions' vocabulary. Sociology is there to respond to “societal challenges” as expressed in the interview extract. Other sociologists have described the role of sociology in its “capacity” to develop “sustainable societies”<sup>461</sup> and to serve broader “societal interests”<sup>462</sup>. All of these expressions are increasingly present in various EU-specific research programmes, notably the EU FP project applications. Unsurprisingly, the use of this managerial vocabulary is linked to their trajectories. All of them have been rather active in international (EU-level) research networks, are successful in participating in foreign research projects, and as we saw above, feel less constrained by national publication requirements in their publication practices<sup>463</sup>. Academic socialisation in foreign countries and European-wide projects have thus influenced the way the role of sociology is perceived.

To conclude, there seem to be at least two dominant discourses surrounding the discipline of sociology in the Baltics. In one case it is its applied dimension, and in the other it is its critical dimension that is emphasised. In both cases, there is a perceived disagreement between the role of sociology and the recent research policy developments. If the role of sociology is seen as attached to policy-making, it can realise itself only in the national context and therefore in its national language. If its role is critical, then sociological research must concentrate on objects that can be understood only in the national context and in the national

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<sup>460</sup> EST45

<sup>461</sup> EST48

<sup>462</sup> LV35

<sup>463</sup> EST45, EST22, EST48, EST49, LIT28, LV35

language. On a smaller scale, these views are contrasted with a managerial discourse about the role of sociology – one that is held by a bulk of younger generation sociologists who have been socialised with foreign context, mainly via participating in EU programmes. Therefore, even if the conditions and practices of scientific work have evolved since the collapse of the Soviet Union, the national character of the discipline persists in sociologists' discourses. These visions justify the their reluctance toward internationalisation.

## CONCLUSION: CHAPTER 6

The articulation of WoS data with academic socialisations enabled us to gain insights into the cross-national similarities and differences of Baltic sociologists' publication practices.

To begin with, the shift to project dependency seems to be the major factor in understanding sociologist publication practices. It seems that due to their different research funding sources, sociologists are more tightly bound by the rules of the base-line funding (and related rules of research evaluation) than their research councils' project funding mechanisms, even though the base-line funding makes up only a small part of their income. In other words, the pressure to publish is related to their formal attachment to the universities and research institutes. The project funding, on the other hand, is an incentive to publish in international journals only for a small group of "higher" performing sociologists in Estonia and Lithuania. In that way, most sociologists perceive a disconnect between their actual working practices and income sources. The publication requirements, in this context, are seen to be "irrelevant". They are fulfilled unenthusiastically and in a "pragmatic way", meaning that all available methods to increase publications numbers are considered. In addition, interviews with sociologists show criticism toward not only the scarcity of resources obtainable from the state, but also the expectations surrounding the role of sociology, which are perceived to be incompatible with their professional identifications. Hence, with the exception of a group of younger generation sociologists, internationalisation in academic sociology is not perceived to be coherent with the national-centred aim that sociologists assign to their discipline.

Altogether, the research "productivity of the sociology community has remained rather low in comparison with other Baltic SSH disciplines throughout the past decades. However, the low number of articles does not mean that sociologists are focused on monographs like their Czech counterparts, whose research is aimed explicitly at long-term projects requiring large teams and programmes based on large databases, often resulting in multi-volume publications or encyclopaedias (Kratochvíl 1995). Monograph-writing is only regularly practised regularly by some Lithuanian scientists with the benefit of the LitRC research programmes. Due to the limitations of our empirical data, it is complicated to objectively evaluate which types of research outlets are used by sociologists. However, the WoS database showed that high international visibility in publication activity is reached by only a small group of sociologists with professional socialisations in foreign universities. This trend is also visible on the level of

sociology units, where the concentration of these individuals is the highest (at former AS institutes in Latvia and Estonia).

In the context of resource dependence and distinct national policies determining publication requirements, Baltic sociology communities' research outputs are also characterised by distinct trends regarding research collaboration and internationalisation. In Lithuania, where some sociologists benefit from a small basic salary for research and where research policies are less oriented towards internationalisation, sociologists are remain turned towards “in-house” publication and collaboration practices. At the other end of the spectrum, Estonian national research policies have supported internationalisation since the late 1990s and therefore national collaboration and publication practices are low. Instead, sociologists prefer to publish in foreign journals, even if the journals are not considered prestigious. A similar trend of moving towards “lower-ranked” journals is also noticed amongst Western countries’ researchers, such as in Australia (Hodder, Hodder 2010). Finally, in Latvia, where scholars are strongly oriented towards teaching and commercial research, sociologists’ academic production is hardly comparable with Estonian and Latvian sociologists’ outputs and is almost non-existent. Hence, as a response to the policy requirements, we see that Baltic sociologists’ publication practices often follow a similar logic to most other CEE countries where “only communication channels are internationalised, but not the communication itself” (Pajić 2015).

These differences are further reflected in the geographical orientation of their collaboration. While Estonians tend to collaborate with Anglo-Saxon or Scandinavian academic networks, the other two Baltics cooperate with CEE academic networks. Above that, we also observe a “de-regionalisation” of collaboration practices, meaning that foreign geographical collaboration is increasing, and Baltic collaboration is decreasing. Altogether, the Baltic example confirms the recent hypothesis that globalisation does not occur to the detriment of national systems (Kwiek 2020b; Maisonobe *et al.* 2016, Jeong *et al.* 2011). Moreover, it demonstrates that differences in national and international collaboration practices may occur, even within small countries that are traditionally considered to be the most receptive to internationalisation (Wagner 2008; Wagner, Leydesdorff 2005).

## CONCLUSION: PART III

The articulation of sociologists' academic socialisations with their research funding and publication practices, in the context of their national research policy environments, enabled us to better understand the role of the reforms on Baltic sociology communities.

While analysing research funding and publication orientations from the perspective of sociologists' academic socialisations, the study exposed an important similarity between the sociologists' practices in the three countries. In particular, there is a small group of sociologists who are successful in bringing in research contracts from both the national and international funding agencies, and are publishing in high-level sociology journals. Publications are used strategically to gain new grants and vice versa: research grants further enable them to focus on article writing. The profiles of these scholars include both younger and older generation sociologists, and all of them have foreign academic socialisation. The older generation of sociologists have converted their Soviet era social and symbolic resources and used them in the new context to gain new social, financial and positional resources in their national scientific fields. While such conversion of these resources is observed previously, for example by A.Roger (2021)<sup>464</sup>, the Baltic case also shows that researchers with different international resources (those who acquired their resources in the Soviet academic centres, and those who developed them from the West post-independence) are not necessarily in competition with each other, but may cooperate. Indeed, in each country we notice the existence of small "teams", composed of older and younger generation sociologists, who combine their resources to increase their chances in the market of research grants. This particularity can be explained with their affiliation to the same "sociological schools", implying that sub-disciplinary affiliation is a more important factor in understanding the internal division of positions in Baltic sociology communities than age or the geography of academic socialisations.

Then again, although these scholars have secured their external networks and enjoy relatively stable incomes compared to their peers in other research units, it is important to underline that their salaries are not "extraordinary" nor are they "extraordinarily mobile", as is the case for the most successful "star scientists" in the UK, for example (Paye 2015). Moreover, as they depend entirely on external evaluations to acquire their funds, they have to struggle to

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<sup>464</sup> The theoretical framework of this work, however, implies the utilisation of concepts of "capital" and "field".

maintain their own research agendas. A similar situation has developed for German and Australian researchers (Laudel 2006).

While this small group of sociologists tend to be successful in both their publication and research funding practices, this is not the case for the majority of Baltic sociologists. This is due to their variety of professional orientations. For example, many scholars whose careers were linked to the main Soviet scientific centres, or who established contacts with foreign colleagues, have specialised in undertaking contract research commanded by both national and international public institutions and businesses. Others focussed on teaching activity. All in all, both older and younger generation sociologists who have international socialisations have diversified their incomes in a way that does not allow them to concentrate their working time on producing articles. At the same time, due to their affiliations with national research institutions (universities and research institutes) whose incomes are calculated according to accumulated research production through performance-based base-line funding, these scholars find themselves in a situation where their research funding and publication expectations are often contradictory. This has engendered a variety of adaption and circumvention strategies in their publication practices. In order to “fill their publication quota”, Latvian scholars tend to publish in the WoS conference proceedings, Lithuanians shift their publications towards national journals that are indexed in the international databases, and Estonians publish in international journals regardless of the quality of these outlets. While some of these practices are not completely country-specific (for example, Latvian and Lithuanian scholars are also publishing in “low ranked” international journals), they are still strikingly influenced by the orientations of the national research policy environments. Hence, even if “performance” can be associated with international academic socialisations, international academic experience is not *automatically* leading to higher-level academic publication and higher “performance”, as is sometimes suggested. For example, O.Kirtchik (2012) concluded, based on the example of Russian economic science, that the international visibility of economists from peripheral countries is fundamentally achieved through professional socialisation. On top of that, we saw that funding practices and publication practices may be also different in terms of the geographical spaces in which sociologists are operating. For example, receiving “Western-European” funding allows Baltic sociologists to publish in any of their national outlets, or in American journals as is the case in Lithuania, or UK journals as in Estonia.

Altogether, these assertions demonstrate that research funding reforms have had only a limited impact on researchers’ publication practices. We have shown that the specific academic

socialisations, professional orientation and high degree of personal motivation seem to be the most important factors in explaining the production of “high ranked” research publications. Outside of this, research funding context is important in explaining the adaption strategies that researchers may adopt to fulfil the new formal requirements. Hence, while the professional orientations and resources of researchers may diverge, there is indeed a feeble link between the “competitiveness” of a research system and its publication “performance” (Auranen, Nieminen 2010; Himanen *et al.* 2009; Liefner 2003). By bringing in the factor of researchers’ academic socialisation, the Baltic case could also explain the more precise modalities of policy limitations.

Finally, even though our research was not about epistemological orientations, the Baltic sociology case suggests that funding policy can create the *conditions* for possible interdisciplinary changes, and therefore may affect the development of national traditions in the social sciences (Heilbron 2008). In Lithuania, where the continental philosophical tradition was the most developed, the availability of base-line funding and a stable and national-centred research environment allowed changes in academic structures to occur more easily (for example, the engagement of philosophers in the sociology-specific academic structures). As a result, sociology seems to be conducting more “basic research” in Lithuania. Serving as a platform for national debates and the construction of frameworks for the development of the national professional community, Lithuanian research is principally published in the national language and national outlets. At the same time, Estonian and Latvian sociology focus more on “applied research”. Specialised national outlets are almost non-existent, and the primary role of the discipline is seen as its capacity to modulate problems and offer solutions in the policy-making process.

## CONCLUSION

This thesis aimed to better understand the introduction of competitive norms in the research funding policies of post-communist countries. The topic was examined through the lens of the set of research funding reforms in the Baltic states between 1988 and the mid-2010s in SSH and specifically in sociology. While questioning the (neo-) institutional approach to analysing policy changes, we blended this literature with a sociological approach to public action that was attentive to the socialisation and social trajectories of actors and studied research funding reforms in a dual perspective: through both institutional change and practices. This guided us to view reform making as a social activity and conceptualise the national science administration as a space of struggle between different groups of actors whose activity is informed by their academic socialisations – including their disciplinary affiliation. More precisely, we hypothesised that research funding policy settings as we observe them today have resulted from continuous struggles between different groups of actors in national scientific fields, who use a variety of foreign references to impose their vision of policy developments. Internationalisation is therefore also a phenomenon that relates to different disciplinary areas where SSH is positioned as a less dominant area of science next to the more dominant natural and exact sciences. This can be understood via an endogenous study of reform trajectories. In applying this hypothesis to the case of Baltic research funding reforms, we studied these through the socialisations and practices of actors on two levels: on both the policy and disciplinary levels. In that way, our research strategy drew on a multilevel cross-country comparison between three Baltic states. Overall, this research blended more sociological actor-centred meso-level analysis with more macro-level institutionalist analysis of longer-term policy developments. With this approach, it aimed to grasp the object of the research – research funding reforms – in the context of mid- to long- time periods, taking into consideration the geographical space of the reforms as well as different levels of analysis. By shifting the focus from an EU-centred approach to the interplay of multiple external influences, we were able to avoid methodological Eurocentrism.

Throughout the three parts of this thesis, we have shown that the competitive norms in SSH budget allocation that emerged over the course of the last two and half decades were not homogenous across all three Baltic countries. Roughly, while Estonian public research funding developed towards competition and the related standards of internationalisation, Latvian and Lithuanian policies developed towards mixed rules and norms in research funding. Whereas Latvian reforms were still ongoing during our research, Lithuanian policies were noticeably

supporting national centred research activity. We have shown that these variations were not linked to specific research funding models but rather to complex struggles within national science administrations whose results were tied to the disciplinary hierarchies grounded in the institutional rules set up in the early 1990s. We have also demonstrated that despite shaping norms in the scientific field, the national reform trajectories had a somewhat different effect on the adoption strategies of sociologists in each country and did not substantially change their research publication practices. The “success” of a small group of sociologists who were able to shift their research funding practices and enjoy relative liberty in their publication practices is more the result of their academic socialisation than of national policy reforms.

These results were possible because of the chosen case-study – Baltic public research funding in SSH. Comparing small size countries allowed us to identify different levels of *action* – the level of state and the level of the discipline – an analysis that is more difficult to conduct in larger countries. More precisely, we outline three sets of conclusions based on our empirical research. First, national research policies are formed from the struggles between groups of actors with different academic socialisations (I). Second, the internationalisation of research policy does not result solely from external pressure (II). Third, the SSH disciplines are not always equal in the face of reforms (III). These conclusions open up avenues of possible future research (IV).

#### I. Research funding policies are the product of struggles between groups of actors with different academic socialisations

To begin with, this comparative study allowed us to better understand the singularity of each country's public research funding reform trajectories.

In a similar way to other post-communist countries, the collapse of the Soviet Union contributed to the significant downsizing of the Baltic research sectors. As the AS funding from Moscow stopped and formerly prominent industries collapsed, the budgets for research at the level of research institutions were slashed. Consequently, besides liberating their research from political control, gaining control over the scarce state funding resources and determining the rules for their allocation became a major issue for the emerging science administrative elites. These members of the elite had previously been working in the prominent AS institutes and would also lead the legal-structural reorganisation of the science policy sector. As a result of their mutual power struggles, and their relations with the rising political establishment, the formal organisational settings in the three countries came to be considerably different. While in

both Latvia and Estonia the public budget allocation was granted to the newly created research funding councils, in Lithuania it was granted to the Parliament. There is good reason to believe that this difference is due to the interwovenness of science and politics in Lithuania. The post-independence Lithuanian science administrative elite were members of the CP, and when the former CP politicians formed a majority in the new government they sought to achieve stability via politically streamed funding distribution.

The next phase of changes started in the mid-1990s, and only in Estonia. During this time, Estonia was an exception due to the rapidity and radicality of its reforms when almost all public funding mechanisms, including in SSH, were transformed into competitive project funding. This can be explained by the fact that Estonian reform actors (who were mostly exact and natural scientists) were had already been working in the international scientific field during the Soviet era. These actors were embedded within the existing science administrative elite and after the change in government in the mid-1990s, they were capable of gaining political support and pushing their reform programmes forward.

The following years brought about several changes in the funding policies of all three countries, but none of them was as radical as those in Estonia. Latvian science funding policy was modified progressively starting in 2005 but these reforms were mostly formal because of the involvement of the science-administration members from the science funding council as they did not introduce new norms in SSH funding allocation. It was only later, around 2013, that a more solid attempt at reform occurred as a result of the activity of reform actors linked to the research ministry. However, instead of addressing the project funding that was controlled by the science funding council, they focused on other aspects of research funding. Performance-based base-line funding was established, and research funding was linked to external research evaluations. Similar changes also occurred in Lithuania, where the base-line funding allocation was gradually modified with supplementary performance-related elements from the early 2000s. Around 2009, when political power changed hands and a stronger group of reform actors emerged, a research funding council was set up. However, due to strong resistance from SSH representatives and their implication in the group of reform actors, SSH funding norms were not radically changed.

Altogether, the analysis of these cases provided a clearer understanding of the construction mechanism of public research funding and research funding policy developments in post-communist countries, in a context of diffusion of neoliberal policy recipes.

The major changes in research funding were carried out by the groups of reform actors which emerged with and within the centre-right liberal, or “internationally-minded” conservative political parties and were supported by the agendas of various international actors. Then again, the action of these actors was limited by oppositional groups and their positions in existing (formal) institutional structures. The conflict in the Baltics’ research sectors was not only about internationalism-competition and localism-preservation seeking paradigms, but over broader norms at the heart of the distribution of public resources, such as equity and excellence (Hicks, Katz 2011), and more broadly between “individualist” and “collective” principles in science policy. These conflicts were then institutionalised in the rules of public research funding settings: funding devices were either used to introduce structural changes in the scientific fields, or instead, to maintain the status quo of existing groups. In that way, **research funding and criteria were not just “neutral” or “technical” devices, but objects of reform in research policy sectors** (Aust 2014). Moreover, while the funding policies evolved within the context of struggles for dominant positions in the national research policy sectors, the scientific disciplines were not always equally represented in this struggle. The implementation of funding devices was first and foremost motivated by reform actors’ shared interpretations of their academic environments and positional goals within the national scientific field and its institutions.

Consequently, **policy instruments that are usually related to NPM and competitive measures in public policies, such as project funding instruments, were sometimes utilised as stability mechanisms in public research funding settings**. A notable example is Lithuania, where project funding was designed to support national sciences because of the activity of SSH actors who participated in the elaboration of the rules of the council. Collective protection was also operating in Latvia, where project funding was managed by the former science administrative elite – and was therefore excluded from the reforms. These elements may also offer a better explanation as to why, even after more than two decades since the collapse of the Soviet Union, some post-communist countries' policies display continuous lags between the policy “models” and “norms” (Sauvé 2019).

In other terms, **the overall national research funding policy organisational settings resulted more from power struggles than from following specific pre-existing policy models**. We observed that the willingness and capacity of reform actors to fully appropriate and implement changes, following the example of a specific policy “model”, was restricted and was not even always aimed for. Instead, the shares of funding (project vs base-line), as well as the settings of these funding instruments (international vs national standards in research

evaluation), were flexible in the hands of reform actors. This assertion offers a complementary view to current literature on research funding, which focuses on funding organisations and tools (see for example Lepori *et al.* 2009; Radošević, Lepori 2009) more than on their utilisation in national policy contexts.

## II. The internationalisation of research policy does not result solely from external pressure

As national research funding policies resulted from local power struggles, they could be also incredibly resilient against external pressure.

As a reminder, many historical institutionalists have divided the flow of historical events into periods of continuity punctuated by “critical junctures”. These may be the impact of an economic crisis or of military conflict (i.e., moments when substantial institutional change takes place), thereby creating a “branching point” from which historical development moves onto a new path (Collier, Collier 1991). Recent historical neo-institutionalist authors have added to this literature by suggesting other, more “endogenous” types of changes (such as “layering” and “displacement” processes) (Streeck, Thelen 2005; Mahoney, Thelen 2010). However, it is not yet clear what precipitates such changes (see also in Hall, Taylor 1996, 10). While defining “reforms” via their capacity to change power relations (Lagroye, Offerlé 2010), our research has shown that many of the smaller organisational/institutional adjustments, or even larger changes observed did not change the power-relations in the national scientific fields. This was the case, for example, with the introduction of base-line funding in 2005 in Latvia and later in Estonia, or the creation of science funding councils in Estonia and Latvia at the beginning of the 1990s and in Lithuania in 2009. In all of these cases, new rules were “utilised” by the current science administration to uphold existing power relations. Instead, **the changes in the research funding policy norms occurred only when they were led by a group of actors with prior international socialisation.** This explains why more competitive policy settings in the three countries were introduced at different time periods: in the late-mid 1990s in Estonia, and more progressively and only recently in Latvia and Lithuania. Also, the periods between these more intensive reforming activities were not completely devoid of importance. Reform actors could use and reuse these pre-existing institutional settings and reform trajectories were indeed composed of interconnected events with each one impacting the following (Bezès, Palier 2018).

As it is mostly the socialisation of the reform actors that explains the emergence of competitive policy settings in the three countries, the role of international organisations as an

explanatory factor was less important in our analysed cases. The empirical analysis demonstrated that **policy changes were not imposed externally by international organisations as usually theorised in institutionalist literature on post-communist policy developments**. For example, the EU was only one resource amongst other international resources that were used by reform actors in enacting their programmes. Hence, even if the EU accession modified the academic environment in all three countries, it is not on its own sufficient for understanding long term science policy developments in the Baltics.

While demonstrating that each country had its singular research funding policy reform trajectory, we have shown that events usually associated with the internationalisation of post-communist policy developments such as the collapse of the Soviet Union and subsequent EU membership cannot fully explain the internationalisation of Baltic public research policies. Moreover, we showed that the internationalisation of research policies is not a one-way street from “isolation” to “Europeanisation” but is a more complex phenomenon. Indeed, a variety of transnational actors were involved in national policy reforms. At the beginning of the 1990s the research policies’ organisational structures were influenced mostly through bi-lateral relationships with US government agencies and NGOs, but also with Scandinavian countries. In further years, changes in the funding agencies and instruments were inspired by specific country examples (Finland, Denmark), supranational organisation examples (ERC), models proposed by international organisations (World Bank), and private sector recommendations (Technopolis Group). It seems that except for the World Bank, which offered a precise funding model for Latvia, international organisations (OECD, EU) provided overarching normative frameworks and/or financial resources to aid in implementing reforms. The concrete design of the funding agencies and instruments were linked to the professional trajectories of reform actors that were inspired by a specific country or supranational funding council example (US, Finland, ERC). **National policy arrangements resulted from a multitude of sets of foreign aids, references and templates of varying precision that were used throughout the reforms, and bilateral relationships between the different countries’ scientific elites had a key role in this process.** In that way, “utilisation” of different international references/contexts by reform actors can explain the repertoire of solutions that were within the actors’ grasp and enabled them to generate new institutional arrangements in their particular local setting (Jablecka, Lepori 2009).

Whereas current historical neo-institutionalist authors do not take into consideration the *directions* of policy changes (see in Hall, Taylor 1996) nor the international impact on these

changes (Bohle 2000), our assertion could better explain the diversity in the Baltic policy trajectories. There is good reason to believe that more protectionist policies in Lithuania were inspired by similar Polish policies (Behr 2021), and more internationally oriented policies in Estonia were inspired by the Finnish scientific field (Tönismann, Virtanen 2021).

### III. The Social Sciences and Humanities disciplines were not equal in the face of reforms

By shaping the norms in the national scientific fields, the reforms also institutionalised the national disciplinary hierarchies and emphasised the disciplinary cleavages that were specific to each country.

We have shown that, after the restoration of independence, disciplines were not equally positioned to undertake reforms in the national scientific field. As a rule, disciplinary areas that were more open to Western contact during the Soviet period (natural and exact sciences) were also more eager to promote the norms and rules of competition in the post-Soviet period. In that way, policy reforms occurred much earlier in Estonia, where they were conducted by groups of reform actors from exact and natural science disciplines who had benefitted from Western cooperation in Estonia during the Soviet era. A similar type of group occurred later in Latvia and Lithuania. In the USSR these countries were relatively closed off to Western relations, and in the post-Soviet period the critical mass of scientists with similar socialisations who would be motivated to conduct policy changes was absent. This could also be due to the lack of political support for their emergence. It is thereby important to underline that although the above-mentioned struggles in the research policy sector were also struggles between disciplinary fields, SSH representatives were not always in opposition to the reforms. SSH is not a homogenous field of science, and some disciplines such as psychology or science and technology studies were well represented by reform actors. Conflicts emerged more often between groups of scientists with and without international socialisations than between different disciplines.

Considering the variations of SSH disciplines in the national disciplinary hierarchies, our research has shown that reforms did not have the same impact on sociology in all countries. For example, due to the earlier reforms in Estonia and lower resistance from the SSH-related scientific communities in this country, Estonian research funding policies saw the strongest disciplinary homogenisation in the context of introducing competitive elements in its research funding policies (that is, similar rules were applied for all disciplines). With its latest reforms,

the Latvian case resembled the Estonian one. However in Lithuania, where the SSH representatives have been the most active in oppositional activity, the SSH gained a specific status in funding allocation regulations. This exposes the higher position of the social sciences in the national Lithuanian scientific hierarchy, which is not only the fact of post-Soviet developments but is also rooted in earlier intellectual history in which continental philosophy enjoyed a high status, that persisted throughout the Soviet era. **As demonstrated elsewhere, the norms of internationalisation are more readily accepted in scientific disciplines where national professional traditions are less firmly rooted and vice versa** (Gozlan 2016). In addition, all countries' governments have invested in keeping up specific scholarly areas in the humanities (linguistics, history, literature). Even when the reforms have led to disciplinary homogenisation, as was the case in Estonia in the early 2000s or recently in Latvia, these disciplines have gained a specific status via national programmes directed to these areas. Selected areas of SSH are thus invested into by the states for their national political autonomy, which can be explained by their small size and politically peripheral status in geopolitical relations.

These logics are also reflected in sociologists' publication practices. Notably, while Estonian scholars are more oriented towards publishing in international journals their Lithuanian counterparts are turned towards "in-house" publishing practices. Then again, a closer look at these practices also reveals similarities between the national sociology communities. Baltic scholars who currently publish in the "high ranked" international journals had wide inter-Union or even some external networks already during the Soviet time. By successfully using their social, political or symbolic resources, together with their students they have succeeded in shifting their networks towards Western scientific spaces. Others have oriented their professional careers towards applied research, which has allowed them to become relatively autonomous from national funding policies in their practices. Hence, **sociologists' publication practices depend on multiple factors such as their academic socialisation in national and transnational contexts, available research funding instruments offered by national and transnational actors, and both the national and research institutional (universities, research institutes) level of research evaluation policies.** Therefore, international collaboration and "research performance" are not completely dependent on the national policy models as suggested by recent works on the topic (see for example Auranen *et al.* 2009).

All of these observations must be seen in the context of overarching similar trends in the Baltic sociologists' communities' developments. While not fully homogenous, these "communities" have leaned more towards teaching activity and less toward academic research. Many sociologists hold multiple positions in different research institutions or compile their incomes from other various sources such as commissioned research contracts with state institutions, private bodies, or EU-level institutions. Even if some stronger academic research groups have emerged, most of the Baltic sociologists are still dependent on their partners from foreign countries (for example, only two EU FP projects have been coordinated by Baltic sociologists), reflecting the inequalities and global division of labour within the social sciences (Alatas 2003). This is notably the case in Latvia, where academic sociology research is small and almost fully oriented towards applied research activities. All these activities are often described as "survival strategies" that are employed due to "the lack of public research funding". Thereby, it is important to underline that **Baltic scholars' heterogenous research funding and publication practices do not only reflect a competitive research environment, but also the peripheral position of sociology in the national scientific fields.** This position of sociology is also reflected in the composition of the sociology communities; Baltic sociologists are mostly women and have lower salaries than their colleagues from the aread of exact and natural sciences.

The declining conditions of academic work in sociology is not unique to Baltic countries. For example, S.Koleva (2012) addresses the question of whether sociology is struck by a loss of credibility in the predominantly neo-liberal world. However, it is important to note that in the Baltics these developments were problematised mostly in Lithuania, where sociologists seem to position themselves more as "social guards" than in Estonia or Latvia where such a position was claimed only occasionally. These assertions guide us to question not only the maturity of the post-communist countries' academic space, but also its impact on political developments. We could, for example, interrogate its relation with the rise of extreme-right parties that may monopolise social discourse with their political programmes when faced with relatively weak social science communities. This is particularly paradoxical in countries such as Estonia, which according to international trends has been "outstanding" in its research policy reforms.

#### IV. Further research avenues

These conclusions open up different avenues for further research. First, the approach used in this study could benefit from “testing” on other disciplinary areas in the post-communist countries. One interesting avenue for research would be to apply the bottom-up approach used in this thesis to the study of the relationships between academia, industry, and government in the exact and natural sciences. It would be useful to analyse to what extent these relationships are seized upon by different groups of academic elites, how they have been shaped by sectoral models of “innovation”, and the resulting structural differences between disciplines.

Second, the results could be useful for studying regionalisation. Over the last decades, particularly with the collapse of the Soviet Union, the Baltic Sea region has experienced radical upheavals both in its geopolitical and geostrategic position and has emerged as a regional entity in the geopolitical playground (Blanc-Noël 2002). As demonstrated in our analysis of sociologists’ research practices, the reform trajectories reinforced the process of de-regionalisation in the scientific cooperation of Baltic countries. Then again, cooperation at the level of science administration seems to be most often undertaken with closer countries in the Baltic Sea region such as Sweden, Finland, Poland and Denmark, and the leaders of this cooperation are usually from disciplines in the exact and natural sciences. With the perspective of opening up the fieldwork to other regions, it would be interesting to address the ways in which “neo-regionalisation” operates in the Baltic region’s scientific cooperation. We could hypothesise that R&D policies are an example of inter-regionalisation in EU policy-making. Studying scientific cooperation “from below” would not only advance knowledge about the phenomena of neo-regionalisation in the Baltic Sea region, but also contribute to a better understanding of the processes of internationalisation and Europeanisation.

Finally, in some ways the chosen cases made it possible to articulate different levels (or scales) of *observation*: the level of state and the level of individuals or, in other words, between the “macro” and “micro” levels of observation. Given the context in which conflicting strands of social science literature stem from *differences in the levels of analysis*, such an articulation between different levels may be considered rather non-conformist in policy analysis. As explained by French sociologist B.Lahire (1996, 393 as cited in Grossetti 2011), there is a strong temptation amongst scholars “to say, in a clear-cut way, what is the right definition, the most relevant scale of observation, the most accurate angle of view, and this is moreover often how researchers proceed, in an approach aimed at the monopoly of the legitimate definition of the

context”. In short, the *effects of knowledge* are specific to each mode of context construction in which the analysis evolves. In a similar way, (neo-) institutionalist analyses (which we mobilised in this thesis) operate on the level of state institutions, which is considered the most “legitimate definition of the context” where mid- to long-term policy changes can be observed. Analysis of group-level trajectories, on the other hand, is often associated with “smaller” social phenomena. By combining neo-institutionalism with a sociological approach to public action, attentive to the socialisation and social trajectories of actors, in the case of Baltic public research funding of SSH we could simultaneously compound the “big mass and longer time-scale” type of social phenomena together with the “small mass and medium time-scale” phenomena in our research (Grossetti 2011, 5-6). It is precisely this articulation that allowed us to question institutional change and reach the conclusions above. The cases chosen in this thesis enabled us to go beyond existing levels of observation and blur the boundaries between the current definitions of *legitimate contexts* in (neo-) institutionalism.



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## ANNEX

I	Table: Introduction of competitive elements in the Baltics' SSH public research funding policies
II	List of Interviews
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## I. Table: Introduction of competitive elements in the Baltics' SSH public research funding policies

Estonia	Latvia	Lithuania
<p><b>1990</b> Establishment of the <b>Estonian Science Foundation (EstSF)</b> and introduction of project funding (1991). The majority of research funding remains institutional and is allocated through intermediary institutions (AS and universities).</p> <p><b>1994</b> Abolition of intermediary institutions in the institutional funding allocation.</p> <p>Introduction of the OECD Frascati Manual classification of scientific fields in the EstSF. Introduction of English language project applications and foreign peer-review for bigger grants.</p> <p><b>1997</b> Adoption of the <b>Organization of Research and Development Act</b> declaring all public funding meritocratic or based on the institutional evaluation.</p> <p><b>1997</b> Creation of the <b>Council of Scientific Competence (CSC)</b> as an advisory body at Ministry of Education. The CSC is responsible for the allocation of project funding, called "Targeted Funding", which replaces the former institutional funding. The funding implies foreign peer-review and is linked to institutional evaluation. Predetermined disciplinary distribution of funding is formally abolished.</p> <p><b>1999</b> Introduction of the State Research Programmes instruments for humanities disciplines.</p> <p><b>2004</b> Creation of the Estonian Research Information System (ERIS) and introduction of a classification scheme for scientific publications.</p> <p><b>2005</b> Introduction of competitive institutional funding mechanisms (allocated by the Ministry of Education and Research).</p> <p><b>2007</b> Introduction of a new classification of scientific fields (Finnish model), reduction of disciplinary areas in project funding settings, and harmonisation of research funding criteria throughout all scientific disciplines.</p> <p><b>2012</b> Creation of the <b>Estonian Research Council</b>, which took over the functions of the EstSF and CSC. Re-organisation of former project funding instruments: redefinition of the EstSF grants as "Personal Research Grants" and reinforced competition in funding criteria; redefinition of Targeted Funding as "Institutional Research Grants" and change in funding criteria to increase the specialisation of research institutions.</p>	<p><b>1990</b> Establishment of the <b>Latvian Council of Science (LvSC)</b> as a government advisory body and science funding body. Introduction of the comprehensive project-based funding system. Introduction of funding instruments: Fundamental and Applied Research projects (since 2008: Thematic Projects), Market-Oriented Research Programs (1993) and Collaboration Projects (1995).</p> <p><b>1992</b> Adoption of the <b>Law of Scientific Activity</b> declaring all public funding meritocratic.</p> <p><b>1999</b> Introduction of a classification scheme for scientific publications by the LvSC (an inclusive list of journals that includes national and international publication outlets).</p> <p><b>2005</b> Introduction of the institutional funding mechanism allocated to research organisations based on quantitative indicators (number of workers or surface of the building)</p> <p><b>2006</b> Introduction of the national research programmes instrument for a broad range of disciplines.</p> <p><b>2009</b> Progressive introduction of English language project applications and foreign peer review in the LvSC.</p> <p>Progressive increase of competition in Collaboration Projects via the reduction of its beneficiaries.</p> <p><b>2013</b> Modification of the institutional funding mechanisms formula. Inclusion of incentives to publish in the WoS and Scopus databases, and assimilation of funding allocation to the Research Assessment Exercise.</p> <p>Increase of competition in the Thematic Projects via the reduction of beneficiaries</p> <p>A formal introduction of the OECD Frascati manual classification system in the LvSC to harmonise research funding criteria throughout all scientific disciplines.</p>	<p><b>1993</b> Establishment of the <b>Lithuanian State Sciences and Studies Foundation (LtSSSF)</b> and introduction of project funding instruments. The majority of research funding remains allocated by the Parliament.</p> <p><b>2000</b> Progressive (and formal) introduction of competitive elements in the institutional funding formula. Introduction of bibliometric indicators (publications indexed in the WoS) (2006).</p> <p><b>2009</b> Adoption of the <b>Law on Higher Education and Research</b> declaring all public funding meritocratic or based on institutional evaluation.</p> <p>Modification of the institutional funding mechanisms formula. Research funding allocation is based on a mixture of peer-review and bibliometric indicators (with the focus on the WoS journals). Assimilation of funding allocation to the institutional evaluation of research institutions.</p> <p><b>2010</b> Establishment of the <b>Lithuanian Research Council</b> (which took over the research funding functions from LtSSSF). With its mixed standards in project funding criteria, some mechanisms remain less competitive (for example national research programmes) and others more competitive (for example Global Grant programme). In the latter case, English language project applications and foreign peer-review are applied.</p> <p>Introduction of the OECD Frascati Manual classification of scientific fields</p>

Source: Author's compilation.

## II. List of Interviews

CODE	Type of organisation	Organisation	Position	Time of the meeting	Place of the meeting
<b>ESTONIA</b>					
EST01	Research institution	Tartu University, Lecturer	researcher (sociology)	5.01.2015	Tartu
EST02	State institution	Ministry of Education and Research	high ranked official	6.01.2015	Tartu
EST03	State institution	Ministry of Education and Research	high ranked official	6.01.2015	Tartu
EST04	Science representative organisation	Estonian Science Foundation (former); Researcher, Psychology	science representative (other SSH)	1.10.2015	Tartu
EST05	Science representative organisation	Estonian Science Foundation (former)	official	12.10.2015	Tallinn
EST06	Research institution	Researcher, Philology and Culture	researcher (other SSH)	22.10.2015	Tallinn
EST07	Science representative organisation	Academy of Sciences	science representative (other SSH)	26.10.2015	Tallinn
EST08	Science representative organisation	Estonian Academy of Science	science representative (other SSH)	2.11.2015	Tallinn
EST09	Science representative organisation	Estonian Research Council	official	17.11.2015	Tartu
EST10	Research institution	Researcher, Pedagogy	researcher (other SSH)	24.11.2015	Tallinn
EST11	Science representative organisation	Estonian Research Council	official	1.01.2016	Tartu
EST12	Science representative organisation	Estonian Research Council	official (high-ranked)	1.01.2016 and 2018	Tartu
EST13	Science representative organisation	Estonian Research Council	official	4.01.2016	Tartu
EST14	Science representative organisation	Estonian Research Council	official	5.01.2016	Tallinn
EST15	Science representative organisation	Estonian Research Council- evaluation committee; Resarcher, Law	science representative (other SSH)	27.01.2016	Tallinn
EST16	Science representative organisation	Estonian Research Council	official	28.01.2016	Tallinn
EST17	Science representative organisation	Estonian Research Council	official	28.01.2016	Tallinn
EST18	Science representative organisation	Estonian Research Council- evaluation committee; Researcher, History	science representative (other SSH)	29.01.2016	Tallinn

EST19	Science representative organisation	Estonian Research Council- evaluation committee; Researcher, Musicology	science representative (other SSH)	29.01.2016	Tallinn
EST20	Science representative organisation	Estonian Research Council	official	2.02.2016	Tartu
EST21	Science representative organisation	Estonian Research Council	official	2.02.2016	Tartu
EST22	Science representative organisation	Estonian Research Council- evaluation committee; Resaeacher, Sociology, Professor	science representative (sociology)	3.02.2016	Tartu
EST23	Science representative organisation	Estonian Research Council	official	4.02.2016	Tartu
EST24	Science representative organisation	Estonian Research Council- evaluation committee; Researcher, Philosophy	science representative (other SSH)	4.02.2016	Tartu
EST25	Science representative organisation	Estonian Research Council	official (high-ranked)	5.02.2016	Tartu
EST26	Science representative organisation	Estonian Research Council	official	28.10.2016	Brussels
EST27	State institution	Ministry of Foreign Affairs (former); Former Estonian representative in Brussels	high ranked official	3.11.2016	Brussels
EST28	State institution	Archimedes Foundation (former)	high ranked official	4.11.2016	Brussels
EST29	Science representative organisation	Estonian Research Council	official	5.11.2016	Brussels
EST30	State institution	Ministry of Education and Research	official	7.11.2016	Brussels
EST31	State institution	Archimedes Foundation (former)	official	14.11.2016	Brussels
EST32	State institution	Ministry of Education and Research (former); Researcher, Geology	high ranked official	7.12.2016	Tallinn
EST33	State institution	Ministry of Education and Research	official	8.12.2016	Tartu
EST34	State institution	Ministry of Education and Research	official	14.12.2016	Tartu
EST35	Science representative organisation	Estonian Research Council	official	14.12.2016	Tartu
EST36	State institution	Ministry of Education and Research (former); Researcher, Genetics	high ranked official	15.12.2016	Tartu
EST37	State institution	Archimedes Foundation (former)	official	05.06.2017	Skype
EST38	Research institution	Tartu University (former)	researcher (sociology)	9.09.2017	Rapla
EST39	Research institution	Tartu University, Programme Director	researcher (sociology)	12.09.2017	Tartu

EST40	Research institution	Tartu University (former)	researcher (sociology)	12.09.2017	Tartu
EST41	Research institution	Tartu University, Senior consultant	researcher (sociology)	13.09.2017	Tartu
EST42	Research institution	Tartu University, Researcher	researcher (sociology)	13.09.2017	Tartu
EST43	Research institution	Tartu University, Social Policy	researcher (other SSH)	14.09.2017	Tartu
EST44	Research institution	Tartu University (former)	researcher (sociology)	14.09.2017	Tartu
EST45	Research institution	Tartu University, Associate Professor	researcher (sociology)	15.09.2017	Tartu
EST46	Research institution	Tartu University, Project Manager	researcher (sociology)	15.09.2017	Tartu
EST47	Research institution	Tartu University (former)	researcher (sociology)	18.09.2017	Tartu
EST48	Research institution	Tartu University, Media and Communication	researcher (other SSH)	19.09.2017	Pärnu
EST49	Research institution	Tallinn University, Professor	researcher (sociology)	20.09.2017	Pärnu
EST50	Research institution	Tallinn University, Professor	researcher (sociology)	22.09.2017	Tallinn
EST51	Research institution	Tallinn University, Demography	researcher (other SSH)	22.09.2017	Tallinn
EST52	Research institution	Tallinn University, Political Science	researcher (other SSH)	22.09.2017	Tallinn
EST53	State institution	Ministry of Education and Research; Teadusatazee 2004-2008	official	7.12.2017	Tallinn
EST54	Science representative organisation	Estonian Research Council	official	8.01.2018	Tartu
EST55	State institution	Ministry of Education and Research	high ranked official	8.01.2018	Tartu
EST56	State institution	Ministry of Education and Research (former)	partisan	10.01.2018	Tallinn
EST57	Research institution	Tartu University (former)	researcher (sociology)	1.02.2018	Tallinn
EST58	Science representative organisation	Estonian Research Council	official	8.02.2018	Tartu
EST59	Science representative organisation	Estonian Science Foundation (former); Researcher, Physics	science representative (natural sciences)	8.02.2018	Tartu
EST60	Science representative organisation	Estonian Science Foundation (former); Researcher, Biology	science representative (natural sciences)	9.02.2018	Tartu
EST61	State institution	Ministry of Education and Research (former); Teadusatazee 2008-2011	official	05.06.2018	Skype

EST62	Research institution	Tallinn University, Associate Professor	researcher (sociology)	26.06.2018	Skype
EST63	Research institution	Tallinn University (former)	researcher (sociology)	2.09.2019	Skype
EST64	Research institution	Tartu University (former)	researcher (sociology)	14.04.2020	Skype
<b>LATVIA</b>					
LV01	Research institution	Researcher; Pedagogy and Psychology; Professor	researcher (other SSH)	09.11.2015	Riga
LV02	Science representative organisation	Latvian Council of Science - expert commission; Researcher, Sociology; Professor	science representative (sociology)	09.11.2015	Riga
LV03	Science representative organisation	Latvian Council of Science - expert commission; Researcher, Economics	science representative (other SSH)	10.11.2015	Riga
LV04	Science representative organisation	Academy of Sciences	official	11.11.2015	Riga
LV05	Science representative organisation	Latvian Council of Science- expert commission Researcher, Political Science	science representative (other SSH)	11.11.2015	Riga
LV06	Research institution	University of Latvia, Professor	researcher (sociology)	12.11.2015	Riga
LV07	State institution	Ministry of Education and Science	high ranked official	13.11.2015	Riga
LV08	Science representative organisation	Latvian Council of Science	official	13.11.2015	Riga
LV09	Research institution	Researcher; Business Engineering and Management	researcher (other SSH)	17.02.2016	Riga
LV10	Research institution	Researcher; Economics and Management	researcher (other SSH)	17.02.2016	Riga
LV11	State institution	Ministry of Education and Science	high ranked official	18.02.2016	Riga
LV12	State institution	Ministry of Education and Science	official	18.02.2016	Riga
LV13	Other	Technopolis	other	18.02.2016	Riga
LV14	State institution	Latvian State Education Development Agency	official	19.02.2016	Riga
LV15	State institution	Latvian State Education Development Agency	official	19.02.2016	Riga
LV16	State institution	Ministry of Education and Science	official	19.02.2016	Riga
LV17	Other	UK University	other	08.09.2016	Prague

LV18	State institution	Ministry of Education and Science	high ranked official	10.11.2016	Brussels
LV19	Research institution	University of Latvia, Philosophy and Sociology Institute, Associate Professor	researcher (sociology)	25.09.2017	Riga
LV20	Research institution	University of Latvia, Professor	researcher (sociology)	25.09.2017	Riga
LV21	Research institution	Baltic Studies Centre	researcher (other SSH)	26.09.2017	Riga
LV22	Research institution	Riga Stradins University, Latvia University of Agriculture, Lecturer, Leading Researcher	researcher (sociology)	27.09.2017	Jelgava
LV23	Research institution	Latvia University of Agriculture (former)	researcher (sociology)	27.09.2017	Jelgava
LV24	Research institution	Latvia University of Agriculture, Social Policy	researcher (other SSH)	27.09.2017	Jelgava
LV25	Research institution	University of Latvia (former)	researcher (sociology)	28.09.2017	Riga
LV26	Research institution	Latvian University, Bioethics	researcher (other SSH)	28.09.2017	Riga
LV27	Research institution	University of Latvia, Researcher	researcher (sociology)	29.09.2017	Riga
LV28	Research institution	University of Latvia, Researcher	researcher (sociology)	29.09.2017	Riga
LV29	Research institution	University of Latvia, Philosophy and Sociology Institute, Researcher	researcher (sociology)	29.09.2017	Riga
LV30	Research institution	Riga Stradins University, Lecturer	researcher (sociology)	29.09.2017	Riga
LV31	Science representative organisation	Academy of Sciences; Researcher, Physics	science representative (natural sciences)	24.01.2018	Riga
LV32	State institution	Ministry of Education and Science	high ranked official	24.01.2018	Riga
LV33	State institution	Ministry of Education and Science	partisan	15.01.2018	Riga
LV34	Science representative organisation	Academy of Sciences; Researcher, Physics	science representative (natural sciences)	07.01.2020	Riga
LV35	Research institution	University of Latvia, Philosophy and Sociology Institute, Senior Researcher	researcher (sociology)	07.01.2020	Riga
<b>LITHUANIA</b>					
LIT01	State institution	Ministry of Education and Science	high ranked official	14.12.2015	Vilnius
LIT02	Science representative organisation	Lithuanian Research Council, Vilnius University, Professor	science representative (sociology)	15.12.2015 and 2.10.2017	Vilnius

LIT03	Research institution	Mykolas Romeris University, Associate Professor	researcher (sociology)	15.12.2015	Vilnius
LIT04	Science representative organisation	Lithuanian Research Council - Committee of Humanities and Social Sciences; Researcher, Semiotics	science representative (other SSH)	16.12.2015	Vilnius
LIT05	State institution	Ministry of Education and Science	high ranked official	16.12.2015	Vilnius
LIT06	Research institution	Vilnius University, Professor	researcher (sociology)	16.12.2015 and 4.10.2017	Vilnius
LIT07	Other	European Integration Study Center	other	17.12.2015	Vilnius
LIT08	Science representative organisation	Lithuanian Research Council	official	18.12.2015	Vilnius
LIT09	State institution	Ministry of Education and Science	high ranked official	23.02.2016 and 2018	Vilnius
LIT10	Other	Former vice-rector for research in Lithuanian University of Educational sciences in 2003-2012	other	23.02.2016	Vilnius
LIT11	Research institution	Researcher, Economics	researcher (other SSH)	24.02.2016	Vilnius
LIT12	Other	Private sector	other	24.02.2016	Vilnius
LIT13	State institution	Ministry of Education and Science	official	25.02.2016	Vilnius
LIT14	Science representative organisation	Lithuanian Research Council (former); Researcher, Chemistry	science representative (natural sciences)	25.02.2016	Vilnius
LIT15	State institution	Ministry of Education and Science (former)	high ranked official	26.02.2016	Vilnius
LIT16	State institution	Ministry of Education and Science	official	12.11.2016	Brussels
LIT17	Research institution	Klaipeda University	researcher (other SSH)	02.10.2017	Vilnius
LIT18	Research institution	Lithuanian Social Research Center, Vilnius University, Junior Researcher	researcher (sociology)	03.10.2017	Vilnius
LIT19	Research institution	Lithuanian Social Research Center, Mykolas Romeris University, Leading researcher	researcher (sociology)	03.10.2017	Vilnius
LIT20	Research institution	Lithuanian Social Research Center, Social Policy	researcher (other SSH)	04.10.2017	Vilnius

LIT21	Other	Vilnius University, Vice-dean of the faculty in project management	other	04.10.2017	Vilnius
LIT22	Research institution	Lithuanian Social Research Center, Senior Researcher	researcher (sociology)	05.10.2017	Vilnius
LIT23	Research institution	Lithuanian Social Research Center, Leading Researcher	researcher (sociology)	05.10.2017	Vilnius
LIT24	Research institution	Lithuanian Social Research Center, Vilnius University, Kaunas Faculty of Humanities, Leading researcher	researcher (sociology)	05.10.2017	Vilnius
LIT25	Research institution	Vilnius University, Professor	researcher (sociology)	06.10.2017	Vilnius
LIT26	Research institution	Lithuanian Social Research Center, Scientist Emeritus	researcher (sociology)	06.10.2017	Vilnius
LIT27	Research institution	Vytautas Magnus University, Lecturer	researcher (sociology)	09.10.2017	Kaunas
LIT28	Research institution	Vytautas Magnus University, Researcher	researcher (sociology)	10.10.2017	Kaunas
LIT29	Research institution	Vytautas Magnus University, Professor	researcher (sociology)	11.10.2017	Kaunas
LIT30	Research institution	Vytautas Magnus University, Researcher	researcher (sociology)	11.10.2017	Kaunas
LIT31	State institution	Ministry of Education and Science	partisan	22.01.2018	Kaunas
LIT32	State institution	Ministry of Education and Science	high ranked official	23.01.2018	Vilnius

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## LIST OF PUBLICATIONS

The list of author's publications, on the basis of which the thesis has been prepared:

- I Tõnismann, T. (2022). Possibilities and limits in the appropriation of neoliberal research funding models: Social Sciences and Humanities funding in the Baltics. *Revue internationale de politique comparée*, 29 (1), [in press].
- II Tõnismann, T., Virtanen, J. (2021). Science policy meets post-New Public Management: Estonian and Finnish reforms 2012–2015. *Journal of Baltic Studies*, 52 (1), 127-145.
- III Tõnismann, T. (2018). Paths of Baltic States public research funding 1989–2010: Between institutional heritage and internationalisation. *Science and Public Policy*, 46 (3), 391-403.

The author's full list of publications is available in the CV at the end of this thesis.

## AUTHOR'S CONTRIBUTION TO THE PUBLICATIONS

- VI The publication was single-authored by the author of this thesis.
- VII Author of the thesis was the lead author, responsible for structuring the research design and coordinating correspondence.
- VIII The publication was single-authored by the author of this thesis.



## APPENDIX

### Publication I

Tõnismann, T. (2022). Possibilities and limits in the appropriation of neoliberal research funding models: Social Sciences and Humanities funding in the Baltics. *Revue internationale de politique comparée*, 29 (1), [in press].



# Possibilities and limits in the appropriation of neoliberal research funding models: Social Sciences and Humanities funding in the Baltics

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## Abstract

The article analyses the international circulation of competitive funding devices on the example of three post-communist countries' – Estonia, Latvia and Lithuania – social sciences and humanities funding from 1989 to 2015. While studying the utilisation of project funding instruments by national reform actors in conjunction with other public funding devices, the article shows that the shares of funding (project vs base-line), as well as orientations (international vs national), emerged more from power struggles than from specific pre-existing funding models. Thereby, substantial policy changes took place only if these were led by the group of actors with former international socialisation. Also, not only the European Union, but also other countries such as the US, UK, Denmark and Finland were determinants in this process.

## Introduction

Initially diffusing in the Western academic sphere, competitive devices in research policy-making also circulated rapidly after the collapse of the Soviet Union in the Central and Eastern European (CEE) countries (Schimank, 1995; Lepori *et al.* 2007; 2009). During the Soviet time, academic research activity in these countries was carried out at the Academy of Science (AS) institutes and universities where the funding for research was provided centrally on a per-institution basis by state sources. After the fall of the Berlin Wall the political supremacy of Moscow over former territories, as well as financial support, ceased. The newly independent and resource poor countries were particularly absorptive to Western political influences in their science policy orientations (Mitzner, 2016). The three Baltics' - Estonia, Latvia and Lithuania – public research funding policies were not an exception. By 2015, all three countries' governments had introduced strategic documents where competitive funding in general and project funding in particular is described as a major device to achieve national policy goals such as scientific excellence<sup>1</sup>. While focussing on the social sciences and humanities (SSH), this article analyses the international circulation of public research funding instruments on the example of three Baltic countries research funding reforms between 1989 and 2015.

Although project funding is often represented as the most visible expression of competitive norms in research policymaking, it has been used in the variety of policy contexts. Organisations responsible for project funding – funding agencies – developed after the Second World War in the Western countries and their number rose in parallel with the increasing role of science in governmental policies, and the overall reorientation of military-centred research towards socio-economic development (Mitzner, 2016). They were originally designed to work out and implement research policies, in preference to the usual public bureaucracy that lacked

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<sup>1</sup> Policy documents such as “Program for Development of Studies and Research and Development for 2013-2020” in Lithuania, “Guidelines for Science, Technology Development, and Innovation 2014-2020” in Latvia and “Knowledge-based Estonia 2014-2020” all aim to raise the international competitiveness of their academic systems.

the necessary direct contacts with science<sup>2</sup>. Then again, associated with research performance, the instrument has been promoted by international organisations such as the Organisation for Economic Co-operation and Development (OECD) (Steen, 2012) or the European Union (EU)<sup>3</sup>, where it is used for benchmarking national research funding systems. Indeed, in opposition to “institutional” research funding<sup>4</sup>, project-funding is characterised by its temporary nature of fund allocation, the matching of allocated funds to a specific research project and the role of peer-review in the selection of beneficiaries. In that way, the project funding it can be considered as an integral part of neoliberal policies where market mechanisms are in service of the “rationalisation” of public policies (Jeanpierre, 2006) and its increasing use in the CEE region as part of the broader trend of diffusion of neoliberal recipes in peripheral countries (Dezalay & Garth, 2006).

Nonetheless, project funding has received relatively low attention in the academic literature. The most prevalent approaches to analysing national research funding settings are to analyse the specific mediatory role of funding agencies that are responsible for project allocation (Braun & Guston, 2003; Van der Meulen 1998; Rip 1994) or the performance-based elements in university research funding (Hicks, 2012; Zacharewicz *et al.*, 2018; Söderlind *et al.*, 2019). Another set of works have focussed on the formal function and impact of each mechanism in the broader funding policy systems (Aagaard, 2017; Liefner 2003; Lepori *et al.* 2007; Jongelboard & Lepori 2015). Notably, authors have underlined persisting conservative use of project funding instruments in Europe compared to the US: while in the “US model” research grants usually cover the full research costs, in the “continental European model” they are often only supplementary funding mechanisms, implying that the general research costs of the European university are primarily borne by the institutional budget (Jongelboard & Lepori 2015, pp. 443-444; Lepori *et al.*, 2007). The latter approach is also the most common in the CEE countries' research policy studies (Balazs *et al.*, 1995; Suurna & Kattel, 2010; Radosevic & Lepori, 2009). Thereby, while the diffusion of project funding in these works are linked to EU accession, they also show prevailing national idiosyncrasies<sup>5</sup>. Overall, although these works, based on rational-choice and institutionalist theories, draw attention to the role of agencies, variations in project funding modes or the shares of instruments and beneficiaries, the relation of project funding to other funding instruments and its role in the wider process of post-communist transformation is less discussed. At the same time, some other works with more sociological approach have demonstrated that similarly to other policy instruments, research

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<sup>2</sup> About historic development of funding councils in the US see D.L. Kleinman (1995) or in A. Rip (1994), in France: J.Aust and E. Picard, E. (2014).

<sup>3</sup> The European Research Area dashboard measures the allocation between the base-line and competitive funding. For example, with one of the “challenges” aiming for “more effective national research systems” the EU encourages the Member States to reinforce competitive funding systems in national contexts.

<sup>4</sup> In the case of “institutional” or “base-line” funding, the state allocates a global budget to research organisations, such as universities or large public research organisations for their normal functioning. Funding is attributed to ensure the existence of the organisation and, in principle, is not limited in time; also, it is usually left to the steering body of the organisation to decide how to allocate funds internally to individual units (Lepori *et al.* 2009). However, many governments have introduced competitive elements also into university research funding systems (Hicks, 2012).

<sup>5</sup> A similar assessment is made regarding the CEE higher-education policy reforms (Dakowska & Harmsen, 2015).

funding instruments are not simply technical and neutral policy tools but normative devices<sup>6</sup> (Aust, 2014). Also, the paradigmatic value of foreign examples derives from the processes of “editing”, including de-contextualisation and re-contextualisation, which establishes their relevance for certain dimensions of science policy (Louvel & Hubert 2016). In that way, public finances may become a place for the crystallisation of social and political fights in national contexts (Bezes & Siné, 2011). This assertion renders analysis about project funding particularly interesting in the CEE context and must be thus taken into account to better understand the circulation of these instruments in the Baltics. The following research question can be formulated: which factors are determinants in the appropriation of competitive research funding policy recipes in the post-communist countries in a longer-term perspective?

The three Baltics offer a compelling case for studying the international circulation of public research funding instruments. With their similar recent political history, size (all of them are small countries with a population only of about 1,3 million in Estonia, 1,9 million in Latvia and 2,9 million in Lithuania) and geographic position, the Baltics can be considered in comparative literature as “similar cases” (Vigour, 2005, p. 160). Notably, under their façade of similarity, the Baltic case allows discovering more complex dynamics in research funding policies (Box 1).

### **Box 1: The Baltics as a "laboratory" of internationalization**

With long-standing university traditions from the 16<sup>th</sup> century onwards, all three were independent nation-states before the Second World War. They were subsequently incorporated into the Soviet Union where, due to their geographical and historical ties with western neighbours and ongoing guerrilla warfare, they were perceived together with western Ukraine as the “Soviet West” (Risch, 2015). They regained independence between 1990 and 1991 after which, unlike other former Soviet republics, they joined the European Union (EU) in 2004. At the same time, though, the three Baltic states are not a singular entity. With Lithuania more linked to Poland, and Estonia to Finland, they differ from each other with somewhat distinct intellectual and cultural heritages (Norkus, 2012). More specifically, although the countries resemble their recent political history, the post-soviet national political development differed from country to country. In Estonia, the elections against Popular Front in 1992 were won by electoral union Pro-Patria, a body that was comprised of nationalist radicals and young dissidents, mostly drawn from the intellectual elite. In Latvia, it was the Latvian Way that was co-founded by a group of the Latvian economic elite and former members of the Popular Front that won the first parliamentary elections against the Popular Front. While in Estonia and Latvia, the former communist party was banned by liberal powers, in Lithuania, the transformed version of the Party remained in power after independence. The former Lithuanian Communist Party replaced the anti-communist Popular Front transitional government during the first parliamentary elections in 1992. With their unique position in the Soviet Union and divergent policy trajectories after regaining independence, the Baltics constitute privileged observatories of internationalisation.

Following the above-discussed works, this analysis adopts a more sociological approach to studying the circulation of public research funding policy recipes. We hypothesise that to better understand the international circulation of public research funding instruments in the Baltics, the process should be appraised from the utilisation of project funding instruments by reform actors in conjunction with other public funding devices. Hence, instead of focussing on merely

<sup>6</sup> In recent years, several authors have given a more sociological approach to public policy instruments. The most notable example is the works of A. Desrosières (1993) who showed how statistical production uses a common language and representations which create effects of truth and apparent interpretation of the world; effects which are imposed upon every actor and which naturalize the social situations that statistics deal with. Further theoretical framework is for analyzing policy instruments is proposed for example by P. Lascoumes & L. Simard (2011).

institutional change, the article privileges the comparative “bottom-up” analysis where policy actors, their political action and policy aims are analysed together with national and international institutional contexts (Hassenteufel, 2005). Thereby, we build our analysis around the concept of ‘usage of international resources’ which was initially developed for explaining European integration (Jacquot & Woll, 2008; 2003). The concept of *usage* (or *utilisation*) covers “practices and political interactions which adjust and redefine themselves by seizing the EU as a set of opportunities, be they institutional, ideological, political or organisational” (Jacquot & Woll, 2003, p. 4). As a continuation to previous analysis about Baltic research policies (Tönismann, 2018), investigating how project funding was appropriated<sup>7</sup> by reform actors allows to look beyond the formal policy settings and offers a better understanding of construction of national funding models via foreign examples. Therefore, the approach allows us to relativise the EU’s impact on CEE countries’ research funding policy reforms. Finally, in addition to recent historical neo-institutionalist analyses that focus on more endogenous changes and agency (Streek & Thelen, 2005; Mahoney & Thelen, 2010), the approach allows further comprehension about the impact of reform actors trajectories on national policy courses.

Our study stems from an empirical study about Baltic countries’ public research funding policy reforms (Box 2). After considering funding environments and policy decisions relevant to disciplinary areas (Benninghoff & Crespy, 2017) we decided to focus on SSH related instruments. Indeed, because of the centrality of military-industrial complex related sciences, SSH was downsized during the Soviet era and therefore dependent on public resources after the collapse of the Soviet Union (Graham, 1993; Meske, 2004). Also, contrary to natural and exact sciences, research in this field is characterised as less internationalised due to its weak international cohesion (Becher, 1994). Hence, there is a good reason to believe that SSH is thus particularly receptive (to resist or adopt) competitive principles in research funding policies. More precisely, we started with identifying national SSH-related research policy reforms and reconstituted reform networks<sup>8</sup>. Individuals belonging to these networks can also be defined as “programmatic groups” or “groups of individuals, sharing a similar analysis of a policy problem and sustaining a common policy change program (including policy orientations, policy frames, and policy instruments) giving them a collective identity” (Hassenteufel & Genieys 2020, p 29). Next, we analysed the reform actors’ international experiences, their apprehensions about the political and institutional context in which reforms were undertaken, and motivations for taking action. Finally, we compared the three countries’ cases alongside each other to better understand the factors that were determinant in the appropriation of funding devices.

### **Box 2: Data and methods**

Our empirical study included document analysis as well as interviews. Document analysis was employed to understand national trajectories and institutional and policy frames in which the reforms were undertaken. Analysed documents included national reports to international organisations and

<sup>7</sup> Authors separate between different types of usages. The “strategic” usage describes the transformation of resources in political practices with the intention of pursuing a specific goal. The “cognitive” usage covers the understanding and interpretation of a political subject and provides the vectors for persuasion within a policy discussion. The “legitimising” usage aims to increase or renew the public acceptance of a policy decision at the national level (Jacquot & Woll, 2008; 2003).

<sup>8</sup> The similar approach was taken by I. Cîrstocea (2014) in her study about the role of internationalization in the restructuring of the post-communist Rumanian HE sector.

international organisations' policy evaluations about national-level policy developments (mainly EU Erawatch, OECD and World Bank assessments and reports). They included also national normative documents, policy documents and information retrieved from relevant institutions' web pages. The major part of the empirical research included 51 interviews (22 in Estonia, 13 in Latvia and 16 in Lithuania) that took place between October 2015 and February 2018 with actors who were directly or indirectly implied in the reforms. At the time of our interviews, 25 of them were working as officials at research ministries, 17 at research funding councils and 9 at various other public and private bodies. Respondents were found via snowball sampling (it is essential to note that due to the small size of these countries, the reforms were often undertaken by small groups of actors lead by one to three key individuals). Interviews lasted between 40 minutes and 2 hours, and were recorded then transcribed. We then analysed them in parallel with written sources. Finally, we examined the documents and interviews using thematic content analysis (Richie & Lewis, 2003). Due to space shortage, in the following analysis we present the summary of this research and in most cases the empirical data will not be referred to.

For better understanding the utilisation of project funding in the long-term perspective, it is important to consider that research funding reforms emerged as a reaction to immediate post-independence policy settings. Hence, the first section associates the Baltics' post-Soviet public research funding policy settings with the paths of the emergence of reform actors in each country. The second section demonstrates the variety of roles that project funding was given within these reforms in Estonia, Latvia and Lithuania, as well as the heterogeneous outcomes of the reforms<sup>9</sup>.

## Reforms aiming to “break down” the Academy system

The project funding was adopted shortly after the collapse of the Soviet Union by all Baltic governments. However, set up by the national AS science elite, it was initially designed for preserving national research groups (I). The given national research policy settings were targeted by later groups of reform actors who emerged since the mid-1990s via a variety of pathways of entry. They had socialised in the Western countries' academic institutions and their programmes were backed up by international organisations policy agendas (II).

### Preservation of national research via project funding instrument after the collapse of the Soviet Union

As an exception to other former Soviet Republics ASs which kept their research funding function after the independence, the Baltic countries' ASs were developed into scientific societies with the main objectives of developing the national scientific community and advising government institutions. In parallel with the withdrawal of research funding function from the AS, the new organisational settings were designed on the example of widespread research council and foundation models (Brickman & Rip, 1979). These were the Lithuanian Science Council (LtSC) and Science Foundation (LtSF), Estonian Science Council (EstSC) and Science Foundation (EstSF) and Latvian Science Council (LvSC) which also covered the functions of a research foundation.

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<sup>9</sup> This work was supported by the Estonian Ministry of Education and Research, in cooperation with the Archimedes Foundation. The author is grateful for the comments and suggestions made by editors of the number Cécile Crespy and Jean-Philippe Leresche and anonymous referees.

At the forefront of these reforms were national-minded scientific elites from the AS who gathered in each country at the associations of the Union of Scientists (UoS). These groups of researchers, composed of the strongest AS institute and university representatives and (mostly from natural and exact sciences) stood for the principle of "autonomy" in research.

Amongst the three cases, the change in Estonian public research funding was the most important by its content. With the collapse of the Soviet Union, the former party-supported heads of academic institutions, including the EstAS, lost their positions and were replaced by national-minded leaders. In setting up the research funding policy organisation, the Estonian UoS was cooperating with the reform-minded EstAS members and freshly elected government that comprised of nationalist radicals and young dissidents, mostly drawn from the intellectual elite. In cooperation between these actors, the former AS-centred funding system was abolished and the totality of funding was transferred through the EstSF that was established on the US National Science Foundation example in 1990. At the same time, the setup of funding flows was unique. In the words of the former EstSF officials, "there was a lack of resources" for administrating project competition on the one hand and the "unwillingness to destabilise research activity at institutions" on the other<sup>10</sup>. The majority of funding was earmarked through intermediary instances, such as the universities, ministries, and the AS, and from there redistributed to research units. The portion of project funding increased progressively from 5% in 1992 to 31% in 1996 with the share of funding allocated to SSH around 19,4%. Moreover, some formal and informal international criteria were progressively introduced in 1994, including for SSH, which was considered equal to other disciplines. The project application forms (brought in from the US) were written in English, and the OECD Frascati manual was introduced. At the same time, the instrument remained democratic in its underlying principles. It allocated small grants to a high number of individual researchers and only some of the most significant projects underwent international peer-review<sup>11</sup>.

The political change brought along change in the academic field with democratically elected heads at higher education institutions (HEI), research institutes and eventually at the LvAS also in Latvia. However, as the country was marked by its Soviet-time industrial research, the first reforms were motivated by the need for a displacement of party-appointed (and often immigrant) science workers from the national academic field. Research funding was suitable leverage. As a part of changes in the field, the Latvian UoS, in cooperation with the Board of Rectors and the reform-minded LvAS, were supported by the new government in transferring the totality of research funding to the LvSC that was established in 1990. In that way, the national-minded science administrative elite gained control of allocated financial resources and beneficiaries. Also, almost the totality of funding was allocated via two project funding instruments and around 20% of them to SSH. Nonetheless, instead of generating competition, the project funding was designed to "preserve" the existing research<sup>12</sup>. The projects were often allocated to research groups based on the number of research workers, and grants were small

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<sup>10</sup> Interview with a former EstSF official, 12.10.2015, Tallinn.

<sup>11</sup> For example, in 1995, the EstSF allocated EUR 2,88 million to 883 projects out of 1211 submitted applications. Also, In 1996, 10% and in 1997, 29% of grant applications (in all scientific branches) were sent to Finnish AS and Swedish Research Council, who were carrying out peer-review with no charges.

<sup>12</sup> Interview with a former LvSC official, 07.01.2020, Riga.

and pre-fixed amongst a wide range of scientific areas<sup>13</sup>. The decision not to use the foreign peer-review was explained by the first wave of reform actors as being due to the lack of resources (LvSC used only 1% of its budget for administrative matters) as well as the lack of sufficient external relations for addressing the project applications<sup>14</sup>. In that way, behind the visible change in funding instruments, the Latvian research funding exhibited important continuities in the content of these instruments.

Compared to the other Baltics, the post-Soviet change in Lithuanian public research funding was the most insignificant. Together with continuity in the political elite, the national-minded former scientific elite (also former Communist Party members) kept their positions at the top of HE and research institutions. Consequently, one of the main reform actors, the Lithuanian UoS, was not cooperating with the more liberal Popular Front but stood against its propositions. It supported a stronger role of the State and particularly the Parliament which was seen as a "guarantee" for an autonomous academic sphere. Although liberal powers supported by the Popular Front succeeded in establishing the LtSF, its share of funds remained scarce. Moreover, the LtSC that was established in 1991 and represented the core of the scientific elite of the country, had only an advisory role in research policy. Instead, the major part of the research budget was allocated within the parliamentary decision on a per-institution basis. In that way, the Lithuanian research funding remained highly politically dependent even after the collapse of the Soviet Union.

By the mid-1990s, the importance of project funding in the funding portfolio was highly variable between countries. For example, by 1996, around 4% of funding was allocated through project calls in Lithuania, 30% in Estonia and 97% in Latvia. This variation was due to national political powers and relationships between different segments of the scientific elite. In Lithuania, where the political turmoil resulted in continuity, the reform in research funding remained insignificant. In Latvia and Estonia where there was a political shift, the new funding councils gained more weight. The establishment of funding councils in these countries allowed the national science elite to gain more decision-making power over financial resources. It seems that these organisational innovations on the national level were not used for reaching specific research policy-related impacts but were used more in a strategic way to shift the funding allocation power from the former AS structures to the hands of the national-minded scientific elites who were represented by the reform-minded parts of the ASs. Hence, the project funding did not fulfil the role of highly competitive instruments but was used as an instrument of preservation. Also, as a common characteristic, scientific autonomy was a major concern. Therefore, while embodying the "Republic of Science" type ideology (Polanyi, 1962), the research councils resembled the "parliament of scientists". These established policy settings perpetuated until the emergence of the "new generation" of reform actors.

### Reform actors: resembling backgrounds and programmes, different pathways of entry

Since the mid-1990s, each country saw an emergence of groups of actors with an aim to undertake a policy reform. These "new entrants" did not actively participate in the initial

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<sup>13</sup> Between 1990 and 1992 the LvSC supported at least 830 Fundamental and Applied Project propositions and declined 154

<sup>14</sup> Interview with a former LvSC official, 07.01.2020, Riga.

reforms in the 1990s, and neither did they belong to the UoSs. Many of them had been benefitting from foreign fellowships and academic contracts that had been provided by the large diaspora in the US and Nordic countries. They had a rather wide range of international educational and professional symbolic resources, international social resources and knowledge resources about different research systems. Also, their programmes aimed to decrease the number of research institutes that were seen as Soviet legacy and universities that which number had increased since the 1990s. In research funding, the post-Soviet arrangements were seen as “inward-looking”. They were seen to be run by the “autonomous” system-level networks which link heads of HEIs and research institutes cooperating with ASs or the UoSs. These networks are described as systems where the professional and symbolic resources (scientific degrees and positions; scientific awards) and material resources (research funding) are allocated without taking into account “external” quality criteria. Backed up by the support of the multitude of international actors (Box 3), the norms in the developed reform agendas were corresponding to neoliberal doctrine. For example, they aimed for “transparency” and “accountability” both in the project-funding and base-line funding instruments. Project-funding was also supposed to introduce “competition” amongst scientists whose contribution is measured by involving international expertise. While the reform plans resembled their overarching objectives and aimed for international competition, efficiency and cooperation, the groups carrying these programmes emerged through slightly different kinds of organisational paths.

### **Box 3: Variety of international actors**

The Baltic countries’ research sectors were already being watched by different international actors from the end of the 1980s. These included different research policy actors from the US such as the US National Science Foundation, which proposed formations and information about the US system, but also the Open Society Foundation which established its national contact points in each country and proposed information and material resources for the reforms (Martinson, 2015). Coordinated under the umbrella of the Nordic Council of Ministers, the expertise for evaluating national science systems was also offered by several Scandinavian countries’ research institutions. These recommendations, which were forwarded in the form of systematic intervention or personal consultation, all insisted on the creation of a “competitive” research environment and the increasing role of universities as research actors. With the negotiations for joining the EU starting in the mid-1990s, Baltic countries also benefitted from the financial support of the EU.

Estonian reform actors were early career, exact-scientists working at the Institute of Physics of the AS, Estonian Biocentre and Institute of Molecular and Cell Biology. Some of them were also members of the Tartu University administration, which was radically reformed in 1989 and the EstSF Council which, as we saw above, had a significant role in research funding due to its centrality in the system. Also, compared to the other Baltic councils, the EstSF members were already relatively more experienced in international cooperation since the early 1990s<sup>15</sup>. At the same time, as a difference to the majority of the Council members, their reform ideas were not moderate but radical. They remained in the minority at the Council until the national political

<sup>15</sup> We compared the foreign experience (foreign study or research experience) of the EstSF Council, LvSC, and LitSC members according to four destinations: Former USSR and allied states, Anglophone countries, Western-block countries in Europe and to Scandinavian and Nordic countries. As a result, 38% of Estonian EstSF (against 9 % in Lithuania and 0% of Latvia) council members' educational and professional foreign visits were to Scandinavia and Nordic countries. At the same time, Latvian and Lithuanian council members were proportionally more travelled to former USSR and allied countries (61% in Latvia, 49% in Lithuania against 23% in Estonia).

crisis in 1995, when some of the former centre-party ministers, including the Minister of Education and Culture, were replaced with the new members from the liberal right-wing parties. The new non-partisan Minister J. Aaviksoo had previously held a position at the reform-minded Tartu University rectors' council and was a member of the EstSF council. The appointment of the new Minister also brought along restructuring of the administration: research policy was taken under special attention, and new officials who were close to the reform-minded group members were recruited.

Latvian reform actors emerged significantly later. The change occurred after the national political crisis in 2011 when the President dissolved the Parliament through a public referendum. During the construction of the new parliament, the centre-right government named the former member of President V. Zatlers' advisory commission - R. Kilis - as a new non-partisan Minister of Culture, Education and Science. The new Minister and group around him were represented by different generations, with former studies in the disciplines of social science such as social anthropology and science and technology studies – they all had gained their degrees from the biggest US and UK universities. The new Minister took radical measures in the whole Ministry by decreasing the number of departments and creating a flat management system. Several officials were dismissed, and others were replaced, including the majority of the HE and research department officials; these departments were consolidated into one. Also, a Technopolis Group Research Assessment Exercise (RAE) was commissioned for evaluating Latvian science. Hence, in Latvia, the reform actors emerged uniquely through the political support at the Ministry and were not, at least not initially, linked to the LvSC.

Linked to the political situation, the Lithuanian "new entrants" emerged also only in the 2000s. The former communist party (which was transformed into the Democratic Labour Party) had governed for most of the independence period (except 1996-2001 when centre-right conservatives were in power). The conservatives won elections again in 2008, which allowed the emergence of new actors with more radical reform ideas. The reform was planned by a mixture of academic and political actors representing different generations and scientific fields (chemistry, engineering, law and philosophy). The key actors were the research Ministry and particularly the political actors such as the newly appointed Minister G. Steponavičius and vice-minister, and the reform-minded part of the LvSC (mostly exact scientists). In Lithuania, the reform actors were also mobilising their networks from places such as Denmark or the EU institutions (one of them was vice president of the European Science Foundation for two years). Notably, the report published in 2009 under the World Bank and The Danish Agency for Science, Technology and Innovation was ordained to demonstrate the need for reforms, including the introduction of competitive funding. They were supported by Lithuanian president V. Adamkus and eventually by liberal business organizations and some universities. At the same time, contrary to the Estonian and Latvian cases, the core of the former Ministry officials was kept unchanged.

Hence, in all three cases, we can observe the groups of "new entrants" who emerged with and within the centre-right liberal or conservative political parties. However, the timing and paths of entry diverge from country to country. In Estonia, the actors appear partly from the major player, the EstSF, which holds the totality of funding sources. In Lithuania, they appear mostly through the Ministry and are supported by the minority of the LtSC. Nevertheless, the

link between the scientific elite at the LtSC and the Parliament persists, and the initial power for enacting change remains rather low for the new entrants. In Latvia, they appear uniquely through the Ministry, which has shared control over the majority of the budget at the time. These pathways have a consequential role in their capacity for action in subsequently initiated policy changes.

### Multiple usages of project funding

While the Baltic reform actors aimed for "structural changes" in the academy, the implementation of their programmes was also influenced by the immediate post-independence time arrangements in national science fields. To this effect, the project-funding instrument was not used similarly in all countries. In Estonia, the project funding instrument was one of the central instruments for undertaking academic reforms. In Latvia, it was not implied in the reforms, and in Lithuania, the funding instrument was used to preserve the existing research groups. Below, the reform courses are presented case by case.

#### Estonia – strategic usage of project funding for reform in the academic sector

The Estonian reform course was the most complex. The first phase of the reform had already occurred in the mid-1990s. It resulted in shifting the former base-line funding sources from the autonomous EstSF under the Ministry structure, and transforming it into a project-funding instrument (also known as "targeted funding"). The target funding instrument was inspired by the example of the Finnish Academy's similar funding instrument and aimed to allocate resources only to research areas which "correspond to state priorities" and were "internationally excellent" in all fields of sciences. Also, due to the "low quality in the SSH"<sup>16</sup>, compared to the EstSF allocations, the share for SSH projects decreased within the targeted funding instrument: 15,7% of the budget was allocated to SSH in 2007. Hence, the shift in funding instruments allowed the Ministry to filter out research groups whose research production was not up to competitive standards and measured with criteria of internationalisation. Combined with the EU Phare funding, the targeted funding was one of the major leverages for institutional mergers and the concentration of resources in few institutions (Masso & Ukrainski, 2009). For example, in Estonia between 1997 and 1998, 17 former academy institutes were tied to four universities.

In parallel, over the next years, the EstSF lost its key role in the funding system. The EstSF budget was kept low – it remained around EUR 4.5 million in the 1990s and early 2000s while the targeted funding instrument budget was around EUR 10 million and continued to increase over the years. Some EstSF members saw the reform as a "step back to the Soviet system" where political change might influence funding decisions, as the budget was further allocated by the Minister's advisory council<sup>17</sup>. Finally, the EstSF was reformed in 2012 when it was transformed into the Estonian Research Council (EstRC) with an aim to consolidate the instruments into one "strong organisation". Thereby, the Finnish Academy was taken as a main

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<sup>16</sup> Interview with a former Estonian research ministry official, 15.12.2016, Tartu.

<sup>17</sup> Also, other sectorial ministries were questioning the reform, particularly the Ministry of Agriculture, which was reluctant about the idea of consolidating research funding under the sole sectorial Ministry. Interview with a former EstSF official, 12.10.2014, Tallinn.

reference in the reform course. In the words of the reform actors, the Finnish example is an "obvious example" for Estonian reform because of its "similar culture" and because "they have rationally thought through their system"<sup>18</sup>. The reform itself was conducted under Minister J. Aaviksoo's second tenure in this position (the first time was in 1995 during the second wave of Estonian research policy reforms). Moreover, it occurred in the context of administrative reforms linked to Estonian access to the OECD<sup>19</sup> and was supported by EU Structural funds<sup>20</sup>. Within the reform, the former EstSF funding instruments were transformed partly on the example of the European Research Council (ERC) instruments<sup>21</sup>. Importantly, the competition between the applicants increased with the decreased number of allocated grants that reinforced, even more, the consolidation of resources into few universities.

During the Estonian reforms, that were undertaken by reform actors who emerged from the national science administrative elite, not only the models of funding instruments but also the settings were inspired by international contexts. The project funding device was progressively transformed into a "prestige" grant that was allocated on a selective basis to internationally best-performing research groups and was therefore used strategically for undertaking substantial structural changes in national science field (Jacquot & Woll, 2008; 2003).

#### Latvia – non-usage of the project funding instrument

In Latvia, where the reform actors had entered uniquely from the research Ministry, the reforms were mostly targeting the base-line funding instrument. It was introduced during the economic progression in 2005 together with the National Research Programs instrument and was managed by the Ministry in cooperation with the AS. By 2011, these two supplementary funding mechanisms made up almost 75% of total public research funding. During the 2011 reform, the totality of the HE funding model was transformed on the example of the model proposed by the World Bank. The given model bound both types of research funding modes (the base-line and the project funding) with the HE financial approbations. The funding was calculated based on a formula with the main criteria supporting competition between institutions, and according to their level of research internationalisation (collaboration, publications, etc.). Also following the example of the UK, the RAE results were linked to the base-line funding formula. For example, from 2015, the units with the best results gained supplementary finances (around one-third of the assessed 150 units), and the units with the lowest results (including most of the SSH specific units) lost their share. Hence, the number of universities' structural units fell 65%.

Due to the lack of cooperation between the Ministry and the LvSC that was attached to the LvAS, the project funding instrument was not involved in the reforms and reforms were highly

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<sup>18</sup> Interview with an EstRC official, 5.02.2016, Tartu.

<sup>19</sup> In 2011 OECD published a public governance review where it was recommended that the Estonian government execute a wider public-administration reform on the basis of the "Whole of Government" approach. (OECD (2011) *Estonia : Towards a Single Government Approach*, Paris, OECD Public Governance Reviews).

<sup>20</sup> The establishment of Estonian Research Council was supported by EU structural funds and its full budget was EUR 2,87 million. (Approval of the program "TeRaS" with the act of the minister on 29.05.2012)

<sup>21</sup> Similarly to the ERC, Estonian project funding instruments were categorized based on the researchers' career situation. Three types of personal grants were instituted: the "starting grant", directed to young scientists for starting their independent career and creating their own research team, the "research grant" for innovative, high level and high-risk projects and the "postdoctoral grant" for post-doctoral research.

contested by academic elites<sup>22</sup>. Although the RAE recommended a transparent and competitive approach for the project-funding allocation, the LvSC went through only minor changes in its funding allocation practices. For example, while the number of scientific fields was decreased through the adoption of the Frascati scientific fields categorisation (whose aim was to, in the words of reform actors, "break the power structure of the scientific fields"<sup>23</sup>), in practice, the small inter-commission scientific fields were preserved. Besides, the role of international peer-review in the decision process was minor, and the overall criteria of decisions were not formalised. According to the leaders of the LvSC, in the context of the reforms and increasing internationalisation, the funding was more than ever necessary for "preserving the research groups who are not able to keep up with changing requirements"<sup>24</sup>. At the same time, the average size of the allocated budgets increased from 2013. While in 2006, the Council funded 685 basic and applied research projects annually (EUR 4,46 million), in 2013, only 67 projects were funded annually (EUR 3,22 million). The share of funding allocated to the SSH projects decreased from 20% to 18%. Then again, the LvSC budget was frozen: in 2015 the base-line funding was about EUR 22 million, National Research projects EUR 6,2 million and LvSC funding EUR 4,38 million.

In Latvia, where the science council was managed by the post-Soviet academic elite, the project funding instrument was not reformed and was, instead, used for replacing the recurrent research funding. Hence, the instrument was ignored by the reform actors who were instead focussing on "updating" the base-line funding mechanism.

#### Lithuania – legitimizing usage of project funding instrument

Similarly to the Latvian case, one of the key changes during the Lithuanian second wave reforms was the introduction of a new base-line formula. While earlier the base-line funding was allocated to research institutes and universities based on the historical budget lines, the new formula was a mixture of input- and output-based indicators (Dobbins & Leisyte, 2014). The calculation for the SSH was distinguished from other disciplines and it stipulated that half of the funds depend on the number of researchers employed, and a half on the results achieved. In that way, the formula was reinforced with bibliometric indicators and peer review-based evaluation elements that were already in use in some Scandinavian countries such as Norway and Denmark (the latter also reformed its funding formula around 2010) (Aagaard, 2018). Moreover, a supplementary EUR 150 million of EU Structural funds were allocated to institutions that agreed to consolidate with another institution. These changes were conceived to rationalise and consolidate the research institutions through competitive principles. With the reform, the former 46 research institutes decreased to 22 (these numbers include university, state and other institutes).

Also, the LtSC was transformed into a Lithuanian Research Council (LtRC) and the share of the project funding increased from 30% in 2010 to almost 50% in 2014. According to the law on HE and research (2009), the LtRC was established "on the example of the ERC". In the words of reforms actors, this had to mean that council was supposed to fund only the "top-

<sup>22</sup> For example, 18 rectors signed a letter demanding the dismissal of the Minister R. Kilis from his position in August 2012.

<sup>23</sup> Interview with Latvian research ministry official, 24.01.2018, Riga.

<sup>24</sup> Interview with a LvSC official, 24.01.2018, Riga.

quality research"<sup>25</sup>. Similarly to the ERC, the LtRC structure consisted of separate vice-chairmen and commissions, with one specialised in SSH projects. At the same time, to “keep its autonomy,” the council was kept linked to the Parliament (members of the council were named by the Parliament). Out of the total EUR 15,6 million in 2012, around 30% was earmarked for SSH. At the same time, in the context of political and academic resistance, the SSH gained a unique status in the LtRC<sup>26</sup>. Although the LtRC funding was allocated through project competition by expert commissions, several elements enhanced democratic principles in funding allocation. The funding schemes were numerous<sup>27</sup>, and researchers had an opportunity to participate in several projects. Furthermore, the project allocation criteria favoured in-house publication practices, and international peer-review was used only for selected project calls.

The Lithuanian reform actors did not have full support from a SSH specific academic elite. Despite establishing the funding council and relevant funding programmes, project funding was used for funding ordinary research. Hence it seems that this device was mostly used as a legitimate resource (Jacquot & Woll, 2008; 2003) for completing externally suggested policy aims.

In sum, the cross-country differences in the utilisation of project funding can be understood as the capacity of former science-administrative personnel to keep control over the funding organisations and research councils that were established at the beginning of the 1990s. On the one hand, as the reforms were supported by the EU (pre-) Structural Funds, these resources increased the capacity of central administration at the Ministries, which is otherwise seen as a general development in CEE countries after EU accession and the opening up of EU resources to the new Member States. On the other hand, rather than addressing the project-funding devices, the reforms focus on base-line funding instruments. It seems that these mechanisms were more straightforward to grasp for reform actors than project funding instruments and only Estonian reform actors could “successfully” transform the project funding.

## Conclusion

The analysis of Baltic countries’ research funding reforms between 1989 and 2015 revealed a variety of ways in which project funding was used in the national policy reforms (Jacquot & Woll, 2008; 2003). As a legacy of the Soviet system, the project-funding instruments that were appropriated right after the collapse of the Soviet Union carried along with them the preservation and autonomy-seeking paradigm in their allocation mechanisms. The subsequent reforms that were undertaken between the mid-1990s and 2015 by a group of actors who aimed to “break down” the former Academy institution and research funding was one of the leverages for that. However, the project funding was strategically used for carrying out policy reforms only by Estonian reform actors. In Latvia and Lithuania, when it was

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<sup>25</sup> Interview with a former LtRC official, 25.02.2016, Vilnius.

<sup>26</sup> In Lithuania, the main reform opponents were the sectorial ministries who stood against the consolidation of research programmes into one organisation. Another group was the part of the scientific elite that was working against the reforms; these were most of the heads of the HEIs and research institutes who would lose their direct link to the Parliament and the Government, and the opposition parties.

<sup>27</sup> For example, in 2012 LtRC allocated the state budget through six different instruments. In addition, the LtRC allocated funding through project competition from EU Structural Funds resources.

challenging for reform actors to change the academic research council system in itself, similarly to the Dutch example, reform actors found other channels to reach their goals – namely the base-line funding – by circumventing this part of the funding system (Aagaard, 2017). In Latvia, the project funding was excluded from the reforms, and in Lithuania, the funding was introduced only formally. Paradoxically, in these countries, the Baltic research funding council's project-funding instruments seem to be working more as stability mechanisms than competitive ones. Also, if in Lithuania, the SSH funding criteria were distinguished from scientific disciplines (criteria supporting a variety of forms of publications and national publication practices), in Estonia it was homogenized with other scientific disciplines (criteria supporting articles and international publication practices). Between these two extremities, Latvia seems to adopt similar policies as Estonia, but keep some flexibility in its funding criteria. Thereby, it seems that the profiles of programmatic actors (their positions and professional socialisations) and the structure of other public funding sources were key factors for understanding the appropriation of these devices in the Baltics.

This assertion may allow a better understanding of the longer-term appropriation of competitive funding instruments and evolution of national research funding “models”. Substantial (competition-seeking) reforms were carried out by the groups of reforms actors that emerged with and within the centre-right liberal or “internationally-minded” conservative political parties and were supported by the agendas of the variety of international actors. Thereby, the conflict in the Baltics’ research funding policy fields was not only about internationalism-competition and localism-preservation seeking paradigms but broader *norms* that shall be in the heart of the distribution of public resources. It was a conflict between equity and excellence (Hicks & Katz, 2011) and more broadly between “individualist” and “collective” principles in science policy. This conflict was then institutionalised in the research funding policy reforms and institutional settings. However, research funding instruments and their criteria not only embedded political ideas that have been dominant in these countries since the 1990s but also the structural conflicts between different programmatic actors. As a consequence, the shares of funding (project *vs* base-line<sup>28</sup>), as well as the models (international *vs* national), emerged more from power struggles than from following specific pre-existing models. Common in post-communist countries’ developments, even after more than two decades after the collapse of the Soviet Union, the Baltic research policies expose continuous lags between the policy “models” and “norms” (Sauvé, 2019), at least from the point of view of Western observers.

Second, it follows that there was a variety of international actors that were involved in the circulation of policy recipes. At the beginning of the 1990s, the research policies’ organisational structures were influenced mostly through bi-lateral relationships with US government agencies and NGOs, but also with Scandinavian countries. In further years, changes in the funding agencies and instruments were inspired from specific country examples (Finland, Denmark) or supranational organisations’ examples (ERC), models proposed by international organisations

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<sup>28</sup> Following the institutional reasoning, we could observe that by 2015 Estonia came to rely mostly on project-funding instruments - a trend that is similar to the ‘US system’, while Latvian and Lithuanian’s public funding became built on a combination of core and project funding that is more typical of the ‘continental European funding systems’.

(World Bank), and private sector recommendations (Technopolis Group). It seems that except for the World Bank, which offered a precise funding model for Latvia, international organisations (OECD, EU) provided above all normative frameworks or/and financial sources for implementing the reforms. At the same time, concrete designs of the funding agencies and instruments are linked to the professional trajectories of reform actors that were inspired by a specific country or supranational funding council examples (US, Finland, ERC). National policy arrangements resulted from a multitude of sets of foreign aids, references and more or less precise templates that were used throughout the reforms, and bilateral relationships between the different countries' scientific elites had a key major role in this process. Therefore, the internationalisation of research policies is not a one-way street from "isolation" to "Europeanisation"; it is a geographically more complex phenomenon. Instead, "utilisation" of different international contexts by change actors can explain the repertoire of solutions that are within the actors' grasps, and that enable them to generate new institutional arrangements in the particular local setting (see also in Jablecka & Lepori, 2009).

Finally, articulation of the utilisation of project funding instruments by reform actors in conjunction with other public funding devices demonstrated that the capacity of reform actors to appropriate and implement the changes fully on the example of a concrete model was restricted and was not even always aimed for. Instead, substantial policy changes took place only if these were "led" by the group of actors with former international socialisation. It is for this reason that more competitive policy settings in the three countries were introduced at different time periods: in the late-mid 1990s in Estonia, and more progressively and only recently in Latvia and Lithuania. Hence, the study exposes a limit of recent historical neo-institutional literature about institutional changes. Transformations in the Baltic countries' science funding policy occurred indeed both via reforms and a series of minor adjustments over time as suggested in the literature. However, agency was decisive not only in the type of institutional change mechanisms (Thelen & Mahoney, 2010; Streek & Thelen, 2005), but also in which time periods these reforms were undertaken. This assertion may also better explain the heterogeneity of the CEE research policies (Lepori et al., 2009).

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ARTICLE



## Science policy meets post-New Public Management: Estonian and Finnish reforms 2012–2015

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### ABSTRACT

The study compares recent Estonian and Finnish research steering reforms. Both cases exhibit post-New Public Management (post-NPM)-style policy ideas that seek to enhance coordination over institutional boundaries but diverge in their horizontal and vertical configurations for coordination. This study combines perspectives on coordination from science policy and public administration with a historical institutionalist approach for understanding case divergence. This article argues that post-NPM reforms can involve rather diverse forms of coordination, which are affected by institutional legacies. We also argue that coordination efforts in science policy can involve a strengthened instrumentalization of research for policy-making, and, in such cases, they should be studied in close conjunction with public administration and its policy trends.

**KEYWORDS** Finland; Estonia; science policy; coordination; centralization; steering; post-NPM

### Introduction

This article compares recent Estonian and Finnish research steering reforms between 2012 and 2015: the founding of a new research council in Estonia and the Finnish Comprehensive Reform of state research institutes and funding. These reforms had relatively similar key features and objectives. Both intended to affect more coordination in their respective national research systems by reorganizing funding and steering instruments. These reforms can be argued to reflect the international reform trend, identified by recent comparative public administration research that seeks to enhance coordination over various institutional and organizational boundaries. This trend, also promoted by the European Union and Organization for Economic Co-operation and Development (OECD) involves various coordination-oriented reorganizations and instruments, such as organizational mergers into large multifunctional units, the strengthening of coordinating ‘centers’ and other coordination bodies, and a comprehensive ‘whole-of-government’ perspective to public administration (Barré et al. 2013; OECD 2016). These reforms have been widely approached as a response to the preceding international trend of New Public Management (Hood 1991) and labeled *post-New Public Management (Post-NPM)* (Bezes et al. 2013; Christensen and Lægreid

2007a, 2007b; Dahlström, Pierre, and Peters 2011; Kolltveit 2015; Lægreid et al. 2015; Peters 2004; Reiter and Klenk 2018).

Similarities in Estonian and Finnish reforms appear relatively unsurprising since the countries have many historical, cultural, and political affinities, including a history of policy diffusion (see, for example, Kattel 2004; Toots 2009). On closer inspection, however, the cases exhibit some notable differences. While they share a post-NPM-style frame of policy ideas and objectives, their more specific features for enhancing coordination are significantly different. What is especially notable is that their respective coordinating centers have been configured differently. Where the Estonian reforms centralized research funding instruments into a single agency steered by a sectoral ministry, the Finnish reforms established new funding and coordination instruments under the steering of the formal center of government. This presents an empirical problem: how has a more or less similar policy agenda resulted in such institutionally different outcomes – moreover in the very aspect (coordination) that is in special focus?

For approaching the issue, it is useful to first discuss what general effects post-NPM ideas might have when applied to science policy and research steering. Although this crossover is particularly interesting, post-NPM influences have previously been approached rather as a contextual factor than the issue in focus (Paradeise et al. 2009; De Raymond 2018). Nevertheless, drawing from these studies, we could expect the post-NPM trend to be reflected in science policy in several ways. It could manifest as increasing reforms and policies that seek to strengthen coordination

- (a) within the research steering that is practiced by governments and agencies;
- (b) between and within research organizations and their departments;
- (c) between different scientific disciplines and fields of research; and
- (d) between different established types, roles and categories of research, such as basic research, applied research, research directed at addressing ‘social challenges,’ and serving the policymaking in response to them.

More broadly, we could also expect that the very relationship between science and policy would be increasingly approached as a post-NPM-style coordination problem to which more and better coordination is presented as the solution. Since such coordination efforts would seek to increase interaction over the boundaries of research and government, they could effectively emphasize the social challenges type of research. This could result in different effects, such as the expansion of this type in relation to others, or a relative redefinition of other types with its ideas. Furthermore, we would also expect to encounter different variations and combinations of these post-NPM science policy effects in different political contexts. As these could involve attempts to redraw the institutional boundaries of science and government (Irwin 2008, 587–8) and because of significant traditions of scientific autonomy against government intervention (see, for example, Polanyi 1962), we could, however, also expect resistance against post-NPM-type coordination. Therefore, it is unclear how post-NPM will turn out when viewed against the longer history of science policy – as a continuation or strengthening of previous kinds of research steering effort, or as more genuine qualitative change.

The research objectives in this article are, firstly, to identify and describe the different institutional configurations of coordination in the reform cases, and secondly, to assess and compare how their different institutional contexts have affected this divergence.

Are we witnessing more path-dependent development with regard to previous institutional settings or more genuine change in either country? Through these cases, the article also seeks to generally understand and set an illustrative precedent as to how science policy and research steering can develop under the influence of post-NPM.

This article combines perspectives to coordination from science policy and public administration with a historical institutionalist approach. It seeks an improved understanding of the different forms post-NPM-style reforms can take in various contexts, and argues that these variants, or 'acclimatizations' (Eymeri-Douzans 2011), can involve relatively different institutional configurations of coordination. It registers the emergence of post-NPM into science policy and research steering, and argues that it is best studied with joint insights from science policy and public administration studies.

The article is structured into three sections. The following section presents our analytical framework in detail. After this, we illustrate the historical institutional contexts of the cases, with a focus on their divergent features. Then, we outline the Estonian and Finnish reform cases and pinpoint the post-NPM characteristics with their similarities and differences. Finally, we present a comparative discussion and a final assessment of our findings.

### **Analytical framework: science policy and research steering in the age of post-New Public Management**

For an overview of what coordination implies for research, we draw from both public administration and science policy theories. In public administration, organizational structures and relations are often approached through the spatial images of vertical and horizontal axes. Along these, there is either more or less specialization and coordination (Bezes et al. 2013, 150–2). *Specialization* can mean division into specialized vertical levels or horizontal sectors, which can have forms of relative hierarchies and autonomies. Conversely, the term *de-specialization* can be used for grouping different functions together across the axes. Furthermore, *coordination* can be understood as the activity or outcome of making organizational elements operate jointly and coherently over any such boundaries, for example, between organizations on different vertical levels (i.e. a government ministry and an agency) or in different sectors (i.e. ministries responsible for separate policy fields). De-specialization could, therefore, be understood as one (but not the only) instrument or strategy for enhancing coordination. Post-NPM policy ideas have been argued to shift focus *from* specialization *to* coordination and de-specialization along the vertical and horizontal axes in administrative systems (150–2). Here, vertical coordination can be understood as coordination efforts between organizations on different levels, as in between government ministries and subordinate or semi-autonomous agencies, and horizontal coordination as taking place within shared levels, as in between ministries with different policy fields. Furthermore, vertical de-specialization could mean structural mergers and consolidations across vertical levels, and similar horizontal de-specialization efforts along shared levels.

Coordination issues have also been addressed in science policy studies. We use the term *research steering* in reference to government activities and instruments that seek to influence the direction and development of research in different organizations that have varied forms of scientific autonomy. From a public administration perspective, science policy approaches to coordination have mostly focused on a vertical relationship between government and research activities. Some science policy approaches

have addressed the horizontal dimension, such as the idea of a more basic research-oriented 'Mode 1' and more applied-oriented 'Mode 2' in science (De Raymond 2018; O'Brien, Marzano, and White 2013) but these have mostly focused on coordination within the level of research activities (for example, through ideas of interdisciplinarity or multi-disciplinarity), and not on the effects more coordination in research might have on government. Hessels (2013) has developed a typology of coordination in research, which includes the idea that coordination in research can produce coordination in policy. It remains, however, focused on the research activities level, does not differentiate between different organizational arrangements of research steering, and does not contextualize research coordination within the historical trends of NPM and post-NPM.

Nevertheless, we can apply analytical categories from science policy studies jointly with the public administration approach to coordination. One highly influential science policy approach has been the post-World War II division into basic and applied research: basic research should be autonomous and self-directing, whereas applied research should respond to 'socially mandated' problems in fields such as defense, health care, resource use, agriculture, and commerce, and in these some degree of government intervention is considered legitimate and necessary. These categories have corresponded to distinct science policy orientations, 'policy for science' (government supporting basic research), and 'science for policy' (applied research supporting government) (Elzinga 2012, 418–19; Ziman 1996, 75–6). Other science policy typologies address similar issues of distance from government, such as Braun (1998) types of research funding agencies. Within these, 'science-based' agencies serve the scientific community, which can be reflected in their relative vertical independence from the state or its 'center,' or in the horizontal specialization of science policy from other policy fields and rationales. In contrast, 'strategic' agencies are serving government by researching a particular field, such as health or the environment. These have less vertical autonomy but still reflect horizontal specialization and a relatively fixed set of tasks. Braun (1998, 810–11) also distinguished 'political' agencies that have even less autonomy and serve immediate government interests but does not elaborate on how this might support coordination in government. In addition, recent studies have discussed 'cross-sectoral' research agencies but have not much explored their implications for government (De Raymond 2018). Our synthetic approach to coordination could be illustrated with the following examples. The reinforcement of autonomy for science agencies and strict separation between government and research could be understood as *vertical specialization*. Division into functionally differentiated agencies (by field or by orientation such as basic vs. applied) represents *horizontal specialization*. The concentration of activities on either side across the government-research boundary could be understood as *vertical de-specialization*, and mergers within shared levels *horizontal de-specialization*. Increasing government steering of research represents *vertical coordination*, and coordination efforts within either the government or research level represent *horizontal coordination*.

As post-NPM reforms seek to enhance de-specialization and coordination, post-NPM research steering could be expected to focus on both over the vertical boundary between government and research and the horizontal boundaries within government, and between different kinds of research fields and agencies. The strengthening of coordination could be expected to take place through, for example, the establishing of new steering mechanisms, organizational mergers, and the introduction of various new forms of cooperation for agencies. For further operationalization of the analytical

concepts discussed above, we turn to historical institutionalist theory and its approaches to continuity and change.

### ***Understanding the cases through a historical institutionalist approach***

We should not expect post-NPM features to appear in coherent ideal-typical forms in the empirical cases. It has been argued that the post-NPM trend does not necessarily mean a clear rejection of NPM or a reversal to pre-NPM ideas but more likely a layering of coordination-oriented post-NPM elements upon preceding and continuing NPM ones, to the extent that post-NPM could even be considered a ‘second generation’ to NPM (Christensen and Lægread 2007b). NPM has been often understood as emphasizing individual organizations, promoting their specialization and ‘agencification’ (shaping them into relatively autonomous ‘agents’ acting strategically with only limited and indirect government steering), and empowering their top management for these purposes. Although the specific applications and effects of NPM ideas have been varied, it has been argued that its general orientation toward specialization has led to adverse fragmentation in administrative systems, which have become too uncoordinated to be controllable and efficient (Dahlström, Pierre, and Peters 2011). Therefore, for better understanding the contemporary post-NPM turn, we need to focus on the layered configurations of steering and coordination.

For this purpose, we combine the public administration and science policy perspectives discussed above with a historical institutionalist approach that focuses on mechanisms of continuity and change in policy and institutional development (Hall and Taylor 1996). A key theoretical idea in historical institutionalism has been path dependency, which suggests that when an institution has been established with commitment and devoted resources, it will produce ‘increasing returns’ in benefits, and over time will become increasingly costly to dismantle in favor of a different one (Pierson 2000). With strong path dependency, institutional change would occur only through exogenous shocks or critical junctures – moments in which specific events and decisions would lead to the development of new institutions (Collier and Collier 1991). The idea of path dependency would suggest there will be either little or major change.

In contrast, later historical institutionalist approaches have shifted attention toward examining covert and endogenous changes (Mahoney and Thelen 2010; Streeck and Thelen 2005; Thelen 1999). For these approaches, the overarching political context and the properties of the institutions themselves are key for understanding the processes through which change takes place. Several types of institutional change have been proposed, from which the layering type has been especially employed in studying administrative reforms (Christensen 2012). In layering, new ‘rules’ – any institutional features or elements – are superimposed upon previously existing rules and change how the original rules structure behavior and distribute power. Rather than replaced, the former rules are supplemented, revised, and realigned (Mahoney and Thelen 2010, 15–17). In our case, this approach directs us to analyze how new institutional rules of specialization and coordination are introduced and ‘layered’ on top of older ones, and what kind of layering configurations arise from this.

The study follows a holistic multiple case study design (Yin 2012) and relies on document analysis of the relevant policy documents from both reform cases, including reports, plans, resolutions, and acts. This information is further supported and contextualized with the help of existing research literature on public administration, science

policy, and research steering in both countries. Through this, we can highlight the layering configurations and case divergence. Before proceeding to case analysis, we will briefly outline the main features in both Estonian and Finnish research steering systems as they were immediately before the reforms.

## **Finnish and Estonian research steering prior to the reforms**

As demonstrated in many studies, preceding institutional trajectories are essential for understanding reforms (Christensen 2012; Clark 2001; Greve and Hodge 2007; Ongaro 2013). In this section, we present the main specialization and coordination features in Finnish and Estonian research steering systems prior to the studied reforms. For framing the science policy trajectories, we start by overviewing the respective institutional politico-administrative contexts.

### ***Horizontal coordination as a relative difference between the politico-administrative systems***

Since independence in 1917, the Finnish public administration system has been characterized by continuity in its major vertical and horizontal specialization features. These are the division of government into ministries, relatively independent state agencies, and the strong formal autonomy of municipalities. The Finnish NPM reforms from the 1980s onwards further fragmented the system, as various public services and agencies were corporatized and privatized, and the previously rather uniform system of state central agencies was dismantled in favor of sector-specific solutions (Savolainen 1996; Temmes and Kiviniemi 1997). While formal divisions and autonomies have persisted, the Ministry of Finance has effectively gained a coordinative 'superministry' role through fiscal policy, framework budgeting, EU economic coordination, and the austerity responses to the 1990s and 2000s–2010s economic crises (Harrinvirta and Puoskari 2001; Tiihonen 1985, 1990; Yliaska 2015).

After the 1990s mature period of NPM reforms, the national reform agenda has increasingly turned toward coordination ideas (Virtanen 2016; Pollitt and Bouckaert 2017). Here we can distinguish first wave of coordination efforts in the 2000s that relied on institutionally lighter solutions such as 'horizontal policy programs' and more political advisors to ministers for policy coordination (Kekkonen and Raunio 2011; Mykkänen 2016; NAO 2009). In the 2010s, the reform proposals shifted the focus to major organizational structures and processes, such as the division of government into ministries and their relatively autonomous policy preparation. The Katainen and Stubb governments (2011–15) worked on an ambitious central administration reform project which made various proposals for creating a 'structurally and operationally more unified Government.' Its most radical proposal was the full consolidation of the separate ministries into a single organization, very similar to the Swedish Government Offices. Only some smaller proposals were ultimately realized, however, such as the consolidation of certain supporting services into a new unit under the Prime Minister's Office (PMO).

The dominant feature in the Estonian context is the reorganization of the politico-administrative system after the restoration of independence in 1991. As in other central and eastern European countries, Estonia inherited a highly fragmented administrative system from the Soviet period, which consisted of numerous ministries and specialized

agencies that had been characterized by strong hierarchical controls and subordination as well as the intertwining of party bureaucracy with state administration (Goetz and Margetts 1999; Goetz and Wollmann 2001). Against this background, inspired by a rejection of the Soviet legacy of centralization, Western reforms in the 1990s, and the first period of independence, a vertically specialized model consisting of ministries and agencies was formed, with many functions delegated to the agency level and ministerial control simultaneously strengthened (Sarapuu 2012a). In parallel, local government remained fiscally dependent on the state, and the division of functions between the state and municipalities was developed incrementally (Tönnisson 2006). The Government Office, formally responsible for overall coordination, remained relatively small in capacity and resources.

During the EU accession process, various kinds of agencies were established in different policy sectors for managing EU structural support and implementing EU law, thus strengthening vertical specialization in the administrative system (Randma-Liiv, Nakrosis, and Hajnal 2011). While EU accession supported increasing horizontal coordination (Viks and Randma-Liiv 2005), the Government Office continued its trajectory as a light formal center and the Ministry of Finance effected a degree of inter-ministerial coordination through fiscal means (Sarapuu 2011; Randma-Liiv and Tönnisson 2006).

Therefore, while both cases exhibit considerable vertical and horizontal specialization characteristics, in Finland the preexisting horizontal coordination elements appear to be slightly stronger. Estonia's specific trajectory brought with it a horizontally-fragmented administrative and science policy institutional structure, which was reformed only from the beginning of the 1990s.

### ***Features in science policy and research steering reflect the similarities and differences in the overall system***

In terms of science policy and research steering, both countries have developed broadly similar layouts. These consist of comprehensive systems of public universities, research institutions, and funding agencies, with private organizations and funding only in a complementary role (Halme, Saarnivaara, and Mitchell 2016, 19–24; Ruttas-Küttim and Stamenov 2016, 15–18). Both Estonian and Finnish constitutions guarantee the principle of autonomy for scientific activities but there are also different forms of indirect government steering and policy-oriented research institutions. This can be seen as an overall model of *vertical specialization* into the 1) government that steers, 2) public funding agencies and research institutions that work under different forms of steering and autonomy, and 3) public universities that have the strictest formal autonomy but which are nevertheless affected by some steering. *Vertical coordination* over these boundaries has mostly been affected through indirect means such as funding models and performance contracts, and in the case of funding agencies and research institutions, also by powers of appointment over their governing bodies.

Finnish research institutions and the public research system have been shaped by an expansion of government science policy and steering instruments from the 1960s onwards. This included establishing the government Science Council (later renamed Research and Innovation Council, RIC) for planning and coordinating science policy (1963), the funding agencies Academy of Finland for basic research and Tekes for applied research, development and innovation (RDI) (1970 and 1983 respectively), and the founding of various policy-oriented state research institutes under different

ministries (Immonen 1995; Vähä-Savo 2016). Although this expansion strengthened government steering capacities, it more or less upheld both the vertical boundary between government and research, and the horizontal boundaries between established policy sectors. Academy of Finland and Tekes were steered by predecessor ministries of the Ministry of Education and Culture (MEC) and Ministry of Employment and the Economy (MEE) respectively. The Academy, despite being a single agency under the MEC, has been internally divided into field-specific research councils. The Science Council has had effectively a policy advisory role with no direct steering powers. Although these policy-oriented institutions have in some way challenged previous boundaries, this challenge was effectively consigned to these special 'boundary organizations' (Irwin 2008).

Just before the reform, in 2010, Finnish universities underwent a more or less NPM-inspired reform, in which they were transformed from autonomous state agencies into either public bodies or foundations with a legal personality. Autonomy in finance, internal organization, and personnel affairs was increased, and central managers empowered. Dependence on state funding and affiliated steering continued no less efficiently than before. Accordingly, while both NPM- and post-NPM-inspired reforms represented a genuine change in both vertical and horizontal terms, the system's fundamental divisions remained more or less in place.

In Estonia, the Estonian Science Council (later renamed the Research and Development Council, RDC), established after independence as a government advisory and coordinative body, became the only policy field formally steered from the center of government. At the same time, the former Academy of Science functions were transferred to the Estonian Science Foundation under the Ministry of Education (later the Ministry of Education and Research, MER), following the example of the US National Science Foundation. The Innovation Foundation, later Enterprise Estonia, was made responsible for applied sciences funding under the Ministry of Economy (later the Ministry of Economic Affairs and Communications, MEAC). Despite the coordinative Estonian Science Council, until the first half of the 2000s, considerable horizontal specialization persisted between the MER and the MEAC in research steering (Karo 2011). The vertical specialization and coordinative role of the MER in the system was further reinforced with the establishment of its advisory Council of Scientific Competence (CSC) and a general shift toward market-based steering mechanisms (Raudla et al. 2015). During this period, the MER also strengthened its control over RDI institutions through the conversion of key universities into public bodies and the Academy institutes into state-owned research institutes. The remaining fragmentation was decreased, mostly after the Swedish example, within the mergers of Academy institutes into universities in the late 1990s.

With Estonian EU accession, horizontal specialization remained strong while coordination roles shifted gradually into sectoral ministries. After the accession, many different funding instruments and policy programs for improving research were introduced, which contributed to fragmentation and specialization inside the MER and MEAC. In parallel to this horizontal specialization, the RDC gradually lost its effective steering function. In 2004, for example, supplementary to the former RDC, other advisory bodies for MER and MEAC were established. Progressively, these new bodies (especially in MER) came to resemble a wide range of institutions from different sectoral ministries. If previously the RDC had an advisory role regarding the RDI strategy and the responsibility for its implementation was divided equally between the MER and the MEAC, since

2007 the document and corresponding programs came to be mainly coordinated by a new RDI strategy coordination committee under the auspices of the MER (the MEAC remaining as a co-responsible).

Therefore, the horizontal configurations in Finland and Estonia are comparable. In both, there is an overall model of *horizontal specialization* for basic research and RDI. The Estonian MER and Finnish MEC have steered their respective universities and basic research funding agencies, where the MEAC and MEE have steered RDI agencies. In Estonia, however, the MER has also steered the Archimedes Foundation responsible for implementing EU structural funding, and all the various policy-oriented research institutions, whereas in Finland, the state research institutes have been divided between different sectoral ministries.

In both systems, highly specialized on both government agency levels, *horizontal coordination* has been promoted mainly through various advisory and coordinative bodies. Both countries have advisory science policy councils (RIC and RDC) that cover research activities comprehensively. Being dependent on government agendas and having partially overlapping roles with other science policy bodies, their effective coordinative significance has varied (see, for example, Immonen 1995, 97–9). The Estonian comprehensive RDI policy strategies have been prepared in a committee chiefly controlled by the MER, and their implementation has had a pronouncedly sectoral character (Karo 2010). In Finland, from the 2000s, the sector-divided research institutes have also been subject to some coordination efforts. These have included an Advisory Board for Sectoral Research that operated from 2007 to 2012, intended for increasing coordination between all institutes, and special coordination bodies for the institutes related to natural resources (LYNET, from 2008) and the social and health policy institutes (SOTERKO, founded in 2011) respectively. In the following analysis, we notice how these inherited features have been reflected in the 2012–15 post-NPM reforms.

### **Divergent configurations of coordination in the Estonian and Finnish research steering reforms of 2012–15**

This section analyses the studied reform cases with a focus on their institutional configurations of specialization and coordination. The reforms differed slightly in scope. The Estonian reform concerned funding agencies, while the Finnish one involved state research institutes as well. This difference is not an obstacle to comparison since in both cases the reorganization of funding and steering were central. In the Finnish case, the new funding and steering instruments and the institutes reorganization were complementary elements, and the reformed funding was intended to have steering effects especially upon the institutes.

#### ***The founding of the Estonian Research Council and the RITA program***

The Estonian reform consisted of the creation of a new public research funding agency as well as changes in funding instruments. The reform was initially proposed by the heads of Estonian research funding organizations and further implemented by the MER. The initial proposition to ‘clarify the former fragmented public research funding system’ was included in *Knowledge-based Estonia 2007–2013*, a multi-year plan for state and EU structural funds budgets, under the wider policy objective to ‘increase Estonian

competitiveness through strategic RDI policymaking.’ The concrete plan was developed in an amendment of the Organization of Research and Development Act proposed by the government coalition of the liberal Reform Party and the national conservative Pro Patria and Res Publica Union party in 2012.

The reorganization created a single funding agency, the Estonian Research Council (ERC). It was consolidated from two former funding agencies, the Estonian Science Foundation and the MER’s advisory council – the CSC, and from a part of the Archimedes Foundation administering the EU structural funds. In addition to granting funding and facilitating applied research in the chosen fields of specialization, the ERC was made responsible for evaluating the efficiency and impact of grant usage and managing a comprehensive national registry of research activities. The whole process was supported by the EU structural funds of €2.87 million. In this process, the MER remained as the final authority for the most significant funding instrument (former CSC funding). The MER also kept its decision-making powers regarding all other funding mechanisms supported by EU structural funds and managed by the ERC. Moreover, two former senior MER civil servants were appointed as the head of the ERC and the chair of its board. Although the ERC was presented as an autonomous operative agency similarly to the Academy of Finland, through the reform, the MER could strengthen its steering through funding. Hence, together with new features reflecting horizontal and vertical de-specialization, the former logic of vertical coordination was retained.

Another set of reforms concerned the impact of the funding instruments. The ERC instruments were modified by reducing the number of grants and raising the allocated amounts per grant to reinforce ‘excellence-based research’ and competition between the beneficiaries, a staple of Estonian research funding policy already since the 1990s (Masso and Ukrainski 2009). A concurrent reform introduced a lump sum (global grant) funding system for universities. The new funding criteria favored large units, effectively strengthening the coordinative leverage of the MER over universities and research institutes, both in the vertical and horizontal aspects.

The ERC’s newly founded functions were supplemented by national programs which were intended as coordinative mechanisms, combined different horizontally-oriented policy measures, and had limited autonomous budgets. While these were already included in the *Knowledge-based Estonia 2007–2013* strategy, they were formalized in law in 2012 (Karo and Lember 2016) and parts of them were combined with an ERC funding allocation. The purpose of the 2012 programs was to support internationalization and mobility in Estonian research, collaboration between RDI institutions and business, and applied research in some select growth areas. Among these was the RITA program, which was intended for funding socio-economic applied research based on the needs of the Estonian state, increasing the role of the state in the strategic management of research, and increasing the capabilities of RDI institutions in carrying out socially relevant research. The program combined several inter-ministerial measures with a total budget of €24.5 million spread over eight years (2015–22). For comparison, in 2015, the total budget of Estonian public RDI spending was €194.2 million (includes different funding instruments) (ETAG 2016). Certain measures in RITA are particularly significant for our study. It supported the creation of Scientific Adviser positions within ministries. Their duties include advising the ministry on RDI issues and the planning and management of their national and international RDI cooperation. The advisers also form a coordination committee that is supported by information and preparation by the ERC. The new measures were intended to increase the role of the state in the strategic

management of research, to increase collaboration between the ministries and RDI institutions, to conduct RDI policy according to national objectives, and to boost the capabilities of Estonian RDI institutions in carrying out applied research. These new instruments represented above all a new orientation toward horizontal coordination with respect to the former system.

### ***The comprehensive reform of state research institutes and research funding in Finland***

The reform was initially outlined in the 2011 government program of Prime Minister Jyrki Katainen's government (PMO 2011, 35). This government was a 'rainbow' coalition of six parties in which the liberal-conservative National Coalition Party and center-left Social Democratic Party held most ministerial portfolios, with the Greens, Left Alliance, Swedish People's Party, and the Christian Democrats as minor partners. Principal responsibility for preparing the reform was given to the PMO, instead of the MEC that is normally responsible for science policy.

In the government program's reform outlines, the PMO was given a coordination function for setting common objectives to all sectoral ministries in their steering of research institutes under their respective responsibilities. The institutes were to be reorganized into larger units, some were to be merged into universities, their general division of labor was to be reassessed, and their cooperation with universities was to be strengthened. The reform was prepared in further detail in a 2012 report commissioned by the government's RIC. The report (PMO 2012) was written by a senior PMO civil servant and two external experts. It proposed to reorganize the research institutes merging 17 into nine units. It additionally proposed the founding of new research funding instruments that could be used to steer the reorganized institutes as well as all Finnish research activities in general (PMO 2012, 77–9). Later in the reform's implementation, these funding instruments were established as the Strategic Research Council (SRC) and the Government's VN-TEAS funding, largely as outlined in the 2012 report.

The final reform plan was decided in a 2013 government resolution (PMO 2013). The stated general objective was that 'public policy, its preparation, decision-making and implementation, should be based on researched knowledge' and that research should operate as a 'strategic resource' for decision-making and the development of society (PMO 2013, 2–3). This would be achieved by reorganizing the research institutes into 'larger and stronger' ones and bringing together 'strategically steered research funding,' which would enable the 'reallocation of resources according to the changing needs of society.' It was also argued that the reform would 'free resources from solid structures and support services' into larger research institutes and new funding instruments, and this would make research 'more efficient and relevant' (PMO 2013, 2–3). Reorganizing the institutes was also argued to 'strengthen their multidisciplinary and broad-fielded service to society and the economy,' as well as their 'strategic steering on the government level' (PMO 2013, 3–4).

After the resolution, the institutes were finally reorganized from 17 to 12 units, with the number of steering ministries also decreasing, from seven to six. The institutes for agriculture and foods, forestry, and game and fish were merged into the Natural Resources Institute Finland (Luke), the institute for geodetics was merged into the National Land Survey agency (MML), which was recategorized as a research institute, and the institute for measurement technology was merged into the Technical Research

Center of Finland (VTT). Two smaller institutes, for consumer science and for legal policy and criminology, were merged into the University of Helsinki as special units.

Fiscally, the most significant reorganization was the creation of Luke which became the second largest institute by budget funding after VTT. As the reorganized Luke, VTT and MML amounted together to 69% of the institutes' state funding in 2015, and up to 73% of their total funding, fiscally almost three fourths of institute activity were affected (OSF 2015). In institute proportions, however, the creation of Luke was the single outstanding change, merging one small and two middle-sized institutes into a large one. There was also a single change in organizational types as the VTT was reformed from a state agency into a nonprofit state-owned special purpose corporation. As some internal parts of VTT had already previously been similarly reformed, and as this change did not entail major changes to government steering capacities over the institute (Parliament of Finland 2014, 14), it does not amount to a significant exception among the institutes or in the overall character of the reform.

In addition to these structural reorganizations, new steering instruments and development projects were introduced, and some previously existing ones were expanded. The PMO's new coordination function gave the formal center of government a preparatory and agenda-setting power instrument that intermeshes with the preexisting steering responsibilities of the sectoral ministries. The Ministry of Employment and the Economy was tasked with coordinating a development project (KOTUMO) for increasing cooperation between the research institutes and higher education institutions. The two preexisting institute cooperation bodies, LYNET (for the natural sciences institutes) and SOTERKO (for the social and health sciences), were expanded to encompass more institutes (from six to seven and from three to six respectively), with their original cooperation boundaries widened.

The new funding instruments, the SRC and the VN-TEAS, were gradually assembled from 2014 onwards with funds that were reallocated from both the research institutes and the previously-existing state funding agencies, the Academy of Finland funding basic research and Tekes funding RDI (PMO 2013, 14–16). In 2015, SRC funding was €55.6 million and VN-TEAS €6.4 million. Both forms of funding were open for competition to all research organizations, whether state research institutes, higher education institutions or private organizations. Although the new instruments were still fiscally small compared to their antecedents (with the Academy's 2015 funding at €310 million, Tekes at €488 million, and the universities at €578 million) (OSF 2015), simultaneous, substantial cuts to other forms of state research funding made them nonetheless attractive and significant for applicants seeking grants.

The Strategic Research Council and VN-TEAS funding are broadly similar in their general orientation but different in their more specific objectives and organization. The SRC is intended for 'serving public policy' by funding three-to-six-year research projects that are 'broad-fielded, problem-centered, and programmatic' and seek 'solutions to the significant challenges of society.' Examples of these are given as 'reforming the economy and competitiveness, developing working life, and developing the public sector' (PMO 2013, 9). VN-TEAS is targeted at 'supporting the decision-making of government and its ministries' with one-to-three-year projects, while also 'increasing the government's joint decision-making' (PMO 2013, 3, 11). In terms of organizational type and position, the SRC was established as an internal part within the Academy of Finland agency but it has a separate system of funding, steering, and decision-making. The Government plenary appoints the Council membership for three-year terms. They

draft annual research theme decisions for the Government. From these decisions, the SRC elaborates more specific research programs and distributes the funding through an application process in which they assess both scientific excellence and ‘societal relevance.’ The SRC has utilized further criteria in which applications must consist of consortiums of at least three sub-projects, two organizations, and three research fields (Academy of Finland 2016). The VN-TEAS funding, in contrast, is managed directly by the Government. The PMO drafts annual research programs for the Government plenary to decide and the funding is distributed through an application process coordinated by the PMO.

**Case comparison: research steering reforms between continuity and change**

The Estonian and Finnish reforms involved both elements that followed and reinforced the former steering logics, and those that supplemented and reconfigured the former ones (Table 1).

Prior to the reforms, the Estonian public administration and research system reflected a high degree of specialization in both vertical and horizontal terms, with emphasis on formal autonomy on different levels and in different sectors, and with little capacities for strong central horizontal coordination. The 2012 reforms can be contrasted against the former fragmented research steering system, with the new features of coordination and de-specialization supplementing preexisting steering.

The Estonian reform included entirely new rules superimposed on the old as well as modifications and reconfigurations of the old ones. Organizational changes, for example, the de-agencification of the CSC, together with the consolidation of three bodies into the ERC, effected vertical de-specialization. It comprised consolidating different bodies into one organization within a sector. The change reflects the simultaneous general trend of vertical de-specialization in Estonian public administration, which has involved the consolidation of specialized agencies into larger, multifunctional units, and de-agencification (Sarapuu 2012b). The reform also involved a major increase in steering and coordination through funding instruments. Renewed funding criteria both for research and higher education

**Table 1.** Vertical and horizontal reconfigurations in the Estonian and Finnish research steering reforms.

	Elements of continuity	Elements of new rules
Estonia	Reform focused on MER, not MEC: horizontal specialization Reform not strongly steered by RDC: horizontal specialization MER remained final authority for funding mechanisms: vertical coordination	De-agencification of CSC and Consolidation of three bodies/agencies: vertical de-specialization ERC funding criteria and university funding reform: vertical and horizontal coordination National programs involving participation of different ministries: horizontal coordination RITA program: two funding mechanisms and research advisers in sectoral ministries: horizontal coordination
Finland	Establishment of SRC: vertical coordination, vertical specialization The reform of VTT into a state-owned special corporation: vertical and horizontal specialization Expansion of LYNET & SOTERKO: horizontal coordination	Establishment of SRC: vertical and horizontal coordination Establishment of VN-TEAS: vertical and horizontal coordination, vertical de-specialization Mergers of research institutes: horizontal de-specialization PMO coordination of research institutes: vertical and horizontal coordination

focused on stronger vertical and horizontal coordination of research universities. National programs and RITA programs addressed horizontal coordination.

Nonetheless, these changes were introduced together with certain more conventional NPM measures, which in the Estonian case represent continuity. The MER, for example, remained the final authority for the bulk of funding instruments. Although the major organizational consolidation reflected horizontal de-specialization, the whole of the reform focused on the MER, and was not steered by the horizontal coordination-oriented RDC. Therefore, the changes sidelined, and did not strengthen, the formal center of government. With the exception of some funding programs, a horizontally specialized configuration dominated the reform, with a focus on the MER as a relative and effective center of steering.

This persistence of specialization within coordination efforts can be understood through the specific legacy of Estonian administrative development, which involves both the relatively recently consolidated sectoral ministries as well as the general NPM preference toward specialization, and an aversion toward strengthening formal centers. Despite the government's recent attempts to reinforce the coordination role of the formal center as proposed by the OECD (2012), the developments toward research policy ideas addressing more horizontal research steering have penetrated the Estonian policy context through a specific layering configuration, where the MER has gathered the main weight in horizontal policy coordination.

In Finland, the comprehensive reform can be seen as a response to perceived fragmentation in public administration and reform pressures for more coordination and de-specialization in both public administration and policy-oriented research activities (Virtanen 2016, 137–8).

Against an institutional legacy of strong vertical and horizontal divisions and predominantly vertically-oriented steering, the reform introduced new elements that did not directly contradict or replace previous ones but extended and reconfigured them for strengthening coordination. The vertical and horizontal coordination features in the SRC and VN-TEAS funding were especially novel. Their relatively more political steering models can be seen as stretching the inherited vertical division between government and research. Also, the idea of promoting horizontal coordination in research activities and government policymaking simultaneously through the same instruments was a radical one against the legacy of various specializations on both levels. At the same time, however, the reform involved many continuities. Although the research institute mergers constitute de-specialization, they maintained an overall sectorally divided character. The placement of the SRC organizationally within the Academy could be seen as following established sectoral, agencified, and 'boundary organization' logics. The change in organizational type for the VTT research institute resembles to some degree a standard NPM-style agencification. It also appears that the preexisting research institute coordination bodies anticipated some of the horizontal coordination features in the reform, although these were less ambitious than later in the SRC and VN-TEAS funding.

In comparison, both the Estonian and Finnish cases involve major features of coordination and de-specialization, and clearly reflect the post-NPM trend. Some continuity with more standard NPM features can also be identified, through which the reforms appear as layered configurations of both NPM and post-NPM forms of specialization, de-specialization, and coordination (Christensen and Lægheid 2007b). The cases diverge most in their horizontal configurations on the governmental level. The Estonian reforms have resulted in a steering system centered in the horizontal sector of the MER

and ERC. In contrast, the Finnish comprehensive reform strengthened the role of the formal center of government – the PMO – as a complementary source of research steering in addition to the preexisting steering from the sectoral MEC.

Both cases involved prominent horizontal de-specializations in the form of the consolidation of the ERC in Estonia and the research institute mergers in Finland. This reflects the post-NPM preference for broader multifunctional units against former more specialized ‘science-based’ or ‘mission-oriented’ funding agencies (Braun 1993, 1998; Van der Meulen 2003). Some elements, such as the partial transfer of the Estonian CSC’s functions within the MER, and the establishment of VN-TEAS within the government, represent proper vertical de-specialization. The formal vertical division into the government and agency levels, as reflected by the ERC and the establishment of the SRC within the Academy of Finland, was, however, primarily sustained. Here, the most conspicuous difference between the cases is that in Estonia, horizontal de-specialization focused in the MER sector, whereas in Finland it took place in several sectors.

Both cases also involved various efforts for strengthening vertical and horizontal coordination, both within research activities and the governmental level. Steering instruments were expanded and augmented both between the government and agency levels and between the state and the research system at large. These were characterized by layering effects between preceding NPM steering models and new more coordination-oriented post-NPM objectives, with the reorientation and rescaling of the former (competitive funding, performance management) into expanded vertical and horizontal configurations. The cases differed, however, in their more specific configurations for effecting horizontal coordination. In Estonia, the means for coordination on both government and agency levels were concentrated in the MER and the ERC, consolidating the centralization of research steering within this sector. In Finland, there was a contrasting movement from a sectorally-oriented system toward a strengthening of the formal center of government, with the establishment of new funding instruments and coordination functions within the control of the government plenary and the PMO. In comparison with the Estonian focus on the MER and ERC, this resulted in a relatively hybrid system consisting of several sources of steering (PMO, MEC, different sectoral ministries) and different overlapping configurations of horizontal coordination.

## Conclusion

This article has studied comparatively the Estonian and Finnish research steering reforms of 2012–15 as post-NPM science policy that seeks to strengthen coordination in both research and policy-making. Both cases reflect post-NPM features such as horizontal de-specialization through larger multifunctional agencies and strengthened horizontal and vertical coordination through various funding instruments. In Estonia, the means of coordination were centered within the sectoral MER and the multifunctional ERC under it. In Finland, new coordination instruments were established under the steering of the formal center of government (the PMO and the government plenary). In a slightly complicated way, the more sectorally-focused Estonian reforms resulted in a more uniform steering system with the MER and ERC at its relative center, while the more center of government-focused Finnish reforms resulted in a more hybrid system with several overlapping sources of steering. To understand this divergence, we combined coordination perspectives from science policy and public administration with the historical institutionalist approach.

This study supports the general hypothesis of a post-NPM trend in science policy and research steering. With the strengthening of coordination and de-specialization over both vertically and horizontally-established boundaries, including those between institutionalized research orientations such as basic and applied research, these cases exemplify the emergence of post-NPM into science policy. This development is most clearly reflected in the Estonian RITA program and the Finnish SRC and VN-TEAS funding. They involve a reconfiguration of institutional boundaries and a reframing of research governance (Irwin 2008) in which research steering seeks to impact comprehensively not only scientific activities themselves, but through them, government politico-administrative processes as well. In science, technology, and innovation, the post-NPM agenda challenges various established vertical and horizontal boundaries. It can be argued, however, that this can effectively result in an expansion of the mission and political orientations in research that predate post-NPM (Braun 1993).

Nevertheless, even when the cases support the hypothesis, some of the former logics persist in both. We find in both layering effects between preceding NPM and new post-NPM elements (Mahoney and Thelen 2010), where the former has constrained the latter and the latter augmented the former (Christensen and Lægreid 2007b). The different historical configurations of Finnish and Estonian horizontal specializations were reflected in our studied reforms as the Finnish reform was more oriented toward the formal center of government while the Estonian reform was led by sectoral actors. Rather than development toward homogeneity, these effects appear to reflect case-specific longer-term continuities (Pierson 2000).

Finally, the primary contribution of our study is the notion that coordination-oriented post-NPM reforms can take the shape of variously layered vertical and horizontal configurations. They might focus on either a formal or an effective center, or involve different superimposed and possibly contradicting forms of coordination. Due to these coordination agendas being able to cross the established boundaries of government and research, and involve intensifying instrumentalization of research for government, we argue that they should be studied jointly as science policy and public administration. Further research within this issue could study, for example, the reactions to post-NPM by different orientations in science, such as resistance on the basis of scientific autonomy, or support on the basis of technocratic politics.

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No potential conflict of interest was reported by the authors.

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### Publication III

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# Paths of Baltic States public research funding 1989–2010: Between institutional heritage and internationalisation

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## Abstract

This article analyses the changes in public research funding policy in three Baltic States (Estonia, Latvia, and Lithuania) between 1989 and 2010. The article concentrates on competitive research funding. Although all three Baltic States had similar starting points, as all left the Soviet science system upon the restoration of their independence in 1991 and joined the European Union in 2004, they all developed differently. Drawing on the works of historical neo-institutionalism authors, the article analyses the articulation between change and continuity in small countries that are highly receptive to internationalisation. By analysing the resources of groups of reform actors, the article argues that instead of viewing internationalisation as an external pressure that organises policies on a uniform worldwide basis, theorising it as an endogenous factor of change allows us to better understand divergent policy trajectories in studied countries.

**Key words:** Estonia; Latvia; Lithuania; public research funding; internationalisation; Central and Eastern Europe.

## 1. Introduction

This article analyses the public research policy in the three Baltic States, namely Estonia, Latvia, and Lithuania, between 1989 and 2010. Together with other Central and Eastern European (CEE) countries, these three countries have moved from a command to a market economic system and from an autocratic to a democratic political system. Regarding public research funding, these countries have undergone various reforms and now lean towards the competitive<sup>1</sup> funding principle. The collapse of the Soviet Union and European Union (EU) accession are considered to have played significant roles in actualising these developments (Radosevic and Lepori 2009; Suurna and Kattel 2010; Varblane et al. 2007). According to Rodosevic and Lepori (2009: 661–2), prominent consequences of Europeanisation include decentralisation of the decision-making system and agencification, the diversity and flexibility of funding sources, an increase in competition-based funding, and the promotion of excellent research performers. Despite the similar development trends in post-communist countries, local idiosyncrasies prevailed. This is mostly explained through external factors, such as the underlying political economy or socioeconomic legacies (Karo 2011; Radosevic and Lepori 2009); the personalities of the reformers and their individual beliefs; or pre-existing power relations (Jablecka and Lepori 2009; Lepori et al. 2009). Nevertheless, a systematic analysis of the subject matter is scarce.

Against this background, Estonia, Latvia, and Lithuania are eligible for comparative study. They share distinct resemblances. All were independent nation-states before the Second World War and were subsequently incorporated into the Soviet Union until 1991, by which time they had all regained independence. All three states became members of the EU in 2004. All are geographically small countries with a small population (1.3, 1.9, and 2.9 million for Estonia, Latvia, and Lithuania, respectively). Due to their small size and politically strategic location, international influence is deemed to be an important factor useful in explaining their policy developments in sectors such as education and higher education (HE) (Dobbins and Leišyte 2013; Toots 2009). Hence, Baltic States' policies could be seen particularly sensitive to isomorphic change via the application of EU models (Mayer et al. 1997).

Furthermore, the research performances of the three Baltic States differ (Allik 2008). For example, at the beginning of the 1990s, Estonian, Latvian, and Lithuanian scientists had published around 270 articles in the WoS journals; by 2009, they had published 2,184, 542, and 1,441 articles, respectively. Between 1999 and 2009, the average number of citations per paper for articles issued by Estonian, Latvian, and Lithuanian authors were 8.64, 6.38, and 4.81, respectively (Zavadskas et al. 2011), while, in 2010, the percentage of publications co-authored with their peers from other countries was 46 per cent for Estonia, 33 per cent for Latvia,

and 38 per cent for Lithuania (SRG 2017). What is the rationale behind these different outcomes in countries that faced similar policy challenges and external influences? This is an important question to be asked when basing deductions on a widely discussed presupposition that argues that the implementation of funding and evaluation mechanisms fosters research competitiveness and determines national research output and quality (Besselaar et al. 2012; Geuna and Martin 2003; Liefner 2003). What are the factors of success that lead one country of the three—Estonia—to surpass the others? How does this case study help us to understand in a more general sense the aspects that permit a country's developing research systems to grow and thrive at the level of worldwide competitive research systems?

Authors working on institutional developments have addressed similar questions using a historical perspective (Hall and Taylor 1996). Drawing from this literature, the analysis in this article is structured as follows. (1) The first section presents an overview of the analytical framework. The hypothesis is determined based on the analysis of reform actors and tackles the impact of internationalisation, conceiving of it as an endogenous factor of institutional change. (2) The second section provides a general overview of Estonian, Latvian, and Lithuanian public research funding by bringing out the differences in the existing institutional trajectories in all three countries between 1989 and 2010. (3) The third section analyses these differences from the perspective of reform actors, their resources and the coalitions they have built over the examined period, and (4) we discuss subsequently the neoinstitutional approach in the context of this study and the possibilities to complement it to better understand the impact of international contexts.

## 2. Analytical framework

### 2.1. Internationalisation as an exogenous pressure of change in historical neo-institutionalism literature

To explain institutional change and continuity, historical neo-institutionalism authors have examined State apparatus, conceptualising it as a complex of institutions. This can take the shape of a formal bureaucratic structure and an ideology or an apparatus produced by informal custom (Evans et al. 1985; Immergut 1992). Whether institutions are seen as formal or informal with rules and norms, they are essential to policies because they shape participants in their decision-making, their strategic behaviour, and, ultimately, their political preferences (Steinmo 2008). To better understand the various policy outcomes in different countries, this framework can help explain why certain policy directions are taken while others are discarded. For example, one of the key concepts, termed 'path dependence', suggests that when a commitment to an institution is established and resources are devoted to it, it will produce 'increasing returns' and, over time, it will become increasingly costly to choose a different path (Pierson 2000). Alternatively, changes might occur through exogenous shocks or 'critical junctures', a point at which certain events and decisions lead to the development of an institutional path (Collier and Collier 1991). Hence, for historical neo-institutionalism authors, the external context can only have an impact on national institutional arrangements through major ruptures or changes in an institutional environment.

This vision is articulated with works from the sociological institutionalism stream of literature, which conceptualises internationalism as an automatic process that is imposed on nation-states through external pressure. As the institution's role is to provide moral or cognitive templates for interpretation and action

(Dimaggio and Powell 1983; Mayer and Rowan 1977; Mayer et al. 1997), internationalisation is seen as a 'culture' imposed on nation-states whose identities, structure, and behaviour are shaped by 'world society' models promoted by international organisations (Meyer et al. 1997). Consequently, nation-states' policies are increasingly isomorphic as they organise and legitimise themselves in terms of universalistic world models. This can also be found in the research and HE fields (Mohrmann et al. 2008; Schofer and Meyer 2005). Therefore, although these two institutionalisms (historical institutionalism and sociological institutionalism) hold different rationales for explaining institutional continuity and change within national contexts (Hall and Taylor 1997), when it comes to internationalisation—which is the particular interest of our study—they converge, as both conceptualising it as an exogenous factor of change.

In recent years, institutionalist scholars have increasingly started to revise the work of their predecessors. While 'classical' historical institutionalism authors mostly concentrated on explaining abrupt changes and long periods of stability, recent historical (neo-)institutionalism authors have claimed that these analytical categories are not sufficient to enable a proper understanding of institutional change dynamics. They show that organisational forms often prove to be incredibly resilient and resistant when faced with significant historical disruptions. For example, authors have pointed out that after the collapse of the Soviet Union, institutional innovators were not confronted with an institutional vacuum but had to work with existing institutions by bypassing them and crafting new ones (Campbell 1997; Stark and Bruszt 1998).

Hence, instead of contradicting continuity and rupture, they adopt a power-distributional view of institutions that emphasises ongoing struggles within but also over prevailing institutional arrangements. This shifts the debate towards examining changes that occur under the surface, which instead, fittingly, possesses an endogenous character (Streek and Thelen 2005; Thelen 1999, 2003; Thelen and Mahoney 2010; Thelen and Steinmo 1992). According to Mahoney and Thelen (2010) elements such as the overarching political context (with its strong or weak veto possibilities) and the properties of the institutions hold a key understanding to how change can be accomplished. The latter are subject to varying interpretations and levels of enforcement and, therefore, exhibit ambiguities that provide space that interested agents can exploit in their effort to alter them (ibid.). Conversely, by building on explanatory factors, such as national policy context and institutional characteristics, the approach conceals the different external, international impacts on policy developments. At the same time, by emphasising power-relations and hence the role of change actors, the approach provides a good basis for circumventing this issue. To this end, we propose that the analysis should concentrate on the different resources employed by actors to accomplish changes.

### 2.2. Actors and resources of change: conceptualising internationalisation as a factor of endogenous change

One of the criticisms that institutionalism has received is that it affords minor attention to agency in explaining institutional change. Sociological institutionalism works can be seen as deterministic, with the unidirectional depiction of the transfer of norms and values from the organisational field to an organisational structure. However, recent neo-institutionalism authors have investigated how institutions and contexts shape change agents and not vice versa (Mahoney and Thelen 2010). To find a solution, some authors have

combined the organisational fields' framework and neoinstitutionalism literature with elements of structuration theory to analyse the interplay between the field and the organisation in terms of behavioural 'scripts' (Barley and Tolbert 1997). Others have proposed introducing concepts such as institutional 'entrepreneurship' (DiMaggio 1988) or 'social skill' (Fligstein 2001) to describe the role of particularly motivated actors in institutional change. To explain the impact of these actors, they highlight actors' resources, such as legitimacy, reputation, client relationships, or their ability to induce cooperation amongst others.

Nevertheless, there is a good reason to believe that contexts that are highly receptive to internationalisation bring other resources that actors can accumulate and use for engendering changes in organisational structures. For example, the literature of policy learning discusses how actors, through social learning, deliberately or inadvertently attempt to adjust the goals or techniques of policies (from other countries) in response to past experience and new information (Hall 1993; Rose 1991) and how '... actors learn from each other' (Scholten and Weible 2017). Hence, in this article, we suggest considering a larger spectrum of different resources that actors can rely on in ensuring changes. Although various resources could be outlined, such as law, personnel, money, information, organisation, consensus, time, infrastructure, political support, or force (Knoepfel et al. 2007: 63–89), in this article we particularly concentrate on analysing 'knowledge resources' and more particularly knowledge resources acquired through different international experiences.

Information or 'knowledge resource' is one of the foundations of actors' intervention capacity. This cognitive resource consists of information acquired from technical, social, economic, and political data to actualise the resolution of collective problems (ibid.). For example, it is noted that when faced with the need to reorganise the scientific system at the end of the 1980s and beginning of the 1990s, knowledge of different Western European countries' scientific systems was scarce and unequally distributed amongst reform actors (Jablecka and Lepori 2009). Hence, for this article, the introduction of competitive elements in the public funding system within the post-communist context could be highly relevant to reform actors' personal trajectories and the experiences acquired from different international environments.

In sum, our hypothesis is as follows: to better understand the Baltic States' divergent policy trajectories, internationalisation should be conceptualised as an endogenous factor of change, instead of perceiving it as an exogenous factor, as is theorised by historical institutionalism authors. At the same time, these divergent trajectories should be analysed through the historical neo-institutionalism analysis framework that concentrates on factors such as the 'political context' and the 'properties of institutions' as outlined above. On the one side, actors' knowledge resources gathered from different international contexts influence their intervention capacities in political processes and hence allow them to shape the institutional paths in given national contexts. On the other side, political and institutional contexts offer opportunities for change actors to use their resources to enact these changes. Therefore, both the knowledge resources that actors have gathered from international environments and the motivation for their utilisation in national contexts need to be analysed in the context of the historical neo-institutionalism framework.

Our analysis below will focus on: (1) identifying the moments of changes from the periods of stability in each national cases and (2) determining the resources that actors used to carry out national reforms.

### 3. Institutional view on the development of Baltic States' research funding policy

#### 3.1. Differences regarding time of emergence and in the competitive funding models in Baltic States' public research policies between 1989 and 2010

Amid the political turmoil, the former Soviet Union republics' research funding systems were disconnected from the all-Union apparatus and developed proper local settings. A specific feature of Research and Development (R&D) financing during the Soviet era was that up to half of the total R&D input emanated from all-Union or republican ministries, the framework of state programmes, and military contracts (Etzkowitz 1996; Kristapsons et al. 2003: 89). Research funds from the state budget were distributed either by the Academy of Sciences (AS) or by the ministries. While this kind of arrangement was relatively stable for institutes, the whole system was subordinated to political directives and central planning. These stable sources of funding dried up as a result of the political and economic changes of the early 1990s.

An accompanying characteristic of the restoration of independence was that during the first years of transition, the primary sources of R&D investments were explicitly public funds (Berg-Andersson 1997; Kristapsons et al. 2003: 89). Since then, the plurality of funding sources and budgets increased in all Baltic States. However, in 2010, according to EU statistics, after the economic crisis had negatively affected the Baltics States' recent economic growth, government spending for research<sup>2</sup> was predominant in Estonia and Lithuania, but not in Latvia (Table 1).

Latvian government funding is particularly low due to the fact that during the economic crisis, the total government funding for science was reduced by 60 per cent. At the same time, the funding was reduced by 20 per cent in Lithuania, although it remained relatively stable in Estonia (considering the absolute amount of public research funding allocated by the science ministries). This reduction in national public R&D budgets due to fiscal austerity measures was compensated for—notably in Latvia and Lithuania—by the substantial use of EU Structural Funds (SF), which had the effect of creating a dependency on foreign funding for research system development. In 2010, public funding for research (allocated from within the science ministry remit, excluding SF funding) reached EUR 73 million in Estonia, EUR 47 million in Lithuania and EUR 17.2 million in Latvia.

Under these circumstances, the principal difference between Baltic States' public research funding is the share of funding allocated through competitive instruments in the funding system. To measure the competitiveness of the funding system, most often a difference is made between two flows of funding—institutional and project-based. Institutional funding can be either competitive or not (see e.g. Lepori et al. 2009: 674). Accordingly, the existing literature shows that, in 2011, in Estonia, 73 per cent of funding went to competition-based grants and the rest for scientific institution's basic funding, with the latter also holding highly competitive characteristics (ERC 2017). In Latvia, the share of competition-based grants reached 70 per cent in 2010 (Applica et al. 2016), while, in same year in Lithuania, it remained at around 40 per cent of the state budget for research (ESF 2014).

Hence, despite the similar starting points, all three countries ended up with different shares of funding instruments. Notably, in a trend that is similar to the 'US system', Estonia and Latvia rely mostly on project-based funding instruments while Lithuanian's public funding is built on a combination of core and project funding as is

**Table 1.** Total intramural R&D expenditure (GERD) by source of funds (percentage of gross domestic product and million euros) in 2010.

	Government	Business	Abroad
Estonia	0.70 (102.8)	0.69 (101.5)	0.18 (26.6)
Latvia	0.16 (28.6)	0.24 (42.2)	0.20 (36.3)
Lithuania	0.36 (101.1)	0.25 (71.1)	0.16 (43.76)

Source: Eurostat, European Commission.

typical of the ‘continental European funding systems’ (Lepori et al. 2007). Nevertheless, these figures tend to conceal the variations between national and international dimensions of competitiveness. The latter can be introduced and examined through supplementary mechanisms, such as international evaluations and peer-review or examining researchers’ publications in international databases: in short, using mechanisms that link local decision making in the matter of funding allocation with evidence of foreign expertise. Accordingly, the introduction of criteria favouring international competitiveness in funding allocation were introduced progressively between 1994 and 1997 in Estonia, since 2005 in Latvia and in 2009 in Lithuania (Table 2). The following three sections provide an overview of the general development of public research funding in the three Baltic States.

### 3.2. Estonia: change before EU accession

The principal changes in Estonian public research funding policy occurred gradually in the first half of the 1990s. In 1990, the Estonian Science Foundation (EstSF) was established as a public research funding agency to administer funding allocations. The EstSF earmarked most of its funding through a ‘vertical integration’ mode (Lepori et al. 2009: 670–1), meaning that resources were allocated through intermediary instances, such as universities, ministries, and the AS, and from there redistributed to research institutions. With the adoption of the first Research Act in 1994, which in a manner similar to the other Baltic States, transformed the Estonian AS into an association of the scholarly elite (Kristapsons and Millers 1995; Kristapsons et al. 2003: 46–55), the EstSF started to allocate resources directly to research performing institutions for their main activities, (called ‘targeted’ funding) while infrastructure costs were allocated by the owner of the research institution.

Next to the institutional type of funding, the project funding share increased from 5 per cent of total allocated funding in 1991 to 32 per cent in 1996. In 1994, it was established that all projects had to be written in English and project proposals with a cost of more than EUR 6,391 had to be peer-reviewed by foreign researchers. Of the 1,185 submitted proposals in 1996, the EstSF funded 844 with total of EUR 3.7 million (Martinson 2015). Competition was enforced with the adoption of the OECD Frascati Manual for updating the organisation of disciplinary fields. Nonetheless, the funding allocation structure stayed largely dispersed between different institutions through financing the whole range of scientific sub-branches.

In 1997, the adoption of the second Research and Development Act began the diversification of funding sources and enhanced competitiveness within the system. As part of the reforms, a portion of the EstSF budget, notably the ‘targeted funding’, was reallocated to the Minister’s newly created advisory council, the Council of Scientific Competence (CSC). The CSC began by allocating funding based on research themes instead of institutions and, at least

formally, abandoned fixed budgetary quotas between different disciplines. Competitiveness was also strengthened through international peer-review and by linking CSC funding with the evaluation of research institutions, which was carried out every seven years from 1994 onwards. As such, the former EstSF funding system was transformed from an institutional to a project-based funding approach; as a result, apportionment of almost all research funding became competitive and peer-review based and, accordingly, allocated to research groups via research projects (Masso and Ukrainski 2008: 11; Raudla et al. 2015).

Towards the end of the 1990s and during the 2000s, the research funding system was diversified and the competitive mechanisms were strengthened (e.g. funded disciplinary fields were reduced to the four main areas). In 1999, the new funding mechanisms were also aimed at national programs to encourage the development of and support activities in the Estonian language, literature, and folklore. In 2005, institutional funding to enable institutions to realise their various strategic development goals was launched. However, the budget for this remained scarce (increasing from EUR 7.12 million in 2005 to EUR 7.2 million in 2010: in addition EUR 2.7 million was allocated for infrastructure expenses) and, according to a foreign assessment (carried out by Technopolis Group), favoured the development of former research areas at the expense of novel ones, as funds were allocated based on research quality and efficiency (50 per cent for publications and patents; 40 per cent for grants and contracts; and 10 per cent for defended PhD thesis).

The total financial support obtained from the EU’s SF for R&D between 2007 and 2013 was put at EUR 604.4 million (20.1 per cent of the total SF assistance). These funds were used to finance infrastructural development, develop tertiary educational standards, finance mobility, etc. However, besides the EU subsidies meant for the Centres of Excellence Program, research had no direct financing (Karo 2010). In 2007, the government initiated national technology programs by approving a new R&D and innovation strategy (Knowledge-based Estonia II), with the actual R&D project competition beginning in 2011.

In sum, the introduction of internationally competitive funding principles in Estonia took place gradually between 1994 and 1997, together with the change in funding allocation from an institutional to a project basis. The proportion of allocation was slightly modified during the 2000s with the introduction of new funding mechanisms and baseline funding, which nevertheless kept internationally competitive characteristics in its design.

### 3.3. Latvia: change since EU accession

In Latvia, the reform process resulted in the decentralisation and introduction of the funding system with an almost fully (97 per cent) competition-based funding system in 1991 (Kristapsons and Tjunina 1995). Consecutively, the newly-established Latvian Science Council (LvSC), which was formed as a democratic collegial institution with members elected by the scientific community, took over the roles of Academy in research funding and policy advisory. The transformation of the Academy into an association of the scholarly elite was completed in 1992 with the adoption of the Law on Scientific Activity (Kristapsons and Millers 1995).

In the mid-1990s, the LvSC introduced two project-based funding instruments: the basic and applied projects funding instrument and one for joint research programmes. The LvSC also became responsible for grants’ evaluation for ‘market-oriented research grants’, with this measure being introduced by the Ministry of

**Table 2.** Introduction of competitive elements in Baltics research funding policy organisation between 1989 and 2010.

Estonia	Latvia	Lithuania
<p>1990—independent funding organisation EstSF; project-based funding instrument; English language project applications.</p> <p>1994—demolishing former top-down institutional funding system; foreign peer-review for bigger EstSF grants.</p> <p>1997—all funding declared in law meritocratic or based on institutional evaluation; introduction of CSC funding; CSC funding linked to institutional evaluation; foreign peer-review for CSC funding; abolition of predetermined disciplinary distribution for CSC funding.</p> <p>2005—competitive settings for institutional funding.</p> <p>2006—reduction of disciplinary areas in project funding settings.</p> <p>1999—national programs.</p> <p>2002—EU funding instruments.</p> <p>2002—priority areas for research.</p>	<p>1990—independent funding organisation LvSC.</p> <p>1991—demolishing former institutional funding system; project-based funding instrument ‘basic and applied grants’.</p> <p>1992—all funding declared in law meritocratic.</p> <p>1993—project-based funding instrument ‘market-oriented research grants’.</p> <p>1995—project-based funding instrument ‘joint research projects’; priority themes for joint research projects.</p> <p>2002—EU funding instruments.</p> <p>2005—institutional funding linked to institutional evaluation; competitive settings for institutional funding; priority themes for state research programs.</p> <p>2006—a reduction of disciplinary areas in project funding settings.</p> <p>2009—English language project applications; foreign peer review.</p>	<p>1993—independent funding organisation (LtSSSF); project-based funding instrument.</p> <p>2000—first competitive elements in institutional funding.</p> <p>2002—EU funding instruments.</p> <p>2007—independent funding organisation (LtRC).</p> <p>2009—all funding declared in law meritocratic or based on institutional evaluation. project-based funding instruments; Formal project evaluation criteria’s; English language project applications; introduction of foreign peer-review system; institutional funding linked to institutional evaluation.</p> <p>2010—reinforcing competitive elements in institutional funding.</p>

Source: Author’s compilation.

Education and Science. Nevertheless, no international peer-review system was established and no institutional evaluation was needed to apply for the funding. Moreover, thirteen branches of disciplines were eligible for funding and the limited budget was scattered among numerous projects. For example, out of approximately 1,000 ‘basic and applied projects’ proposals in 1992, funding was approved for 830 (Rambaka 2012: 92). Support for doctoral studies and international cooperation was also introduced by the Ministry of Education and Science as well as small infrastructure payments allocated by the LvSC.

Since 2005, several incremental changes have been introduced to increase the competitiveness of the system and to strengthen the sustainability of research. Some of the changes, which were linked to the Law on Research Activity that was adopted in 2005, increased research funding and permitted the execution of previously agreed policies. For example, within the LvSC funding system, the numerous expert commissions were merged in 2006 and consolidated into six commissions; from 2009 onwards, international peer-review was gradually included in the project evaluation process; and since 2010, the number of funded projects has started to decrease. Moreover, the Ministry introduced an institutional funding instrument that was distributed using a formula based on scientific outputs, personnel costs, and office space running costs. For the first time, regular institutional evaluation was linked to the funding system, with institutions having their activities evaluated every 6 years (Kulikovskis et al. 2016). In addition, ‘State research programs’ were introduced. The purposes and tasks of these programmes were to be determined every 4 years by the ministries of the relevant sectors together with the LvSC and the Latvian AS. Since the implementation of this policy, the number of topics covered has grown from five to eight, covering a broad range of scientific branches.

During the EU accession process, the main issue in the research funding policy was the low level of research financing. Following

the Barcelona European Council’s objective, the Law on Research Activity set the percentage annual increase of financing for scientific activity at no less than 0.15 per cent of GDP per annum until the state-allocated financing for scientific activity reached at least 1 per cent of total GDP. However, this increase was not implemented, and the 1 per cent target was re-launched in 2009 by the Cabinet of Ministers, who adopted a strategic document at the same time. Additionally, the EU SF for science—for equipment and applied research projects—increased between 2004 and 2006, and during the crisis years (2008 onwards), the reduction in public funding was compensated for by a substantial use of EU SF. Latvia became the only EU country in which half of the investment came from external sources. The total state budget for science (within the remit of the science ministry) decreased from EUR 32.3 million in 2007 to EUR 17.2 million in 2010 (with LvSC funding dropping from EUR 9.9 million to EUR 4.7 million). At the same time, from 2007 to 2013, SF funds for R&D were put at EUR 612 million (15.5 per cent of the total EU’s structural financial assistance in Latvia) and were earmarked to finance doctoral scholarships, investments in infrastructure, production equipment purchases or replacement, construction, purchases of other capital goods, and for creating new research groups and bringing back researchers from abroad. Moreover, the supervision of EU Structural and Investment Funds in Latvia was transferred to the State Education Development Agency in 2007.

Hence, although project-based funding was introduced abruptly in 1991, competition was kept at the national level. Criteria favouring international competitiveness have been incrementally reinforced since 2005 together with the introduction of baseline funding and later additional criteria for project-based funding.

### 3.4. Lithuania: change after EU accession

Compared to its counterparts, the Lithuanian AS was the earliest to be transformed into an association of the scholarly elite, with the

adoption of the Law on Science and Studies in 1991. In accordance with this law, Parliament became responsible for approving the allocation for universities and the research activities of research institutes. These allocations were calculated in proportion to the institutional budgets of the preceding year with the advice of the Lithuanian Science Council (LtSC), which was established in the same year. Later on, the relevant Ministry unit increased its influence as an advisor within the funding distribution system. Against this background, the project-based funding allocation method remained minor, at only around 4 per cent of the public research budget until a competitive funding system since 1993, allocated by the State Sciences and Study Foundation (LtSSSF).

Together with the adoption of the Law of Higher Education in 2000, complementary criteria were incrementally introduced to apportion state budget funds among universities and research institutions for R&D according to research results. These criteria consisted of the number of publications in international scientific journals, the participation in international research programmes, and research contracts with businesses or public organisations (Leisyte and Kizniene 2006). Between 2002 and 2008, the performance-based criteria were increasingly applied, with the proportion increasing from a few to 20 per cent of total funding, while institution representatives had, according to our interviews, opportunities to renegotiate their allocations.

In the 2000s, Lithuanian research benefitted immensely from EU resources. Between 2007 and 2013, 10 per cent of the total EU SF assistance (i.e. EUR 670 million) was earmarked for research, allowing a large number of new policy instruments and research programs such as non-research careers and research infrastructure. Importantly, the EU's support was used to develop research excellence centres and integrated 'science valleys' in selected areas (Paliokaitė 2015). The SF funding gained particular importance, as the national R&D budget decreased by half between 2007 (EUR 95.7 million) and 2010 (EUR 47 million).

Between 2007 and 2009, a substantial research funding policy reform was enacted with the adoption of the Law on HE and Research in 2009. This reform aimed to reinforce competition-based funding and the promotion of excellent research performers. To achieve this aim, 40 per cent of the 2010 budget for public HE and research institutions was connected to the results of the assessment of their R&D activities (Paliokaitė 2015: 12).

Moreover, by taking over the role of the LtSSSF, the LtSC was transformed into a research funding agency, the Lithuanian Research Council (LtRC), with the primary role to allocate project-based funding. In 2009, it began operation when funds for competitive funding were included in the state budget. In 2010, the bulk of the LtRC funding portfolio comprised two top-down funding schemes with pre-defined topics (national research programmes with a budget of EUR 4.5 million and a Lithuanian studies programme with a budget of EUR 1.4 million) and one bottom-up funding scheme (a researcher team project programme with a budget of EUR 2.7 million). In addition, the LtRC also allocated funding for several intergovernmental projects. In Lithuania, SF funding was used to directly support scientists through various LtRC programmes, with a total budget of EUR 3 million in 2010. Although in the first years the LtRC allocated grants remained small, and thus relatively easily accessible, all of these schemes were evaluated with the help of an international peer-review system (ESF 2014).

Hence, although the criteria favouring international competitiveness was introduced in the Lithuanian public funding system from the 2000s, substantive change only occurred with the reform of 2009.

## 4. Power-distributional view and analysis of actors' resources in Baltic funding policy developments

### 4.1. Investigating the role of reform actors and the political context in the Baltic States' research policy reforms

To better explain the moments of changes, we have closely examined the 'change actors' who were linked to the above-discussed funding policy reforms. Besides written empirical materials, such as the research policy documents and expert assessments in both English and Estonian, we carried out systematic research on their trajectories. More precisely we were particularly attentive to: (1) their international experience, including both longer exposures (more than 6 months) with foreign scientific systems (through studying, working, or co-operation with foreign scientists) or shorter exposure with a specific aim for learning from a foreign context; (2) the political and institutional context of their activity; and (3) their motivations for enacting reforms and hence the utilisation or implementation of their previously acquired resources.

These reform actors were identified through the examination of published research policy documents and overviews on each country's research policy development, as well as through memories and recollections gained through interviews that we conducted. We used the CVs of reform actors to examine their educational, professional, administrative, associative and political life trajectories, and the Web of Science (WoS) database, in the case of researchers, to better understand their personal publication history. Simultaneously, we conducted thirty-one interviews with Estonian, Latvian, and Lithuanian research administrators and directly-implied 'change actors'. These interviews were used to complete information about the funding systems, the involved actor coalitions, and to investigate the motivations for enacted changes. These interviews, which took place between October 2015 and February 2018, were recorded and transcribed and then analysed in parallel with written sources. Finally, even though the full account and trajectories of actors who participated in the reforms remain inaccessible, the obtained profiles were then operationalised by using the concept of 'resource' (Section 2.2 in this article).

In the next three sections, each of the three country-cases will be analysed in detail. At each significant moment of change, we have presented the systematic analysis concerning the most prominent groups of reform actors. Due to the synthetic nature of this article, at other change moments, we refer to interviews. This is relevant and appropriate due to the small size of the countries: sometimes the activity of one or two individuals has resulted in important policy changes and interviews are the best available sources of information. Nevertheless, in all of these cases, the information referred to has been compared to other available and relevant empirical data.

### 4.2. Estonia: weak political veto and high Western knowledge resources of reform actors

In Estonia, the programme for the public research system was mostly developed by the leaders of the scientific movement, the Union of Scientists (USC), which was formalised in 1989. The USC's main idea was to progressively implement a project-based research funding system (on the example of the US NSF), coordinated by a specific Foundation (EstSF). These ideas encountered resistance, mostly from the AS, which stood for keeping the Academy system and the creation of a state-level science council for research funding with the

Council of Ministers appointing its members. The establishment of the EstSF was finally achieved via the compromises between reformers—who were viewed as politically legitimate—and the AS, so that the AS could retain some importance as a ‘roof-organisation’ for the funding allocation system.

During the period political turmoil, the increasingly main power in Estonia was an electoral union, Pro-Patria (a body that was comprised of nationalist radicals and young dissidents, mostly drawn from the intellectual elite), which went on to win the first Parliamentary elections in 1992 against the former Popular Front government. During this time, the Academy system was questioned, as it was seen as representing the former communist political powers. Accordingly, a seventeen-member EstSF council consisting mostly of young individuals (a mean age of 50 compared to the AS board members who in 1982 had a mean age of 60) who had largely not held formerly important science administrative positions was created. The council consisted of two EstSF staff members, a representative each of the AS, the State Secretary, and the Minister of Education and Culture, representatives from the USC and three of the most prominent Estonian natural sciences universities, and finally the eight heads of EstSF expert commissions who elected by electoral colleges based on scientific institutions. While only six of these were members of the AS, most of them had joined the Academy at the end of the 1980s or the beginning of the 1990s during the period of political turmoil. Notably, out of eight expert commission leaders, only two came from AS institutes.

As most of the council members had already developed scientific profiles that were competitive not only in the USSR but beyond, the composition of the established EstSF offers additional explanations as to why the Estonian project-based system, contrary to the Latvian one, rapidly opened towards the international scientific sphere. Six members of the council held Soviet doctoral degrees, and eleven of them had already published in the WoS journals before 1994 (six of them having between ten and forty-four articles). More importantly, eleven of seventeen council members had foreign learning or professional experience prior to 1991 in Russia’s biggest scientific centres (three individuals), in the US (four individuals), in Scandinavian countries (three individuals), or to some extent in other Western and CEE countries. Hence, from the very beginning, different Western countries were taken as exemplars for establishing the Estonian system for research funding allocation. For example, study visits to the US and Sweden were used to learn about the project-based system (how to design application forms, announce project contests, etc.). Further, the Royal Swedish AS was invited to carry out the first international science evaluation in Estonia. Hence, as explained by our interviewees, the main idea was ‘not only to support research useful in Estonia but research that would also be internationally excellent’.

The trend was reinforced after the national political crisis in 1995 when the Ministry of Education and Culture underwent administrative changes regarding members of staff as well as research policy functions. Initiated by the Minister—who had also had been a former member of the council of the EstSF—in the words of our interviewees, ‘only those who supported scientific competition in the international arena were recruited to the administration’. The subsequent changes in public funding (such as the establishment of the CSC and the diversification of funding instruments) took place under relatively stable political conditions, were initiated by Ministry staff, and were supported by recently renewed AS board members. At the same time, the strive for excellence was also initiated through a local context, as according to some of the

interviewees, the project-based funding system was preferred by the administration in order to avoid giving too much power to university and faculty administrative members who could re-allocate it based on other principles than research quality. For example, if the formal institutional funding mechanism is introduced based on the recommendations of the Policy Research in Engineering Science and Technology in the UK, it includes highly competitive criteria.

Importantly, the Research and Development Act, developed in 1997 under the new Minister, redefined policy goals that could also better explain the maintaining of the level of R&D funding during the economic crisis. If until then, the role of scientific and technological creations were regarded as an essential aspect of Estonian ‘cultural development’, the 1997 Law deemed that they were a ‘component of [the] Estonian economy’. This standpoint was subsequently supplemented and reinforced with successive strategic documents, termed ‘Knowledge-based Estonia’, that were drafted by the Ministry of Education and the Ministry of Economy. The first document (created in 2002) also agreed on the following key scientific fields: information technology, biomedicine, and materials technology, and these gave a basis for the utilisation of EU resources.

In sum, the change in the Estonian political situation provided an opportunity for groups of radical ideas to emerge. In this context, the main reformers had acquired knowledge resources from different international spheres to establish a funding system with criteria favouring international competitiveness. The furthering of Estonian public research funding policy development was assured with their arrival to administrative positions at the Ministry.

#### 4.3. Latvia: weak political veto and low Western knowledge resources of reform actors

In Latvia, during the negotiations for a new research system, the primary initiative was taken by the by the USC that was formed in 1988 and became an example for the other Baltic States. In collaboration with the reform-minded part of the AS and the Board of Rectors of the Latvian HE institutions, these reform actors aimed to shatter the old administration of research management at the AS and break the former top-down political research funding system (Kristapsons et al. 2003: 40 cit: Grens 1995). Accordingly, their commonly proposed programme for the establishment of a new funding council aimed to allocate funding by democratic principles on one side and integrate a wide-scale project funding system for sifting out party appointed (and often immigrant) science workers from Latvian academic field on the other. Moreover, according to one former AS member, the general idea to move towards project-based funding and the establishment of a research council was taken from the Estonian example.

The analysis of the composition of the 1990 membership of the LvSC reflects the collaboration between these different groups. The twenty-six to twenty-eight member council consisted of a representative appointed by the Council of Ministers, the President of the Latvian AS, the chairman of the Council of Rectors of the University and the secretary of the Board of the USC. A further thirteen council members were elected by secret ballot from different branches of science and eleven members from leading science centres. These were mostly younger individuals (a mean age of 54) from exact science branches. Before their membership of the LvSC, most of them (16) had held intermediary positions between science administration and research, as the heads of laboratories, institutes, or departments. A majority of them (14) were members of the AS but, in most cases, the membership was achieved during the period of political turmoil.

This confirms our interview data, according to which members of the USC were invited to join the AS to override the older members' reluctance to enact changes in research.

Hence, during the period of Latvian political turmoil, the central confrontation over the new system emerged between scientists and the state administration. Although the latter proposed a research funding system distributed directly by sectoral ministries, the Council of Ministers supported the scientists' proposal and the establishment of the LvSC. At the same time, universities and research institutes were kept under the sectoral ministries governing their areas of operation. The strength of the USC programme could also be explained through scientists' increasing political resources, as several of them were linked with the *Latvijas Ceļš* party (co-founded by a group of the Latvian economic elite and former members of Popular Front), which won the first parliamentary elections against Popular Front in 1993. For example, in 1993, the initiator of the USC (whole was also a member of the LvSC) became the Minister of Education.

Moreover, the composition of the LvSC could also better explain the principles in research funding allocation that were established. Unlike the Estonian EstSF, only nine members of the LvSC had completed their studies or had professional activity in foreign countries. Of them, only four had recorded experience from Western countries (mostly in the US but also in Canada and the UK). Others had gained experience from Russian scientific centres (Moscow, Leningrad) and in Ukraine. Further, although at least thirteen of them had USSR doctoral degrees, only seven of them had published in WoS journals before 1990, and then only to a small extent (mostly one to three articles). According to our interviews, no concrete foreign model was used to establish the funding system. Although the LvSC consulted with the Danish Science Council, which assessed the local system in 1992, not all their suggestions were implemented, due to the unwillingness of the scientific community, especially in the areas related to international competitiveness.

Subsequent notable changes emerged only later under the newly appointed centre-right party appointed Minister of Education and Science, who stood for better funded and coordinated research policies (at the time, both the Minister and President of Latvia had a scientific background; the president was a scientist from the Latvian diaspora in Canada). By strengthening the Ministries' steering capacities, the changes pushed the decision-making system towards further decentralisation. For example, the 2005 law compelled the Ministry of Education and Science to draft the science and technology policy of the State and to submit the draft budget for research while the LvSC remained in an advisory role (Rambaka 2012: 108). International science criteria were integrated into the newly introduced basic funding formula and, later, in the LvSC funding criteria. Likewise, since 2009, projects financed by the LvSC and Ministry through State research programmes are monitored by the Study and Science Administration under the Ministry's supervision. Nevertheless, many of the changes (mostly implemented by the Ministry) have encountered, according to our interviewees, resistance from the scientific community, with this resistance commonly led by the LvSC and the AS.

As a whole, as in Estonia, Latvian political change provided the opportunity for groups of radical ideas to emerge. Nevertheless in Latvia, the strongest group that emerged in the research sector was united, mostly due to their common wish for 'cleansing' in the sector, while their knowledge resources were mostly related to the USSR research setting. Moreover, the further confrontation between the LvSC/AS and the Ministry can also better explain their

insignificant influence in terms of the R&D budget during the economic crisis.

#### 4.4. Lithuania: strong political veto and low Western knowledge resources of reform actors

As in other Baltic States, changes in the Lithuanian organisation of research policy were exerted by members of the USC, which was founded in 1989 by proponents of autonomy within the research system. Simultaneously, programmes were proposed by the AS with the aim to strengthen the Academy's functions and coordinate research activities in Lithuania, and by a working group of the Councils of Ministers with the aim to create a Science Foundation for research funding and a national science and technology council for state coordination of R&D. Concurrently, the USC proposition included the dissolution of the Academy system but remaining more moderate regarding the introduction of projects-based funding than that which was proposed by the Council of Ministers.

These processes took place in a Lithuanian political context that differed significantly from those of its northern counterparts. Notably, former Lithuanian Communist Party members won the first parliamentary elections in 1992 and replaced the anti-communist Popular Front *Sąjūdis* transitional government (Ramonaitis 2006). Against this background, although the leader of the USC became responsible for the development of the first Law on Science and Studies, radical changes for favouring international criteria in funding allocation were refused, with stability in budget allocations preferred.

Moreover, the funding allocation became/continued to be at least partially influenced by political powers. For example, it is stated that the central funding decision-making power was granted to the Parliament, more precisely to its chief scientific adviser (the vice rector of Vilnius University), who chaired a board that was comprised of ten members drawn from the Lithuanian AS, the Rectors Conference, and the LtSC (Tillett and Lesser 1996). The leading administrative staff members of established organisations (such as the LtSSSF or the first department of science under the Government) had political membership, as did the former leader of the USC. In addition, if two-thirds of the LtSC (formed of thirty-six members) were elected by scientists, one-third was appointed by the Parliament. Hence, as was several times brought out by interviewees, influence 'remained in the hands of rectors and directors of institutes—they were key players in research; they could go to parliament, to the prime minister's office, to the president office'.

In addition, the dominant group of academicians (with a mean age of 57 years) at the LtSC had gained only slight foreign experience during the Soviet era and had constructed their careers mostly locally. A major part of this group (twenty-one individuals) had previously working as researchers (as a junior, senior, or chief researcher). At the same time, they did not include former long-standing members of the AS. All nine Academy (corresponding) members had gained their status in the second half of the 1980s. Although the group contained at least eleven individuals with USSR doctoral degrees and fifteen had already published at least one or two articles in the WoS journals before 1991, only seven of them had published between four and sixteen articles. Only five of them had previous studying or working experience in Western countries: mostly in the USA (three cases) but also in Germany (two cases), Swiss, France, Italy, and Finland. At the same time, seven of them had stayed in Russia (mostly in Moscow), with others in Hungarian, Czechoslovakian and Bulgarian universities and research institutes.

This setting could explain why, in the following years, the results from attempts to introduce stronger competitive funding systems remained modest. Even though the Government administration played a significant role in defining funding criteria in the mid-1990s, concerned parties viewed scientists from the LtSC and Rectors Conference as the primary opponents to a competitive-based funding method, despite various international assessments of the local science system (such as Norwegian Research Council in 1995, the World Bank in 2003, or the EC Scientific and Technical Research Committee (CREST) in 2006). Instead, the science administration opted for a robust in-house academic publication strategy where the strategy was to obtain as many local journals as possible and incorporated them into the global index databases and, through that, increased the global reach of research.

At the same time, another group of HE and research policy reform supporters surfaced in the 2000s, mostly from opposition parties, at the president's office, at the Ministry of Education and Science, and at the LtSC. They were a younger generation of scientists and administrators who had accrued knowledge sources about research systems, having worked in international environments such as within CEE and Scandinavian universities, the European Science Foundation (ESF), or other EU structures. Along with HE sector reforms (Dobbins and Leisyte 2013), they championed a more transparent and competitive research funding system and systematically advocated for the research funding systems followed by various EU countries.

These ideas could be partially implemented in 2008 when the conservative centre-right party, Homeland Union—Lithuanian Christian Democrats (partly grown out of the *Sąjūdis* movement), won the elections. Importantly, in terms of finding a new design for the system, the newly elected head of the LtSC visited Finnish, Norwegian, Swedish, German, Dutch, and other Council of Sciences to gain an overview of different systems. Parliament announced it would restructure the LtSC to become a research council, following the European Research Council grant models. These countries (above) that were selected as exemplars could also explain the Lithuanian path towards a 'continental European funding system', as in most of them project-funding reaches up to about 50 per cent of the total public funding budget (Steen 2012). At the same time, even if the reform contained changes in substantial policy goals and the introduction of new instruments, continuity with the former system persisted. For example, the LtRC remained closely linked to the Parliament.

Hence, the initial Lithuanian political situation was resistant to the emergence of radical ideas in the research sector. A prominent change towards international competitiveness in the national funding system occurred only later with political change and the emergence of a group of reformers who had acquired the relevant knowledge resources to implement reforms.

## 5. Discussion

### 5.1. Limits of historical neo-institutionalism in explaining the impact of internationalisation in the Baltics

For institutionalism authors, internationalisation as an external pressure should transform policy trajectories through isomorphism. Indeed, in all of the three countries, public research funding policy evolved from the hierarchical and planned model of Soviet research funding system to integrate competitive elements. Moreover, in each country, this change took place at different times and with different

speeds (incrementally or via a particular reform) and led to different funding models. At the EU level and following the establishment of the European Research Area, member states were advised to raise their public research funding budgets and introduce measures such as competitive funding, international peer-review, and institutional assessments as the primary models for allocating public funds to research. But why was internationalisation unable to change the research funding allocation models in the three Baltic States in the same way and at the same time, as theorised by institutionalist authors?

The findings obtained conformed to the author's initial historical neo-institutionalist hypothesis regarding institutional change, which posited that no abrupt changes were recorded in the Baltics during the observation period. Fascinatingly, instead of rapid changes, different elements of transformation were introduced in all cases at differing intervals, which resulted in handmade solutions between the former and the new arrangements (Mahoney and Thelen 2010). Furthermore, neo-institutionalism authors would explain the divergent path taken by the Baltics using two key factors (political contexts and institutional characteristics), which allowed the emergence of particular change agents and types of change. Indeed, general similarities could be discerned in the evolution of the research policy institutional field in the Baltics. For example, in all countries, the USC formed a main part of the major coalitions that fought for the introduction of policy changes, by moving against planned policies and autonomous research policies. Further, in all of the countries, we analysed the later emergence of the State science administration that backed stronger national research steering. However, following the logic of historical neo-institutionalism authors, two questions arise that, according to our analysis, cannot be answered within the proposed analytical framework.

The political context varies in the three Baltic countries, a factor which could, together with the capacity of interpretation of institutional rules, affect the course of these reforms as theorised by historical neo-institutional authors. When national-minded Popular Front movements lost power in 1993 in all three countries, right-wing parties, which favoured competitive policy measures, took power in Estonia and Latvia, while in Lithuania a former-communist left-wing party won the elections. Hence, the weak possibility of a veto on liberal reforms in Estonia and Latvia could indeed explain the early reforms witnessed in Latvia and Estonia. Conversely, the Lithuanian left-wing parties blocked such reform ideas from taking shape in Lithuania. This result also reflects some other analysis regarding Baltic policy sectors—such as within environmental policy—where the change at the beginning of the 1990s in Estonia and Latvia was more substantial than that of Lithuania (Lazdinis et al. 2004).

Another variable used by historical neo-institutionalist authors to explain the emergence of change moments is the degree of interpretation of institutional rules. The period between the collapse of the Soviet Union and the restoration of independence was, indeed, a 'window of opportunity' for change agents in the Baltics to re-interpret the former institutional rules. The first legal acts explained that funding organisations were responsible for the arrangement of their funding allocation rules; thus, specific settings for funding were to be interpreted by scientists in the EstSF and the LvSC. Therefore, if the political veto power could indeed explain the differences between the Lithuanian reforms and those of its two northern neighbours, then how can we explain Estonian reformers' decision to move towards integrating criteria favouring international competitiveness in a project-based funding system while Latvian reformers did not introduce these criteria?

Besides, after the first changes that took place in public research funding systems at the beginning of the 1990s, further reforms only occurred in Latvia and Lithuania in 2005 and 2009 respectively. During this period, the Latvian government was led by (liberal) centre-right parties, while power in Lithuania switched between the pro-European centre-right to the liberal party, both of which ruled between 1996 and 2001, while social liberals led the Ministry of Education and Science between 2000 and 2003. The Lithuanian political context became more favourable to reforms in 2008 when conservatives replaced a left-wing government that had held power for several years. Thus, in both cases, the political context was favourable to reforms. If the Latvian reform, according to the historical neo-institutionalist authors approach, could be explained by political pressure coming from the EU (acting as a new political context), then the Lithuanian case opens up the following question: how can we explain Lithuanian change agents' motivation to undertake the substantial change in 2009 although political context would have allowed the change in the early 2000s? And although in Latvia the first changes were implemented in 2005, why had no substantial change occurred since?

As suggested by recent historical neo-institutional authors, besides external factors, such as the restoration of national independence or accession to the EU, endogenous factors (such as local political context and actors' ability to interpret institutional rules) play a crucial explanatory role in delineating the different change trajectories. However, the approach cannot explain the specific trajectories taken in each country concerning the models of research funding and the intensity of the implemented reforms. Relative to our hypothesis, these two above-posed questions made us focus on a more detailed analysis of reform actors' resources.

## 5.2. Divergent resources of change of the Baltic reform actors

The main argument is that besides factors such as the political context and actors' capacity to reinterpret institutional rules, institutional change in the Baltics' research funding policy also depends on reform actors' past trajectories and the knowledge resources accumulated through various international experiences.

Indeed, contrary to formal Soviet Union policies of keeping its borders closed to Western contacts, international contacts had an impact on science in the Baltics even during the Soviet era. Although the research community in the Baltic region was strongly linked to that of the Soviet Union, the region was less isolated from the Western world compared to other Soviet regions. Baltic researchers began to publish in international journals in the 1960s, a period accompanied by constant contact between local scientists and intellectuals in exile (Adamsons-Fiskovica et al. 2011: 228). Nevertheless, in many cases, these connections were limited for political reasons, as were the prospects of travelling to the West, a decision that was often connected to the KGB. As a result, to better understand each country's access to the West, each country's case should be analysed separately.

Analysis of change actors' resources could give us a better explanation as to why changes recorded in Estonia in the early 1990s were more substantial than those of Latvia. The 'window of opportunity' that was created by the collapse of the Soviet Union allowed change actors to push their reforms in all three countries. According to historical neo-institutionalist account, this possibility was opened due to the national political context and access to liberal ideas in policy design. At the same time, while analysing the Estonian and Latvian reform actors' resources, the former had, on account of their

past professional experience, greater knowledge of the research systems of other countries, such as those of the US and Scandinavia. One of the reasons could be the relative openness afforded the researchers of the physics institute in Estonia by the AS administration and local party political elite during the Soviet era. Hence, at the beginning of the 1990s, Estonian reformers looked towards the US NSF to establish their funding council but for political reasons did not initially fully transform the system into a project-based system. At the same time, the Latvian reformers relied partially on the Estonian example and introduced a project-based system abruptly due to the national institutional environment. Nevertheless, contrary to the Estonians, they were not motivated to introduce criteria favouring international competitiveness in funding allocation.

A similar argument could also explain why Lithuanian reforms did not occur in the early 2000s, as was the case in Latvia, and were more extensive than that of Latvia when they did occur. The reform actors during the later Latvian and Lithuanian reforms were, however, slightly different. In the Latvian case, the post-2005 changes were mostly carried out by the administration. Conversely, in the Lithuanian case, the network of reform actors was broader and consisted of: former and current scientists, who held critical administrative positions; political actors, including the President; and government actors. Besides, while most of the reforms assumed by Latvian actors in 2005 were as a result of EU requirements, Lithuanian reformers actively mobilised change actors with foreign-experience from the scientific and political sphere to 'westernise' the local system. The late emergence of Lithuanian change actors could not only explain the rationale behind the stronger extent of the Lithuanian reform (establishment of new funding organisation, new funding instruments, and settings etc.) but also their motivation to undertake the reform only in 2009, albeit that the political context would have allowed it in the early 2000s.

Hence, in the early Estonian and later Lithuanian reforms, a network of foreign-experienced change actors aspired to produce substantial systemic changes and brought their acquired individual experiences to play by melding them together and adapting them to local institutional settings. In institutionalist terms of reasoning, such 'international policy learning' could be understood through actors' experiences in institutional fields different from the one being analysed. If institutional isomorphism relates to the capacity of organisations to absorb the 'myths' of the institutional field, and actors are available to interpret these myths, then the Baltic case shows that to fully understand national policy reforms, it is important to take the reform actors' previous experiences in other/foreign organisational and institutional contexts into account. This could explain why national institutional reproduction can differ in seemingly similar national contexts.

## 6. Conclusion

This article analysed the transformations in the public research funding of the Baltic States between 1989 and 2010. In each of the three countries, public research funding policy evolved from the hierarchical and planned model of the Soviet research funding system towards a research funding system that included competitive principles. The transformation in all three countries entailed the establishment of independent funding bodies, the introduction of project-based funding instruments, and the linking of institutional evaluation with research funding, as was taking place in Western European countries (Jongbloed and Lepori 2015; Geuna and Martin 2003; Whitley and Glaser 2007). The evolution in funding policy

also involved changes in funding criteria for all funding instruments, particularly in introducing criteria for international competitiveness. Nevertheless, these changes occurred at different times, took different forms, and were over differing durations in each of the three countries. Hence, the aim of this article was to understand the factors that influenced these differing policy changes in public research. For this, we drew on the works of recent historical neo-institutionalism authors and supplemented them with an analysis of change actors' knowledge resources acquired from different international contexts.

The higher level of Western international knowledge resources of Estonian reform actors compared to their Latvian counterparts at the beginning of the 1990s, coupled with the political and institutional context, could explain the Estonian reformers' decision to move towards integrating criteria favouring international competitiveness in a project-based funding system while Latvian reformers did not introduce these criteria. Similarly, a higher level of Western international knowledge resources of Lithuanian reformers compared to their Latvian counterparts can explain Lithuanian change actors' motivation to undertake substantial changes in 2009 at the moment of national political change. At the same time, in Latvia, the changes were implemented incrementally and in a top-down method following 2005 as there has not been the emergence of a strong group of reformers with relevant knowledge resources. Taking into consideration the variation in funding criteria, Estonia has developed the most competitive public research funding system of all the Baltics and some other studied CEE countries, such as the Czech Republic or Poland, since the 1990s (Lepori et al. 2009).

The results provide further understanding into the differentiated research performance in the CEE region. Even if there is no consensus about the gravity and the long-term impact of funding systems on research performance, it is widely considered that changes in resource allocation do have an impact on the level and type of activity that researchers and managers are willing to undertake (Besselaar et al. 2012; Geuna and Martin 2003; Liefner 2003;). Corroboratively, and in confirming previous analysis (Rambaka 2012), there is good reason to believe that despite both Estonian and Latvian funding systems being predominantly project-based systems, earlier changes in the Estonian system and its strong emphasis on favouring criteria of international competitiveness can explain the observed disparities between Estonian research performance and those of its southern counterparts.

The given analysis can also contribute to better understanding the more general transformation in CEE innovation policies. An item of significant importance during the studied period was the inability of the Baltic countries to make a clear shift away from an excellence-based R&D system towards a more private sector R&D specialisation or, subsequently, towards a socio-economically relevant public R&D system. This was despite these developments being strongly pushed by the EU. This kind of transformation is seen mostly as a particularly demanding exercise in the CEE, as corresponding policies—industrial, economic, research and higher-education—have previously been developed under the state's central guidance and governance and hence separated from each other over several decades (Karo et al. 2016; Karo and Lember 2016). Paradoxically, this lack of transformation may have been supported in part by the fact that many of the research investments were undertaken by relatively closed actor coalitions, which made it very difficult to make this shift happen. This demonstrates the ambivalent, if not limited, influence of the EU on national R&D policy-making.

Lastly, the given analysis can also contribute to a better understanding of long-term transformation in CEE policies. On the one side, researchers studying CEE countries have observed a plurality and diversity of paths that have been taken from the previous regimes to the different types of institutional settings now present in the various countries, instead of the expected simple 'transition' from one economic and political order to another (Stark and Bruszt 1998). On the other side, while the primary motive for the transformation of public research policies in the CEE region is considered to be the collapse of the Soviet Union and then subsequent EU membership, the Baltic cases expose the need to take multiple factors of change into account when explaining international impacts on local policy trajectories. Hence, integrating the factor agency in the form of a plurality of resources to institutional analysis will allow for a more nuanced understanding of national developments and the dimensions of reforms. In the Baltic case, policy examples and influences were drawn from multiple sources: from each other, from neighbouring countries, and from the example of EU organisations. The 'utilisation' of different international contexts by change actors can explain the repertoire of solutions that are within the actors' grasp. It is this differing repertoire of solutions that enabled them to generate new institutional arrangements in the particular local setting (similar conclusions are also drawn by Jablecka and Lepori 2009).

Moreover, shifting the focus from an EU-centered approach to the interplay of multiple external influences will allow researchers to avoid methodological Eurocentrism. The shift in focus will allow them to compare different research policies and take account of other factors in the comparative institution and policy design, such as the size of the country, its geographical location, and its cultural context.

## Notes

1. Similar to Masso and Ukrainski (2009), in this article 'competition' refers to competitive behaviour or rivalry among research institutions and researchers to obtain the research funding available on the market. Funding allocation mechanisms can thus favour rivalry (e.g. being competitive) or not through their design. In addition, we consider the mechanisms of funding criteria that define the borders of the market (national/international competitiveness).
2. Government sector expenditure comprises all possible R&D performing units in this sector (Central Government (ministries, departments), local councils, Government research institutes, public research centres, non-profit semi-government organizations, National banks, museums, libraries, public benefit companies), hence it exposes more resources than the directly distributed funding for research activity covered in this articles analysis (2017) online website: [http://ec.europa.eu/eurostat/cache/metadata/en/rd\\_esms.htm](http://ec.europa.eu/eurostat/cache/metadata/en/rd_esms.htm).

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## ABSTRACT

### **Research Funding Reforms in the Baltic States: Institutional Heritage, Internationalisation and Competition from 1988 to mid-2010s**

Keywords: research funding policy reforms, science internationalisation, competition, post-communist transformation, social sciences and humanities, Baltic States.

In search of higher research performance and the consequent economic and societal development, over recent decades many governments have made efforts to attach resource allocation to international scientific excellence in their research policies. By questioning this issue based on the example of the research funding policy reforms undertaken in the Baltic States between 1988 and the mid-2010s, this thesis aims to better understand the introduction of competitive norms in the context of post-communist transformations, and their effects on practices. In doing so, it focuses on the disciplines in the social sciences and humanities (SSH). More precisely, it examines the introduction of competition into research funding and to what extent this is attributable to internationalisation and Europeanisation. To do so, the thesis discusses historical (neo-) institutionalist literature on institutional changes with the sociological approach to public action. The empirical fieldwork includes interviews with policy actors and sociologists in three countries, coupled with an analysis of written sources and data from the Web of Science. This allowed this research to intersect the analysis of institutional trajectories with a sociological approach to public action, attentive to the socialisation and social trajectories of actors. With their unique position in the former Soviet Union and divergent policy trajectories after independence, the Baltics are ideal observatories for examining the role of internationalisation in policy transformations. Their small size also makes possible a multilevel cross-country comparison between the three countries. With this research strategy, the thesis shows that instead of following specific policy “models”, research funding policy settings have resulted from continuous struggles between different groups of actors with different academic socialisation in the national scientific fields. Changes in the Baltic countries' reform trajectories are found to be introduced less through external pressure, and more through endogenous policy struggles in which reform actors have used a variety of foreign resources to enact their reform programmes. At the same time, as their position in the national disciplinary hierarchies may vary, the SSH have not always been equal in the face of the reforms. Sociologists' publication practices depend on multiple factors such as their academic socialisation in national and transnational networks, available research funding instruments offered by national and transnational actors, and the national and research evaluation policies at the level of research institutions (universities, research institutes). Altogether, while underlining the link between researchers' publication practices and their academic socialisations, it demonstrates the limited effect of reforms on scientific performance, contrary to the assumptions usually made in research policy literature. While shifting the focus from a European Union-centred approach, to the interplay of multiple external influences, it avoids the methodological Eurocentrism often found in the literature on post-communist countries' policy studies. More generally, this work may also offer a better explanation as to why, even more than two decades after the collapse of the Soviet Union, some public policies in post-communist countries still exhibit time lags between the reception of “models” and the reception of “standards”.

## RESUME

### **Les réformes du financement de la recherche dans les pays baltes : héritage institutionnel, internationalisation et concurrence entre 1988 et le milieu des années 2010**

Mots-clés : Réformes des politiques de financement de la recherche, Internationalisation de la science, Concurrence, Transformation post-communiste, Sciences sociales et humaines, pays baltes.

Au cours des dernières décennies, de nombreux gouvernements se sont efforcés d'associer l'allocation des ressources et l'excellence scientifique internationale dans leurs politiques de recherche afin d'améliorer leur performance scientifique et de contribuer ainsi au développement économique et sociétal de leurs territoires. Cette thèse vise à mieux comprendre l'introduction de normes de compétition et leurs effets sur les pratiques dans un contexte de transformations post-communistes, à travers l'exemple des réformes des politiques de financement de la recherche entreprises dans les pays baltes entre 1988 et le milieu des années 2010. Ce faisant, elle se concentre sur les sciences humaines et sociales (SHS). Plus précisément, cette thèse interroge dans quelle mesure l'introduction de la compétition dans le financement de la recherche est redevable à l'internationalisation et à l'eupéanisation. Pour cela, la thèse croise la littérature (néo-)institutionnaliste historique sur les changements institutionnels avec l'approche sociologique de l'action publique. L'étude empirique de cette thèse s'appuie sur des entretiens avec des acteurs politiques et des sociologues dans les trois pays, l'analyse de sources écrites et des données du Web of Science ; elle permet de croiser l'analyse des trajectoires institutionnelles avec une approche sociologique de l'action publique attentive à la socialisation et aux trajectoires sociales des acteurs. Avec leur position unique au sein de l'Union Soviétique et leurs trajectoires politiques divergentes après avoir retrouvé l'indépendance, les pays baltes constituent des observatoires privilégiés pour examiner le rôle de l'internationalisation dans les transformations des politiques publiques. De plus, leur petite taille permet d'effectuer une comparaison transnationale à plusieurs niveaux entre les trois pays. Avec cette stratégie de recherche, cette thèse démontre qu'au lieu de suivre des "modèles" politiques spécifiques, les politiques de financement de la recherche résultent de conflits dans les espaces scientifiques nationaux menés entre les différents groupes d'acteurs aux différentes socialisations académiques. Ainsi, les changements dans les trajectoires de réforme sont moins la conséquence de (seules) pressions externes que de luttes politiques endogènes où les acteurs de la réforme utilisent une variété de ressources étrangères pour mettre en œuvre leurs programmes. En même temps, les disciplines de SHS ne sont pas confrontées de la même manière aux réformes compte tenu de leur position dans les hiérarchies disciplinaires nationales. Les pratiques de publication des sociologues dépendent de multiples facteurs tels que leur socialisation académique dans des contextes nationaux et transnationaux, les instruments de financement de la recherche offerts par les acteurs nationaux et transnationaux, et les politiques d'évaluation de recherche au niveau national et au niveau des institutions de recherche (universités, instituts de recherche). En définitive, tout en soulignant le lien entre les pratiques de publication des chercheurs et leurs socialisations académiques, cette thèse démontre un effet limité des réformes sur la performance scientifique, contrairement à ce qui est supposé dans la littérature sur les politiques de recherche. De plus, en déplaçant l'attention d'une approche centrée sur l'Union Européenne vers l'interaction de multiples influences externes, elle invite à éviter l'eurocentrisme méthodologique comme cela est souvent le cas dans la littérature sur les études des politiques publiques dans les pays post-communistes. Plus généralement, ce travail peut également offrir une meilleure compréhension pourquoi, vu par l'Ouest, plus de deux décennies après l'effondrement de l'Union soviétique, certaines politiques publiques des pays post-communistes révèlent des décalages temporels entre la réception des « modèles » et la réception des « normes ».

### **Teadusrahastuse reformid Balti riikides: institutsionaalne pärand, rahvusvahelistumine ja konkurents perioodil 1988 kuni 2010-ndate keskpaik**

Märksõnad: teadusrahastuse reformid, teaduse rahvusvahelistumine, konkurents, postkommunistlik transformatsioon, sotsiaal- ja humanitaarteadused, Balti riigid

Mitmete riikide valitsused on viimastel aastakümnetel teinud oma teaduspoliitikates jõupingutusi, et siduda omavahel ressursside eraldamine ja rahvusvaheline teaduslik tippase, mille eesmärgiks on edendada teadustööde tulemuslikkust ning sellega ka majanduslikku ja ühiskondlikku arengut. Võttes aluseks Balti riikide teadusrahastuse poliitikate reformid alates 1988. aastast kuni peale 2010. aastate keskpaigani, on käesoleva väitekirja eesmärk uurida konkurentsinoormide kehtestamist postkommunistlike muutuste protsessis ja nende mõju praktikatele. Töö keskendub sotsiaal- ja humanitaarteaduste (edaspidi SSH) distsipliinidele. Täpsemalt on selle töö eesmärgiks uurida, mil määral on konkurentsi juurutamine teadusrahastamise poliitikatesse seotud rahvusvahelistumise ja europamiseerumisega. Selleks ristab väitekirja ajaloolise (uus-)institutsionalismi käsitlemise institutsionaalsete muutuste kohta kirjandusega avaliku poliitika sotsioloogilisest analüüsist. Töö empiiriline baas hõlmab kolmes riigis läbiviidud intervjuusid teaduspoliitikas osalejate ja sotsioloogidega, analüüsi kirjalikest allikatest ja Web of Science'i andmeanalüüsi. See võimaldab siduda eritulu institutsionaalsetest trajektooridest avaliku poliitikate sotsioloogilise analüüsiga, millest viimane keskendub sotsialiseerumisele ja protsessis osalejate sotsiaalsetele trajektooridele. Oma erandliku asukohaga endises Nõukogude Liidus ja erinevate taasiseseisvumise järgsete poliitiliste arengutega, on Balti riigid privileeritud kohal rahvusvahelistumise rolli uurimisel poliitikamuutustes. Nende väike suurus võimaldab läbi viia mitmetasandilise riikidevahelise võrdluse. Seda uurimisstrateegiat järgides näitab väitekirja, et Balti riikide teadusrahastuse poliitikaid ei ole tehtud konkreetsete „mudelite“ järgi, vaid on vormitud tulemusena võimuvõitlusest erinevate akadeemiliste sotsialiseerumisega gruppide vahel. See tähendab, et muutused reformiradadesse ei ole tekkinud niivõrd välise surve tulemusel, kuivõrd avaliku poliitika valdkonnasiseste võitluste tulemusel kus reformijad on kasutanud oma reformikavade elluviimiseks erinevaid väliseid ressursse. Samal ajal ei ole SSH distsipliinid reformide taustal alati võrdsed kuna nende positsioon võib riiklikes distsipliinide hierarhiates varieeruda. Sotsioloogide publitseerimispraktikad sõltuvad mitmest tegurist, nagu nende akadeemiline sotsialiseerumine riiklikes ja rahvusvahelistes kontekstides, riiklike ja rahvusvaheliste agentide pakutavatest rahastamisvahenditest ning riiklikest ja teadusasutuste tasandi (ülikoolid, uurimisinstituudid) teadustegevuste hindamispoliitikatest. Kokkuvõtlikult, rõhutades seost teadlaste avaldamispraktikate ja nende akadeemiliste sotsialiseerumiste vahel, näitab väitekirja reformide piiratud mõju teaduse tulemuslikkusele, mis on vastupidine sellele mida tavaliselt eeldatakse teaduspoliitika kirjanduses. Samuti, keskendudes mitmetele välismõjudele ja mitte ainult Euroopa Liidule, kutsus see töö üles vältima metodoloogilist eurotsentrismi, mis on levinud postkommunistlike riikide avalike poliitikaid käsitlevas kirjanduses. See uurimus võimaldab paremini mõista, miks isegi pärast enam kui kahte aastakümnet pärast Nõukogude Liidu kokkuvarisemist võib postkommunistlike riikide poolt üle võetud avalikes poliitikates jätkuvalt esineda (Läänest vaadatuna) asünkroonsusi „mudelite“ ja „standardite“ vahel.

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