Incentivising, excluding, and enduring: Insular policy feedback in Lithuanian research assessment

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Abstract

Performance-based funding systems (PBFSs) are widely used to steer national research, but their effects vary significantly, particularly in countries with emerging research ecosystems. Relatively little attention has been paid to PBFSs and their concomitant policy dynamics in these countries, where the pressure to internationalise creates unique challenges. This paper presents a detailed study of the development of the Lithuanian PBFS from 2005 to 2022. Using a multi-level, multi-actor, and multi-issue framework, we combine policy analysis, semi-structured interviews, and bibliometric data to analyse the system's evolution. Our findings reveal a dynamic of "insular policy feedback," where a concentrated scientific elite, operating across all levels of governance, shapes policy to its advantage. This results in predictable cycles of strategic gaming, such as the proliferation of domestic journals, followed by reactive and often inconsistent state countermeasures. The Lithuanian case serves as a model for understanding how concentrated power structures can undermine reform, offering a crucial insight for policymakers: meaningful reform must address the governance structures that empower performance metrics, not just the metrics themselves.

1. Introduction

Performance-based funding systems (PBFSs) aim to enhance research quality and accountability by linking funding to demonstrable, and often quantifiable, research performance. Discussions of performance-based funding emerged in the late 1990s (Anderson et al., 1996; De Boer et al., 2015; Gläser et al., 2002). Many countries, driven by global trends towards accountability and new public management ideologies, introduced national PBFSs (Hicks, 2012a; OECD, 2010), pioneered by the UK (Barker, 2007) and Australia (Taylor, 2001). By 2015, sixteen EU countries had implemented PBFSs, applying three different assessment approaches: "limited PBFS," "quantitative formula with bibliometric assessment," and "peer review" (Zacharewicz et al., 2019). These PBFSs aimed to boost research productivity, enhance accountability, and introduce market-driven approaches to higher education (Hicks, 2012a; Jonkers & Zacharewicz, 2016). However, the goal of elevating research

performance through PBFSs has proven particularly difficult to achieve (De Boer et al., 2015; Deutz et al., 2021; Haugen & Sandnes, 2016; Pontille & Torny, 2010).

The increasing global interest in PBFSs is confirmed by a review of over 350 papers on institutional performance-based research evaluation across 37 countries (D. A. Thomas et al., 2020). However, this review also identifies limitations within the PBFS literature, notably a limited ability to attribute institutional changes directly to the national PBFS policy and to understand its broader systemic effects. Additionally, the PBFS literature often overlooks the nuances and diverse approaches to PBFS implementation in countries with lower research and innovation (R&I) performance, as identified by a composite indicator for scientific and technological research excellence (Hardeman et al., 2013). Based on four variables—highly cited publications, high-quality patents, world-class universities and research institutes, and European Research Council grants—this indicator classified twenty-nine countries as "less advanced" (European Commission, 2024). These continue to struggle to enhance their research performance despite implementing PBFSs designed to improve their international standing in the global research arena (Kwiek, 2020; UNESCO, 2021).

To address the above limitations, this paper presents a detailed study of the development of Lithuanian PBFS policies. The empirical focus on Lithuania makes it possible to provide an in-depth understanding of how PBFSs are shaped and implemented in countries with lower R&I performance. As a nation facing distinct challenges in enhancing research productivity and featuring a hybrid PBFS model that combines quantitative assessment with expert panels, Lithuania presents a valuable case study. By examining the Lithuanian experience—including how policymakers have navigated issues such as artificial citation inflation and the emergence of domestic institutional journals—this study offers broader insights into the challenges and opportunities associated with PBFS implementation in countries seeking to enhance their research performance within a globalised academic landscape. We argue that this case reveals a dynamic of "insular policy feedback," where a concentrated scientific elite, operating across all levels of governance, shapes policy to its advantage, leading to predictable cycles of strategic gaming and reactive, often inconsistent, policy countermeasures.

In doing so, the paper also addresses the challenge of understanding the systemic effects of PBFSs, primarily in terms of the dynamic interplay between various actors and the policy instruments employed. More specifically, we analyse the interactions among state institutions, higher education authorities, politicians, civil servants, scientific elites, and non-state actors, exploring how their diverse interests and perspectives have influenced the PBFS landscape. Examining Lithuanian policymakers, we show how they navigated the tension between international aspirations and domestic realities while shaping the development of the PBFS and addressing unintended consequences of their policy decisions. Simultaneously, we elucidate how Lithuanian universities and individual researchers adapted their publication strategies to the evolving PBFS landscape.

To uncover the systemic effects of PBFSs, we adopt a multi-level, multi-actor, and multi-issue framework (Chou et al., 2017) to analyse the interactions among different stakeholders within the public science system (Whitley et al., 2010) and to examine their decision-making processes. This framework allows us to analyse the complex interplay of actors and factors that influence PBFS policy development in Lithuania, as demonstrated by the dynamic interactions between the Ministry, the Research Council, universities, and individual researchers. Our research highlights a multi-level governance structure where individual researchers, through their elite status, can directly impact state-level policies—a phenomenon not fully captured by alternative frameworks used in our previous research (Dagienė et al., 2025). For example, the Advocacy Coalition Framework (Sabatier, 1988;

Sabatier & Weible, 2007) primarily focuses on horizontal coalitions and does not consider the vertical interplay of state, institutional, and individual levels. The Multiple Streams Framework (Guidara, 2021; Knaggård, 2015; Zahariadis, 2007), which focuses on agenda-setting, may not fully capture the complex interplay and strategic behaviour of actors within a national PBFS, such as the establishment of institutional journals and the strategic exploitation of loopholes to maximise funding. This "gaming" or reactive subversion of the system, including tactics such as "hitting the target and missing the point" or reducing performance where targets do not apply (Bevan & Hood, 2006), occurs at both institutional and individual levels.

Our research also highlights the interdependence of multiple issues, including the tension between international aspirations for research excellence and domestic realities, the conflict between promoting publishing in high-impact Web of Science indexed journals and strategic responses of universities seeking to maximise state funding, and the unintended consequences of relying on quantitative journal indicators, which are often the subject of manipulation (Larivière & Sugimoto, 2019). A multi-issue lens allows for a more nuanced analysis than is offered by the Advocacy Coalition Framework's focus on belief systems or the Multiple Streams Framework's problem and policy streams. Figure 1 illustrates the *multi-level governance*, the *multi-issue interdependence*, and the *multi-actor involvement* in the development of Lithuanian PBFS policies.

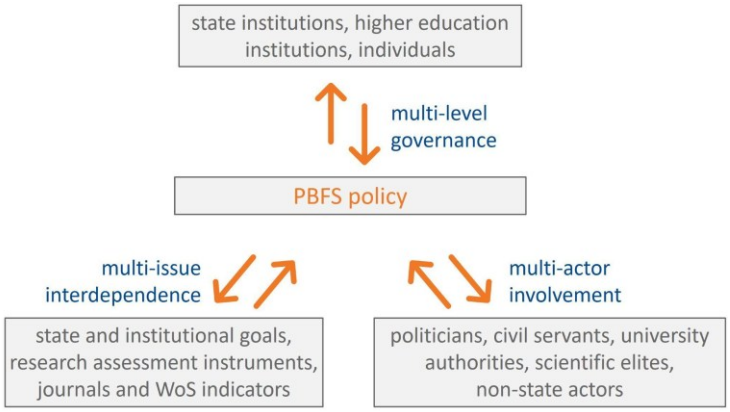

Figure 1. Development of Lithuanian PBFS policies through the lens of a multi-level, multi-actor, and multi-issue framework.

The remainder of this paper is structured as follows. We begin by reviewing the literature on performance-based funding systems, focusing on their common models, actor dynamics, and the specific context of countries with lower R&I performance. Next, we outline the Lithuanian research system and detail our mixed-methods approach. The empirical analysis then proceeds in two parts: we first introduce the key stakeholders and their formal roles within the PBFS, then present a chronological analysis of the three central policy conflicts that have shaped the system's evolution. Finally, we conclude by discussing the theoretical and practical implications of our findings.

2. The landscape of performance-based funding

This section builds the foundation for our analysis by exploring the literature on PBFSs. It first outlines common models, goals, and documented unintended consequences of PBFSs globally before turning to the literature on the key actor groups and power dynamics that shape these systems. Finally,

it narrows the focus to the specific context of lower R&I performance and post-Soviet countries, arguing that these universal dynamics manifest in unique ways that necessitate in-depth case analysis.

2.1. Models, goals, and their unintended consequences

PBFSs allocate resources to higher education institutions based on evaluations of their research outputs, operating on the principle that funding should be linked to demonstrable performance (Hicks, 2012b). This approach aims to enhance research quality, promote accountability, and improve research performance in a measurable way, though its implementation varies significantly across countries (De Boer et al., 2015).

The literature generally categorises PBFS models along two axes. The first is timing: researchers distinguish *ex ante* models that allocate future funding based on past performance (typically at the project or programme level) from *ex post* models that retrospectively reward outputs already achieved (Hicks, 2012b). The second is the evaluation approach, which typically involves either quantitative bibliometrics or qualitative peer review (Geuna & Martin, 2003). While organisation-wide evaluations often favour bibliometric models, as seen in Czechia (Good et al., 2015), department-level assessments have commonly employed peer review, as in the UK and Italy (Martin, 2011; McNay, 2003). The goals of these systems have also evolved; many have transitioned from an initial emphasis on the quantity of outputs towards a greater prioritisation of research excellence and impact (Hammarfelt et al., 2016; Moore et al., 2017).

While the intended goals are to enhance research quality (Gläser et al., 2002; Martin, 2011; Rebora & Turri, 2013), the implementation of PBFSs has consistently triggered a range of strategic institutional responses and unintended consequences (Aagaard et al., 2015; Bloch & Schneider, 2016; Braun, 2003). To succeed within these systems, universities often cascade performance metrics internally by creating their own funding models to incentivise departments and individual researchers (Aagaard, 2015; Mouritzen & Opstrup, 2020). This pressure to perform against specific indicators has led to the well-documented phenomenon of the "publication game," where strategic behaviour can overtake the pursuit of knowledge (Butler & Spoelstra, 2020; Rowlands & Wright, 2021). Such behaviour can include the manipulation of metrics such as the Journal Impact Factor (JIF) to boost scores, which not only harms research quality but, some have argued, may border on academic misconduct (Hickman et al., 2019). These dynamics underscore the need to consider the intricate interactions between policy instruments and institutional behaviour to fully understand the complexities of the policy process (Flanagan et al., 2011; Vanclay, 2011).

2.2. The role of actors in shaping policy

The evolution and impact of any PBFS are shaped by a complex interplay among various actor groups, each with distinct interests and forms of influence (Weible & Workman, 2022). Understanding these dynamics is essential for comprehending how research policies are formed and contested. The literature identifies several key players whose interactions are central to the policy process:

Ministries and other state agencies typically wield significant power by setting the overarching rules, defining research goals, and controlling funding allocation (Rip & Meulen, 1996).

Universities, as the employing organisations, are directly affected by these policies and are therefore key actors in navigating the system, adapting their internal strategies to maximise funding and performance (Dix et al., 2020; Kivistö & Mathies, 2023; Leišytė et al., 2008; Whitley, 2008).

Research councils often act as crucial intermediaries, managing the assessment process and mediating the sometimes conflicting interests of the state and the academic community (Antonowicz et al., 2024; Martin, 2011; Slipersæter et al., 2007, 2007; Van Der Meulen, 2003, 2003).

Scientific elites—senior researchers who serve on expert panels and advisory committees—exert considerable influence by shaping quality criteria and evaluation outcomes. Their authority can also be a source of tension and resistance if policies are perceived as misaligned with their interests or disciplinary values (Waitere et al., 2011; Whitley, 2016; Whitley & Gläser, 2014).

Researchers themselves are the ultimate subjects of assessment, and their responses to policy incentives through their publication strategies and research choices reveal the micro-level effects of the system (Hammarfelt et al., 2016; Hammarfelt & Haddow, 2018; Johann et al., 2024; Nelhans, 2022; Woelert, 2021).

Beyond these core actors, professional organisations, university boards, and external stakeholders from industry and civil society also contribute to shaping science policy (De Boer et al., 2010; Gläser, 2019; Gläser & Laudel, 2016; Kwiek, 2015). Understanding this complex, multi-actor landscape is therefore crucial for analysing how PBFS policies evolve and impact research activities.

2.3. Specificity of PBFS context in lower-R&I-performance and post-Soviet systems

While the models and actor dynamics described above are common to most systems, they often manifest in particularly acute ways in countries with lower R&I performance and post-Soviet legacies. In these systems, the intense political pressure to "catch up" internationally, combined with the historical context of centralised academic organisations, frequently leads to a distinct set of policy choices and actor behaviours.

A common pattern observed in these countries is an initial heavy reliance on purely quantitative indicators to drive internationalisation, often tied directly to the Web of Science (WoS) database. This approach was central to the early PBFS models in Czechia (Good et al., 2015), Poland (Kulczycki et al., 2017), Slovenia (Mali et al., 2016), and Romania (Cernat, 2024). Over time, many of these systems evolve towards more complex mixed models that incorporate expert judgement or national journal rankings to mitigate the unintended consequences of purely metric-based assessment (Kulczycki & Rozkosz, 2017).

Furthermore, the structural conditions of these often smaller, more concentrated academic communities can amplify the influence of scientific elites. In such contexts, it is common for the same senior figures to hold influential positions across government ministries, funding councils, and university leadership simultaneously. This concentration of power creates a unique potential for policy capture and feedback loops, where the lines between policymaker, evaluator, and beneficiary become blurred and where the outcomes of the policy serve to reinforce the influence of those who created it. It is these specific conditions—the legacy of past systems, the urgency of internationalisation, and the concentrated power of elites—that make an in-depth case study of a country such as Lithuania essential for a deeper understanding of PBFS dynamics.

3. The Lithuanian context and methods

The Lithuanian case serves as a lens to examine the broader implications of quantitative, bibliometric-driven PBFS policies in transitioning countries. Research assessment in these nations, particularly those with Soviet-era legacies, remains underexplored in the English-language literature. While some studies offer bibliometric analyses of research performance in countries such as Estonia, Czechia, and Poland (Allik, 2003; Broz & Stöckelová, 2018; Good et al., 2015; Korytkowski & Kulczycki, 2019; Kulczycki, 2017; Lauk & Allik, 2018; Must, 2006; Rambaka, 2011; Stöckelová, 2012; Zdeněk, 2017), few delve into the qualitative aspects of research assessment reforms and policy dynamics within these specific contexts. This paper addresses this gap by examining the Lithuanian case, offering insights into the challenges and opportunities faced by countries undergoing radical transformations in their research systems. We first provide the necessary context on the Lithuanian system, then detail the mixed-methods approach used to analyse it.

3.1. The Lithuanian case

The Lithuanian higher education system comprises 18 universities and 20 applied science universities (Research Council of Lithuania, 2022). These institutions play a crucial role in the country's research system, enjoying constitutional autonomy and academic freedom that allow them to conduct research and contribute to knowledge creation. However, following the restoration of its independence, Lithuania faced numerous challenges in developing modern research management practices and aligning with global standards (Allik, 2003; Leišytė & Kiznienė, 2006; Želvys, 2003). Early research assessments focused heavily on quantitative indicators, particularly publications in Web of Science-indexed journals, to promote internationalisation. However, this approach sparked debates about disciplinary biases (Norkus, 2001; Subačius, 2001) and legal challenges (Constitutional Court, 2007, 2008). The introduction and subsequent cancellation of the List of National Journals (1993–2004) and the National List of Databases (2005–2009) further illustrate the dynamic interplay of policy goals, unintended consequences, and actor influences in shaping Lithuania's research landscape (Kraniauskas & Gedutis, 2016; MOSTA, 2015; Subačius, 2003).

While Lithuania achieved significant growth in its research output, this growth was accompanied by concerns about quality and questionable practices (Chankseliani et al., 2021; Grančay et al., 2017; Lauk & Allik, 2018). This experience resonates with broader international debates on the potential unintended consequences of prioritising quantitative metrics in research assessment (Elton, 2000; Johann et al., 2024; Taylor, 2001).

3.2. Methods and data

This study employs a mixed-methods approach to investigate the development and dynamics of the Lithuanian PBFS. We combine policy document analysis, bibliometric analysis, and semi-structured interviews to gain a comprehensive understanding of the intricate relationship among policy, institutional practices, and individual researcher behaviour. Specific data sources and analysis strategies for each method are detailed below.

Policy document analysis. PBFS regulations from 2004 to 2024 were obtained from Lithuania's national register TAR (https://www.e-tar.lt/portal/en/index). Examining national PBFS regulations, we traced the evolution of the PBFS framework and identified major shifts in

performance indicators and policy instruments, such as maintenance of national journal lists and rejection of journal outputs suspected of artificial citation inflation. The latter policy instrument, allowing expert panels to reject institutional outputs, was selected for in-depth analysis. This choice was due to its potential to illuminate policy dynamics in quantitative research assessment, as the rejection of suspect publications directly affected institutional scores. To explore the impact of this policy instrument, "lists of suspended journals" (journals whose articles were rejected, resulting in no points for institutions) were obtained from the Research Council of Lithuania website (https://lmt.lrv.lt/en/science-quality/). These lists consisted of the 156 journals suspended between 2012 and 2019. Since 15 journals were indexed only in Scopus, only the 141 journals indexed in WoS are the focus of our study.

Analysis of semi-structured interviews. Fifty-seven semi-structured interviews were conducted with policymakers, civil servants, research administrators, and individual researchers to gather insights on research evaluation in Lithuania, including the PBFS (see Figure A1 for a detailed breakdown of interviewee roles). Interviews explored stakeholders' expectations regarding research assessment policy instruments, their experiences with implementation, and their perceptions of the research assessment system's strengths and weaknesses. Policymakers were asked to share their experiences developing national research assessment policies, while other stakeholders were asked about their experiences complying with research assessment requirements. Anonymity was assured to encourage candid responses. Interviews were conducted from mid-2019 to mid-2023. Follow-up questions were asked as needed for clarification, and responses were incorporated into the corresponding interview transcripts. All interviews were audio-recorded, transcribed verbatim, and partially translated. Transcripts were then imported into the Atlas.ti qualitative data analysis software. Through inductive analysis, we systematically identified and interpreted patterns of meaning across the interview data, following established qualitative research guidelines (D. R. Thomas, 2006). This process allowed for the identification of rich and nuanced insights into the perspectives of stakeholders at all levels, revealing their motivations and challenges as well as their perceptions of the effectiveness of the Lithuanian PBFS.

Bibliometric analysis. We used the in-house version of the Web of Science (WoS) database maintained by the Centre for Science and Technology Studies (CWTS) at Leiden University, including the following WoS citation indexes: Science Citation Index Expanded, Social Sciences Citation Index, Arts & Humanities Citation Index, and Emerging Sources Citation Index. We analysed all WoS articles and reviews authored by at least one Lithuanian researcher in 2005–2022, including those published in the 141 journals suspended in 2012–2019 and, at that time, already included in WoS citation indexes. We conducted bibliometric analyses at the national, institutional, and individual levels. Data on journals' quartiles (Q1, Q2, Q3, Q4) in their designated WoS categories were obtained from Clarivate's Journal Citation Reports (see Section 5 and figures in the Appendix). Additional document searches in the WoS user interface identified the publishers of journals used by researchers most affected by the suspension policy. Bibliometric analysis revealed quantitative evidence of the impact of this policy on publication patterns, highlighting shifts in journal choices and potential gaming strategies.

4. Stakeholders and their roles in the Lithuanian PBFS

To understand the policy dynamics that shaped the Lithuanian PBFS, we must first examine the roles, strategies, and influence of its key players. The system formally operates on an annual cycle: the Ministry of Education, Science, and Sport sets the rules, universities submit their outputs, and the Research Council, staffed by experts from the scientific elite, coordinates the evaluation. This section dissects this landscape, drawing on policy documents and interviews to explore the formal and informal power of each major actor group before we analyse how their interactions played out in specific policy conflicts. Figure 2 provides a structural map of these stakeholders and their primary roles.

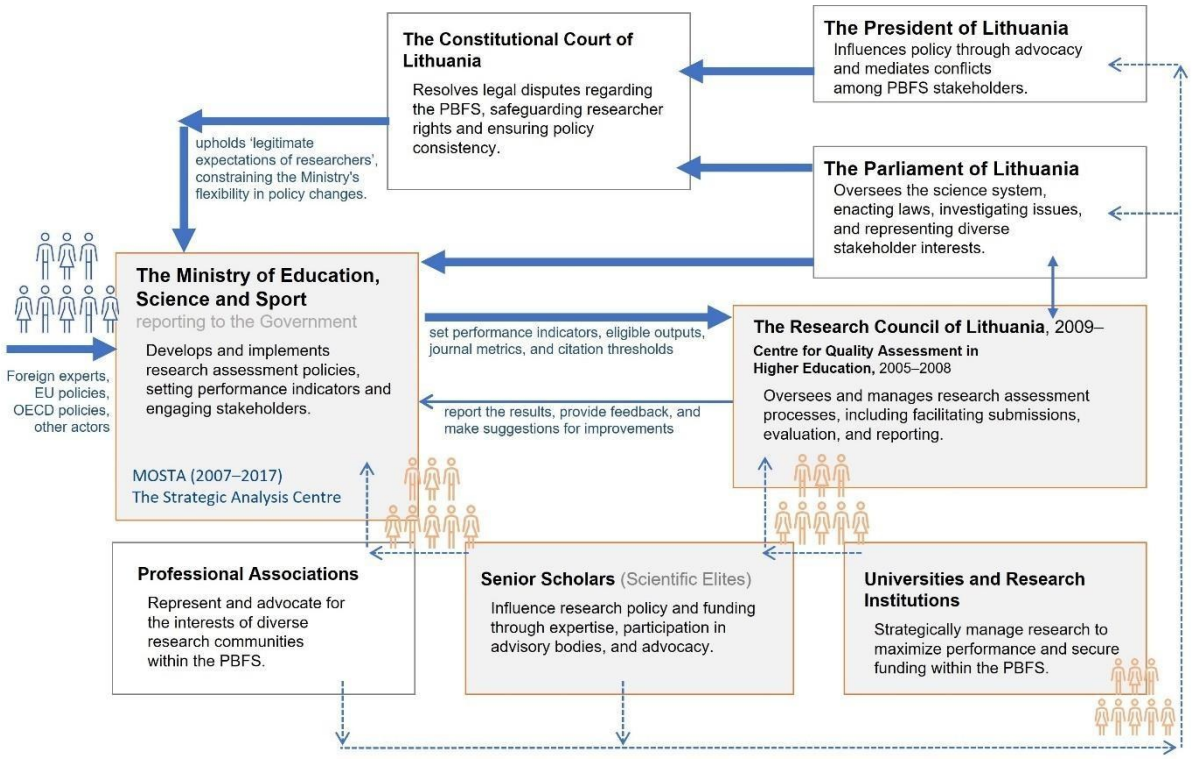

Figure 2. The Lithuanian PBFS in action: A structural map of stakeholders, roles, and decision-making processes.

4.1. The Ministry's policy leadership and challenges

The Ministry is the primary policymaker for Lithuania's research and innovation system (Paliokaitė et al., 2018), playing a central role in designing and implementing the PBFS through its Higher Education, Science, and Technology Department. The Ministry previously housed a higher education monitoring and analysis centre (MOSTA) from 2007 to 2017, which was instrumental in piloting a peer-review model for the PBFS in 2015 (Arnold & Angelis, 2014). However, MOSTA was later reformed and discontinued in 2017, reportedly due to pressure from scientific elites.

The Ministry, as the leader in science policymaking, shapes the PBFS's overall direction by developing policies and translating them into practical measures, defining the specific criteria and metrics used to evaluate research performance and setting standards for quality and impact. The Ministry also outlines eligible research outputs through legal acts, aiming to prioritise high-quality,

relevant research, to foster international collaboration, and to incentivise Lithuanian researchers to publish in prestigious journals.

Despite the Ministry's claims of actively engaging stakeholders in refining research assessment, challenges persist. Research administrators at the institutional level report feeling unheard and express dissatisfaction with the Ministry's responsiveness. This aligns with previous research (European Commission, 2016) suggesting a lack of effective communication and issue resolution. Interviews with civil servants further confirm these challenges, describing stakeholder engagement as unproductive and often leading to decisions that defer to the Ministry's own priorities.

4.2. The Council's implementation and expertise

While primarily an advisory and analytical body, the Council is a key institution in implementing science policy. Its publicly stated aims include increasing the value, efficiency, and impact of science through expert evaluations of scientific performance, administering programs for the development of Lithuanian science, representing Lithuania's interests in science and research at the European Union and international levels, and implementing competitive funding programs for science. The Council's unique blend of expertise and implementation capacity has made it pivotal in the PBFS since 2009.

The Council relies on two groups of experts to assess research: members of its permanent expert committees (delegated by institutions) and invited experts. Ensuring true independence of these experts within Lithuania's small research community is a challenge; potential biases and conflicts of interest may arise due to these experts' affiliations with Lithuanian institutions. As one interviewed researcher put it, the concept of an "independent expert" in this context seems paradoxical. Since experts are often affiliated with Lithuanian institutions, they may be inclined to favour decisions that benefit their own institutions, even if indirectly. To increase fairness and minimise bias, expert panels are often composed of senior Lithuanian researchers residing abroad and working for foreign universities.

Despite these concerns, the experts work anonymously to avoid institutional pressure, following the General Rules (Research Council of Lithuania, 2018). These rules outline the types of experts, requirements for becoming an expert, and the principles and procedures governing their work, including remuneration and conflict of interest protocols. The experts assess research outputs based on criteria outlined in ministerial regulations, including publisher or journal requirements. While pre-calculated scores based on JIFs and journal citation thresholds are provided, experts have the authority to raise concerns and adjust scores if they believe the metrics do not accurately reflect research quality.

4.3. Role of universities in shaping PBFS policy

The Universities (higher education and research institutions) actively participate in the Lithuanian PBFS, both responding to its incentives and shaping its outcomes. They strategically select and submit research outputs for evaluation, aiming to maximise recognition and funding. They actively appeal unfavourable assessment decisions—but rarely succeed, as research administrators complained.

To enhance their PBFS performance, universities develop strategies to align their research priorities with assessment criteria and metrics. They create internal incentive systems to reward researchers whose work contributes to securing state funding through the PBFS. Universities directly

influence and challenge the PBFS goals by launching peer-reviewed journals to publish their researchers' papers and subsequently submitting these papers for state funding. They also invest in training and resources to support researchers in producing outputs favoured by the PBFS.

University leaders and senior scholars often perceive themselves as possessing unique expertise within the science system, given that only senior researchers can be elected as university rectors or directors of research institutes. This confidence, coupled with their institutional strategic efforts, empowers them to actively engage in collective advocacy at the national level through professional organisations. The Rectors' Conference in particular exerts considerable pressure on the Ministry, often by protesting specific research assessment policies.

The Rectors' Conference simultaneously shapes new policies and resists unfavourable changes, creating tension within the system. This tension stems from confusion among university leaders about who holds ultimate authority over PBFS rules; representatives of some universities blame the Ministry for poor decisions, while those of other universities blame the Research Council for the same decisions. Hence, in our interviews, both the Ministry and the Research Council were criticised for perceived incompetence in setting criteria.

4.4. Influence of scientific elites and resulting tensions

Senior scholars (the scientific elites), usually individual researchers employed at universities, play a central role in the national PBFS. They are both prolific producers of assessed outputs and members of evaluation committees, highlighting the dynamic interplay between individual researchers and the broader research assessment system. The scientific elites exert significant influence in shaping the PBFS through various avenues:

Leadership and expertise at the Council, which is composed of senior researchers and PhD-holding civil servants and plays a pivotal role in shaping research assessment policies. The involvement of the scientific elites in all layers of the Council ensures their expertise directly informs policy.

Institutional leadership at universities as rectors, vice-rectors, deans, and chairs of influential committees who shape institutional strategies for research production, dissemination, and internal incentive structures.

High-level political engagement, as many chairs of the Committee on Science, Education and Culture at the Lithuanian Parliament (the *Lietuvos Respublikos Seimas*) as well as elected ministers or appointed vice-ministers for research at the Ministry of Education, Science and Sport have come from academia, reflecting the sector's influence. Interviews also revealed that members of the Seimas and Government, often under the influence of the scientific elites, have demanded explanations from civil servants and policymakers regarding specific research assessment instruments; this pressure has sometimes led to the resignation of civil servants.

The involvement of *the President of Lithuania* in research assessment policy debates further exemplifies the influence of the scientific elites. For instance, scholars convinced the President to request that *the Constitutional Court* investigate the 2003 requirement mandating that seekers of professorships or Doctor Habilitatus degrees publish in WoS-indexed journals (Constitutional Court, 2007, 2008; Dagienė et al., 2024). Even though this case focused on minimum requirements for researchers, it had a lasting impact on the PBFS performance indicators. After the Court issued its rulings about the feasibility and fairness of minimum requirements for SSH disciplines, the highest

funding points for WoS papers in the social sciences and humanities established in the 2006 and 2008 methodologies were removed from the 2009 methodology and subsequent versions until 2015. Interestingly, these point-value allocations for WoS papers reappeared in the list of eligible outputs in 2015 for research in the social sciences and humanities but have been retained only for the social sciences since 2017. A civil servant attributed this difference to the humanities' stronger lobbying efforts against such requirements.

Repeated legal challenges brought by the scientific elites against the government before the Constitutional Court further complicated the PBFS landscape and led to the establishment of the principle of "legitimate expectations" in Lithuanian research policymaking. A judge of the Constitutional Court has even noticed the prevalence of academia's disputes brought before the court, requiring the Ministry to maintain consistent and predictable policies. These "legitimate expectations" lead to a reluctance among civil servants and policymakers to introduce changes for fear of further legal repercussions.

These diverse avenues of engagement showcase the substantial power the scientific elites wield within the PBFS. Their expertise, advocacy, and access to decision-makers enable them to influence research assessment and state funding allocation in Lithuania. The analysis reveals the dominant role of the scientific elites in shaping the PBFS landscape, to the frequent frustration of other groups of stakeholders.

5. The dynamics of insular policy feedback

The preceding section mapped the key stakeholders and the formal power structures that constitute the Lithuanian PBFS. We now turn to a dynamic analysis of how these actors interacted over time. The following subsections present the main themes that emerged from our inductive analysis, organised chronologically into three interconnected policy conflicts that illustrate the dynamic of "insular policy feedback" at the heart of our argument. These conflicts reveal the causal chain of policy, strategic reaction, and state counter-reaction that has defined the system's evolution.

5.1. Action and reaction: The push for internationalisation and the rise of domestic journals

The evolution of the Lithuanian PBFS reflects a foundational conflict between the state's aspiration for international research excellence and the domestic realities of a system adapting to new incentives. This first phase of the policy dynamic was defined by a strong push for international publication and the strategic, and ultimately problematic, response from the nation's universities.

In the early 2000s, Lithuanian policymakers found themselves at a crossroads (Dagienė et al., 2025). Aware that Lithuania lagged behind the European average in research productivity and that publications in Web of Science (WoS) indexed journals were the currency of the international scientific community, they sought to rapidly improve the country's performance (European Commission, 2007; The World Bank, 2003). Driven by this ambition, they crafted a PBFS that heavily incentivised publications in WoS-indexed journals, which received the highest scores and the most state funding.

While the policy's intent was clear, its initial implementation was blunt. From 2006 to 2009, WoS indexing alone was deemed a sufficient marker of quality. This created a powerful incentive,

but it also led to an unintended consequence that reshaped the policy landscape. While most Lithuanian WoS outputs were initially in international journals, from 2009 onwards, numerous domestic journals, often published by Lithuanian universities themselves, obtained WoS indexing (Figure 3). As these new domestic journals began to receive high Journal Impact Factors (JIFs), their parent institutions received increased state funding—a result some policymakers and civil servants described in interviews as "unfair."

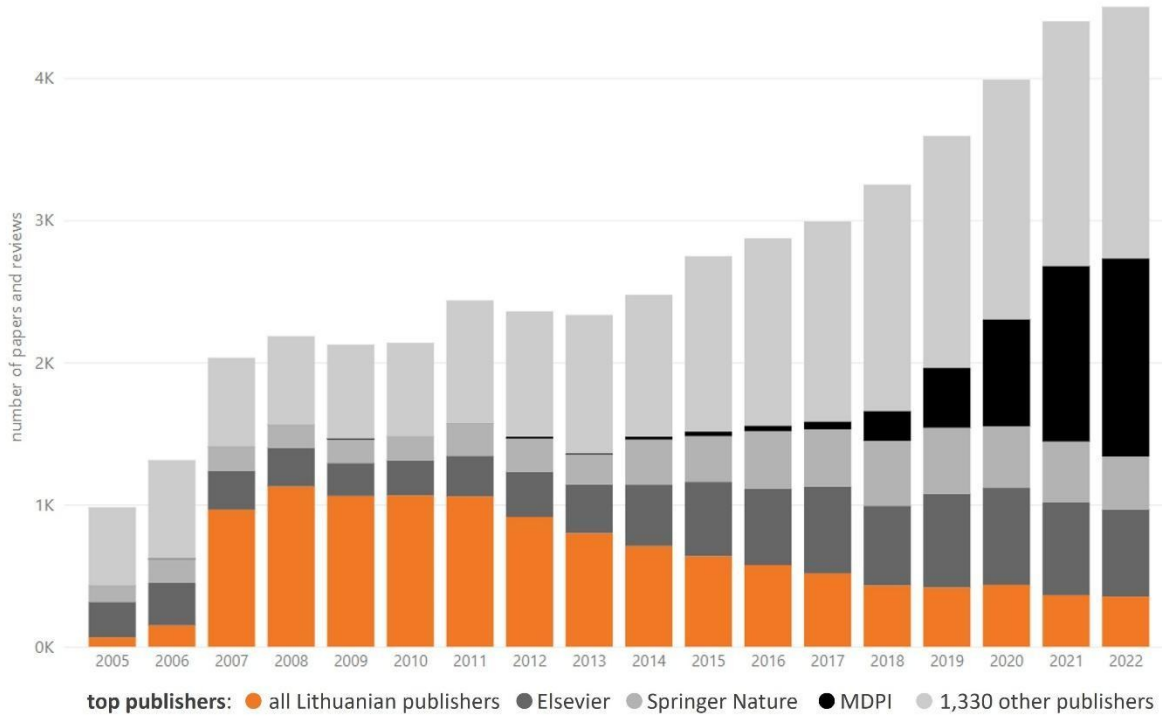

Figure 3. Top publishers of Lithuanian outputs, 2005–2022,
WoS (SCIE, SSCI, A&HCI, ESCI).

This development forced policymakers to reconsider their approach. To differentiate between high- and low-quality journals, they turned to more complex bibliometric thresholds. From 2010, the PBFS regulations required publications to be in journals with a JIF significantly above the average for their category and with a strong pattern of international citations (Dagienė & Sandström, 2015; Maskeliūnas et al., 2015). As most Lithuanian journals could not meet these stringent new criteria, this policy shift effectively disqualified publications in domestic journals from receiving state funding, signalling a clear mistrust of these outlets and a renewed desire to push Lithuanian researchers to publish abroad.

5.2. Escalation and counter-reaction: The "suspended journals" controversy

The unresolved tension between the state's internationalisation goals and the universities' strategic publishing practices soon escalated into a public confrontation, triggering a more drastic and controversial policy counter-reaction. As policymakers grappled with how to handle the proliferation of domestic journals, criticism from outside the formal system brought the issue to a head.

In 2011, the conflict erupted into public view when a series of critical opinion pieces were published in Lithuania's most popular mass media portal. Authored by a Lithuanian research fellow working abroad, the articles accused the country's largest universities of creating "self-contained publishing machines" (Lašas, 2011a, 2011b, 2011c). They detailed how institutional journals, often edited by university rectors and deans, were allegedly used to inflate publication and citation counts through self-citation and other questionable practices. Despite the universities admitting to some of the machinations and promising changes (Jackevičius, 2011), formal action from the government was not forthcoming, with one interviewed policymaker noting that "because of university autonomy, no one from outside could tell the university what to do". The issue continued to fester, with further articles in 2014 highlighting how these practices were damaging the credibility of Lithuanian science globally (Čeburnis, 2014) and advocacy from associations such as Futura Scientia amplifying the pressure for reform.

In response to this sustained public scrutiny and the failure of previous measures, policymakers introduced a powerful new instrument in the 2015 PBFS model: an annual list of "suspended" journals. Articles published in these journals—identified for having artificially inflated citation rates or low-quality metrics—were omitted from research assessment calculations, directly impacting institutional funding. This policy was applied to both domestic and international publications, but its implementation was fraught with inconsistencies. Our analysis reveals that many journals appeared on the list for only a single year, and that journals in higher-quality quartiles were sometimes suspended while those in lower ones were not (see Figure A2).

Ultimately, the policy's focus fell heavily on the domestic journal landscape. Of the 141 WoS-indexed journals that were suspended, 11 were Lithuanian; these accounted for two-thirds of all articles rejected under this policy between 2012 and 2019. Notably, nine of these domestic journals were linked to the universities at the centre of the 2011 publishing scandal, suggesting the policy was, at least in part, a direct response to the specific institutional behaviours that had attracted public condemnation (see Figure A3). A 2016 report from the Research Council confirmed this, identifying inflated citations and low JIFs as the primary reasons for suspension and highlighting that one of the implicated universities had the highest proportion of rejected papers (Pečiūra et al., 2016).

Although the suspended journal lists were discontinued in 2020, the mechanism remains in the latest regulations, leaving the door open for its potential return. This controversial policy episode, born from a public scandal, reveals the lengths to which policymakers were willing to go to steer the system, while its inconsistent application created a new layer of uncertainty for the institutions and researchers navigating the PBFS.

5.3. Adaptation and resilience: The enduring power of elites

The introduction of the "suspended journals" list did not resolve the underlying tensions but instead initiated a new conflict, revealing the resilience of institutional strategies and the enduring power of the scientific elites who guided them. Faced with this direct policy intervention, universities and individual researchers adapted in ways that demonstrated the limits of top-down policy control.

At the institutional level, the country's three largest universities felt the policy's impact most acutely (see Figure A4). Yet the response was not a wholesale abandonment of the targeted domestic journals. Because the suspension policy was inconsistently applied and seen by research administrators as a "lottery," institutions often continued to submit all papers for evaluation.

Furthermore, these institutional journals remained valuable assets, with senior scholars often retaining powerful gatekeeper roles as editors-in-chief.

At the individual level, researchers' responses were similarly strategic. For many, the risk of a paper being rejected for national funding was outweighed by the concrete career benefits of a WoS publication, which remained essential for promotions and doctoral defences. This created a disconnect where researchers had a strong incentive to continue publishing in these journals.

The most telling responses are seen in the behaviour of the most suspended researchers, who were almost all affiliated with the three largest universities. These cases reveal a spectrum of adaptation. The most prominent case from Univ3 involves two highly cited authors, one a former rector, who had 32 and 14 papers rejected, respectively. After facing media scrutiny, the former rector strategically resigned his editorial posts at three institutional journals but maintained influence as a founding editor, while shifting his new publications primarily to major international publishers such as MDPI (52 articles) and Elsevier (23). This illustrates how top-tier elites can adapt to maintain their status and productivity while navigating policy pressures.

At Univ2, a clear divergence appeared among the eight most suspended researchers. Six less productive authors in engineering continued to rely on the domestic journals to meet career requirements, with a recent shift towards MDPI. In contrast, two highly productive authors in computer science and engineering, after having their papers rejected, pivoted entirely to international venues, co-authoring over 100 papers with publishers such as MDPI, Springer Nature, and Elsevier. Finally, at Univ1, a highly productive researcher in economics with 10 rejected papers also shifted his focus, publishing 81 papers with MDPI and 74 with Elsevier after 2019, while maintaining his editorial position at a university journal.

These varied responses demonstrate that the "suspended journals" policy did not create a uniform shift in behaviour. Instead, it triggered a complex set of strategic adaptations, shaped by institutional inertia, individual career pressures, and the enduring influence of academic elites who proved adept at navigating, and often thriving within, the changing rules of the game.

6. Discussion and conclusions

6.1 Interpreting the dynamics

The narrative of the Lithuanian PBFS, from its ambitious inception to its contentious implementation, reveals a series of interconnected dynamics that are best understood through the lens of our multi-level, multi-actor, and multi-issue framework. The conflicts described in the preceding sections were not isolated events but rather symptoms of a system shaped by these three intersecting forces.

First, the story is a clear case of multi-issue interdependence. The policy conflicts did not arise independently but were part of a causal chain reaction. As our analysis shows, the state's initial goal of promoting internationalisation (the first issue) directly led to the strategic institutional response of domestic journal proliferation (the second issue). This "gaming" of the system, in turn, created a new problem of perceived low quality and unfairness, which forced a reactive policy countermeasure in the form of the "suspended journals" list (the third issue). The interdependence is crucial: each problem and its corresponding policy solution created the conditions for the next conflict, demonstrating how in a dynamic system, policy issues are rarely resolved in isolation.

Second, this interdependence was driven by multi-actor involvement, with one group playing a uniquely central role. While ministries, universities, and advocacy groups were all key players, the narrative consistently highlights the dominant influence of the "scientific elites." Their power was not confined to a single role; they operated across the entire policy landscape. They were the senior researchers and institutional leaders who benefited from the system's loopholes; they were the experts on the Research Council tasked with evaluating outputs; and they were often the political figures in government and parliament shaping the policies in the first place. The actions of others, such as the media and diaspora researchers, were significant primarily as catalysts that forced these dominant elites to react and adapt their strategies.

Finally, these dynamics unfolded across a system of multi-level governance where the boundaries between state, institution, and individual were exceptionally porous. The Lithuanian case is not a simple story of top-down state policy being met with bottom-up institutional resistance. Instead, it reveals how powerful individuals—the scientific elites—were able to exert influence vertically across all levels. They shaped institutional strategies from within the universities, influenced national policy through their positions on the Council and in government, and even challenged the state directly through the Constitutional Court. It is this fluid, multi-level influence that defines the "insular policy feedback" loop at the heart of our argument. The system was, in effect, being steered by the same small group of actors who were also its primary subjects, leading to a cycle of strategic gaming and reactive, often inconsistent, policymaking.

6.2. Contribution and implications

This study of the Lithuanian PBFS contributes to the broader literature on research evaluation by providing a detailed model of how such systems evolve within the specific context of a smaller post-Soviet nation. By demonstrating a dynamic of "insular policy feedback," our findings extend the scholarship on actor-driven policy change. While the influence of scientific elites is a known feature in all research systems, the Lithuanian case reveals how this power is amplified when a concentrated group of actors operates across all governance levels simultaneously—as policymakers, evaluators, and institutional leaders. This provides a crucial counterpoint to studies focused on larger systems and helps explain why countries with similar structural features often struggle to achieve their intended policy goals.

The implications of these findings are twofold. For policymakers, particularly in other lower-R&I-performance or transitioning countries, this study serves as a cautionary tale. It highlights the significant risks of implementing purely quantitative assessment systems without robust, independent oversight mechanisms. Our analysis suggests that when the actors being evaluated are also instrumental in shaping and implementing the rules, strategic gaming is not an unintended consequence but a predictable outcome. This underscores the need for genuine stakeholder diversity in governance bodies and points to the potential value of including international experts to dilute the influence of concentrated domestic elites.

For scholars of higher education and science policy, this paper offers a comprehensive qualitative case study that demonstrates the value of a multi-level, multi-actor, and multi-issue framework for untangling complex policy dynamics. Crucially, it shows how this structural framework becomes a powerful analytical tool when combined with the rich literature on the specific roles and influence of actors within public science systems. This synthesis allows us to reveal the

causal mechanisms that connect macro-level policies to the micro-level behaviours of individual researchers, providing an explanatory depth that bibliometric data alone cannot capture.

In conclusion, the evolution of the Lithuanian PBFS is a story of a research assessment system caught in a cycle of ambition, strategic response, and reactive policymaking. While the policy tools changed over time, the underlying power structures remained remarkably resilient. As the global academic community is forced to move towards a more holistic and responsible approach to research assessment, understanding these deep-seated local dynamics is essential. For any meaningful reform to succeed in contexts such as those explained in this paper, it must look beyond the changing metrics themselves and address the governance structures that design the new metrics and give them power.

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Data availability

This paper is based on three types of data: Lithuanian research assessment policies, interviews with Lithuanian policymakers and scholars, and WoS bibliometric data. The Lithuanian research assessment policies are freely available in the Register of Legal Acts managed by the Office of the Seimas of the Republic of Lithuania (see https://www.e-tar.lt/portal/en/index). We have promised respondents they will remain anonymous, so the interview data is unavailable. The WoS data is of a proprietary nature and therefore cannot be shared. Data access requires a WoS subscription.

Author contributions

Conceptualisation: ED, GD, LW, VL; Investigation: ED, GD, LW, VL; Supervision – GD, LW, VL; Visualisation – ED; Writing – original draft: ED; Writing – review & editing: GD, LW, VL.

Competing interests

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Appendix

Figure A1. Composition of interviewees and their roles in the Lithuanian research assessment landscape.

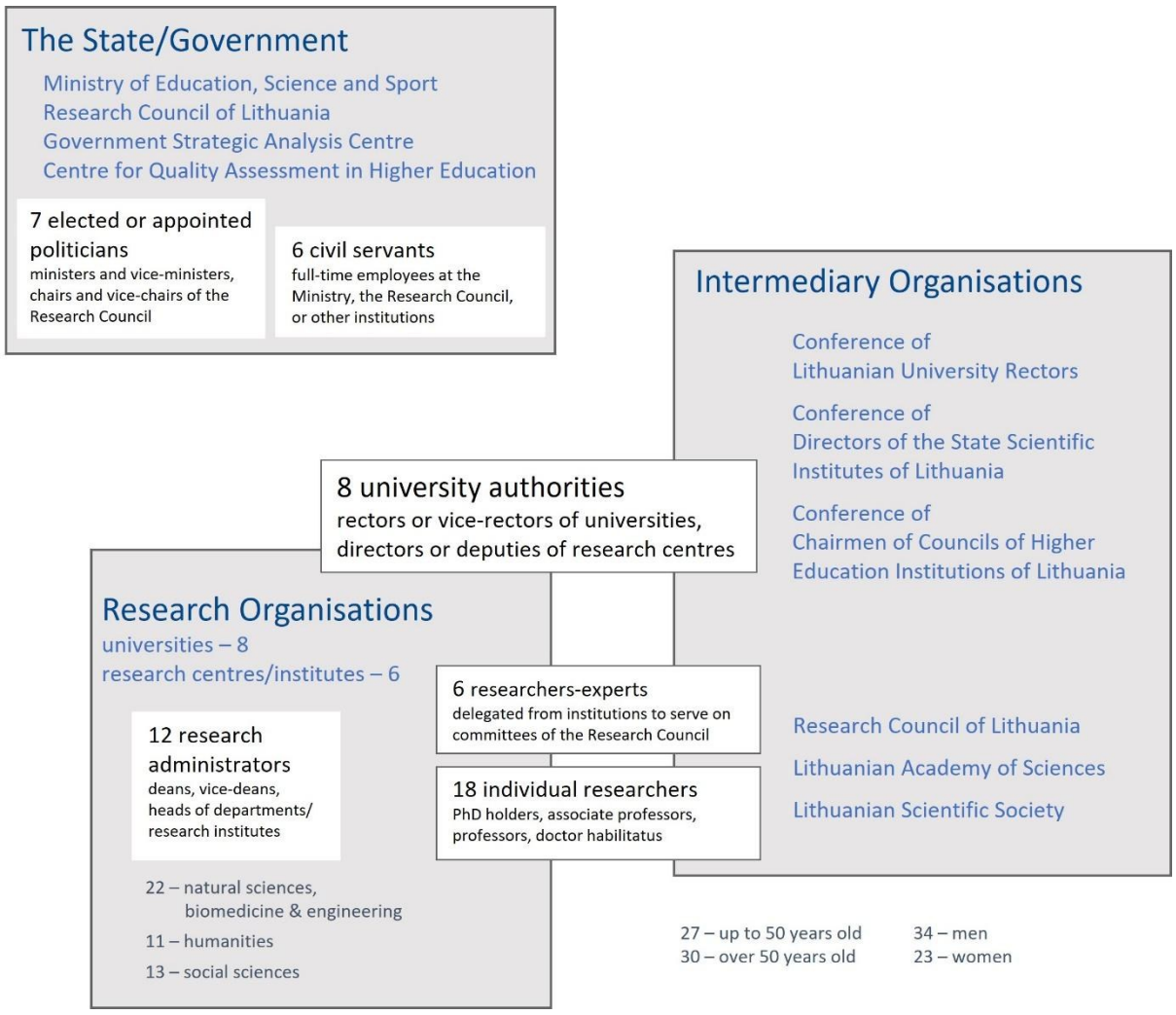

Figure A2. Foreign journals with four or more suspended Lithuanian articles (2012–2019). Red and green bars denote suspended and non-suspended volumes, respectively.

Figure A3. Lithuanian journals with the highest number of suspended Lithuanian articles (2012–2019). Red and green bars denote suspended and non-suspended volumes, respectively.

Figure A4. Number of suspended papers by journal publishers for institutions with the highest cumulative numbers of papers rejected by the research assessment policies (2012–2019).

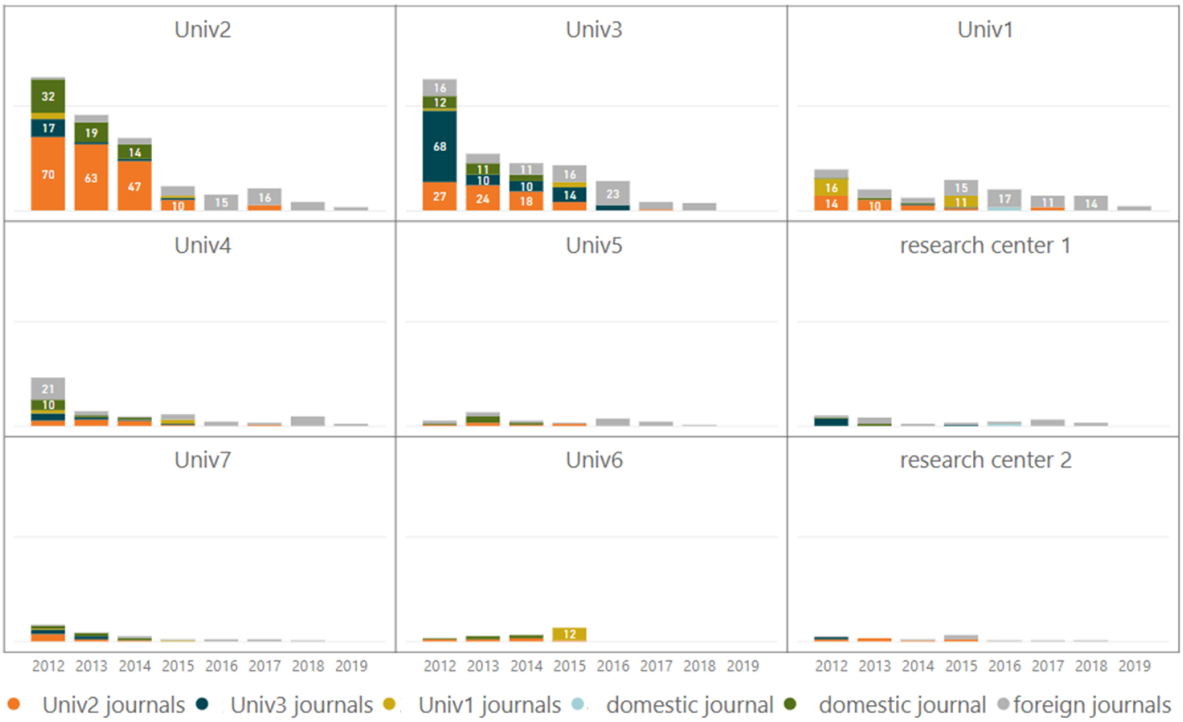

Figure A5. Institutions with the most papers in suspended journals (2012–2019). Articles in suspended volumes in red, those in non-suspended volumes in green.