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GLOBAL WARNINGS AND THE ROLE OF NATIONAL FILTERS IN SHAPING FORMAL GOVERNANCE OF UNIVERSITY PERFORMANCE

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Abstract

Purpose: The purpose of this article is to assess the continuing relevance of Olson *et al.*'s (1998) four primary concerns regarding the future development of New Public Financial Management (NPFM) in public service organizations. A particular focus is on understanding changes in the formal systems governing the performance management of universities across different “soft-NPFM” national contexts as well as the identification of successful strategies to mediate those four concerns.

Design/methodology/approach: Changes in the formal systems governing the performance management of universities in three European countries – Estonia, Finland and Norway – are reviewed in their historical contexts. Methodologically, this article is based on a content-driven analysis of documents, reports and scientific literature, supplemented by the collective memory of the co-authors.

Findings: “Warnings” have materialized quite differently in the three countries due to unique “national filters.” These filters are represented by different understandings of how universities are defined in terms of their governance and ownership, such as whether the universities are agents of the state or independent accounting entities with their own legal rights. These “national filters” seem to affect how NPFM is translated into the formal systems governing the performance management of universities.

Originality/value: This article contributes to the literature by examining how some countries and their governments manage to achieve “selective complementarity” of different reforms and trends. This complementarity helps to avoid the “dysfunctional effects” and “extremes” of NPFM.

In memory of Professor Toomas Haldma

Introduction

Since the 1980s, new public (financial) management (NPM/NPFM) reforms have changed public sector organizations. Olson *et al.* (1998) warned that NPFM would lead to dysfunctional effects, including in the development of public universities. They articulated four concerns: NPFM would lead to 1) the transformation from “discretionary responsibility” to “formal accountability,” 2) the rise of managerialism and the decline of democracy, 3) the extension of “the evaluatory trap,” and 4) the displacement of wider stakeholders by administration as actors forming a performance measurement and management system (PMMS). The purpose of the present article is to assess the continuing relevance of Olson *et al.*'s (1998) four primary concerns and to identify successful strategies to mediate those four concerns in public universities.

NPFM has transformed universities into mass delivery mechanisms for education and research (Martin-Sardesai and Guthrie, 2021) by encouraging the diffusion of business managerial techniques and styles to universities (Parker, 2002; Ter Bogt and Scapens, 2012; Heinicke and Günther, 2020). Significant attention has been given to studying the effects of NPM/NPFM on university management (Guthrie *et al.*, 2024) and documenting extreme changes for universities in Anglo-Saxon countries. Universities have lost their traditional values and become driven by neoliberal ideologies such as “corporatization” and “accountingization” (e.g., Martin-Sardesai *et al.*, 2020; Parker *et al.*, 2020).

However, there is also evidence of “softer” NPFM approaches to university development (Grossi *et al.*, 2021). Understanding the effects of NPFM on PMMSs in universities in national contexts other than Anglo-Saxon countries, however, has been given less attention. Most publications in top-ranked public administration and accounting journals are related to Anglo-Saxon contexts (Lapsley and Miller, 2019; Funck and Karlsson, 2020). There is a need to better understand the relationship between NPFM reforms and how they have affected those actors who are responsible for the design of PMMSs in different national contexts (Guthrie *et al.*, 2024). Otherwise, the system effects of NPFM on universities and public services will never be fully and adequately evaluated (Olson *et al.*, 2001; Pollitt, 1995), including factors that have influenced the development of softer NPFM, hence avoiding corporatization “extremes.” To better understand the systemic effects of NPFM in a softer context, countries that have similar but different contexts to Anglo-Saxon countries should be compared and examined in more depth (Olson *et al.*, 1999) and over time (Martin-Sardesai *et al.*, 2020).

The present study examines the effects of NPFM on changes in the formal national systems that govern the PMMSs of universities in countries with a softer NPFM context, as exemplified by one Baltic (Estonia) and two Nordic (Finland and Norway) countries. The formal national systems governing the PMMSs of universities can be defined as a combination of national governmental policies, strategies, institutional rules, and structures that together, over a given historical period, constitute a national framework that guides PMMS development and use at the university level. There is a need to better understand how these national frameworks are developed and interact with universities (Manes-Rossi *et al.*, 2022).

Baltic and Nordic countries differ from Anglo-Saxon countries in a number of national contextual factors (Lapuente and Van de Walle, 2020; Schnurbus and Edvardson, 2020; Mohr *et al.*, 2021). Their soft approach is characterized by the ability of their governments to balance the increasing need for accountability with trust in academia (Hansen *et al.*, 2019) as well as a high level of public trust in the government and its ability to govern higher education (Maassen and Steinsaker, 2022). Here, countries with a softer approach maintain this trust while simultaneously implementing NPM reforms, and formal control does not replace trust but coexists with it (Siverbo *et al.*, 2024). Thus, it is worth examining successful strategies that mediate warnings, avoid “dysfunctional effects,” and make the

managerial values of NPFM complementary with core public values (Lapiente and Van de Walle, 2020). This is termed “selective complementarity.”

Variations can also be expected between countries with a softer NPFM approach (Kivistö *et al.*, 2019; Grossi *et al.*, 2021). Therefore, it is important to pay attention to the societal and sociocultural contexts in PMMS adoption (Kallio *et al.*, 2015), or “national filters” (Schnurbus and Edvardson, 2020), which constitute national historical contexts of education and governmental policies.

The present article is driven by the following two research questions:

In terms of the NPFM warnings, how have changes in the formal systems governing the performance management of universities over the past two decades in countries with a softer NPFM context reflected the selective complementarity strategies?

What factors can explain the potential differences in the selective complementarity strategies related to the materialization of the NPFM warnings in softer contexts?

First, the current article presents a literature review concerning how the warning signs described by Olson *et al.* (1998) have materialized in the university sector. Then, the research design of the current study and its methods are presented. This is followed by a presentation of three case studies with a softer NPFM context: Estonia, Finland, and Norway. The article ends with the discussion and conclusion sections, which articulate the contributions to the literature.

NPFM “warning signs” reinterpreted: The effects of NPFM on the university sector’s PMMSs

Olson *et al.* (1998) warned that NPFM would bring about four dysfunctional changes related to the use of PMMSs in public sector organizations, including public universities. The literature review, summarized in Table 1, incorporates studies published after 1998, documenting the effects of NPFM on PMMSs at universities in related areas of concern.

INSERT TABLE 1 ABOUT HERE

Concern 1: From discretionary responsibility to formal accountability

Olson *et al.* (1998) indicated that NPFM was expected to lead to a transformation from discretionary responsibility to formal accountability. The more extensive use of performance measurements would lead to an increase in formal accountability and the need to talk more about the justifications of actions performed in the past, displacing the discretionary responsibility of actors in the public sector for their current actions based on the instrumental, professional, and moral knowledge they have (Olson *et al.*, 1998, p. 446).

Despite the traditions of academic freedom in universities, managerialism, external audits, and the measurement of research and teaching performance have become common in the university sector. The “responsibility” of academics for education and research activities, grounded in instrumental knowledge, moral obligations, adherence to ethical codes, and accountability to peers, was replaced by “formal accountability,” which focuses more on compliance, here with the formal obligations required by relationships with other parties (Olson *et al.*, 1998). Formal accountability can lead to increased pressure for academics to give, explain, and justify accounts of past actions.

Studies have documented the influence of NPFM on the reduction of discretionary responsibility and the rise of formal accountability, especially in the context of Anglo-Saxon countries. The commodification of education has helped with the economic growth of governments, especially where public universities have become corporatized organizations with commercial agendas, leading to university “accountingization” (Parker *et al.*, 2023). Corporatization has replaced a collegial

governance system with a system that satisfies external demands, here guided by the development of the PMMS for formal accountability (Kure *et al.*, 2021). NPFM has led to the replacement of the traditional discretionary responsibility of academics based on a culture of academic freedom, collegiality, and responsibility to peers (Argento *et al.*, 2020) with managerial accountability, in which autonomy and tasks are delegated to universities, which are held accountable for using resources and being answerable to a set of performance criteria (Melo *et al.*, 2010). NPFM has changed the very ethos of being academic and doing academic work (Kallio *et al.*, 2016). As a result, academics today face conflicting work conditions because of competition between academic and managerial logics (Reay and Hinings, 2009). These logics can coexist peacefully or with tensions (Grossi *et al.*, 2020).

Some scholars have argued that instead of talking about the displacement of academic responsibility, it might be wiser to discuss the NPFM-guided shift from the internal to external accountability of public institutions (Mulgan, 2002). There is a tension between the professional accountability of universities, which is based on a high degree of autonomy through following internal norms and values, and the increased political accountability, which is formed by changes in the political expectations of universities, here in close association with their legal/financial accountability (Kivistö *et al.*, 2019).

Concern 2: The rise of managerialism and the decline of democracy

NPFM was expected to lead to an increase in managerialism and a decline in democracy (Olson *et al.*, 1998). This implies an increase in the scope of administration and the number of accountants and management consultants, with clear consequences for PMMSs. Because NPFM systems never eliminate uncertainty and the exercise of judgment, an increased focus on managerialism would hide the uncertainty behind an increasing number of performance measurements. Thus, “the public sector reform is driven by a faith in (NPFM) techniques rather than explicit democratic aspirations” (Olson *et al.*, 1998, p. 454).

The literature suggests that managerialism’s reliance on NPFM is related to its vague reform intentions. For example, should the PMMS focus on economizing or marketizing, hence improving either internal efficiency (productivity) or external efficiency (“customer” satisfaction) (Funck and Karlsson, 2020, p. 366)? Olson *et al.* (1998) claimed that the intentions of the NPFM reforms should have been the subject of democratic discussions about what efficiency actually means to all the actors involved. Since what is considered efficient can vary across services and national contexts, it is difficult to design effective once-and-for-all PMMSs that can measure the outcomes of NPFM (Funck and Karlsson, 2020).

On the other hand, managerialism in the public sector has led to the introduction of PMMSs failing to adequately consider the complex social and political processes of public organizations’ operations. Modell (2006) noted that practical issues in measuring outcomes have limited the available metrics to narrow economic and other efficiency indicators. According to Modell (2003), an insufficient link between objectives and outcome indicators hinders the effectiveness of a performance management system. For this reason, the performance-oriented system in public organizations has been criticized as naive (Modell, 2003).

The progression of universities from collegial to corporate entities has made them increasingly dominated by managerialism (Lapsley and Miller, 2019). Uncertainty has been created about which key performance indicators (KPIs) to use to measure university performance. Kure *et al.* (2021) suggested that what is measured in different university-related contracts is often unclear and that PMMSs may fail to integrate what is actually happening, leading to so-called pseudorealism and the illusion of control. Therefore, it is not surprising that universities’ PMMSs can create anxiety and uncertainty with regard to how they should be used (Ter Bogt and Scapens, 2012). The negative consequences of managerialized performance measurement may inhibit creativity in teaching, limit contributions to the world outside higher educational institutions, and damage innovation and creativity in research (Broadbent and Guthrie, 2008; Ter Bogt and Scapens, 2012; Clarke and Knights, 2015).

Despite clear indications of the effects managerialism can have in universities, variations can be expected in different contexts. For example, in different countries, political–administrative regimes are important in how NPFM is translated into policies and into the PMMS (Funck and Karlsson, 2020). The level of NPFM adoption varies because of the different political–administrative traditions in different countries (Mohr *et al.*, 2020).

Concern 3: Extending “the evaluatory trap”

According to Olson *et al.* (1998), NPFM can lead to the so-called evaluatory trap. Because no KPIs are perfect, imperfections in the PMMS can lead to its scope growing and expanding through the addition of new KPIs. As a result, there will be a demand for better (and more sophisticated) PMMSs. Olson *et al.* (1998) warned of a risk that public servants would be “transferred into pseudo book-keepers” (p. 455) and that an evaluation in and of itself could become more important than performing professional activities.

The direct consequences of this include increases in the indirect costs (better termed “administrative and control costs”) of producing public services at the expense of direct public service-related costs (Olson *et al.*, 2001). Thus, NPFM can lead to a reduced quality of services. Hood and Dixon (2016) reported that over a period of several decades, administrative costs had increased in the UK, whereas the quality of public sector services had decreased. They concluded that “government broadly worked a bit worse... and cost a bit more,” indicating a dramatic evaluatory trap as a divergence between the realities of NPFM and its rhetoric (Hood and Dixon, 2015, p. 266).

In the university sector, only a few studies have examined this evaluatory trap. Olson and Humphrey (2019) studied the annual reports of six Swedish universities and estimated that the level of indirect costs was approximately 60% of the total costs. Some studies have indicated that the size of the so-called technostucture has increased because of PMMSs leading to increased administrative costs, for example, a shift in the ratio between academic and administrative staff (Kristensen *et al.*, 2011) and changes in coordination mechanisms toward more extensive use of direct supervision and the standardization of outputs replacing self-steering based on trust (Kallio *et al.*, 2020). Other studies have also indirectly focused on the evaluatory trap by examining how NPFM has affected universities’ service quality. For example, Lapuente and Van de Walle (2020) argued that NPFM provides incentives to reduce the quality of university services in the name of improved efficiency because of the competition introduced between universities for external funding. Martin-Sardesai *et al.* (2020) reported that the introduction of an administrative PMMS at a university can increase discontent among academics and indicated that a commercially driven PMMS can reduce the quality of teaching and research. Thus, extreme quantification in university settings may be introduced at the expense of quality (Argento *et al.*, 2020).

Concern 4: PMMS for whom?

Olson *et al.* (1998) warned that the development of performance management systems should be considered from the perspective of PMMS for whom? NPFM promotes PMMSs that are useful for managers and accountants (Olson *et al.*, 1998, p. 459). When democratic governance is strengthened, KPIs should be useful for the decision making of a wide range of public sector stakeholders, such as politicians, service recipients, and providers.

The literature has demonstrated that university corporatization moves universities away from being considered a public good, and the role of different societal stakeholders and visions of universities to contribute to a better society are downplayed (Parker *et al.*, 2023). Thus, the development of PMMSs is not necessarily driven by different stakeholders but by increased administrative ambition from the university systems themselves (Manes-Rossi *et al.*, 2022). There have been increasing calls for universities to follow the “public value” model (Broucker *et al.*, 2018; Argento *et al.*, 2020). Schnurbus and Edvardson (2020) emphasized the importance of understanding the third mission of universities:

knowledge and technology transfer to wider society, including regional development. In the NPFM world, this mission is not sufficiently addressed by universities' PMMSs (Schnurbus and Edvardson, 2020), and there is a clear lack of appropriate measurements (Melo *et al.*, 2010).

Summary

The four concerns that Olson *et al.* (1998) warned about have materialized, and many studies have demonstrated the “extreme” effects of NPFM in developing universities' PMMSs, especially in Anglo-Saxon contexts (e.g., Lapsley and Miller, 2019; Martin-Sardesai *et al.*, 2020; Parker *et al.*, 2020). Evidence of these extremes includes corporatization, broken collegiality, asymmetric effects on professions, accountingization, and so forth. Clearly, these developments are related to the considerable transformation of universities into corporations and the resulting lost opportunities to serve society and engage a wide range of stakeholders (Guthrie *et al.*, 2024).

Previous studies have also demonstrated that in some national contexts, these concerns have not fully materialized, evidencing a sort of softer NPFM (Funck and Karlsson, 2019; Kivistö *et al.*, 2019; Lapuente and Van de Walle, 2020; Schnurbus and Edvardson, 2020; Grossi *et al.*, 2021; Mohr *et al.*, 2021). In Nordic countries, the ideology of the welfare state, which coordinates the development of national higher education systems, free access to education, and equal opportunities for all, has clearly affected how PMMSs for universities are developed (Kivistö *et al.*, 2019; Grossi *et al.*, 2021), and central governmental institutions can play a different and central role.

Based on the literature review above, it is worth examining further how NPFM-inspired changes in the formal systems governing the performance management of universities are aligned with corresponding national contexts as “national filters” (Gornitzka and Maasen, 2011; Schnurbus and Edvardson, 2020). National filters are defined as “the global university reforms... adapted under specific national government structure with different research policies and excellence initiatives [and] educational structures” (Schnurbus and Edvardson, 2020, p. 239). Countries with similar ideologies of the welfare state can still have different interpretations of NPFM. It is worth studying how educational and governmental policies in these countries have mediated a softer materialization of NPFM, resulting in selective complementarity strategies and avoiding extreme university corporatization.

Methodology and data collection

Changes in the formal systems governing the performance management of universities can be analyzed on two levels (Ter Bogt and Scapens, 2012; Vernau, 2014): PMMSs for universities and PMMSs within the universities. To compare and analyze how national filters in different countries have affected the development of PMMSs, the present article focuses on the formal systems governing the performance management of universities at the national (ministerial) level.

Accordingly, the current article reviews developments in three European countries – Estonia, Finland, and Norway – in their historical context. Nordic and Baltic countries are under-researched with regard to NPM/NPFM processes and their effects on public organizations, including universities (Lapsley and Miller, 2019; Funck and Karlsson, 2020). These countries are different from Anglo-Saxon countries and demonstrate softer NPM. Nordic countries represent “the next super model” that other states can learn from (The Economist, 2013; Lapuente and Van de Walle, 2020), where old traditions and new trends are blended and translated by governments to avoid extremes.

Comparative study means examining the formal systems governing the performance management of universities in country-specific contexts with unique historical differences. Even though the public sectors in Baltic and Nordic countries have been affected by global NPM/NPFM ideas, the university sectors in these countries have retained their country-context specifics (Hilmer Pedersen and Johannsen, 2018; Poutanen *et al.*, 2023). Therefore, a retrospective historical analysis is important to

better understand how the context of the country interacts with NPFM, inspires education policy, changes national regulation, and alters the design of PMMSs for universities.

The present article is coauthored by researchers with extensive knowledge of the historical developments and national contexts of their respective countries. They have not only conducted previous research on education policies and PMMSs at universities but are also university employees who have witnessed the development of NPFM in their countries. Methodologically, a content-driven analysis of documents, reports, and scientific literature was performed, guided by the analytical framework of Olson *et al.* (1998) and framed by several empirical questions (see Appendix 1) that guided data collection and reflections for each country. These questions were motivated by the four concerns but were formulated in a more general way to explore a wider national context.

The authors employed memory work as a supplementary methodological approach. Memory work focuses on individual written memories and collective analysis and theorizing, reflecting on actors' own engagement in the field. The coauthors individually and jointly address the past and present of PMMSs in universities as both researchers and university employees, fostering a better understanding of the similarities and differences between the contexts. Memory work employs structured processes for collecting and analyzing evidence (see, e.g., Johnson *et al.*, 2018; Katila *et al.*, 2020). In the current study, the process consisted of three phases: 1) reflections by individual researchers, 2) collective reflections in digital meetings, and 3) synthesis. The individual stories related to education policies and their impacts on PMMSs were articulated, including reflections on being employed by a university. These memories were brought together for further analysis and theorizing during coauthor meetings (eight meetings over a period of more than one year). Two topics emerged from discussions of individual perceptions related to PMMS design in the three countries: 1) governance and 2) the ownership structures of the universities. This helped develop the individual narratives into generative narratives.

Developments in the formal systems governing the performance management of universities in three European countries (1998–2022)

This section presents the development of the formal systems governing performance management in universities in the three countries under study, including major events occurring at both the governmental level and the level of higher education policies.

The case of Finland

Figure 1 shows a summary of major changes in Finnish higher education and government policies.

INSERT FIGURE 1 ABOUT HERE

All 13 universities in Finland are publicly administered and operated under the Ministry of Education and Culture. In budgetary negotiations between the Ministry and each university, the objectives (as measurable outputs) and consequential amounts of financing for each university are determined. In addition to setting precise goals, such as targeted degree completion, universities are required to report their performance annually through statistical reports. Although the Ministry has executed MBR in a structured manner, its adoption within the internal management strategies of universities is left to each institution's discretion (see, e.g., Salminen, 2003; Kuoppala, 2005; Kallio *et al.*, 2017).

Between 1995 and 2013, Finland's higher education system underwent numerous reforms, but the most important changes in the sector took effect in 2010, with the renewal of the University Act and

the university funding scheme as well as several university mergers. Thus, university reforms in Finland, including significant mergers, were driven by a top-down approach, with government and ministry bodies employing forceful strategies while largely sidelining the academic community from the reform development process.

Prior to the new Universities Act, university management was selected through a bottom-up approach involving representatives from professors, staff, and students. The current Universities Act (2010) has shifted to a top-down selection process for formal managers, granting them greater autonomy and converting the councils they preside over into advisory boards rather than democratic decision-making organs (Kallio *et al.*, 2020). Furthermore, the University Act of 2010 gave universities a new status as independent legal entities: the universities gained ownership of their properties, employees shifted from civil servant status to contract-based employment, and governance structures were modernized to include external board members and consolidate decision-making authority, with the power concentrated in the hands of formal managers (rectors, deans, and heads of departments) (Niinikoski *et al.*, 2012; Kallio *et al.*, 2020).

Although the purpose of the Universities Act was to detach universities from state organizations, they have nevertheless remained under public rule. The state retains its role as an institutional gatekeeper, overseeing the establishment, abolition, and merging of universities (Aarrevaara, 2010; Piironen, 2013). The Ministry retains the authority to define the educational responsibilities of universities and to steer the broader development of the university system (Kallio and Kallio, 2014; Kallio *et al.*, 2020; 2016; Järvenpää *et al.*, 2021).

The current formal system governing the performance management of Finnish universities is based not only on the recognition of wide autonomy regarding academic issues guaranteed by the Finnish Constitution but also on continuous and active interaction with the Ministry. The Ministry devises the policy outlines, prepares the regulations, and allocates state funding. Although state funds are formally intended to support both education and research at universities, research funding increasingly relies on supplementary sources. As a result, the formal systems governing the performance management of universities motivate universities to compete for this external funding. Notably, the ability to secure such competitive research funding is factored into the state's funding model, serving as an integral component of the overall governance mechanism (Piironen, 2013; Pekkola and Kivistö, 2019a, 2019b).

Finnish universities follow detailed outcome targets at the university level, thus having no actual leeway in choosing what objectives they wish to pursue. Universities are now competing with each other for both public and private funding (Kallio *et al.*, 2021). The funding reforms of 1998 and 2010 were critical, fundamentally altering the prior logic, in which only a nominal portion of state funding was performance based. The 1998 reform flipped this concept, making performance the primary basis for funding. The quantitatively oriented funding scheme was revised in both 2001 and 2007, and then completely renewed in 2010. Detailed performance criteria and a ranking system were introduced to the Finnish universities' funding system, with quantification and excellence criteria at its core. The formal systems governing the performance management of universities rely heavily on increasingly nuanced quantitative measurements (University act and Kallio, 2014; Kallio *et al.*, 2016, 2020, 2022). The emphasis on output has become increasingly important, and the control mechanism in the system is based on outcomes and ex post monitoring, in contrast to the previous ex ante planning model (Välimaa, 2012).

The current formal system governing the performance management of Finnish universities ranks universities in three categories: 1) the objectives of education and science policy, which are decided directly by the Ministry; 2) education; and 3) research indicators, which are determined by the ability

of the individual universities to succeed with the indicators (Ministry of Education and Culture, Finland, 2023). The formal systems incentivize universities to increase degree completion and expedite student graduation (Ylijoki and Ursin, 2013). In research funding, there is an emphasis on publishing in prestigious international journals. According to Kallunki *et al.* (2019), the allocation of basic funding in Finland can be considered the most performance driven among EU countries.

The principles of the new formal systems governing the performance management of universities were initially intended to operate solely at the ministerial level. Nonetheless, these principles have permeated university internal governance, moving away from trust-based self-regulation to a system characterized by direct oversight, standardized outputs, and financial rewards tied to performance (Owal Group, 2016; Kallio *et al.*, 2020). The coordination mechanisms based on output and performance have somewhat replaced self-steering (Kallio *et al.*, 2020). Thus, economic efficiency and productivity have become universities' core coordinating principles (Owal Group, 2016).

The design of the formal systems governing the performance management of universities does not require Finnish universities to be internationally accredited. However, evidence suggests that most Finnish universities are engaged in international accreditation, especially business schools. In Finland, all business schools except one are now accredited or in the process of becoming internationally accredited.

The case of Norway

Figure 2 shows the most important changes in Norwegian regulation.

INSERT FIGURE 2 ABOUT HERE

The first joint act for all higher and public education institutions was passed in 1994. An explicit formal system governing the performance management of educational institutions was introduced in 1990 and was gradually included in the funding system by 2003. The number of educational institutions was reduced to approximately 20 in the years that followed, as many mergers took place (Ministry of Education, 2015; Skauge, 2018). Similarly, developments in Norwegian higher education institutions (HEIs) have been driven by management models in which efficiency and quality in the management and operation of HEIs are achieved through targeted management (Bleiklie *et al.*, 2017b).

In 2003/2005 the so-called quality reform was implemented (Ministry of Education, 2001), inspired by the "Bologna process." It introduced bachelor's, master's, and PhD degrees, as well as the Norwegian National Agency for Higher Education (NOKUT; a formal national accreditation system), the standardization of reports, and new evaluation strategies. There was clear evidence of managerial practices derived from NPM logics (Bleiklie *et al.*, 2017a). In the quality reform, student throughput also became a criterion for study quality (Bleiklie *et al.*, 2017a). In particular, the concept of students' learning outcomes and how they were turned into practice at the national level was the subject of national standardization for programs at all levels (Pettersen, 2015). The formal systems governing the performance management of universities also include a system of ranked scientific publications.

Before 2001, the number of students was the most important element in the formal systems governing the performance management of universities. Introducing changes in the formal systems implied a focus moving away from input factors and toward performance-based indicators. Furthermore, a split was introduced in allocations to research and teaching. The Ministry's aim was to connect performance with budget allocation in the formal systems of governing universities. Furthermore, emphasis was

placed on the system to promote universities' and colleges' abilities to adapt to students' choices of study and society's need for competence (Ministry of Education, 2001; Norwegian Government, 2008).

During this period, a new element in the formal system was implemented through the use of net budgeting. New performance measures were introduced in 2001 and developed gradually along with changes in management structures. The boards of the institutions were now led by an external leader "elected" by the government, with the majority of their members coming from outside the university sector. The formal system started to focus mostly on ex ante control but was also characterized by dialogue between the government and institutions – the so-called development dialogues (Ministry of Education, 2000).

By 2009/2012, all Norwegian higher education institutions had their quality assurance systems evaluated by NOKUT (Ministry of Education, 2015) based on professional judgments. Since the beginning of the first formal quality assurance initiatives, there has been a shift in focus from process (and program) evaluation to outcome evaluation. The Norwegian quality assurance system is based on indirect quality measures, which are process measures. With the Norwegian model developing into a program type, it has focused on the operational approach to quality assurance, in which professionals actively participate as members of the evaluation committees. These can be characterized as *discursive processes*. However, quality assurance systems are decoupled from internal managerial purposes at the unit level because of their aggregated numbers and evaluations.

Further changes were made to the system, including making the funding of HEIs 70% frame budgeting and 30% performance based. Thus, university sector reforms in Norway have gradually resulted in stronger managerial structures and controls as well as stronger and more detailed regulations from state agencies. Internal governance structures have been centralized into groups of managers at all levels, with delegated authority and accountabilities (Hovdhaugen and Aamodt, 2022).

Over the years, the Norwegian system has become partly contingent on universities' performance in teaching and research, for example, as per-case/pay-for-performance payment systems. In particular, later developments were based mainly on historic costs per number of admitted students and differentiated according to categories (e.g., medicine, social sciences). Performance measures are mostly linked to what can be measured and compared between institutions, such as the "number of course points completed by students" and KPIs related to the diversity of research projects with external financing (Norwegian Research Council, EU Horizon, etc.) (Ministry of Education, 2015).

Over time, the number of qualitative measures and reports gradually decreased. From 2016 onward, all the performance indicators were mostly quantitative and expressed in numbers. As a result, decisions based on performance measures under these circumstances have direct financial effects, and funding pressure contributes to the effects of performance management within this sector.

The new formal system governing the performance management of universities implies that performance management principles mainly regulate the relationship between the Ministry and universities. The numbers included in the national statistics indicate increases in the number of students, number of publications, and number of applicants each year. This indicates that productivity has increased, whereas outcome qualities beyond these numbers remain unreported/unmeasured, especially for indicators that could have been of interest to other stakeholders. The most recent changes in the formal system can be observed in the Norwegian National Budget 2024, where the number of indicators has been reduced, and especially here, the publication indices are no longer included in the funding metrics (Norway's National Budget, 2024).

Much like in Finland, the design of the formal system governing performance management does not require Norwegian universities to be internationally accredited. However, interest in international accreditation is increasing, with only a few business schools internationally accredited.

The case of Estonia

Figure 3 shows the most important changes in Estonia.

INSERT FIGURE 3 ABOUT HERE

According to the Higher Education Act of Estonia, particular university acts (1995), and other legislation, Estonian public universities (six of them) are autonomous legal entities in public law. The universities are the owners of their assets and have the right to possess, use, and dispose of their assets pursuant to the procedure prescribed by the regulatory acts and statutes of the universities, ensuring their purposeful, expedient, economic, and prudent use. A university must compile a development plan (typically for five years), an annual budget, and an annual report. The formal system governing the performance management of Estonian universities is influenced by the following regulations: the Estonian Act on Accounting (1995); the Governmental Decree on the Types of Strategic Development Plans and System to Their Compilation, Implementation, Evaluation, and Reporting (2005); and the governance (for three years) and performance (for one year) agreements between the universities and the Ministry of Education and Research.

According to the Act on Accounting (first enacted in 1995), each university is required to prepare an annual report consisting of annual accounts and a management report. The management report of an Estonian university should disclose the following topics:

- Overview of the university as an organization
- Overview of the operating area and operating environment
- Overview of the main activity areas (teaching, research, service to society) and their directions of development and impact on financial position and performance
- Overview of investments
- Significant events that have a material effect on economic performance for the following financial years
- Significant research and development projects and related future expenditures
- The main financial ratios of the financial year and the preceding financial year, along with the methods used for calculating the ratios

As a result, the formal system governing Estonian universities' performance management requires that management reports include a meaningful analysis of the current state of the organization (university), its operating environment, and its development plans. It also highlights the different legal aspects linking an organization's financial performance and risk hedging. Thus, the management report is expected to describe the various activities associated with the overall financial perspective and position of a university.

In 2005, the Decree on the Types of Strategic Development Plans and Systems for their Compilation, Implementation, Evaluation, and Reporting was adopted. The Decree requires the compilation of a report on the achievement of objectives and the effectiveness of actions regarding the implementation of the strategic development plan. This step contributed to the design of a closed-loop continuous performance management cycle for Estonian universities.

The changing requirements in Estonian universities can be seen as an attempt to increase the volume of information disclosure in annual reports. For example, during the financial crisis of 2008–2011, the formal system governing performance management changed substantially. In 2009, the university research funding scheme was updated; in funding allocation, greater emphasis was placed on quantification and excellence criteria (high-level publications, citations, external research funding volume, etc.). Since 2013, financing for university teaching activities has turned more toward a performance orientation based on three-year governance agreements, which are split into annual performance agreements. The performance agreement places an obligation on the university to objectively evaluate educational activities to ensure their sustainability and effectiveness. The latter is influenced by the university's performance measurement systems. Previously, financing was based mainly on the number of students.

Since 2013, the formal system governing the performance management of universities in Estonia has required changes in governance and organizational structure. The highest governance institution (typically the council) should also include external members to have better links with society and stakeholders. The university's performance should be discussed by the highest governance institutions (the council and senate) of each university. They should establish the strategic development plan, annual budget, and annual report of the university to approve the statutes adopted by the academic institutions (the senate) and perform other functions provided for in the university statutes. The highest governance institutions' tasks and roles also influence academic democracy principles at universities, for example, how the universities' formal managers are elected or selected. The majority of Estonian universities still elect university managers via a bottom-up principle involving a large scope of the electoral college: professors, other personnel, student representatives, and others. Thus, the formal system governing the performance management of universities recognizes academic democracy. The system requires the starting point for the PMMS of each university to be the university's development plan (compiled for five years), which includes a detailed list of KPIs (for more details, see Appendix 2). The KPIs are updated every five years when the new development plan is compiled. The management report of the university's annual report should also provide a monitoring overview of the fulfillment results of the annual strategic KPI targets.

In addition, the universities are required to provide financial performance information, including 44 different absolute value indicators and 40 financial ratios for their financial, teaching, and research activities. According to Haldma *et al.* (2016, p. 115), a number of Estonian universities' financial officers recognized that the Act of Accounting's requirement to present the most important financial ratios within the management report as part of the formal system governing their performance management has positively impacted both the presentation of the financial ratios and the regular analysis and monitoring of the universities' financial statements.

The system also requires research and teaching KPIs to depict quality. This means that universities must compete with each other for both public and private funding. Moreover, the system motivates universities to have a balanced approach toward the interests of major university stakeholders and to include corresponding strategic KPIs in their performance measurement and management systems.

As in Finland and Norway, the design of the formal system governing performance management does not require Estonian universities to be internationally accredited. Only one business school is currently seeking to apply for international accreditation.

Discussion

Soft NPFM but difference due to national filters

Table 2 summarizes the formal systems governing the performance management of universities in Estonia, Finland, and Norway, based on the four areas of concern from Olson *et al.* (1998). Both similarities and differences can be observed, and successful selective complementarity strategies are identified.

INSERT TABLE 2 ABOUT HERE

Table 2 shows the similarities between the countries in terms of evidence of a softer NPFM (Funck and Karlsson, 2019; Kivistö *et al.*, 2019; Lapuente and Van de Walle, 2020; Schnurbus and Edvardson, 2020; Grossi *et al.*, 2021; Mohr *et al.*, 2021) compared with what is known about the corporatization and accountingization of universities in Anglo-Saxon contexts (Lapsley and Miller, 2019; Martin-Sardesai *et al.*, 2020; Parker *et al.*, 2020). The central government and ministers are still important actors that control how NPFM is translated into the formal systems governing the performance management of universities based on national education policies and university sector regulations.

Table 2 also demonstrates considerable differences between the countries as the designs of the formal systems governing the performance management of universities differ within the four areas of concern. The levels of governmental involvement may also differ across all three countries, demonstrating that governmental policies are important in the regulation of university sectors.

First, when it comes to the shift from discretionary responsibility to formal accountability, Estonia has more developed discretionary responsibility since the universities' roles as independent societal actors are defined by accounting law. In Norway and Finland, this shift makes universities formally accountable for achieving different sets of KPIs. The clear challenge is that formal systems favor KPIs mostly based on the measurement of outputs that can be linked to pay-for-performance funding from the central government. In terms of selective complementarity strategies, these cases demonstrate that formal controls have never fully replaced trust in academia and are selectively balanced, albeit to different degrees, affecting levels of discretionary responsibility (high in Estonia, moderate in Norway, and low in Finland).

Second, with respect to the rise of managerialism, academic freedom has been under pressure from managerial structures in universities around the world (Argento *et al.*, 2020; Grossi *et al.*, 2019). In Finland, this seems to lead to a tendency toward more extensive managerialism than in Norway and Estonia. In terms of selective complementarity strategies, these cases show that imperfection of output measures is complemented with transparency of KPIs and their stability over time, allowing discussion at the university level (Estonia) or between universities and authorities (Finland/Norway).

Third, the evaluatory trap is assessed indirectly, focusing on how the quality of university services is defined and measured by the formal systems. In the Estonian framework, universities can define quality aspects of performance, but there are no such KPIs in Finland and Norway. Therefore, output-based performance is supplemented with qualitative evaluation in relation to national accreditation bodies or peer reviews as a part of the formal systems. Selective complementarity strategies are directed toward recognizing that the assessment of quality needs discursive processes involving academia.

Finally, the formal systems are mostly being developed using KPIs created by administrations in central ministries. These top-down strategies are more or less decoupled from discussions within academic areas, especially in Norway and Finland. In Estonia, there is more focus on reporting to a wider set of stakeholders, perhaps indicating the promotion of wider assessment by potential users.

The differences in focus on measuring output-based KPIs may explain why universities, to different degrees, are engaged in international accreditation. It may be that excessive attention to the outputs

displaces the focus on the impacts that universities make in wider society. International accreditation is fashionable in Finland and an emerging trend in Norway, but not in Estonia. Thus, having international accreditation compensates for the lack of focus within the formal system regarding legitimacy to other stakeholders and the wider community, counteracting the narrower “owner” focus on outputs.

Performance in the international accreditation context is often labeled “impact” and has traditionally been interpreted as published articles and accepted patents/licenses. However, as a reaction to the growing criticism regarding the ethical and moral standing of business schools in particular, societal impact is now emphasized through the “positive impact rating” (PIR). This is a way for business schools and universities to measure, report, and improve their societal impact and the so-called third mission. Recent studies (Schnurbus and Edvardsson, 2020; de Villers *et al.*, 2024) have revealed differences not only in how universities interpret and act on the third mission objective but also in how national university systems do so.

This highlights the important observation that in the three countries examined, the formal systems do not focus on the assessment of impacts. This is surprising as it is becoming increasingly important in evaluating university performance in the Anglo-Saxon context. Power (2015) showed that substantial problems in measuring research impact lead to a high level of formalization and centralization of the assessment process, leading to “research selectivity” and favoring some disciplines and universities above others. This promotes the individual efforts of researchers rather than their collective action, thereby reducing research quality (Humphrey *et al.*, 1995). Universities face “creeping impactization,” in which the impact becomes a target and a strategy rather than an outcome of research, hence reducing risk-taking and creativity in research (Power, 2018). The search for measurable impact creates a power shift from academia to managers, promoting the logic of economic benefit rather than the logic of academic curiosity (Power, 2020). Universities tend to conduct “technical agency” by routinely following the formal systems rather than “substantive agency” – knowledge development – by engaging with stakeholders who are the substance of their activities (Humphrey and Gendron, 2015).

The lack of focus on measuring impacts in the three cases can be attributed to the softer context, that is, society’s trust in the government’s ability to produce robust educational policies and trust in academia’s ability to produce long-term impacts (Maassen and Steinsaker, 2022). This makes it unnecessary to develop this dimension in the formal systems, exemplifying how countries with a softer approach seem to maintain trust while simultaneously implementing NPM reforms (Siverbo *et al.*, 2024), having the formal control reflected via KPIs in the output and outcome levels but trusting academia and universities to produce impacts. Thus, the selective complementarity strategy is that the impact of universities should not be measured, but the use of output/outcome KPIs combined with trust in academia can (eventually) lead universities to produce societal impacts.

Ownership and governance as national filters

In the three studied countries, NPFM has materialized differently in the formal systems governing universities’ performance management due to different national filters. In line with the call by Guthrie *et al.* (2024), Table 3 summarizes the national filters that influence the scope of selective complementarity strategies in terms of two factors. The first factor is how universities are held accountable for university governance (e.g., university for whom – an extended arm of the central government or governance by society in general). The second factor is related to formal ownership of the universities (e.g., universities as autonomous entities with their own legal rights or as owned by/part of the central government).

INSERT TABLE 3 ABOUT HERE

As seen in Table 3, the central governments in the three countries have translated NPFM into the formal systems governing the performance management of universities in different ways. The national state (to varying degrees) can define how universities should engage with knowledge development, indicating that governments can balance two extremes: leaving universities to uncontrolled market forces by extreme corporatization or leaving their fate completely to academics (Poutanen *et al.*, 2023). This argument confirms the tendency of governments to retain governmental control by setting up formal systems governing the performance management of universities, with clear specifications regarding the means needed to achieve targets for education and research.

Accordingly, the global NPFM reforms have also produced different configurations in the performance management of universities in Finland, Norway, and Estonia based on different national filters of how central governments interpret the role of the university via governance and ownership. In Norway, universities are highly dependent on governmental funding as they are considered extensions of the central government and expected to develop through dialogues between the Ministry and each university's top management. In both Estonia and Finland, universities are regarded more as entities with their own legal rights and as more independent of the government. However, in Finland, the decentralization of universities is somewhat symbolic because universities are still controlled by the government via the system of competition for national funds. In Estonia, the independent status provided by accounting law stimulates the development of universities based on their strategic ambitions, and the government plays an important strategic role.

Conclusion

The present study is motivated by two research questions: *In terms of the NPFM warnings, how have changes in the formal systems governing the performance management of universities over the past two decades in countries with a softer NPFM context reflected the selective complementarity strategies? What factors can explain the potential differences in the selective complementarity strategies related to the materialization of the NPFM warnings in softer contexts?*

We demonstrate that the warning signs indicated by Olson *et al.* (1998) have materialized in the formal systems governing the performance management of universities in Estonia, Finland, and Norway, but only to some extent, confirming the notion of soft NPFM approaches (Funck and Karlsson, 2019; Kivistö *et al.*, 2019; Lapuente and Van de Walle, 2020; Schnurbus and Edvardson, 2020; Grossi *et al.*, 2021; Mohr *et al.*, 2021). These results differ from the extremes reported in Anglo-Saxon contexts (Lapsley and Miller, 2019; Martin-Sardesai *et al.*, 2020; Parker *et al.*, 2020; Guthrie *et al.*, 2024).

However, there are important nuances. The four concerns reported by Olson *et al.* (1998) have materialized differently because of unique national filters (Gornitzka and Maasen, 2011; Schnurbus and Edvardson, 2020) framed by unique national contexts, historical development, and educational policies. These national filters define the universities' governance and ownership, for example, whether the universities are agents of the state or independent accounting entities with their own legal rights. These national filters seem to affect how NPFM is translated into the formal systems governing the performance management of universities. The present article contributes to the literature demonstrating that some countries and their governments manage to achieve selective complementarity of different reforms and trends, which contributes to avoiding dysfunctional effects and extremes (Lapuente and Van de Walle, 2020). The current article also contributes to the literature on Nordic university PMMS design (e.g., Kivistö *et al.*, 2019; Grossi *et al.*, 2021), especially in terms of comparing Finland and Norway. Here, the current article shows similarities in which selective complementarity strategies were chosen to mediate NPFM reforms, but also the difference in scope

of those strategies due to differences between countries in terms of governance and ownership of universities, despite common welfare state ideologies and educational policies.

Unsurprisingly, the formal systems governing the performance management of universities can be dysfunctional at the university level (Grossi *et al.*, 2019; Argento *et al.*, 2020; Manes-Rossi *et al.*, 2022; Härström, 2023). There are signs of frustration within academia, and students' evaluation reports now show decreasing satisfaction (Chandler *et al.*, 2002; Anderson, 2008; Ginsberg, 2011; Ter Bogt and Scapens, 2012; Knights and Clarke, 2014; Kallio *et al.*, 2016; Gebreiter and Hidayah, 2020). However, the softer NPFM provides hope that those dysfunctional signals (or the materialized warnings of Olson *et al.* (1998)) can be addressed by the owners (the central government and ministries).

This study provides hope that the unfortunate consequences of NPFM for universities can be remedied by rethinking national filters, especially in Anglo-Saxon countries, and adopting selective complementarity strategies. It supports Guthrie *et al.*'s (2024) assertion that public value and stakeholder dialogues is a better alternative to corporatization, implying that stakeholders with different logics must create a system based on the logic of communicative rationality rather than instrumental rationality (Broadbent and Laughlin, 2009). This requires a shift toward forming a PMMS in which ends and means are subject to a discourse between the stakeholders based on a democratic debate and a search for consensus on KPI definitions. Selective complementarity means balancing trust in academia, the use of transparency, and discursive mechanisms with formal controls, managerialism, and the use of KPIs.

In the future, there is a need to further study the evaluatory trap and examine how NPFM influences the development of administrative and control costs compared with the direct service costs of universities. Digitalization has also influenced the performance of universities, making it important to know more about its effects on the evaluatory trap in terms of fragmentation, social cohesion at work, and the distribution of tasks between administration and academic staff.

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Appendix 1. Operationalization of study.

	Changes in the formal systems governing performance management of universities (1998–2022)		
Empirical element	Estonia	Finland	Norway
Who governs the performance of the university sector?	What were the major changes in governance structures and ownerships? Did the composition of stakeholders involved in the formal system change over time, and how?		
Performance – for what?	What were the changes in how the formal system defined the purposes, targets, and means over time? Why? What were the central KPIs, have they changed over time, and how?		
Performance – how?	What were the changes in how the formal systems have legitimized the quality dimension?		
Performance – so what?	How has the formal system reflected the balance between the needs of different stakeholders?		

Table 1. NPFM-induced changes within public services and their expected effects on PMMSs.

Source: Authors own work.

NPFM changes (Olson <i>et al.</i> , 1998)	Expected effect on PMMSs (Olson <i>et al.</i> , 1998)	Literature review based on the PMMSs for universities
Transformation from discretionary responsibility to formal accountability	More constrained public service responsibility displaced by imposed formal and detailed accounts	The discretionary responsibility of academics is displaced by managerial accountability. There is growing mistrust in academia. Displacement varies due to political and legal/financial accountability of universities in different national contexts.
The rise of managerialism and the decline of democracy	Increasing numbers of performance measurements implicating increasing managerial uncertainty	The meaning of efficiency is unclear under NPFM. PMMSs do not reflect the actual reality of a university – illusion of control/pseudorealism. The degree of managerialism and the use of key performance indicators (KPIs) can vary because of political–administrative traditions.
Extending “the evaluatory trap”	Engagement with PMMS is more important than performing professional service-related activities	NPFM increases indirect costs at the expense of direct public service-related costs. NPFM negatively affects quality. How university quality is assured in different national contexts should be examined.
PMMS for whom – administration or stakeholders?	Accounting for the benefits of accountants, not for a wide range of public sector stakeholders	University corporatization downplays the role of a wide range of societal stakeholders. The third mission of universities is not sufficiently addressed by universities’ PMMSs. Governance by stakeholders should be examined in different national settings.

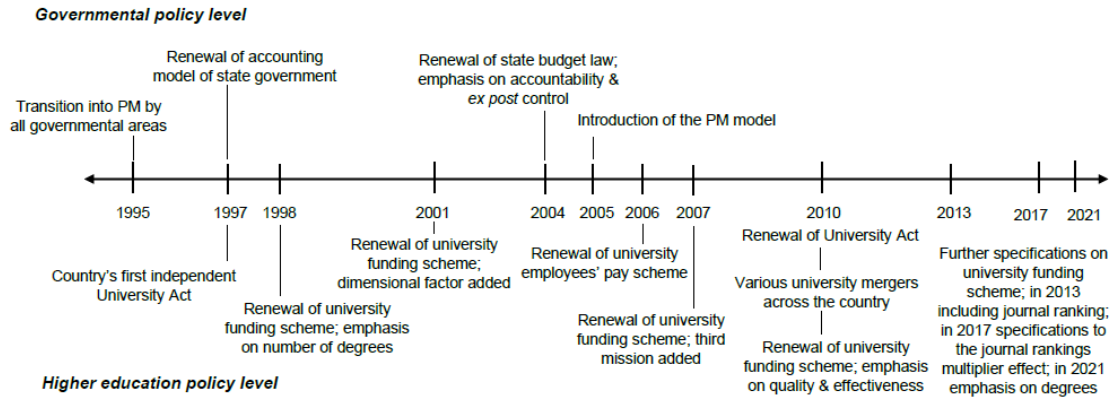
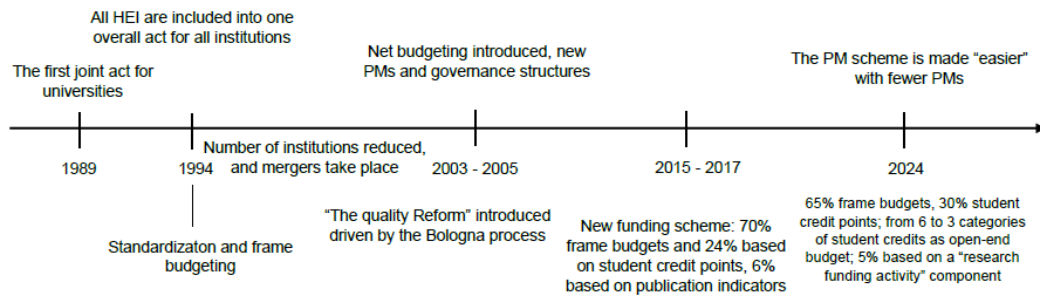


Figure 1. Changes in the Finnish higher education and government policies (Source: Authors own work, adapted from Kallio et al., 2016)

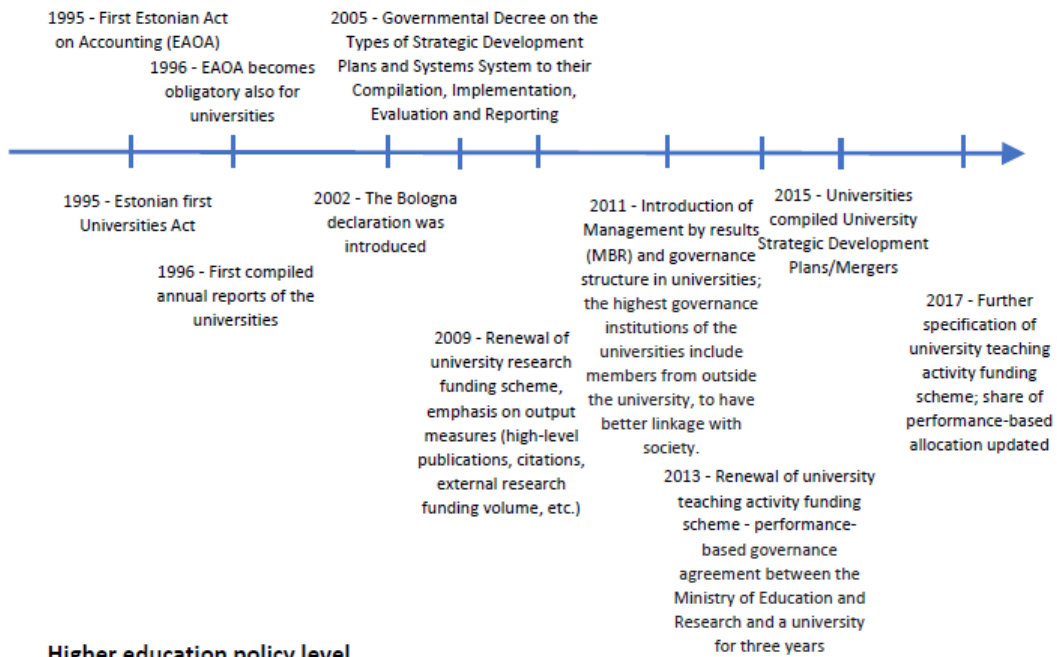
Governmental policy level



Higher education policy level

Figure 2. Changes in the Norwegian higher education and government policies (Source: Authors own work).

Governmental policy level



Higher education policy level

Figure 3. Main changes in Estonian higher education and government policies on universities (Source: Authors own work).

Table 2. NPFM warning signs vs. actual developments in the formal systems governing the performance management of universities. Source: Authors own work.

NPFM expected changes	Soft NPFM with different nuances			Successful selective complementarity strategies to deal with warnings
Country Concern	Estonia	Finland	Norway	
Transformation from discretionary responsibility to formal accountability	High discretionary responsibility: university can choose KPIs following own strategy; collegial discussions	Low discretionary responsibility: increasing accountability for competition-related KPIs; basic funding is performance driven	Moderate discretionary responsibility: increasing accountability for performance-based KPIs; 70% of funding is not performance based	“Balancing trust in academia while incorporating some formal controls”
The rise of managerialism and the decline of democracy	Balanced collegial and managerial structures; pressure to increase KPI numbers to improve transparency	From collegial to managerial structures; resources driven by KPIs	Increasing managerialism but stable number of KPIs (adjusted by governmental priorities)	“Imperfect KPIs need their transparency and stability over time”
Extended the evaluatory trap, e.g., low focus on quality	KPIs allows for scrutinizing quality	Quality assurance is nationwide in education; research quality is driven by KPIs	Quality assurance by academic judgment supplementing output-oriented KPIs	“Quality assessment needs discursive processes”
PMMS for whom – administration or stakeholders?	Stakeholder-relevant KPIs follow a strategic development plan; no trend for international accreditation	KPIs are for government to oversee competition of universities; less relevance for other stakeholders; increasing international accreditation	KPIs for university-government dialogue; less relevance for other stakeholders; increasing trend of international accreditation	“Don’t measure impact: output measures and trust in academia will produce societal impacts”

Table 3. Understanding the university context for differences in the formal systems governing performance management of universities in the three case countries. Source: Authors own work.

Universities in softer NPFM and selective complementarity strategies		Ownership structure of the universities	
		Government (publicly owned entity)	Own legal rights (autonomous entity)
Governance by	Central government	<p>Norway</p> <p>“Universities as government-owned entities subject to ex ante controlled dialogue with and national standardization of outputs and processes by the owner”</p>	<p>Finland</p> <p>“Universities as autonomous entities with government oversight incentivizing competition for funding”</p>
	Society stakeholders	n/a	<p>Estonia</p> <p>“Universities as autonomous entities operating within a wide legal framework of different societal stakeholders with the government as a strategic partner”</p>

