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Anticipatory governance in government: the case of Finnish higher education

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Abstract
In response to uncertain times, liberal democracies aspire to develop anticipatory practices that usher in changes in policies and governance. These practices include creating visions and implementing roadmaps, which seek to address, and ultimately preempt, future challenges (Anderson, 2010). While such practices are increasingly implemented today in decision-making in Nordic countries and around the world (Dreyer & Stang, 2013; Beckert & Bronk, 2018; Beerten & Kranke, 2022), their implications are seldom studied, especially in the context of higher education. This article addresses this gap in current research by analyzing the case of the future governance of Finnish higher education. The analysis focuses on the creation of visions and roadmaps, as well as reports anticipating the future needs of higher education. The article investigates how the anticipation of higher education needs has developed and how it is related to current visions. Moreover, it examines the consequences of anticipatory practices in the development of policy and governance and investigates the policy future that will be enacted through these anticipatory practices. The findings show that the anticipation of higher education needs underpins the strategic choices affecting the allocation of resources and the population's educational levels in the long term, while visions draw actors into the coproduction of future imagining and instigate widespread reforms. Visions and other practices underpin anticipatory governance in higher education, where goals for the long term are established through the negotiation of normative preferences based on a human capital view of the future.

Keywords Higher education policy · Anticipation of higher education needs · Visions · Roadmaps · Anticipatory governance, Finland

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Introduction

In response to uncertain times, liberal democracies aspire to develop anticipatory practices that usher in changes in policies and governance. These practices include creating visions and implementing roadmaps, which seek to address, and ultimately preempt, future challenges and problems (Anderson, 2010). While such practices are increasingly implemented today in decision-making in Nordic countries and around the world (Dreyer & Stang, 2013; Beckert & Bronk, 2018; Berten & Kranke, 2022), their political implications are seldom studied, especially in the context of higher education.

In this article, we address this gap in the current research by analyzing the case of future governance of Finnish higher education. Our analysis focuses on the creation of visions and roadmaps for higher education and research, as well as reports anticipating the future needs of higher education. We investigate the knowledge claims of these documents, how these claims are enacted through different anticipatory practices, who enacts them, and the potential consequences for the development of policy and governance.

Research on these knowledge claims is significant as it provides a new perspective to higher education policy analysis by examining the complexity of anticipatory process shaped by varied data, different techniques, and supervision of interests. It contributes to understanding how the anticipation of skills and labor market needs shapes the visions of higher education and their underlying normative preferences. Anticipation of educational needs, while seeking to optimize the relationship between education and the labor market, tends to shelve the intrinsic value of higher education (Marginson et al., 2023) and amplifies the voice of the business and industry, stressing swift responses from higher education to their changing needs.

Moreover, anticipatory practices including visions and roadmaps are frequently used in governance and development of policies, notwithstanding the significant problems that plague these practices. They can shape perceptions of alternatives—or the lack thereof, and they can prime societies for policy futures that do not yet exist. They often invite numerous actors to participate, but it remains obscure whether this engagement is a performative process serving managerialist determinations (Guston, 2014). They are critiqued for causing democratic deficits (Maffei et al., 2020) or even arbitrary forms of political decision-making relying upon imagination and speculation. Overall, anticipatory governance is seen to alter the exercise of political power and subjectivity in liberal democratic polities (Stockdale, 2015).

In Finnish higher education, work on the future is performed by anticipating higher education and labor market needs, as well as creating visions and implementing roadmaps. Anticipating educational needs has developed over the long term as part of educational planning, whereas visions and roadmaps rely predominantly on imaginary techniques that have expanded in recent years. What is characteristic for these practices is that they engage multiple actors from different locations while being steered by the state. Indeed, the capacities of Finnish higher education institutions (HEIs)—incorporating 13 universities and 22 universities of applied sciences (UASs)—to influence their own futures have long been shaped by the steerage by the Ministry of Education and Culture (MEC). This arrangement, however, has been criticized for its tendency to curtail universities' autonomy (Hallberg et al., 2021).

Shaping the future of Finnish higher education constitutes a particularly informative case for the analysis, which is ascribed to how the European Union (EU) and the Organization for Economic Cooperation and Development (OECD) have acted with respect to

the development of a national system of foresight, as well as to how anticipatory activities are entrenched in the state's political processes. These activities are evident in how work on the future is institutionalized in parliament, in the way research on the future has become connected to policymaking at regional and national level, and in the enactment of the statewide network of foresight (Pouru et al., 2020). The State Council of Finland has proclaimed that the state is "a leader in the development of foresight" in the European context, acclaimed for the way in which foresight data is utilized in the state's strategic decision-making (State Council [SC], 2022).

We start this article by discussing the prior literature and our theoretical and conceptual approach, followed by a presentation of the research questions and methods. The ensuing findings section focuses first on the repertoires of knowledge produced through anticipation of the needs of higher education and the labor market and the incorporation of this knowledge into strategic choices and political justifications. Thereafter, the visions and roadmaps are investigated, with a special focus on their underlying normative preferences and consequences for policy.

Theoretical and conceptual approach

It has become customary for policymakers to count on anticipatory practices and resulting knowledge artefacts, such as visions and scenarios, while the evidence on their use in attaining credibility for policy reforms has remained scarce (Mallard & Lakoff, 2011). These aspects of anticipation and the use of future in decision-making have in recent years attracted a wide scholarship across human sciences, such as in studies on anticipation (Poli, 2019), anthropology (Appadurai, 2013; Bryant & Knight, 2019; Lanzeni et al., 2023), history (Andersson, 2018a), social and political thought (Rosa & Scheuerman, 2009; Delanty, 2021), studies on international relations (Berten & Kranke, 2022), sociology of time (Adam & Groves, 2007), and sociology of knowledge and expectations (Brown et al., 2020).

Studies in higher education policy have addressed the future from different vantage points. They have foregrounded different readings of changes in higher education (Saarinen & Ursin, 2012; Saarinen & Välimaa, 2012) and provided critical accounts of current trends and global problems (Marginson, 2016, 2022, 2024; Rizvi et al., 2022; Shore & Wright, 2017; Robertson, 2017, 2022; Király & Géring, 2019). They have analyzed the future implications of the spread of new public management ideas and how they have resulted in the strengthening of the role of the labor market, accountability, and quality assessment alongside higher education's traditional tasks of teaching and basic research (Dall'Alba & Barnacle, 2007; Capano & Pritoni, 2020). They have also discussed the way concurrent digitization and networking have affected perceptions of time and the future while also changing how markets and societies, including higher education systems, are organized (Välimaa et al., 2016).

In this article, we seek to contribute to this existing research by investigating anticipatory governance and related practices in Finnish higher education and research. These practices include anticipation of higher education and learning needs, aiming to adjust future education provision to the changing labor markets, with full employment as an ideal. Moreover, they include the enactment of visions and stipulation of roadmaps, which are imaginary processes representing new types of anticipatory actions in the Finnish higher education field.

The terms "anticipation," "anticipatory governance," "anticipatory practices," "visions," and "road maps," which are frequently employed in this article, constitute a largely uncharted territory in higher education policy research. Their meanings vary in different contexts, therefore deserving further clarification. *Anticipation* incorporates the prefix "ante" (before) and the words "capable" and "capacity" ("capere," to take into possession). Therefore, the term "anticipation" does not imply prediction, but an exercise of capacities in a prior way (Guston, 2014). In policymaking, anticipation is referred to, for example, as a collective capacity to imagine and use futures to inform decisions and actions (Poli, 2019).[1]

Anticipatory governance is an ambiguous concept and is dependent on the context of use. First developed in science and technology studies as a governance method to manage technologically induced risks with different tools, such as scenario planning, it has recently been deployed also in other fields of study (Guston, 2014). In this article, we approach anticipatory governance as an activity that takes place within the framework of government. Anticipatory governance in government means that the government seeks to "sense and execute changes ahead of the cusp of major events." Its goal is to avoid threats and identify opportunities. Anticipatory governance in government encompasses a system of foresight, a networked arrangement for integrating foresight with policy processes, a feedback system to measure performance, and dissemination of an open-minded institutional culture (Furth, 2009, 20; Maffei et al., 2020).

Moreover, our research adheres to recent critical inquiries highlighting the speculative nature of anticipatory governance, contested knowledge produced through anticipatory practices, and the need to examine their political implications (e.g., Anderson, 2010; Andersson, 2018a, 2018b; Beckert & Bronk, 2018; Robertson, 2022). These inquiries perceive the future as a category of scientific and political intervention (Andersson, 2018a) and as a contentious field in which an increasing number of diverse technical prospections, visions, and social groups coexist and compete (Aykut et al., 2019). This field, as Andersson (2018a) in her research on the history of futures studies highlights, is not an organized, but rather an unruly one, where actors try to use diverse knowledge claims as levers to condition the views of the future. There are selective processes embedded in the actors' interests and their future-making techniques in which credibility and legitimacy are given to certain dominant ideas while closing off alternatives (Andersson, 2018b).

The literature in science and technology studies is particularly interested in how certain future priorities become privileged and the underlying reasoning for this privilege (e.g., Jasanoff, 2015). Brown et al. (2020) explore the future as a space of contestations while analyzing how the future is constructed, by whom, and under what circumstances. The work by Beckert & Bronk (2018) pays attention to the anticipatory practices and creation of information about the futures, such as finance models, economic forecasts, and visions. They analyze the decision-making based on what is traditionally thought of as objective information, such as economic calculations, and their fictitious nature and the use of power in predicting an uncertain future.

Anticipatory practices underpin anticipatory governance and provide content for the contingent future state of affairs (Anderson, 2010; Koselleck, 2004). As such, they are

[1] In Finnish, "foresight" and "anticipation" translate into a single term, *ennakointi*. In the context of this article, anticipation is a term used in the documents to refer to the processes anticipating labor market needs, whereas foresight constitutes its own field, subsuming work on the future of the state council and ministries alongside a nationwide network of foresight.

current policy actions for creating the future. There is a plethora of such practices. Here, we wish to refer to two of them; *visions* are understood as a shared view of a possible world to pursue, which does not entail that they are shared or consensually prepared by all involved. Our approach to visions approximates the notion of "governance by vision" (Andersson, 2008) analyzing how visions seek to create coherence between diverse actors, encourage actors to realize a common goal, and unite their potentially divergent views. The goals of visions are defined in a manner that enables consensus and secures the fulfillment of the political agenda.

A related term, *roadmap*, derived from business and industry, is increasingly used for political steering and distributing resources (Beckert & Bronk, 2018). Roadmaps are often harnessed to implement visions while encouraging path-dependent policy lock-ins and closing off alternative development trajectories (Brown et al., 2020). *Policy lock-in* means that societies and economies are dependent on technologies, behaviors, and relationships that can be detrimental to the environment and societies in the long term. However, it is difficult to break out of these lock-ins because of their entrenchment in social mechanisms and speedy temporal structures (Goldstein et al., 2023). As Witte (2023, p. 92) writes in her research on higher education, science, and climate crises, societies are trapped in the mechanisms for social and economic acceleration resulting in irreversible climate crises. Roadmaps can cement this acceleration, or, alternatively, they can provide critical junctures to break out from such lock-ins.

In Finnish higher education policy, these new anticipatory practices have been enacted in an era of change from planning to anticipation. Social planning, which gained momentum in the 1950s and 1960s, took on varied shapes in the education sector. Different plans were made for education, including periodic plans for education and research that extended beyond budgeting; these periodic planning processes tied regional and national decision-making bodies together to produce information for the planning of educational needs. This 40-year-old tradition of educational plans was abolished by the government in 2016, when the state steering system was reformed. The reforms coincided with OECD public governance reviews and ensuing aspirations to decrease strategy-type documents, such as the plans for education and research (MEC, 2016). The abolishment of plans was expected to render rigid policy processes faster. Thenceforth, the government's program has provided a code of practice for the development of education, while the MEC continues steering within the limits of the state budget.

Following the waiver of plans, the MEC has brought into play new techniques, including visions and roadmaps, while ensuring its own leverage in their coordination. At the same time, the system for anticipating skills and labor market needs has been retained, and continuous efforts have been made to reform its diverse methods and databases. The shift from planning to anticipatory actions thus resembles a mix of new and old, which Kettunen (2006, 2010) characterizes as the dawn of "a new kind of planning ideology" (see also Kettunen et al. (2014)).

The triad concept of anticipatory governance in government seems quite relevant to current Finnish context, where the MEC seeks to govern the work on the future of higher education. It coordinates the creation of visions and the enactment of roadmaps. Moreover, it governs the development of the system for anticipation of skills and education needs. This complex system encompasses a high number of actors at national and regional level including Finnish National Agency for Education, regional councils, regional centers for economic development, education providers, and higher education institutions (MEC, 2019).

Research questions and methods

We seek answers to the following questions: How has anticipation of higher education needs developed and how is it related to the creation of visions and roadmaps? What are the consequences of these anticipatory practices in the development of higher education policy and governance in Finland? What future of Finnish higher education policy is enacted through these anticipatory practices?

The data of our analysis consists of reports of the government and ministerial working groups charged with anticipating the needs for higher education and the labor market (e.g., MEC, 2008, 2010, 2011, 2016; SC, 2020b). Moreover, we investigate visionary strategy publications, including the Proposal for Finland 100 + (MEC, 2017a), the Roadmap for Implementing Vision 2030 (MEC, 2018a), the Education Policy Report (SC, 2021), and the National Roadmap for Research, Development, and Innovation (RDI) (SC, 2020a). We situate the documents in their contexts of origin and scrutinize their contents (Prior, 2008; Shankar et al., 2017). We also consider the processes resulting in the creation of the documents, the justifications underpinning the issues they place on the political agenda, and the way they define the roles of actors (Tutton, 2017). Our method is problem-driven content analysis, which aims to produce knowledge about an epistemic problem that is deemed significant yet currently inaccessible (Krippendorff, 2013, pp. 357–370).

Our analysis commenced with the formulation of open research questions, which were specified alongside the relevant sampling of the documentary data. The material determined to have a stake in the outcome of the research was identified for further analysis. Following this work, coding categories were established by using the texts to identify emerging ideas and patterns while also considering the relevance of these categories to the research questions. Thereafter, relevant units in the texts (i.e., a collection of references about a specific theme in NVivo 2020, Release 1.4) were selected for analysis and recorded. The recordings were compiled into matrices and exported into spreadsheets.

The first data sheet on anticipation in higher education encompassed coding categories and recordings of sequential ministerial working group reports (MEC, 2008, 2010, 2011, 2016; SC, 2020b). The context-sensitive analysis of these data involved a temporal comparison, which revealed a significant change in the anticipation of higher education and unveiled multiple problems in its practices. The second set of data contained recordings of the visions and roadmaps of higher education (MEC, 2017a, 2018a; SC, 2020a, 2021). The analysis of this data focused on the underpinning objectives and patterns of implementation, as well as the ramifications for policy and legislation.

The drawing of inferences was guided by the principles of trustworthiness. The triangulation of the data, together with the consideration of critical inquiries into the politics of the future derived from different fields, helped in examining the problem and achieving higher credibility (Nightingale, 2020). Given that the ministerial working group reports disclose their prospects for development, rendering a limited view on the problems or experiences of HEIs, we took advantage of the evaluation of the national anticipation system implemented by the National Audit Office (NAO) (2011, 2014, 2022). The confirmability of the conclusions was buttressed by careful documenting of the data collection, the keeping of records, and the demonstration in the analysis that the findings were derived from the data.

Findings

Anticipation of higher education needs: putting the human capital to full use?

Expansion of anticipation of higher education needs in the European context

In Finland, anticipation of higher education and labor needs evolved from the centrally managed education planning of the 1960s and 1970s (MEC, 2008, 29). The country's accession to the EU in 1995 provided a new impetus for the development of anticipation practices, presenting the national education planning system for European comparison (MEC, 2008; SC, 2020b). In the first decade of EU membership, almost 200 projects related to anticipation and supported by structural funds were implemented, a surge that bequeathed the nation with a legacy of expanded, though fragmented, anticipatory practices (MEC, 2008, 2016).

A notable characteristic has been the penchant for foresight particularly in economically strenuous times. The 1993 founding of the parliamentary Committee for the Future in Finland, while representing a new kind of institutionalized approach toward the future, occurred in the context of a deep economic depression and a changing world order (Andersson, 2018a). Correspondingly, the stagnation of a decade-long period of economic growth leading to the global financial crisis in 2008 instigated a more intensive exploitation of anticipatory data in the making of policies, including in higher education.

During the economic recessions, hopes have been invested in developing foresight and anticipation of education needs. At the time of the 2008 global financial crisis, for example, there was high trust in the educational authorities' capability to anticipate educational needs and to improve the meeting of the supply and demand of labor and related skills. Foreseeing the future was given particular emphasis in the preparation of policies with long-standing effects:

> In knowledge-based management, information produced through foresight is needed for, among other things, strategic planning, decision-making, and strategy management. Foresight plays a particularly significant role in preparing policies that have large economic or long-term social effects. (MEC, 2008, p. 11, our translation)

The report from that time demonstrated the promise of anticipatory methods in producing new information for strategic planning and management. It was believed that higher-quality data were achieved by combining quantitative methods (such as time series analyses, probabilities, and simulations) with qualitative or expert methods (Delphi analyses, soft system analyses, future workshops, and scenarios). This approach was expected to help with identifying change factors, trends, and weak signals, as well as with scanning the fringe (MEC, 2008). Essentially, the aim was to ensure national competitiveness and well-being in the context of shrinking public finances, a deepening global division of labor, and an aging population (MEC, 2008, 2010). A ministerial statement capturing the leitmotif of anticipation asserted that "increasing human capital must be put to full use" (MEC, 2010, p. 16).

Reinforcement of anticipation of educational needs and detrimental policy choices

The years following the 2008 financial crisis witnessed further reinforcement of the anticipation of educational needs. There was a consensus that anticipation of labor market needs could be implemented in an accurate and centralized manner for several years ahead (Kalenius & Karhunen, 2018). The forecasting was organized under the responsibility of the VATT Institute for Economic Research (NAO, 2011). It provided analyses, including generating basic and target scenarios, the general equilibrium model, industry forecasts used in occupational structure predictions, and the setting of national targets for educational supply (MEC, 2011).

Notwithstanding the high trust in the development of anticipation methods, significant problems remain. The NAO (2011, pp. 48–52) described issues related to knowledge and methods. It reported that the anticipatory data was not conveyed to the providers in the desired way, no actor had an up-to-date view of the work done by other actors, the anticipatory data was often unusable and outdated, the intended national data bank did not seem viable, and the system lacked resources.

The anticipation of educational needs instigated strategic choices, resulting in an unfavorable impact on higher education. Between 2007 and 2016, more than 5500 higher education student positions were stipulated to be reduced in several fields such as humanities, technology, and business and administration. Consequently, the share of those aged 25–34 with higher education qualifications declined, affecting their level of educational attainment. The reductions were justified based on assumptions about how labor market demand was expected to develop, what kind of human capital was necessary, and what targets were subsumed in each respective target scenario (e.g., Kalenius & Karhunen, 2018). The justifications were also framed by a prevailing view of excessive higher education, which was ascribed to the founding of UASs, prompting an unwarranted increase in higher education (MEC, 2011).

The question of "overeducation" was ruminated by the ministry, although no single answer was found:

> Today, the age groups entering the labor market are, on average, more educated than those leaving it. The problem is not the number of degrees, but rather their quality: Do the completed degrees meet the needs of working life? Has the level of education already risen too much, and is there genuine demand for all those with higher education qualifications in the labor market where there is a shortage of practical experts in various professional fields? (MEC, 2011, p. 24)

The HEIs were unenthusiastic in reducing study positions, and a reprimand from the ministry ensued:

> Higher education institutions have not sufficiently considered the results of forecasts in sector-specific development, but the existing structures guide their activities too much. (MEC, 2011, p. 46)

The cuts and the subsequent decline in educational attainment in the 25–34 age group have resulted in a trend in Finnish higher education, which is reversed by other OECD countries. In 1991, Finland's percentage of people aged 25–34 with higher education was the highest within the OECD area, whereas the current share of those with such qualifications (40.1%) in this age group ranks significantly below the OECD average

(47.2%) and even further below the other Nordic countries: Sweden (49.2%), Norway (55%), and Denmark (49%) (Kalenius, 2020; MEC, 2023; OECD, 2022).

Reductions in higher education provision continue to affect the educational attainment of the population in the 2020s. The unemployment rate in Finland is higher than the OECD average, while the country's labor productivity ranks lower than in reference countries, such as Germany, the United States, and Sweden (OECD, 2020). Many sectors requiring higher education degrees, such as healthcare, suffer from a considerable labor shortage (OECD, 2020). Overall, the anticipation of higher education and labor market needs has not succeeded in its aim of "making full use of the human capital."

In recent years, measures to rectify the situation have been taken: 10,000 new higher education positions have been created in 2020–2022 (SC, 2020c), graduation within the target time has been encouraged, and HEIs have been stipulated to offer opportunities for continuous learning (SC, 2020b, p. 12; Amendments to the University Act 1367/2018 and the University of Applied Sciences Act 1368/2018). The goal for higher educational attainment has also been set in recent visions and roadmaps.

Higher education visions and roadmaps

Outlining visions and roadmaps

In recent years, visions and other tools relying on an imaginary approach and narrative techniques have been employed in Finnish higher education policy. The higher education vision, entitled Proposal for Finland 100 + (MEC, 2017a), prepared at the time of the state centennial in 2017, is the most prominent of these. Considering the long-lasting decline in higher educational attainment, the vision sets forth a goal: "to formulate a future scenario which enables the development of a high-quality, effective, and internationally competitive higher education system in Finland by the year 2030" (MEC, 2018a). This entails the completion of a higher education degree by over 50% of all young people and the related provision of flexible study paths to lifelong learning, as well as an increase in the share of research and development (R&D) activities to 4% of the GDP. These measures are expected to be supported by enhancing the innovativeness of a more preemptive higher education sector, one that can react, is internationally attractive and well networked, is globally and socially responsible, and produces the world's most competent workforce to ensure competitive advantage and social well-being.

The goals of the vision have been enacted through the Roadmap for Implementing the Vision (MEC, 2018a) and its five national development programs steered by the MEC. The roadmap reaffirms the primary aim underpinning the vision: (MEC, 2018c).

> The vision of higher education and research until 2030 "Proposal for Finland: Finland 100+ Education and Learning, Knowledge, Science and Technology for the Benefit of People and Society" and the road map drawn up to achieve the goals provide direction for the long-term development of higher education and research. With the implementation of the vision, Finland's success story based on high competence is upgraded to meet the growing challenges of the global operating environment. (MEC, 2018a, p. 4)

The roadmap encourages policy changes in particular areas, such as reforming the financing and steering system, enhancing digital services in higher education, developing university pedagogies to deliver the best learning outcomes in the world, supporting the

well-being of higher education communities, transforming them into the best workplaces in Finland, and fostering collaboration and transparency in R&D between different stakeholders, including ministries, HEIs, business, and industry.

Three years later, a new roadmap—the National Roadmap for RDI (SC, 2020a)—produced by the MEC and the Ministry of Economic Affairs and Employment was prepared, providing significant space for the needs of the business sector. It emphasizes the support for investments in innovation by small and medium-size enterprises and the building of advanced infrastructures and partnerships between the public sector, companies, and universities. Innovative ideas and technologies are identified as sources of growth and productivity. New types of flexible public–private partnership models are expected to be prepared to support clusters of expertise and the formation of the billion-euro business ecosystems. The RDI roadmap strives to promote the objective of a carbon–neutral Finland, while taking related ideas, knowledge, and technologies as sources of growth and productivity. Climate change is seen as an opportunity to support clusters of research and product development.

The most recent paper, the Education Policy Report of the Finnish Government (SC, 2021), articulates aims for the entire education system and the research sector, extending to 2040. It is consistent with the visions and roadmaps introduced above, yet it sets some detailed targets for higher education. These include, for example, tripling the number of international students and increasing student enrollment, especially in fields of labor shortage (SC, 2021, p. 41).

Enactment of visions and their consequences for policy

Characteristic of the enactment of the higher education visions and roadmaps (MEC, 2017a, 2018a; SC, 2021) has been their way of being assembled using similar methods. The MEC coordinated the creation of visions while drawing on consultative services. The material was gathered through participatory initiatives and organized with the help of Fountain Park consultancy, which facilitated online brainstorming, and Demos Helsinki, which arranged related workshops. Thereafter, the MEC prepared the vision paper using the material collected (MEC, 2017a). The Education Policy Report of the Finnish Government (SC, 2021) was prepared in a similar manner using consultant-assisted online brainstorming sessions and a workshop. The draft report was sent out for a round of comments, and the final report, modified based on the comments, was submitted to parliamentary proceedings in the spring of 2021.

The visionary papers encountered several complications, such as weaknesses in background data, obvious problems in the methods used, and how they obscured the decision-making process. For example, the background report of the Vision Proposal for Finland 100 + (MEC, 2017b, p. 14) attributes the low educational attainment rate of young people to a poor higher education completion rate, which is a misleading statement given that the completion rate of Finnish full-time students who entered a bachelor's program was slightly higher than in Norway and significantly higher than in Sweden (OECD, 2022). Similarly, it refers to weakening learning achievement in basic education and its ramifications for higher education as a reason for low attainment, which is also implausible reasoning given that adolescents' learning achievement in Finland is at a good level compared to the OECD average.

Overall, the visions, while providing a fairly open picture of the visionary processes, leave many aspects unclear. These aspects include how the actors' roles were

delegated at different stages of work, how the themes of the workshops were decided, and how a common vision and development programs were prepared using the very heterogeneous background material. The process resembles Andersson's (2008) notion of "governance by visions," where the aim is to create consensus between actors to achieve a shared vision and unite potentially conflicting sentiments. The critical stage lies at the outset: when the goals are justified, the intended process is presented, the expected result is fixed, and the stakeholders are organized to work within this setting. Andersson questions how such visioning is presented to increase public participation and debate about open futures. She perceives governance by vision as a management technology that seeks effective measures and shuns questioning of the policy process.

The policy measures resulting from the vision and roadmap have had several consequences. The proposals of the Roadmap for Implementing the Vision (MEC, 2018a) resulted in the parliamentary reform of continuous learning and related amendments to the Universities Act and the University of Applied Sciences Act (1368/2018; 1368/2018). These acts stipulated that HEIs provide opportunities for continuous learning, which as such may have little practical effects considering that such opportunities have already been provided through the open university courses. Moreover, a parliamentary R&D working group was established, the proposals of which resulted in a commitment to the goals of increasing R&D spending to 4% of GDP by 2030 and creating a new act to legitimize this goal (SC, 2021). Moreover, the most competent workforce has been fostered by speeding up the transition to higher education, improving graduation rates, diversifying paths to higher education, and increasing international student intake.

It is beyond what is possible to provide an exhaustive account of how the visions are incorporated into political processes, yet we can take a closer look at one proposal put forward in the roadmap for renewing the funding and steering of higher education (MEC, 2018b). Here, our line of thought approximates Beckert & Bronk (2018), who describe how different anticipatory methods, especially roadmaps, are used as means for (re)distributing resources. The roadmap (MEC, 2018a, p. 30) puts forward a reform of financial steering, declaring that "[achieving] the goals of the vision of higher education and research requires reforming the operating methods of universities and universities of applied sciences, as well as their overall steering—regulatory environment, financial—that supports the targeted systemic change."

The reforms of financial steering ended in the new model for core funding, which took effect in 2021. The model contains changed calculative criteria with the aim of enhancing effectiveness. The calculated share of completed higher education degrees, for example, increased, and new coefficients, such as graduation times, multiple similar degrees, and fields of study, were introduced. The new funding model was enforced for the years 2021–2024 after steamrolling over dissents from three labor unions: the Trade Union of Education, the Finnish Union of University Professors, and the Finnish Union of University Researchers and Teachers. The model seems problematic; although it is justified by providing needed incentives for higher education and also considering the sectors needed by the workforce (MEC, 2018b, 30), the field coefficients are low (level 1) (MEC, 2018b, pp. 57–64) in several areas of labor shortage (cf. OECD, 2020, p. 17). Moreover, the model further cements excessive steering and thus restricts universities' autonomy (Hallberg et al., 2021).

What and whose future of higher education?

The anticipatory practices deployed by educational authorities are not value-neutral but presuppose a human capital view of the future of higher education linked to the emerging needs of the labor market. The anticipation of needs for higher education, the enactment of visions, and the stipulation of roadmaps provide content to this specific future of higher education, shaped by the expectations to produce human capital for technological innovations, and economic growth. The enactment of visions and roadmaps for their implementation prime actors in higher education for a particular policy future that is to be realized.

The ontological question of what kind of futures are placed on the agenda and thus presented in the name of higher education and research can be discussed further from the perspective of the modalities of future visions and registers therein, describing the variation in future images (Simon & Tamm, 2021). These registers may vary in their time spans, scales, values, and scopes of knowledge. From these perspectives, the vision and roadmap of higher education in Finland seems limited in scale, striving to enhance the competitiveness of a nation debilitated by lowered attainment in higher education. Their humanist and planetary value perspectives are marginal; intrinsic functions of higher education (Marginson et al., 2023) receive little attention, or they are subordinate to enhancing human capital for competitiveness. The National Roadmap for RDI (SC, 2020a) is inclined to resume the competitiveness rhetoric; it approaches the climate crisis more from an instrumental win–win perspective than an existential problem (Witte, 2023), considering how climate change is more of an opportunity for Finnish competitiveness, economic growth, and the development of education and innovations.

The future of Finnish higher education constitutes a space of policy intervention and a field of contention in which an increasing number of calculative and imaginary techniques and actors use them to coexist and strive for influence (Aykut et al., 2019). The state plays a significant role in the foresight processes, which involve a large number of actors at national, regional, and institutional levels. The MEC has assumed the strongest leverage in the coordination of the anticipation of higher education needs and the enactment of higher education visions which protracts its influence into the future. However, the authority of the state actors seems juristically unclear; the Government Rules of Procedure (262/2003)—which provides a framework for the plenary sessions of the jurisdiction's government and ministries and delineates the ministries' spheres of authority—contain no reference to foresight or anticipation. The NAO (2011, p. 16), which monitors transparent decision-making and democracy in Finland, paid attention to this gap, stating that anticipation does not constitute an explicit legal entity or system. It proposed strengthening the regulatory basis for anticipation and suggested that it be incorporated into government rules of procedure (MEC, 2010, p. 17). However, these rules have not been changed. In the latest report by NAO (2022), attention is no longer paid to legislative regulation, or the need for it has been waived. The NAO report concentrates to find ways to develop foresight to support strategic decision-making.

Similarly, the laws surrounding HEIs make no references to anticipation, but they stipulate that the boards of universities and UASs decide on goals, strategies, and guiding principles (Universities Act 558/2009, § 14; University of Applied Sciences Act 932/2014, § 16). UASs, operating as limited companies (University of Applied Sciences Act 932/2014), and universities, operating as institutions or foundations under public law (University Act 558/2009), are expected to prepare a highly educated workforce that

meets the needs of the labor market and, simultaneously, to opt for strategic thinking. They are obliged to take on an active role in responding to the needs of the industry and the development of the region. They must also act proactively and use various sources of information in this effort, such as students' and stakeholders' feedback, reports on graduates' recruitment, self-evaluations, and international assessments. The function of the universities of applied sciences as public limited companies enables company acquisitions, which make their futures more uncertain. The report from the NAO (2011) paints a stark picture of HEIs' restricted capacity to anticipate the future, as they are controlled from above through performance agreements. Also, the legal analysis indicates that the MEC's strong financial steering narrows universities' autonomy and hampers their medium-term planning while prioritizing short-term goals (Hallberg et al., 2021).

Finally, anticipatory practices highlighting different calculative and imagining techniques are value-laden activities that strive for desired goals. Therefore, the data they produce is often ambiguous by nature. The incorporation of uncertain foresight data in the formation of a political agenda has therefore been characterized as being more complicated than utilizing other research (SC, 2020b). The methods used are not without problems or unbiased but can render power to those who control these foresight techniques (Maffei et al., 2020). The economic forecasts commonly used as a basis for anticipating labor market needs are essentially explanatory accounts derived from the interplay between the economist and the computational model, thus evincing a combination of modeling and the economist's trained judgment (Obstbaum et al., 2021).

The problems related to the usage of data are acknowledged by the Finnish educational authorities (SC, 2020b, p. 38), which state that the results of the calculative anticipation of higher education needs constitute no unequivocal truth. Many problems result from, for example, outdated industry forecasts and classifications (MEC, 2008, 2016; SC, 2020b). The earlier report from NAO (2011, pp. 7–8) has therefore reminded us that the allocation of resources should not be made based on predictive calculations alone but to justify the factors on which the inferences are based. Anticipation data are used widely, though; they are expected to support performance agreements between the MEC and HEIs, the development of degree content, decisions on regional education needs, the enhancement of educational opportunities for students and the unemployed, and the settling of international companies, among other things (MEC, 2016).

Conclusion

Anticipatory practices, with their different techniques, manifest an avid interest in enhancing the preparedness and development of capabilities in Finnish higher education and research. Anticipation of needs for higher education and learning underpins the strategic choices affecting the allocation of key resources and the population's educational levels in the long term, while visions draw actors into the coproduction of future imagining (cf. Andersson, 2018b) and instigate widespread policy reforms. Visions and other anticipatory practices underpin anticipatory governance in higher education, where goals for the long term are established through the negotiation of normative preferences based on a human capital view of the future.

There are several problems related to anticipatory practices in Finnish higher education. The anticipation of labor market demands is prone to political contestations, which

have resulted in policy decisions instigating cuts in the past and subsequent stagnation in higher education provision (Kalenius & Karhunen, 2018; MEC, 2011). In the wake of these policies, the rise in the education levels of the young working-age population has slowed, ranking significantly lower than other Nordic countries and the OECD average (MEC, 2023). The contemporary visions and roadmaps for higher education (MEC, 2017a, 2018a) address this problem of lowered higher education attainment but ascribed it misleadingly to poor higher education completion rates and weak learning achievements in basic education.

Moreover, there is performative but limited political openness in the creation of visions and roadmaps. The visions for higher education emphasize the consensus built around competitiveness and innovation in Finland. The performative consensus achieved through visions can however mask diverging claims about the future, while these claims are neither equal nor symmetrical. The views achieving a dominant position by closing off other options and underlying dissents, such as those from the unions, seem to perpetuate the structures of governance and to foreclose the future of higher education as an open terrain.

The concept of a new planning ideology seems to aptly capture the nature of anticipatory governance in government performed through visions, roadmaps, and strategies (Kettunen, 2006, 2010). In Finland, anticipatory activities take place within the framework of the government; the state apparatus coordinates the networked system of anticipation of higher education and learning needs, and together with the consultancies attached to it, it seeks to sense ahead of the major transformations by creating visions and enacting them through roadmaps. The long-term visions that are purported to be participatory and open are harnessed to realize predetermined goals linked with political agendas in a way designed to render consensus possible. As such, the visions play a significant role in economic and social coordination in Finnish higher education while providing actors with a coherent system of beliefs and an image of the future (Andersson, 2018a).

The logics underpinning anticipation practices and the principles of academic collegiality collide in the work on the future of higher education. The logic of anticipation is driven by the idea of reducing and managing uncertainty (Beckert & Bronk, 2018; Lakoff, 2007) and making an unknown future "knowable" (Andersson, 2018a). Anticipation in higher education seems to align with a preemptive logic seeking compliance through different means to avoid discord and problems (Anderson, 2010). This logic, however, seems to serve managerialist determinations in higher education policy and is discordant with the academic collegial decision-making process (Välimaa, 2019), which ideally draws on peer review and fosters critical awareness, the hearing of staff, and openness in argumentation.

Finally, the problems generally associated with visions and roadmaps are considerable and manifest themselves in the ways in which they are introduced locally. There is a need to enhance understanding of the selective processes of how claims about the future are made and the underlying dominant interests (Andersson, 2018a, 2018b). Those with authoritative power can determine how participation is enforced and how the boundaries of transparency and openness are delineated. The term "defuturization" (Luhmann, 1976, as cited in Simon & Tamm (2021)) epitomizes a situation like this, where roadmaps based on visions determine the actors' future paths before their future can begin. Working from a common vision and roadmap can produce compromises that dispel alternatives and reduce the possibility of critical inquiry and crucial changes. Such visions and roadmaps tend to entrench policy lock-ins while foregrounding competitiveness and deferring climate actions.

Possible future research could explore different directions. It could analyze the roles and networked relationships of different actors and their interests, or the creation of conceptual frameworks for a more in-depth understanding of anticipatory trends and developments in

higher education or undertake philosophical inquiries into the epistemological and ontological bases of anticipatory governance in higher education.

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Data Availability The data that support the findings of this study are available within the article.

Declarations

Conflict of interest The authors declare no competing interests.

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