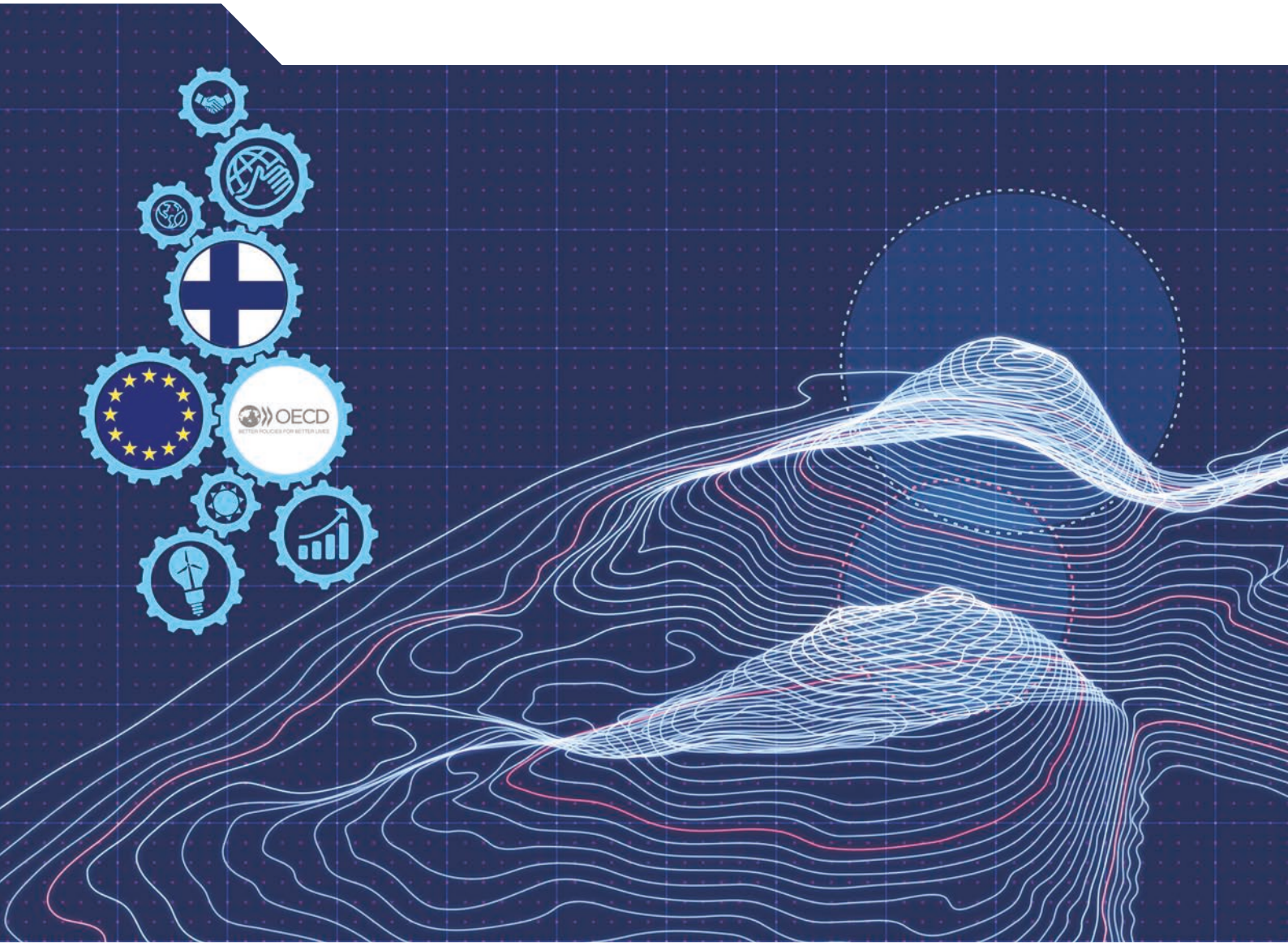
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Anticipatory Innovation Governance Model in Finland

TOWARDS A NEW WAY OF GOVERNING



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Foreword

Complex systems and problems have become the norm rather than the exception. Governments are struggling to make sense of and respond to them, not only to prepare for crises, but also to identify future opportunities. An approach based on allocating responsibilities or risks among specific policy areas has proven inadequate for addressing the scale and interrelatedness of emerging complex challenges. Traditional approaches are especially inadequate for coping with fast-paced change, uncertainty and unpredictable events as well as the cascading consequences that come with them.

To respond to these challenges, governments need to be able to actively explore possibilities, experiment, and continuously learn as part of a broader governance system. This broad-based capacity is referred to as “anticipatory innovation governance” (AIG). The OECD has been working with the government of Finland and the European Commission to examine how the Finland’s governance processes and mechanisms need to be transformed to deal with complex and future challenges in a systemic manner. The work has created a blueprint to help governments incorporate anticipatory innovation functions within their governance system.

The report builds a new model of anticipatory innovation governance based on the work done by the Observatory of Public Sector Innovation at the OECD and the experience of Finland. This model was tested in the assessment of the anticipatory innovation system in Finland conducted in 2020-2021 and the lessons of the following pilot case studies conducted in autumn 2021 and spring 2022.

The empirical work in Finland showed what anticipatory innovation capacity in governments looks like: how it interacts with both the core steering processes of government – strategy, budgeting, regulations – and organisational and individual capacities and capabilities. The model is not designed to be an “extra layer” of government structure, but rather to be integrated with the everyday functions of governance and make them more proactive in addressing future risks, opportunities and uncertainties.

Finland is in a privileged position to carry out this work: the country has been systematically developing its public governance system over the last decade by building up its strategic foresight system and experimentation functions and developing co-ordination mechanisms that support the uptake of complex challenges. While Finnish society and public sector are leaders in numerous international comparisons, the Finnish government has identified a need to further improve in the way it systematically addresses future issues through foresight and innovation.

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The report was drafted by Piret Tõnurist (Project Manager), Angela Hanson, Joshua Polchar, Jack Orlik and Julia Staudt (Policy Analysts), Chiara Bleckenwegner and Davide Albeggiani (Policy Consultants) at OPSI. Santiago Gonzales, Andrew Blazey, Jon Blondal, Claire McEvoy, Mauro Migotto, Mariana Mirabile, Luisa Dressler, Manuela Fitzpatrick, Gráinne Dirwan from the OECD contributed with reviews and comments on the report. Additional support was provided by OECD colleagues: Andrew Bell (Head of OECD Skills Strategies, OECD Directorate for Employment, Labour and Social Affairs [ELS]) and Glenda Quintini (Head of Skills Analysis and Policy, ELS). The report drew on the expert knowledge of consultants Nynke de Witte, Lorenzo Forni and Loes van der Graaf.

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Table of contents

Foreword 3

Acknowledgements 4

Executive summary 11

Part I Anticipatory innovation governance model 13

1 Need for a new future-oriented model of governance 15
References 18
Note 19

2 Anticipatory innovation governance 21
Anticipatory innovation governance mechanisms 28
References 32

3 Revised model of anticipatory innovation governance 35
Learnings from the Finnish government system 36
Learnings from the conducted pilots 42
Updated anticipatory innovation governance model 51
References 61
Notes 61

Part II Assessment of the Finnish Government system and its ability to anticipate 63

4 Finland – a country where governance matters 65
References 71
Notes 73

5 Methodology and purpose of the assessment 75
References 78

6 Assessment of the Finnish Governance system and its anticipatory capacity 79
Futures and foresight 86
Public interest and participation 96
Alternatives exploration 105
Individual and organisational capacities 116

Budget and resource allocation 128
Policy cycles and continuity of reforms 133
Co-ordination across government challenges 140
Conclusions of the assessment 143
References 150
Notes 155

Part III Pilot case studies 157

7 Pilot selection and methodology 159
References 164

8 Summary findings and comparison of the pilot case studies 165
Continuous learning 166
Carbon neutrality 171
Child well-being 175
Collaboration between politicians and public officials 179
References 184
Note 184

9 Towards a model for the anticipatory governance of continuous learning in Finland 185
Scope and steering of the pilot case for Continuous Learning 187
Understanding the context of continuous learning in Finland 188
Gap analysis: Challenges for the implementation of anticipation in the continuous learning reform in Finland 193
Principles for the anticipatory innovation governance of continuous learning in Finland 196
A prototype anticipatory innovation governance model for continuous learning in Finland 198
Pilot case findings and key considerations 213
References 214

10 Carbon neutrality and evidence about the future in fiscal and economic policy 217
Purpose and context of the research 218
Carbon neutrality ambitions in Finland 219
Finland's current carbon neutrality strategies, activities and capabilities 220
Current carbon neutrality strategies: Challenges and uncertainties 222
Expert advisory bodies 225
A global view: Existing knowledge and remaining challenges on how to integrate (climate change) uncertainty in fiscal modelling, policy and budgeting 226
Anticipatory approaches in global peer cases 233
From cost-benefit analysis to risk-opportunity assessments and robust decision-making? 243
The Finnish context of green budgeting and fiscal planning and opportunities for incorporating anticipation 245
Pilot case findings and key considerations 255
References 256
Notes 261

11 Child well-being in Finland's welfare service counties 263
Introduction 264
Child well-being: A uniquely anticipatory domain 265
Existing anticipation for child well-being in Finland 268

International cases 274
Gap analysis 287
Opportunities for action 291
Reflections for AIG as a model 302
Pilot case findings and key considerations 303
References 304
Notes 309

12 Collaboration between politicians and public officials in the field of anticipatory innovation 311
Introduction 312
Understanding the context of politico-administrative collaboration in Finland 314
Existing knowledge on anticipatory collaboration 319
Practices of collaboration relevant to anticipatory governance 322
Learning from peers 330
Opportunities for action 334
Pilot case findings and key considerations 338
References 339
Notes 343

13 Conclusions 345

Glossary of terms 347

FIGURES

Figure 2.1. Public sector innovation facets model 22
Figure 2.2. Anticipation, anticipatory innovation, anticipatory innovation governance 25
Figure 2.3. Strategic foresight as part of an anticipatory innovation process 28
Figure 2.4. Anticipatory innovation governance mechanisms 29
Figure 3.1. Anticipatory innovation prototyping 39
Figure 3.2. Anticipatory innovation governance challenges in Finland 42
Figure 3.3. Systems dynamics for anticipatory innovation governance in Finland 50
Figure 3.4. Anticipatory innovation governance model: Governance functions and roles 56
Figure 4.1. Future scenarios of the capabilities of public governance for change in 2030 69
Figure 5.1. Topics of thematic validation workshops 77
Figure 5.2. Trust, civic space, and anticipation - three perspectives on systems change in Finland 78
Figure 6.1. Substantive policy challenges needing anticipation 81
Figure 6.2. Identified governance challenge clusters 84
Figure 6.3. Futures and foresight activities in the Government of Finland on the national level 87
Figure 6.4. OECD Digital Government Index 101
Figure 6.5. AuroraAI network 103
Figure 6.6. Individual level challenges associated with lack of an anticipatory innovation mind-set 122
Figure 6.7. Types of foresight and futures methods used in Finnish public sector organisations 125
Figure 6.8. Perceived needs for tools and methods in the public service of Finland 126
Figure 6.9. What makes politics short-term? 134
Figure 6.10. Challenges connected to implementation 138
Figure 7.1. Planned cases and their ties to thematic cluster areas 162
Figure 8.1. Gaps in anticipatory innovation governance mechanisms: Case of continuous learning 168
Figure 8.2. Gaps in anticipatory innovation governance mechanisms: Case of carbon neutrality and uncertain evidence 172
Figure 8.3. Gaps in anticipatory innovation governance mechanisms: Child well-being 176
Figure 8.4. Gaps in anticipatory innovation governance mechanisms: collaboration between politicians and public officials 180

Figure 9.1. A prototype anticipatory innovation governance model for continuous learning in Finland 198
Figure 9.2. Governance of OSAKA 209
Figure 10.1. OECD Foresight Process to stress-test net-zero transitions 224
Figure 10.2. Elements supporting the implementation of green budgeting 232
Figure 10.3. OECD Countries Practicing Green Budgeting, 2021 233
Figure 10.4. National government's efforts to tackle climate change 246
Figure 11.1. Frequency of terms related to child well-being in Google Books over time 266
Figure 11.2. Perhekeskus (family centre) services 273
Figure 11.3. Example of progress against the indicator on quality of children's services 278
Figure 11.4. Example of the structure of indicators for one of the five Framework outcomes, and presented achievements as of 2022 279
Figure 11.5. Implementation structure of the Better Outcomes Better Futures framework 280
Figure 11.6. Traditional budget process in New Zealand 283
Figure 11.7. Government structure of Australia 284
Figure 11.8. The strategic landscapes 292
Figure 11.9. Gap analysis, mechanisms, objectives 295
Figure 11.10. Options for action in context 297
Figure 12.1. Anticipatory innovation governance dialogues in Finland 315

TABLES

Table 2.1. Comparison between traditional policy making and anticipatory innovation governance 26
Table 2.2. Agency and authorising environment in the anticipatory innovation governance framework 30
Table 3.1. Main needs identified for anticipatory innovation capacity across pilot case studies 43
Table 3.2. Diagnostic of the pilot case studies 44
Table 3.3. Anticipatory innovation governance mechanisms, functions and roles 52
Table 5.1. High level coding scheme 76
Table 6.1. General findings based on the anticipatory innovation governance model 81
Table 6.2. Heat map of validation results 85
Table 6.3. Key public sector innovation entities 110
Table 6.4. Budget cycle in Finland 129
Table 6.5. Opportunity areas and pilot ideas 149
Table 8.1. Summary of the continuous learning pilot case study 169
Table 8.2. Summary of the carbon neutrality case 173
Table 8.3. Summary of the child well-being case 177
Table 8.4. Summary of collaboration between politicians and public officials 182
Table 11.1. New Zealand's approach to well-being 281
Table 11.2. Three-level governance for child well-being in Australia 284
Table 11.3. Three-level child protection in Norway 286
Table 11.4. Model elaboration for child-wellbeing 293
Table 11.5. Possible roles in a child well-being anticipatory innovation governance model in Finland 300
Table 11.6. Key dates and tasks in setting up AIG for child well-being 301
Table 11.7. System dynamics of an AIG child well-being model 302

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Executive summary

Governments' structures and operations are traditionally geared to respond to well-identified and sequential challenges rather than grand challenges of a complex and uncertain nature. Classic steering mechanisms often fail to acknowledge the complexity and interdependence of policy issues. Yet, economic and social security futures hinge on climate change, global trade flows, and how quickly and effectively the global community responds to threats like pandemics. Anticipatory innovation governance, or AIG -- defined as a "broad-based capacity to actively explore possibilities, experiment, and continuously learn as part of a broader governance system" -- can help national and international decision makers not only make sense of the ambiguity of future-oriented policy issues but also start working on them using a variety of tools and methods to explore and shape those futures.

The report addresses a considerable gap in prior knowledge and guidance on how governments prepare for unknowable futures. It consists of three parts: an overview of the anticipatory innovation governance model (Part I), the assessment of the anticipatory innovation capacity of the Finnish Government (Part II) and the pilot case studies where the principles and functions of the model were explored in practice (Part III).

The assessment of the governance system in Finland looked at the assets, preconditions, and gaps within the wider public sector policy-making and steering system in Finland that may affect the implementation of an anticipatory innovation approach. This initial research identified six main challenge areas for the Finnish government, including:

- Overcoming the strategic foresight impact gap by integrating futures and foresight with core strategic processes, innovation and experimentation
- Opening up the development of policy alternatives connected to future challenges by systematically involving citizens and other stakeholders in future-oriented policy creation
- Strengthening the capacity of public servants to reflect and act on future policy challenges by increasing access to and experience with anticipatory innovation approaches and tools
- Ensuring that traditional government policy steering mechanisms – strategic, budgetary, and legal – allow for (and do not inhibit) the exploration of policy alternatives and tackling of complex problems
- Using anticipatory governance mechanisms to allow complex and long-term policy issues to be collectively understood and sustained across the policy cycle
- Countering government silos and creating new ways of collaboration to address emerging problems in a cross-governmental manner

To tackle these challenges and test the anticipatory innovation governance model in development, four policy domains were identified as case studies to gain a greater understanding of how to build Finland's anticipatory capacity. The cases provided lessons about the effective governance of anticipatory innovation, demonstrating how Finland's governance structures can deal with shifting values, new public expectations, and uncertain future shocks in order to address concrete policy challenges. These cases are:

Continuous learning: the world of work is continuously transformed by the complex interaction of trends such as automation, climate change and an aging population, which, in turn, affect the demand for skills. Against this backdrop, Finland has recognised the need for a reform of continuous learning to create a system that is able to anticipate and respond to changes in the demand for skills and learning across the labour market and broader society. This pilot case explores how anticipatory innovation governance could facilitate the development and implementation of the Continuous Learning Reform.

Carbon neutrality: Finland aims to be carbon neutral by 2035 and eventually become the world's first fossil-fuel-free welfare society. However, no governance model can support a transition to carbon neutrality unless it can constantly perceive, understand, and act upon changes as they emerge. The case study explores how anticipatory innovation governance approaches could be applied to support the country's transition to carbon neutrality.

Child well-being: Finland published its first National Child Strategy in February 2021. The goal is to formulate a vision for a child- and family-friendly Finland that transcends both electoral terms and administrative boundaries. The Strategy is to be implemented alongside changes occurring as part of Finland's social and welfare (SOTE) reform, which completely rethinks how child well-being services are governed and organised. The case study looks at how, by implementing some of the mechanisms of AIG, Finland can address existing challenges while preparing to better meet the needs of future generations.

Collaboration between politicians and public officials: Finland aims to better incorporate the anticipatory innovation function within its governance structure. To date, future-oriented policy making in Finland is conducted mainly by a 'coalition of the willing' and co-exists alongside traditional policy-making processes and mechanisms. The case study looks at how different actors within the Finnish government can work together on anticipatory policy making and what forms of collaboration between public officials and politicians could be instrumental.

Stemming from these case studies and the overall analysis, there are steps that the Finnish Government could take to make anticipatory innovation capacity more systematic across government. These include:

- Systematise the government transition process to improve the continuity of long-term reforms and institutional memory.
- Develop new methods and governance approaches to plan responses to emerging issues.
- Establish structures for regular collective sense-making, visioning and exploration of alternatives.
- Test new approaches to allocate budgetary resources to emerging phenomena.
- Reform regulatory approaches to enable experimentation.
- Design training, teams, and roles to increase the understanding and application of anticipatory approaches.
- Institutionalise dialogue and deliberation to build trust among citizens, public officials, and politicians in order to enable greater engagement with uncertainty.
- Connect the futures and foresight system to policy making.
- Track and assess the use of anticipatory approaches.

There is a need to understand anticipatory innovation as an ongoing practice requiring continuous investment and reflection rather than a set of isolated efforts. Despite the challenges identified, the Finnish government shows an outstanding commitment to constantly adjusting its way of doing things and to striving towards better policy making. Most of the action points identified in this report are relevant to any organisation wanting to establish or improve its approach to anticipatory innovation governance, whether at the beginning or well along in its journey towards effective anticipation.

Part I Anticipatory innovation governance model

1 Need for a new future-oriented model of governance

More than ever, policy environments are characterised by complex, uncertain, multi-causal contexts, where risk taking is limited and short-termism prevails. There is a need to introduce long-term perspectives and future-oriented decision making into policy and use strategic foresight to anticipate different futures.

Today the need for governments to respond to emerging challenges is particularly acute. More widespread events connected to climate change, migration, pandemics and other quickly developing issues are likely to emerge. In this environment, where complex systems and the problems they contain have become the norm rather than the exception, a purely reactive approach to setting policy is proving increasingly inadequate. Waiting until crises strike to respond has far less value than anticipating and acting in an innovative way before issues have emerged. Governments need both the ability to respond to unforeseen challenges in an expedient manner – adapt – and the ability to anticipate different (probable, plausible and possible) futures and prepare for these realities. This is not about introducing more strategic foresight or innovation into various pockets of government, but about building a system that helps policy makers to leverage both adaptation and anticipation.

Based on a review of existing research (Tõnurist and Hanson, 2020[1]), the policy environment today is characterised by:

- *Complexity*. In the policy context, complexity can derive both from underlying characteristics of wicked problems, and also due to competing interests in a policy area (Peters, 2005[2]). Wicked problems are characteristically open-ended, inter-connected and without clear, predetermined pathways to solutions (Rittel and Webber, 1973[3]).
- *Multi-causality*. Policy makers often rely on simulations and predictions based on linear causality, drawing on the dominant pattern within the policy field. This makes futures "closed" as they are extrapolated from past events and continuation of specific values and norms. This does not have to be the case and often is also not desirable, when transformation is actually deemed desirable, necessary or unavoidable. Here multi-causality means that there are many future possibilities and they are layered. This starting point enables policy makers to consider "open futures," i.e. a multiple and open-ended understanding of future possibilities (Bussey, 2014[4]).
- *Uncertainty*. Uncertainty stems from the fact that policy problems and their solutions are often unquantifiable and their risks cannot be calculated (whereas with risk the probability distribution is known or predictable) (OECD, 2017[5]). When faced with uncertainty, not taking action is in some cases easier than intervention: it frees authorities from having to justify risky or uncertain interventionist policies until the future catches up with policy makers and negative outcomes arrive (Guler and Demir, 2020[6]).
- *Diverging pace of change*. Governments are often slow to respond to changed circumstances in their environments and face a 'pacing problem' (Marchant, 2011[7]): given the speed of innovation, challenges can evolve and change at unexpected points during the policy cycle. Traditional policy making often involves making decisions and judging priorities based on past information and existing evidence, and thus responds reactively to rapid change and unexpected events. Not all developments can be predicted or reduced to manageable practices within a single policy field; they must be continuously explored in real time and in an iterative manner.
- *Technological change*. The far-reaching impacts of technological change tend to be unpredictable. The Collingridge Dilemma captures this challenging trade-off between clearly understanding the impact a given technology will have on society, and the ease with which interested parties are able to influence the social, political and innovation trajectories of this technology. When change is easy (at early development stage of a technology), the need for it cannot be foreseen; when the need for change is apparent (when technologies have already diffused), change has become expensive, difficult and time consuming (Morozov, 2012[8]).
- *Crises and short-termism*. Policy makers today are often driven by events rather than visionary or forward-looking practices (Burrows and Gnad, 2018[9]). Crises can sometimes act as 'focusing events' – as is the case with COVID-19 – which can allow for major policy resets. Yet, this way of making policy depends on chance rather than an intentional process; it is an ad hoc and not a systematic practice. There is a continuous pressure to seek out quick wins towards political

imperatives and manage crises rather than preparing for uncertain futures. Meanwhile, governments defer decisive action on long-term trends such as climate change, rising world population, demographic changes, urbanisation, and unsustainable consumption patterns.

- *Risk avoidance*. Governments are generally known to be risk-averse, rule-driven, and based on stable structures and predictable decision-making (Brown and Osborne, 2013[10]). This is also known as 'minimal squawk' behaviour' (Leaver, 2009[11])– trying to avoid drawing attention to rising issues if there is no immediate pressure to do so. Avoiding risks is often justified for political and reputational reasons; however, it means that by design, governments are not able to take action quickly when confronted with new challenges or to act proactively in the face of new opportunities. Governments' response to transformative change has generally been reactive at best. From the position of 'wait and see', governments are pushed to act when hazards (moral, ethical or even physical) materialise, or they are called upon to resolve issues arising between industry incumbents and new business models.

Recent OECD work laid out a principled framework on how governments can start addressing these challenges by integrating anticipatory capacities into public governance and policy steering (Tõnurist and Hanson, 2020[1]). Research shows that simplifying these issues into discrete models[1] does allow governments to take decisive action, but often creates blind spots. Adequate action starts with the willingness to embrace radical uncertainty and complexity, and to put forward the right tools to make sense of new developments as they emerge.

To make policy is to think about the future. Governments require future-oriented innovations in order to respond to complex challenges, such as climate change, aging societies and digital transformation, in real time. Every policy designed and delivered carries implicit or explicit notions of the context in which it will be implemented, the intended consequences, and its potential effectiveness. Often these notions are based on expectations, forecasts, predictions, and assumptions – mental models – about what the world will look like and how it will work (Wack, 1985[12]).

These mental models facilitate decision-making, but they can also contain biases and blind spots (Pain et al., 2014[13]). Forecasts and predictions are not well suited to situations of volatility, uncertainty, complexity, and ambiguity because they project the future in a linear way that is not reflected in reality (Ramírez and Wilkinson, 2016[14]). It may be possible to follow the line of an indicator such as GDP into the future, but that will not necessarily give an appreciation of the factors affecting or affected by it, or what they mean for a given organisation.

Policy makers face a difficult task of maintaining continuity and confidence in the public system, while rapidly adapting to a new environment of fast-changed and constantly evolving demands, volatility and complex problems. The deployment of new and disruptive technologies and digitalisation are transforming the production and distribution of goods and services, changing the status quo for economies and societies, and resulting in new inequalities (OECD, 2019[15]). This has serious implications on future employment, skills, income distribution, trade and well-being (OECD, 2015[16]).

Governments need to understand and anticipate the impacts of technology, change and innovation as well as the shifting expectations of citizens, companies and innovators and their implications for public policy. The validity of existing regulatory frameworks and, indeed, the capacity of governments to adapt to change are being questioned. This requires an increasingly agile public sector, able to exploit the many opportunities offered by technological change to improve rule-making and adapt to new realities and risks (OECD, 2018[17]). Governments need to guide society through uncertainty and technological change, which requires new forms of innovation governance that allow policy makers to respond to unforeseen events and technological change in real time (Polchar, 2020[18]; Tõnurist and Hanson, 2020[1]).

OECD research indicates that government responses to these challenges increasingly depend on the system's ability to harness futures thinking, anticipation and innovation. While strategic foresight can help governments understand the possible spaces within which to take action, it often lacks the connection to what this action can look like in practice. It is impossible to determine the most effective responses to a complex problem without testing them out in practice by innovating. An important aspect of effective policy making is the ability to learn from innovation and to feed the insights gathered back into the system. Thus, effective government action increasingly depends on the public sector's ability to harness futures thinking and anticipation, and to test innovations on the ground. These capacities lie at the core of the anticipatory innovation governance (AIG) model described in the next section.

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Note

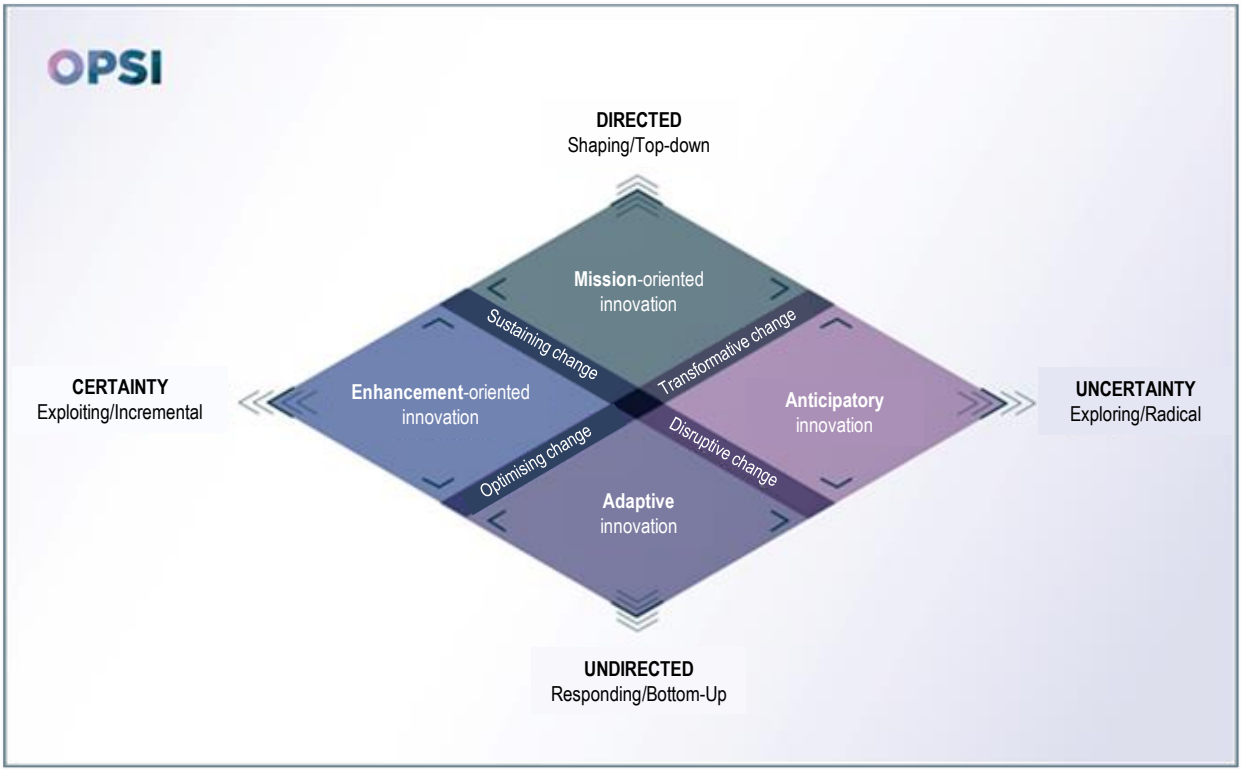
[1] Models that only account for a set number of values.

2 Anticipatory innovation governance

To reinforce governments' capacity to tackle complex challenges, the OECD proposes an anticipatory innovation governance model. It enables governments to use tools, methods and information resources to anticipate and innovate in practice in the face of fast-moving change, and builds a public sector system that creates demand and validation for this work.

The anticipatory innovation governance model leverages and connects government capacity to anticipate emerging changes, set up visions for desired futures, and develop innovative solutions to achieve these. The OECD's public sector innovation model sets the basis for this work. The theoretical framework underpinning the OECD Declaration on Public Sector Innovation (OECD, 2019[1]) is based on the notion of innovation facets (Figure 2.1) recognising that different innovative responses are needed in accordance with the type of problem at hand. As can be seen in the diagram below, the facet model identifies two central characteristics affecting the type of innovative response. These are the degree of uncertainty surrounding the problem, and the level of command over the response (its directionality).

Figure 2.1. Public sector innovation facets model



Source: (OECD, 2021[2])

The model outlines why governments innovate:

- to reach their goals and solve problems (mission-oriented innovation)
- adapt to their citizens' needs and changing environments (adaptive innovation)
- run their current systems more effectively and efficiently (enhancement-oriented innovation)
- address future challenges, risks and opportunities (anticipatory innovation)
- These goals are inherently connected to public values governments are called to fulfil (see Box 2.1 below). Anticipatory innovation is particularly connected to transformational values meaning that countries are ready for future risks and uncertainties.

Box 2.1. Public sector innovation and a public value approach

Public sector innovation

The Observatory of Public Sector innovation defines "public sector innovation" as the process of implementing novel approaches to achieve impact (OECD, 2017[3]). In the broadest terms, public sector innovation has to fulfil three different criteria: **novelty**, **implementation** and **impact**. The starting point for the definition is Schumpetarian (Schumpeter, 1934[4]) meaning new combinations of new or existing knowledge, resources, equipment (novelty), and other factors with the aim of commercialisation or application (implementation).

Value approach to innovation

While in the private sector the aim is usually gaining a competitive advantage in the market, in the public sector the same metric cannot be applied. Thus, impact usually means a **shift in public value** (OECD, 2019[5]).

In general, public value represents a normative consensus of prerogatives, principles, benefits and rights that can be attributed to both governments and citizens (Jørgensen and Bozeman, 2007[6]) and can be linked to a variety of values like effectiveness, transparency, participation, integrity and lawfulness among others. Not all public values have a clearly distinguishable cost / monetary benefit dimension (Tangen, 2005[7]). Public value can be defined by both the values the public sector seeks to attain, but also the value added to the public sphere (Benington and Moore, 2011[8]; Moore, 2013[9]). A distinction can be made between "prime values" or "substantive values" of the public sector (values that can be pursued for their own right) and others that are instrumental in achieving other values. "Substantive values are different from transitory values, as they should hold true even if day-to-day missions and goals in the public sector shift (Rosenbloom, 2014[10]). Public sector innovation is connected to the following substantive values (OECD, forthcoming[11]):

1. How can government achieve its ambitious societal goals that it is called on to tackle (political-social value)?
2. How can government continuously improve and do things better with the public funds it has been trusted with (moral-ethical value)?
3. How can government take on board and respond to evolving citizen needs and environmental changes (citizen-centric values)?
4. How can government explore future risks and uncertainties, so it and its citizens are future-ready (transformational values)?

Source: (OECD, forthcoming[11])

Anticipatory innovation embraces uncertainty and experimentation to explore possible futures and steer towards preferred ones. Yet, it is difficult to create space for anticipatory innovation in government contexts. Evidence and literature indicate a number of reasons for this (Tõnurist and Hanson, 2020[12]). First, there is a tendency of governments to focus innovation efforts to present issues based on existing tools and mechanisms rather than engaging with future issues which require a change of paradigm. Second, even when policy makers talk about future issues, they tend to reduce them to categories of the present and to project present-day solutions to address them. Third, anticipatory innovation is often conflated with adaptive innovation, while the latter is directed to respond to the changes in today's government environment, they are not designed to respond to those that can potentially impact the future (Box 2.2).

Box 2.2. Balancing anticipation with adaption

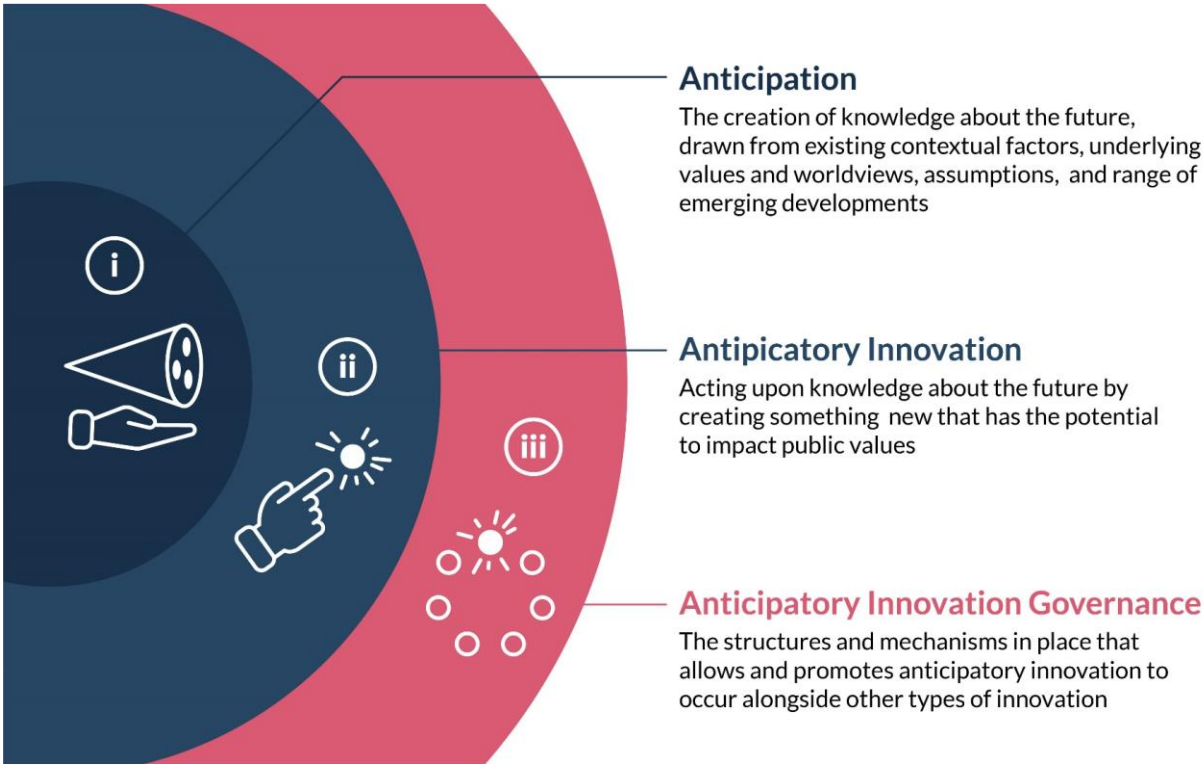
There tends to be some confusion between anticipatory and adaptive innovation (see Figure 1.1 in Chapter 1) especially in dealing with crises. Adaptive resilience or anti-fragility is meant to address the unexpected in the world as we know it, while anticipatory innovation focuses on preparing for and shaping the unexpected world (Nordmann, 2014[13]). One is about an isolated new phenomenon, the other about an entirely unfamiliar environment. In reality, governments need both: resilience and quick action when the current system experiences a shock (short-term, quick responses that help respond to crises with available means); but also anticipation, preparing for cascading effects, potentially transforming the system quickly to respond to new realities. This can be understood in simple terms as the difference between tactical and more strategic long-term responses to prevailing, complex issues. Hence, anticipatory innovation is more prospective and proactive than adaption; it invites governments to explore and take action towards desired futures.

Anticipatory innovation governance should consider uncertainty (not risk) over extended timeframes, and develop the capacity to mitigate uncertainty by changing actions today. There is a connection between anticipatory innovation governance and adaptive management, as there will always be risks that suddenly emerge, requiring government response. While adapting to changes in the current system, anticipatory innovation must explore options that may also challenge the current system and how it functions for example through agile management practices.

Source: OECD; (Nordmann, 2014[13])

As defined earlier, anticipatory innovation governance is a broad-based capacity to actively explore possibilities, experiment, and continuously learn as part of a broader governance system (Figure 2.2). The model is *anticipatory* in that the frame of interest is uncertain futures. *Innovation* is both the process and the strategy to explore these futures. Typically, OPSI defines innovations as implementing something novel to the context that has impact (positive or negative) such as the change in public value (OECD, 2017[3]). This becomes core to the anticipatory innovation governance model when governments develop a portfolio of innovation projects designed to work together to probe potential futures, with feedback loops that generate organisational learning. Anticipatory innovation has close ties to foresight and futures thinking. A new wave of "future-readiness" is entering policy making through the increased importance of foresight activities and futures thinking (School of International Futures, 2021[14]). Yet, this is not going to be enough to make a difference on the ground. Governments need to learn to anticipate – create the knowledge about futures ahead – but also make that actionable through implementing real innovation on the ground. For this to work, governments need a new governance approach to support future-oriented learning that is based on empirical experimentation.

Figure 2.2. Anticipation, anticipatory innovation, anticipatory innovation governance



Source: (Tõnurist and Hanson, 2020[12])

This governance model requires innovation to be built into the administrative system. This means developing a governance system to continuously identify, test and disseminate innovations especially with a particular aim of spurring on innovations connected to uncertain futures in the hopes of shaping the former through the innovative practice. Anticipatory innovation governance needs to be ingrained into the everyday practices of government so that policy reforms and structural changes can benefit from this capacity. It requires governments to steward innovation processes and policy making differently (see comparison of traditional and anticipatory innovation governance in Table 2.1 below). Rather than policy determining the activities of individuals and groups within a system, policies are shaped by the results of observations/experiments in a real-world environment – ideally with a subset of the individuals or groups that would be affected by government intervention – in order to determine effective policy and its potential unforeseen side-effects. This approach allows governments to move towards their ideal future not by simply anticipating potential outcomes and developing innovative policy approaches to address them in theory, but by taking action to ensure that these policy approaches work.

Table 2.1. Comparison between traditional policy making and anticipatory innovation governance

	Traditional policy making	Anticipatory innovation governance
Evaluation approach	Evaluation as the last stage in an often-multi-year policy cycle	Continuous evaluation and assessment; exploring future effects (e.g. changes in public values, ethics, intergenerational fairness)
Policy cycle	Long research and drafting cycles, with policy implemented accordingly	Recognition that cause-effect relationships are impossible to know in advance, and that the policy implementation itself changes the problem space
Research and analysis approach	Exploring the problem space through research and analysis	Exploring the problem space through small-scale real-world experiments and innovation
Research and analysis focus	Research and analysis focused on what has happened	Research and model development focused on a range of possible futures
Participation	Policy domain experts and primary affected population	System of related policy areas and affected populations, which changes over time

Source: OECD.

Anticipation is more about practising, rehearsing or exercising a capacity in a logically, spatially or temporally prior way than it is about divining a future (Guston, 2013[15]). Anticipation does not mean predicting the future; it is about asking questions about plausible futures, so that we may act in the present to help bring about the desired futures. It is a capacity to generate and engage with alternative futures, based on sensitivity to weak signals, and an ability to visualise their consequences, in the form of multiple possible outcomes. The main contribution of anticipation lies in the ability to shape people's perceptions about the future and develop their capacity to make sense of novelty (see the difference with traditional policy making in Table 2.1 above). The important follow-up is to take that into practice – innovate based on the knowledge created through anticipation. This can involve future proofing or making current policy systems more resilient to potential change, but it can also involve more transformative shifts in government and testing them out in practice (e.g. how would a public sector organisation work if 20%, 30% or 40% of current tasks were no longer required?).

Strategic foresight is used to create functional and operational views of possible futures and the possibilities that exist within them in order to influence today's decisions. This allows organisations and institutions to gather and process information about their future operating environment while creatively examining their current landscape for meaningful trends and then leveraging those insights to extrapolate or explore potential outcomes that can be used for planning purposes (OECD, 2017[16]). Foresight abandons the idea that the future is ever fully knowable, and accepts that there are always multiple versions of the future – some of them assumptions, some of them hopes and fears, some of them projections, and some of them emerging signals of change in the present. All of them are incomplete and still forming in the present. Strategic foresight makes it possible to make wise decisions in spite of uncertainty by generating and exploring different plausible futures that could arise, and the opportunities and challenges they could entail. Organisations then use those ideas to make better decisions and act now (see The Netherlands Armed Forces Futures: Scenarios in Action – Box 2.3).

Box 2.3. The Netherlands Armed Forces Futures: Scenarios in action

The Dutch Ministry of Defence has a long tradition of foresight activities, including through in-house generation and use for futures studies; and through partnership with external experts such as The Hague Centre for Strategic Studies and the Clingendael Institute. The report "Defensievisie 2035", published in 2020, outlines a set of principles for action to prepare the armed forces for the possible futures in which they might have to perform.

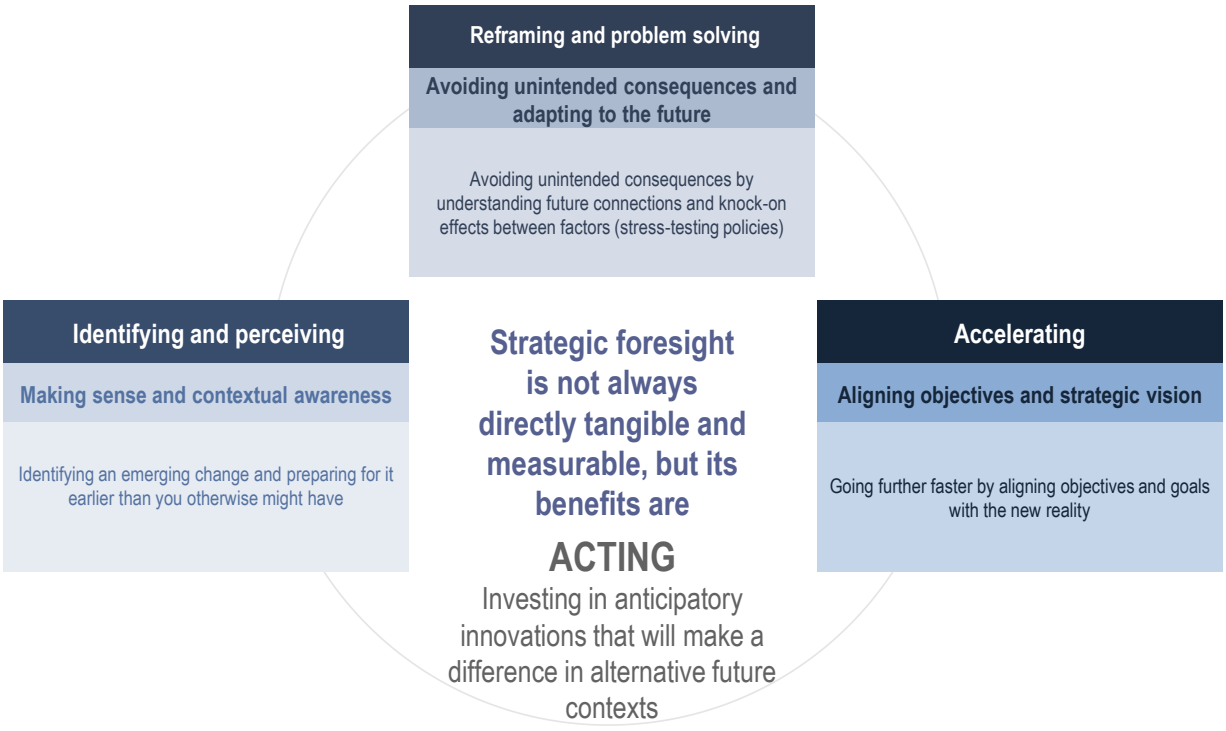
Part of the process of developing these principles for action is the creation and use of scenarios. The scenarios were developed with a time horizon of 2025, and are intentionally fictional but with strong plausibility and potential for impact. From these exploratory, contextual scenarios, a number of potential future situations were derived, and analysed for the capacities and preparedness they would demand of the Dutch armed forces. As in all effective foresight processes, the scenarios themselves are less important than the insights derived from them. Some of the new insights to which these scenarios contributed include the following needs:

- Flexible performance: the ability to quickly mobilise, scale, and function independently
- Authority through intelligence and information
- Transparency and visibility with a social conscience
- Greater specialisation within EU and NATO partnerships

Source: (Government of The Netherlands, 2020[17])

However, often governments are facing an 'impact gap' connected to strategic foresight: the individual, collective, and institutional limitations that prevent the use of high-quality futures knowledge in innovation, policy, and strategy. Foresight approaches have not been systemically integrated within government contexts and there is an overall lack of awareness and capacity for strategic foresight. Because the common tools and structures developed to create and implement policy were designed primarily to react to past events, they are often ill-equipped to value and leverage the insights developed through foresight practice. Strategic foresight can inform decisions, but cannot tell whether these decisions will be successful in the future or how the context will respond or evolve in real life. Thus, the link between foresight, planning and systemic, continuous policy change is missing. Anticipatory innovation governance takes strategic foresight closer to acting (Figure 2.3 below). This involves identifying contextual awareness, sense making, reframing and problem solving, and ultimately acting and learning.

Figure 2.3. Strategic foresight as part of an anticipatory innovation process



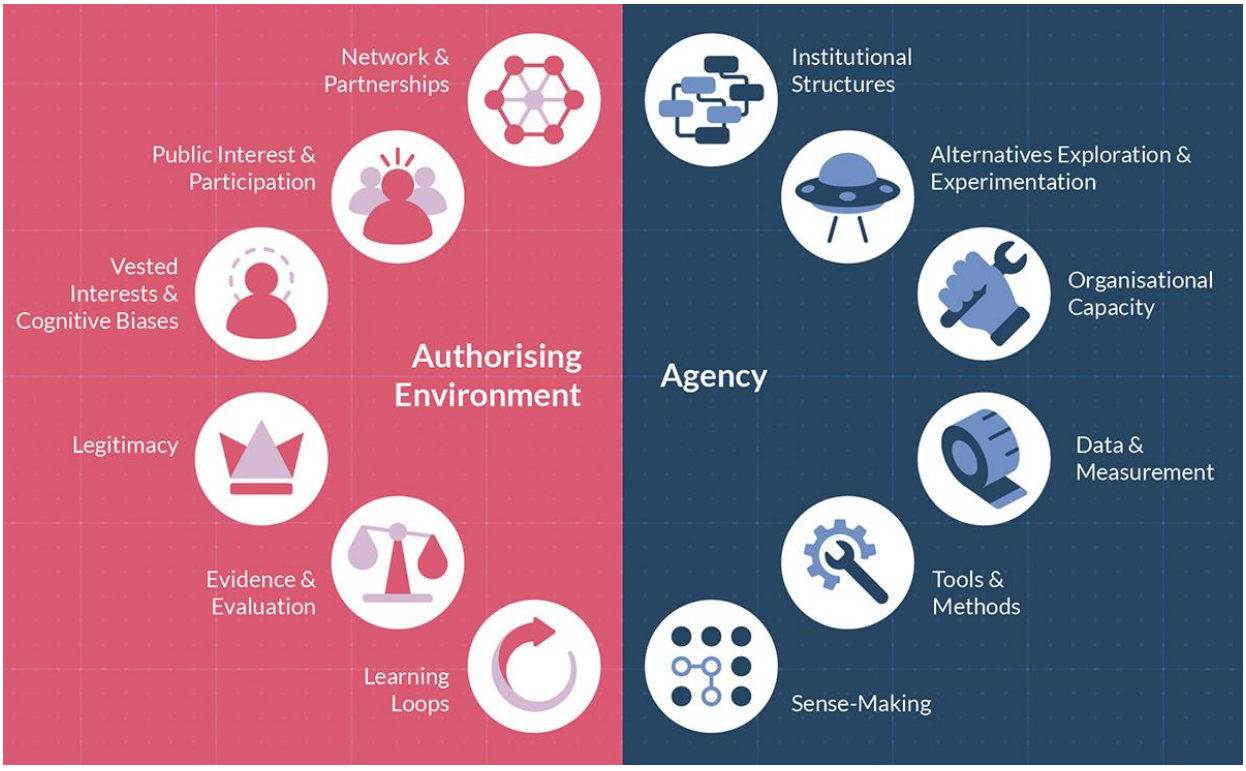
Source: (Tõnurist and Hanson, 2020[12])

Anticipatory innovation governance mechanisms

Recent OECD research (Tõnurist and Hanson, 2020[12]) has pointed to the enabling environment and conditions for government to embrace anticipatory innovation governance. Anticipatory innovation governance operates within established government core architectures and acts on a variety of inputs to manage emerging challenges. It is enabled by a set of mechanisms related to the following categories (see Figure 2.4):

- **Agency** defines the tools, methods and information resources that enable public servants and organisations to anticipate and innovate in practice.
- **Authorising environment** is the system within the public sector that validates anticipatory innovations – provides feedback that there is demand, value, and use for the work.

Figure 2.4. Anticipatory innovation governance mechanisms



Source: (Tõnurist and Hanson, 2020[12])

The categorisation is based on an extensible literature review of different core components and factors associated with transformative change from organisational studies, innovation and futures thinking literature.

To operationalise anticipatory innovation governance, it is key to explore how changes in authorising environments and officials' agency can create opportunities and habits for experimentation, learning and innovation. Governments seeking to authorise anticipatory innovations can create learning loops, evidence and evaluation, legitimacy, and networks and partnerships; and will address vested interests and cognitive biases, and public interest and participation. Public servants need to have agency to work with anticipatory innovation on the ground: the tools and methods, institutional structures, and organisational capacity to support this work. This would require examining the traditional functions of government, including human resources, budgeting, decision-making processes, strategic planning and working methods, etc. The anticipatory innovation mechanisms are summarised in Table 2.2. These mechanisms often intersect and interact with traditional government functions (human resources, budgeting, procurement, evaluation etc.). More case-based research is needed to explore in depth the functioning of the enablers of anticipatory innovation governance and their relationship with established function to assess which ones act as enablers and which as barriers.

Table 2.2. Agency and authorising environment in the anticipatory innovation governance framework

Mechanisms of agency	Mechanisms of authorising environment
Alternatives exploration and experimentation *Ability to consider different alternatives that may conflict with current strategic intent*	**Vested interest and cognitive biases** *Ways to address incumbents' interests and biases in thinking about the future*
Data and measurement *Reading and interpreting signals in time*	**Public interest and participation** *Involving a variety of stakeholders and new perspectives, and facilitating discussions around values*
Sense making *Uncovering underlying assumptions and making sense of trends*	**Networks and partnerships** *Working together with leading organisations and individuals with transformative ideas*
Organisational capacity *Organisational structures that give autonomy and resources to explore transformative ideas*	**Legitimacy** *Creating trust in government, experimentation and explored futures*
Tools and methods *Approaches to create new knowledge about possibilities, creativity of thought, and operationalisation of innovations*	**Evidence and evaluation** *Evaluating future options based on value and accounting for opportunity costs*
Institutional structures *Institutions that make room for experimentation and testing*	**Learning loops** Creating feedback loops from experimentation to dynamically inform policy choices

Source: OECD.

Agency – the capacity to act and reflect on potential for future actions – is partially based on actual competencies available (e.g. tools and methods used; skills and capabilities present), but also on the collective belief in the usefulness of these skills and methods in specific situations. It is not only about the individual agents, but the processes and structures that support their actions. Agency is often dependent on constraints, resources and opportunities in a given setting, but also on public servant's belief that they are able to act. For such agents to engage with the future in a productive way, it is important to look at how organisations and teams explore alternatives, which tools and methods they use, and which structures and resources are in place to support taking action.

The *authorising environment* sets the legitimate limit of autonomy to shape the future (e.g. what is meant by public value), and thus, can constrain what is possible in terms of anticipatory innovation in the public sector. The authorising environment influences accountability and trust in public organisations and indicates the legitimate limits of the public manager's autonomy, set by individual and collective values of the multiple stakeholders (Benington and Moore, 2011[8]). Authorising environments can be internal or external to the organisation, formal or informal, and in many cases they overlap and interact to produce authority and legitimacy in complex ways. An authorising environment is needed to fulfil the innovation potential and guarantee buy-in to anticipatory innovation. The need for authorisation is especially pronounced during priority setting, as decisions tend to carry considerable emotive and political weight (Tõnurist, 2021[18]). It is also important during funding allocation where strong justifications are needed to shield them from competition over funding. After initial funding decisions have been made, anticipatory innovation tends to be slightly shielded from broader communities inside and outside the organisation in practice (thus the efforts to create structural ambidexterity – the ability to explore and exploit knowledge at the same time – in organisations). Together with agency, the authorising environment determines which types of anticipatory innovations get explored, and how the overall governance system works.

The OECD's initial work across different country projects shows several issues and challenges for anticipatory innovation in the public governance system (see Box 2.4). The following work in Finland helps to explore how anticipatory innovation governance could be incorporated with a broader government system and which challenges need to be overcome in a practical setting to make things work.

Box 2.4. How anticipatory innovation governance can challenge traditional governance functions and structures

These areas include, but are not limited to:

Human resource planning. Allowing diverse sets of skills and capacities to enter the public sector. Building up teams with multi-disciplinary skillsets and supporting competencies in futures thinking and foresight to accompany innovation capacities. In smaller governments, this may involve more mobile movement of anticipatory innovation capacities between teams.

Strategic planning. Strategic planning is traditionally based on past actions and linear models of change. There is a need to counter the linear and closed idea of the future. Allowing a variety of futures and possible scenarios to co-exist in strategic plans and continuously stress-testing approved strategies against alternative future contexts. Accounting for long-term visions and intergenerational fairness, but allowing for flexible changes when conditions alter. Signal and trend detection should be integrated as core tasks of strategic planning and should be upheld continuously. Anticipatory innovation governance mechanisms should help balance directionality and potential lock-in in strategic planning, in order to read and capture weak and strong signals of new paths and models. This is crucial because, in fast-changing environments, targets may change so rapidly that traditional instruments could lag behind and become irrelevant.

Structures of government. Creating competence centres for anticipatory innovation governance building capacity for futures thinking and radical innovation, but also allowing for decentralised alternatives exploration. Creating autonomy for anticipatory innovation with time, space, and resources to explore different ideas on the ground, so that business as usual and short-term goals do not overshadow anticipatory needs.

Budgeting. Resource planning that allows for testing and experimentation beyond traditional fiscal structures, countering short-termism, but also allowing challenges to existing strategic aims.

Risk management. Governments tend to file new developments under threats and do not see them as opportunities. Having a closer connection to strategic futures, risk and innovation approaches in government could broaden this approach and also help take into account uncertain scenarios where risks are incalculable.

Procurement. The possibility to create partnerships, building networks within the ecosystem from common future narratives, and building testbeds for new ideas. While the possibilities to support early innovations exist in international procurement regulations, they are far from commonly used.

Evaluation and auditing. As anticipatory innovations are uncertain by nature, it makes sense to evaluate the practice of government from a portfolio perspective: allowing for failure, but also expecting successes. Anticipatory innovation may also require longer time frames than the current government evaluation and audit models allow. Audits should also take into account the cost of not following opportunities to encourage more experimentation and risk taking in the public sector.

Open government and participation. Governments should include the future (of policies, services) as a subject/area of engagement with the public. This can help incorporate public values and concerns, mitigating potential public backlash against new developments, or making the various value trade-offs visible. This can also help set better boundaries for technological development and discuss ethical and moral issues in a democratic manner.

Source: OECD; (Tõnurist and Hanson, 2020[12]; OECD, 2021[19])

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3 Revised model of anticipatory innovation governance

This chapter outlines the updated model for anticipatory innovation governance model based on the empirical work conducted in Finland. The empirical analysis exemplified the need to pay additional attention to the motivation in government to adopt an anticipatory approach and the way in which to start building specific governance mechanisms that support both the agency and the authorising environment of anticipatory innovation. This includes functions those mechanisms need to fulfil and roles and responsibilities that need to be assigned to make the model actionable.

The revision of the theoretical anticipatory innovation governance model (presented in the previous chapter) is based on the assessment of the Finnish government system conducted in between 2020-2021 and the succeeding pilot case studies in four complex policy environments carried out in between September 2021 and the end of April 2022. Insights from both phases of analysis were validated in workshops with the Finnish Government in May 2022. The detailed findings of the assessment report are outlined in Part II and the pilot case studies and their methodology are described in Part III of this report.

Learnings from the Finnish government system

The assessment of the Finnish government system showed that even within one of the most advanced governance and strategic foresight systems in the world, there are considerable gaps in anticipatory capacity and the ability to deal with complex problems systematically, with a long-term perspective. It is not enough to assume that governments have or are able to develop capacity to anticipate change and innovate in the face of complex challenges when they are faced with them. Looking at the Finnish Government system and other governments OECD has worked together with, it becomes apparent that governments face:

- **A considerable strategic foresight impact gap.** It is not easy to integrate futures and foresight into core strategic processes, innovation and experimentation. The use of strategic foresight in government appear to suffer from a set of individuals, collective, and institutional limitations that prevent the use of high-quality futures knowledge in policy making (i.e. the foresight impact gap). Futures and foresight work may be present in abundance, but there also needs to be time to take on board the implications of the findings; accountability in doing so. Conversely, continuous crisis mode also created bias towards action rather than reflection about different possible futures. The more complexity, the more options need to be considered and thus the more difficult the process becomes.
- Lack **of futures literacy.** Overcoming this requires building up the government's futures literacy[1] (see Box 3.1 for an example of futures literacy at work) and setting up appropriate structures to integrate strategic foresight within core strategic processes, innovation and experimentation. The need to clarify the roles and responsibilities of the different strategic foresight actors within the system (e.g. the role of ministries and their internal foresight activities compared to government-wide processes) in challenging existing policies or solutions was also clearly highlighted. **Without clear direction** single organisations within the broader governance system can be uncertain about the degree to which they should develop internal capacities for futures and foresight activities, and to what extent this work should be carried out centrally. This may create pockets of excellence where some ministries or agencies based on ad hoc factors such as leadership support, contextual challenges and push from outside partners have very good transformation units, foresight capabilities and innovation functions, but on the systemic level anticipatory capacity does not exist. Meaning, that truly complex, cross-government challenges become difficult to address as there is not enough capacity across the system to leverage.

Box 3.1. Futures Literacy Labs

As described in "Transforming the Future", Futures Literacy Labs (FLL) are designed so that people make their anticipatory assumptions explicit and thereby reveal not only the determinants of the futures they imagine but also the attributes of the anticipatory systems and knowledge creation processes that they use when thinking about the future. FLL expose why and how people use-the-future. This data emerges from their inter-actions as participants learn to 'use-the-future'. The starting point for perceiving and understanding AA is to interrupt the routine action of 'using-the-future' to provoke a sense that there is a problem when imagining the future. This realisation kicks-off the learning cycle that serves as the skeleton for building an FLL (Almirall, Lee and Wareham, 2012[1]).

Through structured on-the-ground learning-by-doing activities people from all walks of life and all ages learn about the origins and power of what they imagine. By delving together into topics they care about, from the future of health and well-being to the future of jobs and gender, they undertake learning voyages that enable them to source their hopes and fears in their history, culture, context and aspirations.

Futures Literacy Labs deploy action-learning and collective intelligence to co-create the meaning of sustainability, peace and inclusion where people live, work [and play]. When people are capable of deciding why and how to use the future, they become better able to detect and create the otherwise invisible – innovation and transformation. They are more at ease with novelty and experimentation. Less anxious about uncertainty. Humbler about controlling the future. More confident about being able to comprehend and appreciate the potential opened up by change.

Source: (Miller, 2018[2]; UNESCO, 2020[3])

- **Need for individual and organisational capacity.** There is a lack of individual and organisational capabilities in anticipation, innovation and futures literacy and an uneven spread of transformative leadership capabilities both in public administration and politics. For both administrators and decision-makers, the research in Finland showed that short-term tasks take precedence over long-term thinking. Strategic development responsibilities in public sector organisations tend to fall on few people with very full portfolios. Without direct resourcing (both in terms of allocating human capacity, financial funds and time) skills for anticipatory innovation governance will not develop. These capacity needs to be tailored to different individual roles and also organisational capacities within the system (see Box 3.2 from an example from Ireland). There is a need to strengthening the capacity of public servants to reflect and act on future policy challenges by increasing access to and experience with anticipatory innovation approaches and tools. To create demand for anticipatory innovation, leadership skills and capacities need to be addressed and additional support structures and practices put in place in organisations to develop signal reading and anticipatory policy making skills that lead to innovation. Nevertheless, without prioritisation of anticipatory capacity and structural processes that support it, public officials tend to be too overburdened with coping with change (new processes and responsibilities) rather than to reflect on a better way of doing things or having space to try something new.

Box 3.2. Developing strategic foresight capacity in Ireland

Building on Our Public Service 2020, the Irish government is embarking on OPS2030, a new framework for development and innovation in Ireland's public service. The goal for OPS2030 is to ensure that Ireland's public service is fit-for-purpose to 2030 and beyond. It is critical to ensure that the Irish system of governance and public service are equipped and ready to meet challenges, recognise opportunities, and work to the benefit of the social and economic well-being of citizens.

In this context, the government of Ireland is undertaking an upgrade in policy development and strategic foresight spanning the whole public service. This project aims to increase the ability of the public service to address complex policy in areas such as climate change, digitalisation, demographic changes, and long-term healthcare, and to contribute to future-proofing of such policies. Moreover, having a model of strategic foresight and anticipation to steward public policies is important for building more effective, legitimate, and proactive institutions that are suited to a changing context and evolving and emerging needs.

Strategic foresight as part of the policy-development system is fragmented across the public service in Ireland. Recent OECD assessment showed that, while there are pockets of excellence, there are significant gaps in both foresight capability and practice. Strategic foresight and anticipatory innovation governance can help policy developers in Ireland find the right balance to advise on immediate decision-making choices, while situating their reasoning in a comprehensive, informed, and well-judged reading of the situation now and in the future.

Under the European Union's Technical Support Instrument (TSI) programme, the OECD is supporting the Irish government in these ambitions. The envisaged programme of work includes a number of activities in policy development and strategic foresight, including action plans, toolkits, communities of practice, and professional training. The training provided will target three main groups according to their function and needs: policy experts, foresight practitioners, and senior decision-makers.

Source: OECD.

- **Need to balance central steering with bottom up approaches and the autonomy to explore alternative scenarios.** Recent events around the world have shown the need to imagine the unimaginable. However, there is a tendency in governments to refer to predictable futures, alternatives and options that can be quantified and where clear risks can be calculated. This can leave governments considerably vulnerable in the face of uncertain change be it connected to internal or external security, environment etc. While the prior section argued for collective and systemic development of futures literacy, it is important that the ministries, agencies and other public sector bodies have an opportunity to challenge collectively aligned futures and for civil servants to distribute anticipatory knowledge to all parties and stakeholders. Futures methods need to be mainstreamed and tied to core government tasks, while 'opening the system' would allow for more radical ideas to emerge. This means also concretely financing strategic foresight activities in this vein.
- **Need to open up governance systems for collective intelligence.** Public interest and participation are essential to an effective anticipatory innovation system as starting points for the exploration, contextual understanding, and creation of narratives. The findings in Finland to lack of institutionalised citizen participation methods to consider policy alternatives early on, closed processes and lack of facilitation skills in the public sector. There is a need to counter 'standard' arguments against citizen participation, such as that politicians do not want the processes to be open, or that sped-up processes do not allow for wider engagement. It should be clear how citizen

and expert input is going to be used and to which processes it is channelled. Consequently, public servants throughout the system need facilitation skills to work with citizen input, and design open and inclusive policy processes to counter expert bias and groupthink to make the anticipatory innovation governance work. Responsibility should be assigned to look into what is changing in various potentially relevant sectors and socialising those developments with wider audiences for engagement. Bringing strategic foresight out of "narrow circles" and involving more outside and international experts in the work can help bring a diversity of perspectives and keep the focus on long term visions.

- **Lack of alternatives exploration.** The assessment of Finland and OECD's research in other country's innovation systems (OECD, 2019[4]; 2020[5]; 2021[6]; 2021[7]) has shown that in general few expert pioneers are push forward experimentation and innovation in governments, but largely these approaches are side-of-the-desk activity. As outlined above, inside government, there is a lack of capacity and futures literacy at both individual and organisational levels and few organisations have structured signal reading and sense making processes or teams. Experimentation specifically is not always timely in policy-making processes and does not suit established linear policy-making processes. It is worthwhile to look at which structured 'future seeking' and experimental moments in policy reforms actually exists, where policy making timelines create clear demand for future perspectives and experimental approaches. Is it possible to explore alternatives on a continued basis and input into policy change or are policies largely developed through predefined (waterfall) processes with little iterative learning? There needs to be a clear value chain from futures and foresight to exploration, experiment design, innovation and policy development. An example of this is provided in Box 3.3 based on OECD's work with the Slovenian government on the topic of future of the public sector and talent management.

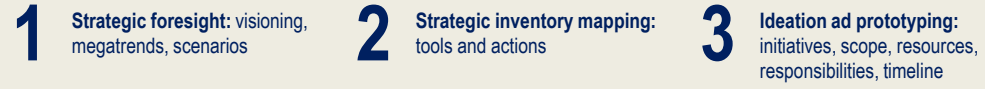
Box 3.3. From strategic foresight to innovation prototypes: Slovenia's "Future of the Public Sector"

In collaboration with the Slovenian Ministry of Public Administration, the OECD Observatory of Public Sector Innovation has developed a set of scenarios to challenge and reframe assumptions and plans in Slovenia's public-sector human resources, while also generating insightful content to present for discussion in the context of Slovenia's upcoming presidency of the Council of the EU.

In a first phase, a set of scenarios was developed using an accelerated process that channelled expertise from public administration and talent management in Slovenia, alongside OECD expertise in a broad variety of domains. The scenarios served to spark imagination about the plausible challenges and opportunities to which talent management may have to respond. Participants also expressed aspirational ideas of the kind of public sector they would wish to see, and the kind of society to which it should contribute.

Implementing the findings of this process involves envisaging and preparing innovative experiments and policy initiatives (Figure 3.1). This second phase involves a series of prototyping workshops which use a methodology of connecting visions of desired future states with alternative contexts presented by the scenarios, followed by responses crafted from actions that can be taken with respect to various strategic levers within the competency of the Ministry of Public Administration to alter.

Figure 3.1. Anticipatory innovation prototyping



Source: OECD based on (OECD, 2021[8])

- **Fragmented use of anticipatory information.** Anticipatory information is often not standardised, harmonised or applied effectively. Fragmented information maintains organisational siloes and prevents a common understanding of the present situation from which futures can be explored. Evaluation of past initiatives is not effectively used in the development of new initiatives (the 'evaluation gap') which means that there is not only an issue with using new data to vision policy opportunities, but also an issue with inadequate learning from the past and the real possibility to repeat past mistakes. There can be considerable gap around historical knowledge and situational awareness of the current context: data concerning the situation, as it is now, is very important but very fragmented making it difficult to come to a shared approach on future if there is divergence in understanding about the current situation.

  Within the context of **digitalisation** there might be room to also consider digital tools that could allow collective intelligence, signal collection and systematisation of data and thus, through processes support the development of anticipatory capacity. Digitalisation might allow for greater alignment between different processes and help break silos; it forces discussion of the interfaces. Data analysis methods and barriers to data interoperability are standing in the way of user-centric approaches and development of new, future-oriented services. It is difficult to triangulate knowledge from citizen participation and other sources of data for anticipation, which could help to improve the government's ability to pick up on emerging changes or unfulfilled goals.
- **Traditional policy steering mechanisms – strategic, budgetary and legal – inhibit anticipatory innovation.** Especially, established policy steering mechanisms make it difficult to explore of policy alternatives and tackling complex problems. Anticipatory capacity involves the ability to challenge current policies, stress-test them on an ongoing basis and actively explore a variety of future opportunities. The conducted research in Finland indicates that often strategic, budgetary and legal steering mechanisms act as challenges to future-oriented exploration and policy development in Finland. For example, the current budget emerges as one of the major drivers enforcing organisational silos and inhibits addressing policy phenomena as complex problems. As such, often budget allocation and strategic steering in government serve different aims: the first enforcing organisational silos, while the other emphasising cross-governmental goals. There are a variety of improvements that could be made to make resource allocation more iterative and agile, including more flexibility in government transfers, budget monitoring tools etc.

  Alongside more incremental improvements, phenomenon-based budgeting could act as a more transformative approach, tackling co-ordination and organisational issues while including anticipation and innovation in the budgetary process. Setting up phenomenon-based resourcing and budgeting pilots can also shed light on how to counter the effects of organisational silos. Additionally, the assessment showed that often regulatory processes are perceived as limiting agile and iterative ways of experimenting with emerging issues, while strategic processes are seen as not offering enough actionable future-seeking moments or as overprescribing solutions up front.
- Enduring **influence of government silos.** The conducted research shows that the Government of Finland is still characterised by very strong silos. When new, cross-governmental issues arise, responsibilities are assigned in ad hoc ways, lacking clarity of process. Cross-cutting issues such as climate change lack clear leadership and there may be a rational reluctance to meddle in other organisation's portfolios. Structural solutions that initiate, empower and co-ordinate the whole ecosystem level and assign responsibility over topics may be the way forward. Simply, wider input from government and non-government stakeholders is needed to deal with system-level issues, but that input needs to channelled somewhere. Without clear direction and accountability co-ordination across government or across the ecosystem can become another administrative burden that takes resources from action. Consequently, it is important to make sense of the purpose of collaboration first and then invest into it. This may not have to be structural, it may be also operational: changing operational models is a more agile approach than changing structures.

For example, this can be done by increasing mobility across silos or creating dedicated challenge-based teams (e.g. phenomenon taskforces), within or spanning across public-service institutions.

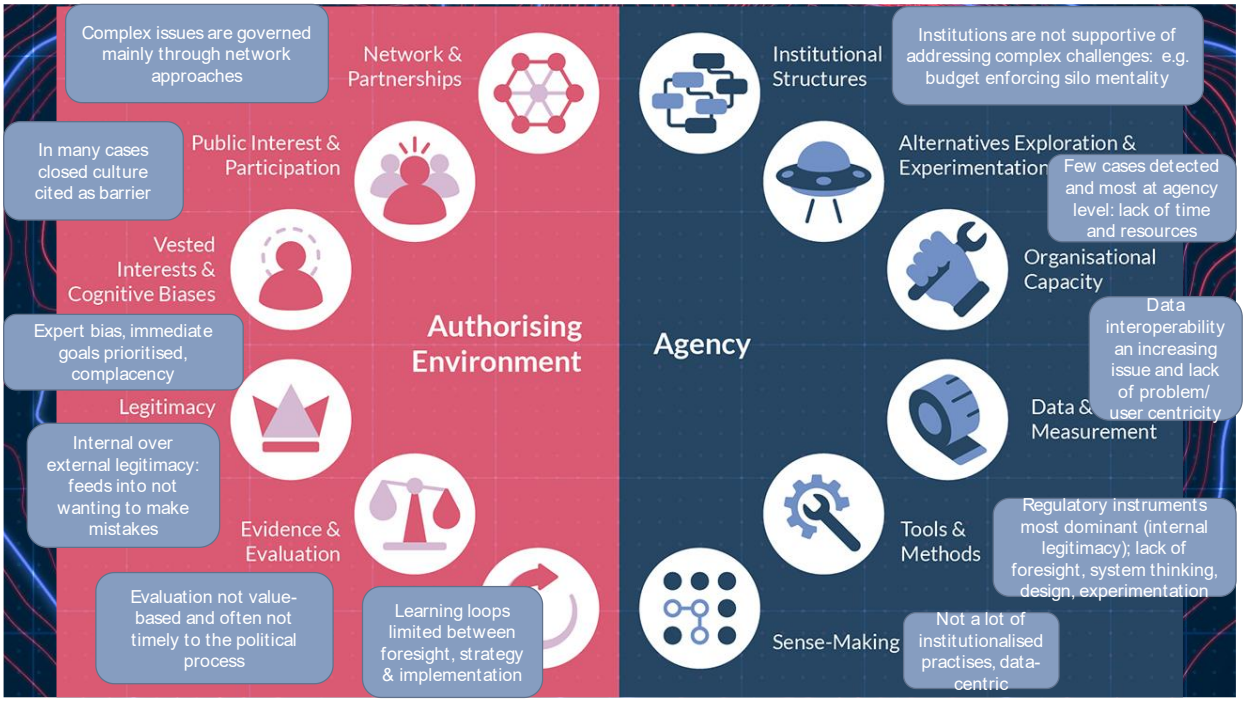
Nevertheless, governments need a more unified approach to analyse new emerging problems, how to tackle and assign responsibility for them in government is needed – this would also help to incorporate anticipatory innovation approaches from the start to examine these issues in a more institutionalised manner. Otherwise not only responsibility over this work remains siloed, but knowledge is as well. Sectoral policy areas tend to only research what is immediately relevant to them and have often little awareness of what may become disruptive from outside of their system, inhibiting the ability to anticipate potential exogenous shocks to that system in advance. This involves both sense making processes, institutional design and planning capacities, tools, methods and ongoing monitoring, and evaluation.

- **Continued issues with continuity of reforms across policy cycles.** Policy cycles and political factors play a large role in anticipatory processes as most complex issues cannot be addressed in a standard 4-year government term. Often strategic visioning and policy development simply do not have time to mature into robust implementation before shifts in government. Time for proper implementation is too short to develop theories of change and operationalise and evaluate changes on the ground. Effective implementation of reforms and tackling complex challenges is highly dependent on policy cycles that disrupt continuity of reforms and follow-through, leading to the proposal of additional **institutionalised** transition processes for switching of governments. It is important that government programmes give strategic directions and do not lead by solutions – locking in the systems. Inflexibility in agreed upon goals and actions in government programmes can lead to serious lock-in and avoidance of emerging risks, issues and challenges that do not fit the established consensus.

  Consequently, there needs to be systemic thinking around both government transition management, but also agility of political governance. To what extend it is possible to keep major, long-term reforms on track across government terms versus the need to adapt quickly when the direction taken does not match the needs of the environment or new developments. This requires ongoing evaluation and monitoring and handover of the information to decision makers. This involves tackling the knowledge ministries/departments/other public bodies need to produce during government turnover and what time, otherwise the information shared is dependent on a variety of approaches different public organisations can take. In most countries there are no written rules about how to deal with change of government from a handover of challenges and learnings perspectives. There is a need to tackle the issue of distance between developing visions for alternative futures and their implementation which often spans across several policy cycles. Anticipatory mechanisms could help bridge this gap by reducing time-to-implementation of policies (e.g. through constant iteration and testing). This becomes especially acute in many policy areas, where changes are speeding up and public sector is getting closer to real-time policy making. To assure the continuity in development, mechanisms are needed that allow to continue policy exploration and development across policy cycles supported by new evaluation and measurement procedures. But not only, the assessment in Finland also points to the need of new government transformation and handover functions where continuity of problems and learning is ensured.

Figure 3.2 summarises these challenges in the context of the Finnish governance system in the context of the anticipatory innovation governance system as presented in the prior section. Overall, the research conducted on the systems level in Finland (Part II) showed that while governments may have good practices across the system in futures and foresight and may advance some areas considerable (e.g. in the case of public interest in Finland), practical knowledge about anticipation is not well distributed or used systematically. This is something that the anticipatory innovation governance model needs to account for in terms of institutionalising capacity across the system. What government mechanisms are necessary and sufficient to make anticipatory innovation governance actionable?

Figure 3.2. Anticipatory innovation governance challenges in Finland



Source: OECD.

Learnings from the conducted pilots

While the assessment of the Finnish Government system provided knowledge about the real systemic challenges public sector's face in integrating anticipatory capacity into their government steering systems, the aim of the conducted pilot case studies helped to contextualise these issues and start to explore proactive ways in which to build up anticipatory capacity and structures in government. OECD conduced pilot case studies across 4 different areas – continuous learning (Part III, chapter 3), carbon neutrality and evidence about the future (Part III, chapter 4), child wellbeing (Part III, chapter 4) and collaboration between politicians and public officials (Part III, chapter 6). All apart from the last case, were connected to connected to complex policy areas, where different reforms had been initiated and some still ongoing; however, a clear need for a more anticipatory approach was identified. The pilot case surrounding the dialogues between politicians and public officials was designed to look at the roles of both sides in the anticipatory innovation governance system more broadly referencing the other pilot case studies when needed. Part III chapter 1 of the report outlines reasoning behind the selection of the pilot case studies and the conducted work in detail and provides a comparison of the cases. Here the goal is to summarise the learnings more broadly to understand the key components of an anticipatory innovation governance model.

The pilot case studies outlined a wealth of knowledge about the importance of different anticipatory innovation governance mechanisms, how to build them and create sustainability around them. They also pointed to specific needs in anticipatory innovation capacity in different policy context which hindered or held back successful reforms. These are outlined in Part III chapter 3 in detail and summarised in Table 3.1 below.

Table 3.1. Main needs identified for anticipatory innovation capacity across pilot case studies

	Agency	Authorising environment
Case 1. Model for anticipatory governance of continuous learning	*Institutional structures: need to create* organisations that allow to operationally work and co-ordinate action that is aligned with the complex issue and the ecosystem *Organisational capacity: need to create* coherence across silos is essential, but it also involves high co-ordination costs that often are not covered by sustainable resourcing; there is a need to create tailored operational models to tackle specific complex issues *Data and measurement*: need to join up anticipatory data sources becomes key in continuous sense making and framing of issues ('platformisation' of anticipatory information) *Sense making*: need for a collective approach in delineating futures, data and collective intelligence across variety of actors with different interests	*Networks*: need for an ecosystem level approach that develops the ecosystem and assigns clear roles and responsibility for actors *Public interest and participation*: need to create consensus across actors: in a complex system dependent on variety of autonomous actors, participation can create legitimacy around the policy challenge and shared vision about the diverse futures to be pursued *Legitimacy*: need to create clarity on how inputs (e.g. financial resources), outputs (evidence) and throughputs (ecosystem participation in anticipatory information creation) lead to legitimacy of anticipatory action *Evidence and evaluation*: legitimacy only through evidence and reporting is not sustainable, if there is no push to do something with the data
Case 2. Carbon neutrality and evidence about the future in fiscal and economic policy	*Tools and methods*: support the ability to integrate new tools and methodologies into established processes through structured piloting or other processes *Alternatives exploration and experimentation*: need for emergent issue analysis and signal detection as part of everyday policy processes with clear follow-ups *Data and measurement*: need to integrate alternative data sources addressing uncertainty into policy steering functions with the accompanying capacity *Organisational capacity*: need to ensure that capacity is present to use anticipatory knowledge often hinging on the ability to work together with the ecosystem and create common roadmaps and symbiotic action	*Vested interests and cognitive biases*: need to address strong cognitive biases in which limitations of the current fiscal models are not understood or internalised; there needs to be operational ways to address expert bias and other biases in uncertain policy contexts *Legitimacy*: need to legitimise anticipatory and uncertain knowledge through processes that help decision makers grapple with uncertainty; using stakeholders within the ecosystem to create urgency around issues *Evidence and evaluation*: need to create accountability for the counterfactual and opportunity costs; accountability for inaction
Case 3. Child wellbeing in Finland's welfare service counties	*Institutional structures*: need to assign responsibility and ownership of the phenomenon; making anticipatory processes between structures explicit; addressing institutional blind spots through expansion of collective road-mapping with additional actors *Tools and methods*: support the systemic use of anticipatory tools and methods and addressing capacity barriers in doing so; the ability to bring forth concrete challenges, target groups regardless of existing structure or strategic landscape *Sense-making*: support the ability to bring forth normative futures and clear targets around them that need to be avoided or achieved based on public values *Alternatives exploration*: need to create clear value chain from strategic visioning to experimentation; the ability to question and challenge the strategy/vision when it does not match with emerging empirical evidence and new signals	*Networks and partnerships*: need to connect policy making and strategic steering directly to implementation and on the ground target groups to understand and engage with evolving phenomenon *Legitimacy*: need to create mechanisms to prioritise urgent issues and keep them on senior decision-makers agenda *Learning loops*: need to create a clearer process between policy design and experimentation and learning from the former (closely linked to the alternatives exploration and the "right to challenge" strategy)
Case 4. Collaboration between politicians and public officials in the field of	*Institutional structures*: need for transition management across government cycles and moments of dialogue; delineation of roles in anticipatory innovation involving both public officials and politicians *Alternatives exploration*: need to create new future-seeking	*Public interest and participation*: support ability to engage publicly in value-based discussion and consideration of alternatives *Legitimacy*: when there is mistrust between actors who are held accountable in different ways, objective facilitation is

	Agency	Authorising environment
anticipatory innovation	moments and the ability to question and test alternatives under or next to dominant strategic directions *Sense making*: need to create structures for politicians and civil servants to exchange ideas and develop mutual understanding	needed *Vested interests and cognitive biases*: information asymmetries between actors need to be addressed in productive ways *Learning loops*: need to create mechanisms that allow to "carry forward" learnings from reforms to new government terms

Source: OECD based on the analysis conducted in Part III of the report.

The analysis of the pilot case studies showed that all identified items under the anticipatory governance model are relevant for an effective and action-oriented use of futures information in government (see Table 3.2 on the essential elements to each pilot case). In many cases elements of anticipatory practices were already in place: from the use of strategic foresight, collecting signals and data on future projections, visioning and ambitious future targets, collecting relevant experts and ecosystem partners to deliberate etc. However, by and large these practices were based on one-time efforts and not systematically applied. There was no concretely defined demand or supply for anticipatory information, ways to systematise it or incorporate it into organisational and operational solutions to tackle emerging challenges. This is what a functioning anticipatory innovation governance system should do.

Table 3.2. Diagnostic of the pilot case studies

	Agency						Authorizing environment					
	Alternatives exploration and	Data and measurement	Sense making	Organisational capacity	Tools and methods	Institutional structures	Vested interests and cognitive biases	Public interest and participation	Networks and partnerships	Legitimacy	Evidence and evaluation	Learning loops
Case 1. Model for anticipatory governance of continuous learning												
Case 2. Carbon neutrality and evidence about the future in fiscal and economic policy												
Case 3. Child wellbeing in Finland's welfare service counties												
Case 4. Collaboration between politicians and public officials in the field of anticipatory innovation												

Note: Colour coding: dark red = significant role in the case and identified need; medium red = mechanisms that needs to be addressed, but is not essential for the success of the case; light red = (as of yet) does not play a significant role in the case, as already been addressed with existing mechanisms.
Source: OECD.

The most important learning from the pilot case studies pointed to the need operationalise the anticipatory innovation governance model and tackle how both agency and authorizing environment in different contexts are created. The model worked well as a starting point for a diagnostic – which elements were already in place, where there were gaps and further development needs (Table 3.1 above). What the model, however, a priori does not do it is give clear guidelines on what actions to take when these needs and gaps are established. The pilot case studies showed that designing and operationalising anticipatory innovation governance mechanisms is always contextual to the complex problems addressed and the challenges faced. What it points to is that within a governance model that aims to be anticipatory in nature there needs to be:

- room to carry out anticipatory diagnostics of complex problems
- enough flexibility to design context specific solutions that give agency and also authorise change in a sustainable manner
- clear follow up on these responsibilities to learn from different solutions.

These principles will be taken up in the next section in updating the anticipatory innovation governance model.

Specific learnings connected to different anticipatory innovation governance mechanisms highlighted that:

- Creating agency – ability to act – for anticipatory innovation usually starts with **collective sense making**. The quality of the preceding and ongoing sense making cascades into other parts of the governance model (e.g. how well networks and partnerships are managed, if the right type of institutional and organisational capacities is defined, how data on the issues is collected and systematised, etc.). It became an obvious barrier to action (present in almost all pilots) when critical stakeholders connected to the policy challenges were not involved into the problem framing and a common understanding about the phenomenon at hand was not reached. These issues usually cascaded into institutional misunderstandings, network misalignment and poor use of anticipatory knowledge. As such, **collective sense making of anticipatory information and the connected tools, methods and capacities are vital to enable co-ordinated action among stakeholders trying to address complex phenomena**.
- The pilot case studies also showed the **importance of political engagement** within the anticipatory innovation governance system. Value-based decisions are often questioned in the public sphere, in media, thus, it becomes difficult for politicians to participate in sense-making around complex issues and normative futures. Meaning that politicians and senior civil servants do not de facto discuss important policy goals for the government term or challenges that need to be tackled long-term. Sense-making becomes a critical function in reaching at least a dynamic consensus eligible for change over time that allows productive action to be taken. Variety of very complex reforms with long time horizons (e.g. the SOTE reform challenges) demonstrated in Finland how lack of sense-making and consensus can lead to enduring challenges across different policy fields also present in our pilot case studies (e.g. child wellbeing). Addressing mistrust between different actors – e.g. politicians and public officials, actors across different levels of government – is critical to make sense-making successful. There is often asymmetry of information between different parties that has to be objectively addressed and facilitated. Media reporting on a real-time ad hoc basis can create tension between both communities, reinforced by social media bubbles and echo chambers. All pilot case studies showed that public officials need to take a role in producing and presenting futures knowledge and insights. Politicians and public officials need to collectively engage in sense-making of that knowledge and work towards concrete actions. When designing anticipatory processes accountability should also be a role: there is a need to make sure that inputs (e.g. the advice of civil servants) actually matter and are taken into account.
- Collective sense making should concrete follow up processes and not remain one-time, stand-alone in the policy-making process. While anticipatory processes should be underlined by collective sense making, **specific tasks and areas of action** that are manageable – e.g. introducing annual

cross-sectoral priorities (missions) to be tackled to ensure responsiveness to emerging themes as in the case of child wellbeing – should follow. The need to innovate, test, pilot, explore alternatives should be part of the decision points after collective sense making processes.

- Anticipatory information – **data and measurement, collection of signals of changes** – need to be better packaged and synthesised across government. Anticipatory information must be synthesised in ways that help stakeholders to address their jobs to be done (be it vision, stress-test, diverge etc.). Level of integration of anticipatory data sources (data and analytics) and the collaborative networks it depends on is crucial for action in complex policy domains. Moreover, signal reading requires more immediate connection to implementation and its partners crossing the However, the pilot case studies showed that there is a broader lack of capacity to support signal detection on the policy ecosystem level and the analysis of that information on a continuous basis.

  In anticipatory knowledge synthesis technology has invariably a role to play. The times of big analytics departments in public sector organisations have probably gone, while more agile, targeted, digital analytics units are emerging, where the role of people is to more spot and test new assumptions, make sense of the data, while the analytics are done by computers, artificial intelligence, algorithms etc. Finland has pledged to be a digital first country meaning that there would be an opportunity to take this forward.
- Use of anticipatory **tools and methods** needs to become systematic across the policy-making system. Adoption does not happen on its own: there is a need to experience new tools and methods, provide peer examples and socialisation before adoption. Regular use of anticipatory approaches allows stakeholders to align on objectives, and stress-test and readjust strategies. **Cognitive biases** in implementing new tools and methods need to be taken into account as much as the capacity to use the latter. Furthermore, **organisational cultures** in government are often not supportive in hiring or building up anticipatory capacities that is not directly aligned with their immediate priorities. Communication here is key (see Box 3.4 below). Hence, anticipatory capacity needs to be pushed not only on the individual, team level, but also addressed across organisations. It is very difficult to create demand for new approaches that are uncertain in nature and do not fall into anyone's specific field of responsibility. Creating **demand for anticipation** should be a core feature of the anticipatory innovation governance system.

Box 3.4. Translating and communicating to leadership: An Anticipatory Innovation Starter Kit

LabX, Portugal Anticipatory Innovation Starter Kit sets out to address the main challenges faced by civil servants and the public sector, such as:

- Volatility, uncertainty and perception of urgency resulting from the 2019 coronavirus pandemic.
- The prevalence of ad-hoc routines and reactive approaches with 'presentist' options contributing to a feeling of helplessness towards the future and to limited interest and skills about future literacy.

To effectively address these, the toolkit is based on a problem-solving, user-centric approach, which makes it actionable, modular, and accessible to all public servants in a variety of different fields. The toolkit is based on experimental principles, where co-creation and iterative development processes are key. Its learning-by-doing nature also makes it an ideal starting point for users to autonomously engage through a continuous self-improvement process. It is structured around four different ways of framing/tackling the problems addressed: 1) Alternative futures; 2) Drivers of change; 3) Vision; and 4) Strategy. The toolkit's main expected outcomes include: (i) shortening the knowledge-action gap (through the Kit's actionable/contextualisable nature); and (ii) acting as a starting point for capacity-building by generating interest and awareness among beginners.

Source: (LabX, 2020[9]; Hanson, 2021[10])

- Creating **responsibility to act on complex**, systemic challenges through functional mandates (institutional structures) does not happen a priori. There has to be a follow up function that evaluates if the work is actually undertaken and urgency is created by establishing accountability for inaction. Frequently, there are issues of assigning ownership over cross-cutting government phenomenon (**organisational capacity**), which become important predictors of success in anticipatory innovation processes surrounding complex problems. On the one side, there needs to be ownership by one actor (ministry, agency etc.), clear role as a driver of the issue; but on the other side, for success, it is important that policy design and implementation are done in collaboration, in a distributed manner with the whole ecosystem. Hence, 'owners' of complex problems and emerging challenges should hold dual roles and be held accountable for success in both. Consequently, there often needs to be an ecosystem level approach with a joint shared process of defining the key strategic processes to be handled by the ecosystem. As mentioned above, if there is a working ecosystem then also signal exchange can take place.

  However, often co-ordinating tasks of complex and cross-cutting issues in government fall at the middle management level, where they become one of many issues to tackle competing for attention and time. As such, the level of middle level management on use and interpretation of anticipatory information is crucial; they interpret and steer the work. Here there is a need to tackle overburden structurally and also create psychological safety at the workplace to push back on exorbitant number tasks, otherwise space for innovation is not created among middle management or for their subordinates.
- **Alternatives exploration** is often hindered due to existing processes and lock-in of strategies (e.g. in the case of child wellbeing) or tools and methods used (e.g. carbon neutrality in budgeting). Established structures and processes are difficult to unpack and resistant to experimentation due to constant time pressures and expert biases. Public actors often become entrenched in their functional roles and though the anticipatory process it should be possible to expand or create new roles to explore alternatives within in the system (e.g. expanding the responsibilities of the ombudsman to include foresight activities together with ITLA and their funded future-oriented research and experimentation).

  Finland has strong strategic foresight capabilities, but the pilot case studies showed that the value chain from one-time foresight activities to experimentation and implementation with the connected learning loop is yet to be developed. While futures and foresight are essential to consider various alternative futures, the work in Finland shows that it is also important to avoid becoming too centric on the role of strategic foresight as it tends to put the weight on imagining the futures rather than making them happen. Hence, within the anticipatory innovation governance model there is a need to be cautious of "vision burnout". Furthermore, often futures and foresight practises are not systemic enough and not repeated at dependable intervals: many foresight efforts and applied methodologies are one-off studies and thus, cannot be systematically and continuously relied upon in both strategic policy making, but also in the innovation process that follows especially in the context of dynamic change.
- Leveraging the knowledge of **networks and partnerships** can help to build a better understanding of the diverse future challenges associated with complex phenomena such as the changing demand for skills, child well-being, and climate change. Such participation also builds the legitimacy of a shared information resource and **concerted collaboration**, which can be relied upon by different stakeholders as a foundation for shared decision-making. Co-ordination and network activities need to be separately resourced as ecosystem management across the pilot case studies was found to be poorly organised, which means that continuous and collective intelligence, not to mention action, is missing on emerging issues. There is also an established need for tools, methods and capacity to build ecosystems in ways that break silos and discourage competition between ministries, agencies, etc. Pilot cases on continuous learning (Part III

chapter 3), child well-being (Part III chapter 4) and also carbon neutrality (Part III chapter 5) proposed actionable ways to integrate anticipatory capacity better in network governance.

- Regular collaboration and engagement of high-level stakeholders in complex issues – **throughput legitimacy** – is essential for their prioritisation (e.g. in the case of continuous learning or carbon neutrality), however, holding the attention of senior decision makers is difficult with competing day-to-day issues. There have to be functions in government that call for senior decision makers to continuously engage with complex issues and anticipatory information. Co-ordinating across government challenges requires an actor who as the legitimacy to convene. There also has to be measures in place to deal with politically-motivated interests in getting credit for transversal work and ways to incentivise both civil servants and politicians to go beyond the existing silos.
- **Legitimacy also comes from sustainable inputs** to the policy making processes. As such, there is a need to assure that funding and other resources are aligned with policy goals, which was not the case in all substantive pilot case study areas (continuous learning, carbon neutrality, child well-being). Hence, broader stress-testing of policies and accountability for implementation is required within a functioning anticipatory innovation governance system.
- As most of the pilot case studies were at critical junctions of change – defining new policy frames (child well-being), areas of action (continuous learning) or in the process of aligning traditional tools to emerging challenges (carbon neutrality) – a lot of effort had not been put **into evidence and evaluation** of issues in the long term. However, in some cases it was key to start establishing long-term sustainability of reforms and helping to keep the policy issues on the agenda (e.g. child well-being, continuous learning) and creating **output legitimacy**. As was shown by the carbon neutrality case, evidence and evaluation should not only have a retrospective nature in an anticipatory governance system, but also give insights into the effects of potential different future scenarios. Thus, evidence and evaluation should not only serve the goal of accountability, but as a decision-making and learning tool for the future. Consequently, anticipatory information has a role to play in evidence informed policy making, by making uncertainty in projections visible, proposing alternative scenarios and thus, making government responses more resilient. This requires also the acceptance of different types of evidence, the speculative nature of most qualitative and quantitative simulations and the need to continuously monitor and evaluate emerging situations.

After the initial diagnostic and work on the pilot case studies following the anticipatory innovation governance model, three general governance issues rose to the forefront that were not explicitly covered by the model. These included:

- **Starting point and focus**: where to get started in developing an anticipatory innovation governance system? There are many interconnected anticipatory innovation governance mechanisms and it is often difficult to ascertain where to get started. The gateway to analysis and action within the pilot gate studies was the diagnostic done through the anticipatory innovation governance model, evaluation of the mechanisms and their functioning. System dynamics (described in Box 3.5 below) emerged outlining the important connections between actors, actions and enablers for anticipation in the Finnish government system. The cases themselves were identified and supported by highly engaged and motivated senior decision makers and experts, who truly wanted to see change happen in their policy context. This is still ad hoc engagement with anticipatory innovation and cannot be called a systemic capacity. However, how should change towards the anticipatory innovation governance model happen in different policy context and policy lifecycle stages where there is an interest to build up an anticipatory governance mechanisms?
- **Sense of urgency and motivation to act:** in many of the pilot case studies analysed there was not enough agreement on the urgency of challenges involved – all were deemed important and essential to Finland, but it was unclear how they were prioritised across all the different problems governments face on a daily basis. This seemed to influence the motivation to act, resources put behind reforms and simply time allocated to issues at hand. In many cases crisis mode creates

windows of opportunity for some policy issues, but in general means less opportunities – *bandwidth* – for informal exchange and relationship-building that is crucial to establish trust that was discussed above. Increasing speed of policy decisions and external change and shocks have taken too much attention to build anticipatory capacity. Both politicians and public officials tent to be consumed by emerging issues and pressures, very focused on the day-to-day, lacking a long-term perspective.

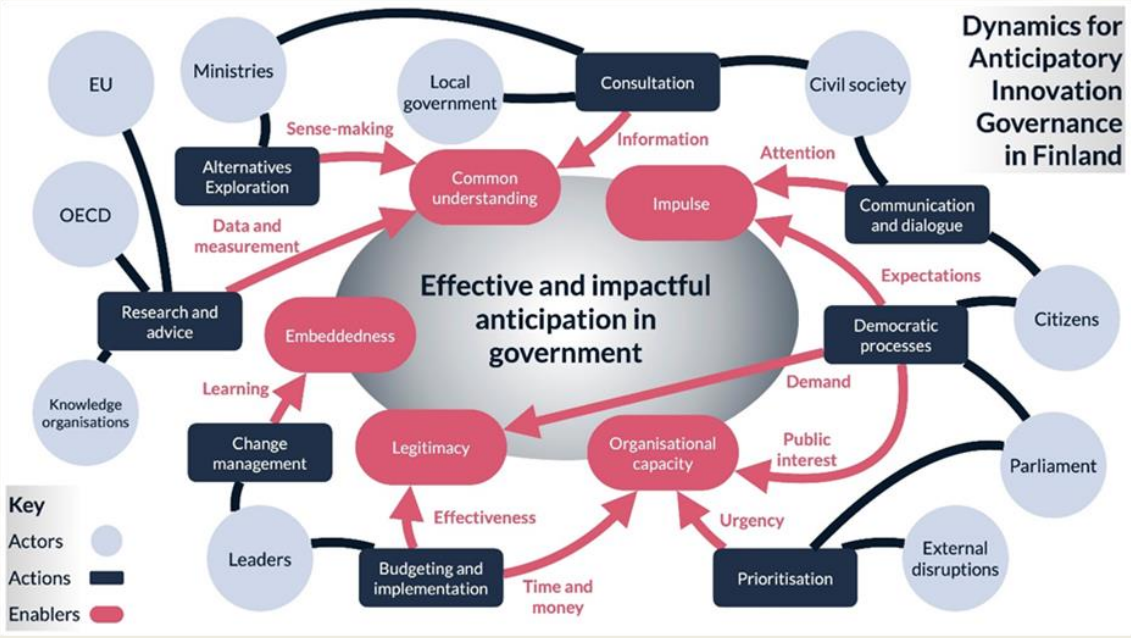
- **Actor and responsibility**: who has the responsibility to develop the anticipatory innovation governance system, ensure that policy processes follow an anticipatory approach and follow up when critical challenges and emerging issues are not addressed? The theoretical anticipatory innovation governance model outlines the agency (the mechanisms that are needed to take action in an anticipatory way), but does not assign responsibilities to actors to develop the system or concrete roles in anticipatory innovation governance more broadly (e.g. the role of regulatory agencies, implementation bodies, broader government steering units). This, however, becomes important when the governance model is operationalised in practice. Anticipatory governance does not start from a blank slate and will have to fit into different government contexts, governance traditions and public administration models. Hence, after the assessment conducted in Finland these roles can be imagined and responsibilities signed. As such, in the context of Finland – a fairly centralised country with a strong national government – different actors at the centre (Prime Minister's Office, Ministry of Finance etc.) seem to fit the role to develop anticipatory innovation capacity from centre (Ministry of Finance in developing leadership capacities and civil service skills, Prime Minister's Office taking the lead in assigning organisational solutions for new emerging issues and co-ordinating strategic responses, platformising anticipatory knowledge, Ministry of Justice creating room for experimentation in legislation etc.) but these tasks and responsibilities are not formally defined. How should this happen in other country contexts? The model should provide a gateway to define these roles and responsibilities, but allow for assessment into existing path-dependencies and roles.

Box 3.5. System dynamics of anticipatory innovation governance Finland

The work together with the Finnish experts on the pilot case studies showed that mechanisms of anticipatory innovation governance become interconnected and there are lot of different enablers at play to making the anticipatory innovation mechanisms work outlining concrete actions to specific actors.

The Figure 3.3 below (outlines a dynamic representation of the system of governance in Finland from the perspective of enabling effective and impactful anticipation. It is the result of a review of the analysis conducted throughout the project, as well as consultations with experts and high-level officials, which identified a number of needs to make the anticipatory innovation governance model more actionable and concrete for Finland and other countries.

Figure 3.3. Systems dynamics for anticipatory innovation governance in Finland



Source OECD based on the validation workshop conducted on the 24th of May 2022 in Finland.

These cross-cutting needs were:

- **Motivation**: it was considered that the mechanisms of the original AIG model are necessary but not sufficient to initiate anticipatory innovation actions. The concept of impulse is therefore pertinent, as are the origins of that impulse: the demand and expectations coming from citizens and civil society.
- **Actionability**: all of the mechanisms of the AIG model are abstract, emerging from the concrete actions and interactions of individuals and organisations. Hence, they are emergent properties, whose origins need to be traced back to the source in order to identify concrete actions to change the system.
- **Concerted collaboration**: more than mere co-ordination, experts and leaders in Finland identified the need for individuals and organisations to pursue common objectives, resulting from mutual understanding of issues.

- **Bandwidth:** Finnish officials noted that where issues are identified as salient and urgent, time and money is accorded to create organisational capacity needed for dialogue and anticipation—this was referred to as "oxygen". Understanding how these issues are prioritised is an important starting point to allocating adequate bandwidth to issues that may need anticipatory attention.
- **Focus**: the whole anticipatory model consists of a large number of potential areas of work to improve a country's anticipatory capacity. It is unlikely to be possible or effective to try to act on all of them at once. Exploring the dynamics of the Finnish system allowed experts to identify some key areas where particular attention would yield the greatest benefits for the work put in.

The dialogue and analysis around the anticipatory innovation governance model was not and should not be expected to deliver the change needed on its own. The benefit of the process was to identify and sharpen focus on the main missing requirements in the system (enablers), the individuals and organisations (actors) capable of making a difference, and how the two can be brought together (actions).

Source: OECD.

Taking the learnings and the gaps outlined above from the assessment of the Finnish governance system and the pilot case studies on board, the next section proceeds to upgrade the anticipatory innovation governance model to make it actionable across different context.

Updated anticipatory innovation governance model

The empirical work in Finland has shown that the anticipatory innovation governance mechanisms are a useful and relevant tool to analyse governments' anticipatory capacity and can be used as a diagnostic in different policy fields to tackle concrete emerging challenges. Based on the analysis presented above and the detailed accounts of the works following in Part II and III of the report, some additions however need to be made to the model. Specifically, the work in Finland has shown the need to operationalise what anticipatory innovation capacity in governments looks like; how it interacts with both the core steering processes of government – strategy, budgeting, regulations –, but also the organisational and individual capacities and capabilities that need to be addressed. Consequently additional layers need to be added covering in detail:

- **Mechanisms** of anticipatory innovation governance
- **Functions** that those mechanisms need to fulfil and alternative ways that these functions could be achieved
- **Instrument to assign roles and responsibilities** for those functions

These are outlined in detail in Table 3.3 and Figure 3.4 below with specific functions identified in regard to strategic planning, legislation, government planning, oversight, transformation and innovation, human resource planning, digitalisation, open government, futures and foresight, communication, procurement, leadership etc. In different governments these functions and the assigned roles and responsibilities may take different forms.

Table 3.3. Anticipatory innovation governance mechanisms, functions and roles

	Functions	Roles and responsibilities
Mechanisms of agency		
Alternatives exploration and experimentation *Ability to consider different alternatives that may conflict with current strategic intent*	• *Anticipatory legislative function*. Create agility in regulation for exploration and experimentation. Institute a 'right to challenge' function for strategies, policies and services with resourcing to explore alternatives.	• Ministry of Justice
	• *Anticipatory leadership function*. Create demand for anticipation and alternatives in the strategic planning and policy-making process by institutionalising regular anticipatory studies, pilots etc. commissioned by senior leadership.	• Heads of organisations, senior leader committees/working parties across government
	• *Anticipatory risk management function*. Include anticipatory innovation processes in risk and resilience planning including uncertain scenarios where risks are not calculable. Create a prioritisation function to signal areas of risk and opportunity where action is needed and required.	• Centre of government, public bodies responsible for internal/external security and existential risks
	• *Anticipatory strategic steering function*. Create clear and structured future-seeking moments in existing policy cycles where new alternatives and policy goals can be brought forward both by politicians and public officials.	• Centre of government, Prime Minister's Offices, strategic planning units
	• *Anticipatory budgeting function*. Develop more iterative and agile forms of resource allocation and government transforms to facilitate continuous experimentation.	• Ministry of Finance
	• *Anticipatory transformation and innovation function*. Test continuously ideas coming forward from government futures and foresight activities and ensure that those learnings are shared back to the strategic steering process.	• Co-ordinated by systemic leads in public sector innovation with the involvement and steer from centre of government
Data and measurement *Reading and interpreting signals in time*	• *Anticipatory 'Digital by Design' function*. Use technology to create synthesis and collective awareness (e.g. through platforms) for anticipatory knowledge and signal detection including anticipatory, user-centric and preventive use of data in policy and service development. • *Anticipatory 'Digital by Design' function*. Use technology to make data across government interoperable and user/phenomenon centric.	• Responsible for government digitalisation
	• *Anticipatory strategic steering function*. Integrate anticipatory information into strategic policy making by creating clear and transparent ways in which collected data is used • *Anticipatory budgeting function*. Use alternative tools for data generation that take into account uncertainty connected to policy issues in fiscal planning.	• Centre of government, ministries/departments/agencies
Sense making *Uncovering underlying assumptions and making sense of trends*	• *Anticipatory open government function*. Provide leadership in collective sense making and opening up of processes to stakeholders from diverse backgrounds.	• Responsible organisation for the for the emerging phenomenon
	• *Anticipatory futures and foresight function*. Include anticipatory tools and methods (scenario planning, horizon scanning etc.) in collective sense making practices in a continuous and systemic manner.	• Ministries, departments and other government organisations

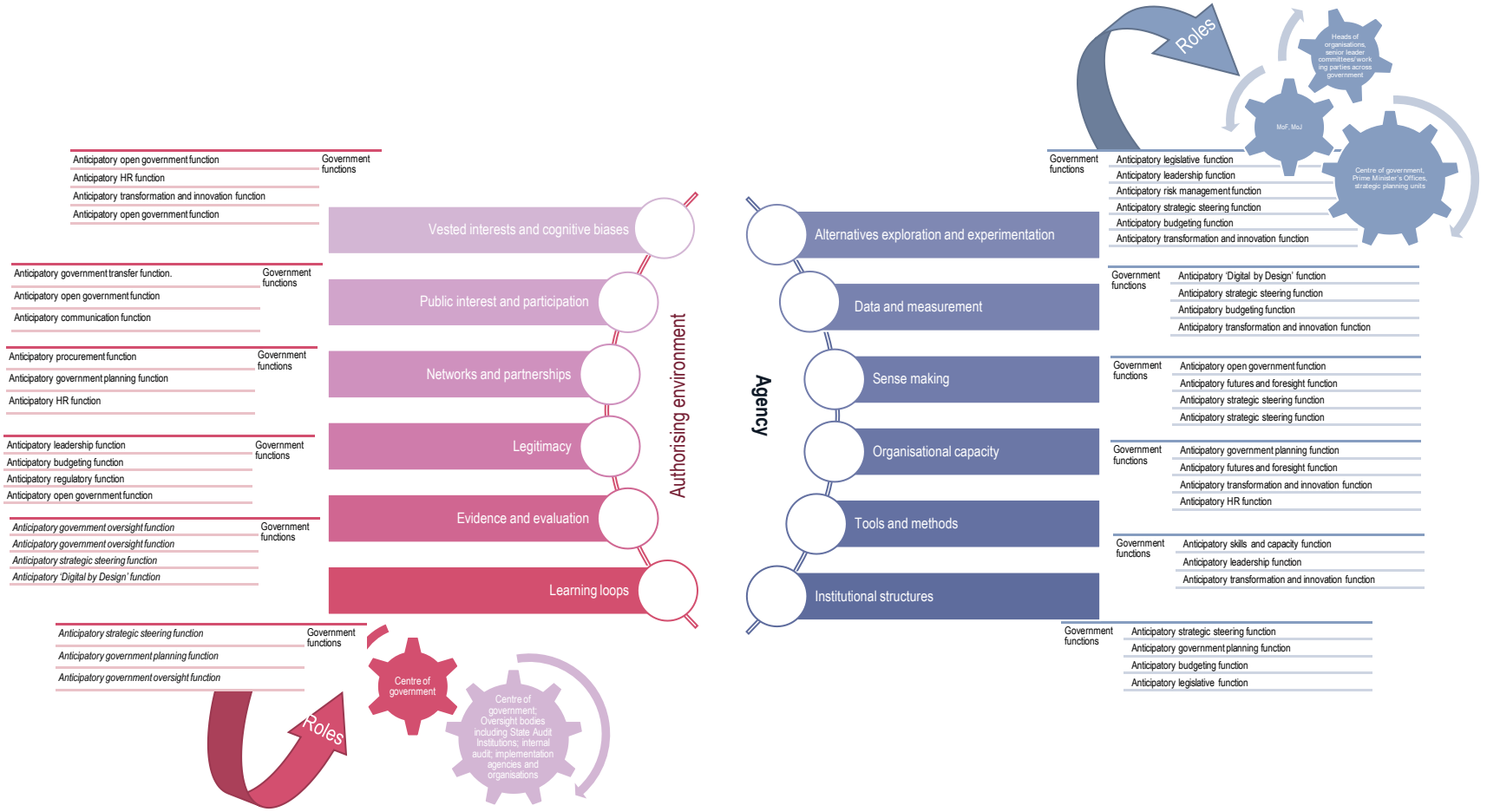
	• *Anticipatory strategic steering function.* Institutionalise collective sense making as the starting point for strategic processes with the appropriate tools and methods to involve diverse stakeholders.	• Under the lead of the centre of government responsible organisations for policy phenomena
	• *Anticipatory strategic steering function.* Use anticipatory sense making to develop future-oriented targets and missions to explore through innovation.	• Responsible organisation for the for the emerging phenomenon
Organisational capacity *Organisational structures that give autonomy and resources to explore transformative ideas*	• *Anticipatory government planning function.* Create procedures to diagnose emerging issues and design flexible, reflexive and impactful anticipatory organisational solutions with clear ownership over issues (new function of change management).	• Centre of government
	• *Anticipatory futures and foresight function*. Build organisational capacity and futures literacy with clearly assigned roles and processes to both produce and supply anticipatory knowledge within organisations. Include anticipatory innovation skills into existing competency models or create new ones if needed. Developed tailored training programs for experts, policy makers, senior leaders in anticipatory innovation capacity.	• Organisations responsible for the development of HR in the public sector (e.g. Ministries of Finance)
	• *Anticipatory transformation and innovation function*. Develop and resource innovation and experimentation activities in organisations and integrate strategic foresight within the latter.	• Public sector organisations across all levels
	• *Anticipatory HR function*. Create the ability for public officials to 'move' across organisations with emerging issues and problems rather than getting stuck in government silos. • *Anticipatory HR function*. Review the responsibilities of key government officials (e.g. in middle management) to cut down on responsibilities and create room for anticipatory innovation responsibilities.	• Organisations responsible for the development of HR in the public sector (e.g. Ministries of Finance)
Tools and methods *Approaches to create new knowledge about possibilities, creativity of thought, and operationalisation of innovations*	• *Anticipatory HR function*. Develop futures literacy and connected skills and capacities to work across emerging anticipatory ecosystems and design open and inclusive policy processes that counter expert bias. • *Anticipatory leadership function*. Develop capabilities and demand for the use of anticipatory tools and methods; lead by example. • *Anticipatory transformation and innovation function*. Use innovation projects to test and demonstrate the use of new tools and methods across the ecosystem. • *Anticipatory futures and foresight function*. Integrate futures and foresight tools, methods and practices across the policy-making lifecycle from horizon scanning, strategic intelligence, visioning, fore/backcasting, stress-testing etc.	• Responsible for public sector HR in the public sector (e.g. Ministries of Finance); public sector HR units
Institutional structures *Institutions that make room for experimentation and testing*	• *Anticipatory strategic steering function*. Create a mechanism to assign ownership for new, emerging or cross-cutting policy phenomena with the function that ensures that principles of collective strategic policy design and implementation are followed • *Anticipatory government planning function*. Institutionalise a flexible and context aware instrument that allow to operationally work and co-ordinate action that is aligned with the complex issue and the ecosystem are needed	• Centre of government organisations (Prime Minister's Offices, Ministries of Finance etc.)
	• *Anticipatory budgeting function*. Integrate anticipatory tools and methods into fiscal planning and investment prioritisation	• Ministry of Finance

	• *Anticipatory legislative function*. Create closer ties to regulatory impact analysis with both *ex ante* and *ex post* anticipatory components and institutionalise other means to make regulations more 'future proof' (including sandboxing etc.)	• Ministry of Justice
Mechanisms of authorising environment		
Vested interest and cognitive biases *Ways to address incumbents interests and biases in thinking about the future*	• *Anticipatory open government function*. Bring strategic foresight out of "narrow circles" and involve more outside and international experts in the work can help bring a diversity of perspectives and keep the focus on long term visions (instead of on reactive response to the crisis of the day). • *Anticipatory HR function*. Educate and re-skill people to create awareness about existing cognitive and expert biases connected to anticipation and new tools and methods uptake.	• Responsible for open government development; public sector organisations
	• *Anticipatory transformation and innovation function*. Socialise and de-bias the use of new anticipatory knowledge and methods through demonstration cases, pilots and testbeds.	• Responsible for public sector HR in the public sector (e.g. Ministries of Finance); public sector HR units; schools of government
	• *Open government function*. Create continuous deliberation on long-term policy issues and public values among politicians and public officials to counter immediacy bias.	• Demand from senior leadership; public sector organisations and co-ordination of learning from the centre of government
Public interest and participation *Involving a variety of stakeholders and new perspectives, and facilitating discussions around values*	• *Anticipatory government transfer function*. Put in place deliberation and dialogues in which both politicians and public officials can contribute to knowledge around future developments. Institutionalise these processes in policy-making processes and policy cycles to make them dependable and dynamic.	• Centre of government
	• *Anticipatory open government function*. Institutionalise citizen and other stakeholder participation methods to consider policy alternatives early on. • *Anticipatory open government function*. Include citizens into structured dialogues about public values connected to key reforms in future seeking moments in policy development (preceding elections or during government formation). • *Anticipatory communication function*. Develop, put in place and enforce guidelines to communicate openly which different future scenarios are considered and the uncertainties governments face.	• Responsible for open government development; public sector organisations
Networks and partnerships *Working together with leading organisations and individuals with transformative ideas*	• *Anticipatory procurement function*. Establish new ways to partner with broader policy ecosystem stakeholders (including research institutes, private companies, civil society etc.) to create anticipatory knowledge on a continuous basis.	• Ministry of Finance
	• *Anticipatory government planning function*. Initiate, empower and co-ordinate the whole ecosystem level and assign responsibility over topics may be the way forward. Without clear direction and accountability co-ordination across government or across the ecosystem can become another administrative burden that takes resources from action. • *Anticipatory HR function*. Assign dedicated resources for anticipatory ecosystem co-ordination and capacity and skill development to collaborate with external partners in an effective manner.	• Responsible for open government development; public sector organisations

Legitimacy *Creating trust in government, experimentation and explored futures*	• *Anticipatory leadership function.* Create structures that ensure that anticipatory policy topics remain in top leadership attention and that they are prioritised in assigning resources.	• Centre of government
	• *Anticipatory budgeting function*. Ensure that budgets serve to prioritise emerging issues and cross-government goals rather than government silos	• Ministry of Finance
	• *Anticipatory regulatory function*. Create alternative ways to explore policy options in a legitimate way before 'formalising' options into legislation	• Ministry of Justice
	• *Anticipatory open government function*. Use structured dialogue and collective deliberation across policy ecosystems to legitimise emerging policy issues and raise new topics for government	• Responsible for open government development; public sector organisations
Evidence and evaluation *Evaluating future options based on value and accounting for opportunity costs*	• *Anticipatory government oversight function.* Follow up on the value chain from futures and foresight, strategic steering to innovation and experimentation and implementation. Make it transparent and clear how this value chain worked: e.g. which signals/information/scenarios were considered, how they were made actionable and what the results were. Consider which risks and opportunities were taken up or ignored and why and the costs associated with the former. • *Anticipatory government oversight function*. Keep focus on long-term and complex policy issues and development of reforms across governments in a continuous and systemic manner. Include anticipatory knowledge in these evaluations (which scenarios were considered, which innovative actions taken).	• Oversight bodies including State Audit Institutions; internal audit
	• *Anticipatory strategic steering function.* Stress-test exiting and in development policies and strategic planning documents continuously for alternative futures.	• Centre of government, public organisations across government
	• *Anticipatory 'Digital by Design' function*. Develop digital tools that could allow collective intelligence, signal collection and systematisation of data in interoperable ways in accordance to emerging challenges (and their identification) for both better monitoring and evaluation purposes.	• Organisations responsible for digitalisation; phenomenon owners
Learning loops Creating feedback loops from experimentation to dynamically inform policy choices	• *Anticipatory strategic steering function.* Reduce the time to implementation and adopt agile practices. Ensure that strategies are not led by solutions and there is a dynamic learning model in place from experimentation on the ground. • *Anticipatory government planning function*. Institutionalise transition processes for switching of governments, so learnings from long-term and complex reforms are not lost.	• Centre of government
	• *Anticipatory government oversight function.* Bring forward evaluation to real time implementation crossing the 'evaluation gap'. Make sure that this information is systematically used in new sense making activities.	• Centre of government; Oversight bodies including State Audit Institutions; internal audit; implementation agencies and organisations

Source: OECD.

Figure 3.4. Anticipatory innovation governance model: Governance functions and roles



Source: OECD.

Based on the revised model and functions and roles described above, there are steps that the Finnish Government can take to make anticipatory innovation capacity more systemic across the government system. These include:

- *Government transition function*
  - As the model described above describes a new role for transitions in government, there is a need to professionalise/systematise the government transition process to ensure the continuity of long-term reforms and avoid the loss of know-how and insights in the process. To address this, the Prime Minister's Office and Ministry of Finance should establish a knowledge repository around long-term reforms and anticipatory issues encouraging learnings from one government to another, but also between public officials and politicians and the wider ecosystems connected to policy problems. They should also use technology to make data across government interoperable and user/phenomenon centric.
- *Government planning function*
  - Devising a new function in government to plan responses to emerging issues requires a clear procedure to diagnose emerging issues and design flexible, reflexive and impactful anticipatory organisational solutions with clear ownership over policy problems (new function of change management). This should become an impulse for change from the top – creating urgency and legitimacy around policy problems. There should also be a clear and open procedure to raise emerging issues to cross-government collaboration and anticipatory diagnosis from the bottom up. This should entail a methodology to diagnose and make sense of emerging policy problems, assign ownership, responsibility and resources to issues in a flexible, but transparent manner. As both the Prime Minister's Office (strategic steering) and Ministry of Finance (resource planning) have a role to play, the development of the mechanism should be a joint responsibility. Ministry of Finance should also devise how to staff and resource new cross-cutting teams, so it would become possible for public officials to 'move' across organisations with emerging issues and problems rather than getting stuck in government silos.
  - Establish a standing committee or group across government for senior leadership to discuss emerging, anticipatory issues with the ability and connected resources to create demand for anticipation and alternatives in the strategic planning and policy-making process by commissioning regular anticipatory studies, pilots etc. Having the sole purpose to discuss anticipatory policy issues is to ensure that these topics remain in top leadership attention and that they are prioritised in assigning resources. The working methods of the committee should entail a clear prioritisation function to signal areas of risk and opportunity where action or further exploration is needed and required. This body could be co-ordinated from the Prime Minister's Office and work closely with the Futures Committee of the Parliament of Finland.
  - The structures and processes described above should also be supported by anticipatory knowledge sources. Combine dedicated human resources with technology to create synthesis and collective awareness (e.g. through platforms) for anticipatory knowledge and signal detection including anticipatory, user-centric and preventive use of data in policy and service development. Digital tools that allow for collective intelligence, signal collection and systematisation of data in interoperable ways could be also used for monitoring and evaluation purposes. As the co-ordination of digitalisation in government lies with the Ministry of Finance, the ministry together with the Prime Minister's Office and the other public organisations should prototype and pilot an ecosystem wide collective signal detection methodology.
- *Strategic steering function*
  - From the side of strategic policy steering it is essential that collective sense making – as the starting point for strategic processes with the appropriate tools and methods to involve diverse stakeholders – is institutionalised. Collective sense making requires less time investment than

linear policy processes allowing the government to speed up policy processes and respond to the increasing rate of change. This should be supported by the Prime Minister's Office, but also tools and methods developed and rolled out for ecosystem facilitation and dialogue from the Ministry of Finance. These methods should help unpack and understand the different motivations for change among diverse stakeholders and facilitate co-creation rather than just working organisationally in working parties. Some of these methods were already used as part of the pilot case studies. As such, centre of government should take an active role in facilitating an ecosystem led approach to strategy and connected dialogues and its implementation having links to different organisations who are responsible for projects in their own areas.

  - Strategic policy making tools should be used to go beyond sense making and visioning to develop future-oriented targets and missions to explore through innovation (closing the vision and impact gaps). This means that there should be a level of anticipatory quality control over strategies from the Prime Minister's Office both in terms of their ability to create common purpose, but also their flexibility (leaving room for experimentation and innovation) and reflexivity (ability to change based on learnings and stress testing of variety of future avenues). Regular reviews taking into account these criteria should be carried out from the centre and learning shared with communities of practice.
  - There is a need to create clear and structured future-seeking moments in existing policy cycles where new alternatives and policy goals can be brought forward both by politicians and public officials. These may involve existing moments of reflection (e.g. similar to the President's yearly discussion) or be a standard part of any strategic policy planning process: budget planning process, yearly reviews, government mid-term reviews etc. These needs co-ordination from the centre, but also the involvement of ministries owning the issues with support from the Ministry of Finance in facilitation skills.

- *Budgetary function*
  - Ministry of Finance should use more iterative and agile forms of resource allocation and government transforms to facilitate continuous experimentation in addition to assign dedicated resources for anticipatory ecosystem co-ordination and capacity and skill development to collaborate with external partners in an effective manner.
  - In line with the carbon neutrality pilot case study, there is a wider need in Finland to integrate anticipatory tools and methods into fiscal planning and investment prioritisation. Ministry of Finance should prioritise the testing and use alternative tools for data generation that take into account uncertainty connected to policy issues in fiscal planning.
  - Ministry of Finance together with relevant public organisations should use upcoming phenomenon based budgeting pilots to test and ensure that budgets serve to prioritise emerging issues and cross-government goals rather than government silos, so that anticipatory funding principles are integrated into fiscal planning processes.
- *Legislative function*
  - Agility of core government steering processes was outlined in the assessment of the Finnish Government system and the core part of the anticipatory innovation governance model. One of the central issues that has been identified in the Finnish system is the dominance of regulatory measures in policies and their potential lock-in effects. Here, Ministry of Justice needs to address legislation can be a barrier to change. There is a need to create agility in regulation for exploration and experimentation also as part of ex ante regulatory impact assessment. The ministry should also explore the possibility to institute a 'right to challenge' function[1] for strategies, policies and services with resourcing to explore alternatives.

  - Create closer ties to regulatory impact analysis with both ex ante and ex post anticipatory components and institutionalise other means to make regulations more 'future proof' (including sandboxing etc.)
- *HR function and skills and capacity development*
  - As the model extensively references the role of HR function in government, the Ministry of Finance should develop anticipatory innovation capacity across the civil service including targeted programs for public sector leadership, civil servants and futures and foresight and innovation experts.
  - Ministry of Finance, as the principal in developing the civil service, should also take the lead in review of leadership and middle management roles and tasks to create space and room for anticipatory governance roles (alternatives exploration, collective sense making, experimentation, innovation etc.). As identified in both the assessment and the pilot case studies, there is a need to help leaders and middle management identify what can be 'let go' to make space for anticipatory innovation. This also involves a change in the high level leadership role (the expectations they create and the type of work they demand) which should be supported also from the centre.
- *Open government function*
  - There is a need to build trust between citizens and public officials and engagement in democratic processes. There is a need to develop people's willingness to understand the subject of the future and acceptance of long-term investments. Guidelines should be developed to institutionalise citizen and other stakeholder participation methods to consider policy alternatives early on and help provided to public organisations to facilitate these discussions and collective sense making efforts. This means that the Ministry of Finance and the Ministry of Justice who currently hold the most expertise in deliberation should help with partners (e.g. SITRA) other public sector organisations to create continuous deliberation on long-term policy issues and public values among politicians and public officials and the larger public to counter immediacy bias. It is also important to develop communication guidelines around uncertainty with honesty and openness as central values.
  - There is a need to identify and create more future-seeking moments as part of government change (see the transition function above) and as part of policy reforms. Ministry of Finance should help put in place deliberation and dialogues in which both politicians and public officials can contribute to knowledge around future developments. Institutionalise these processes in policy-making processes and policy cycles to make them dependable and dynamic. Centre of government (and public sector organisations thematically) should assign an objective facilitator to facilitate moments of reflection and discussion with ministers as the new government is installed.
  - As there is an implementation gap that needs to be addressed, systemic capacity to innovate in the public sector of Finland needs more direct attention. Anticipatory innovation capacity requires the ability to keep ideas continuously coming forward from government futures and foresight activities and ensure that those learnings are shared back to the strategic steering process. Ministry of Finance should put forward how current public sector innovation activities align with anticipatory innovation needs, which further gaps exist and which investments are needed to create skills and capacities for innovation across the system, but also make the practice systemic in policy design and implementation processes. Efforts should be directed to developing and resourcing innovation and experimentation activities in organisations and integrate strategic foresight within the latter.
  - Ministry of Finance should also systematically devise and co-ordinate learning from innovation projects across the public sector that test and demonstrate the use of new anticipatory tools and methods across the ecosystem.

- *Future and foresight function*
  - While the futures and foresight system in Finland is very developed it should be better aligned with ongoing policy making procedures. It is important to include anticipatory tools and methods (scenario planning, horizon scanning etc.) in collective sense making practices in a continuous and systemic manner. As outlined above Ministry of Finance could have a direct responsibility of this developed tailored training programs for experts, policy makers, senior leaders in anticipatory innovation capacity. Include anticipatory innovation skills into existing competency models or create new ones if needed. Furthermore, there is a need to and supply anticipatory knowledge within organisations – future reviews fulfil these goals to an extent, but are not speedy, open to the ecosystem or aligned with policy making enough. Hence, lack of impact, predictability and expert bias have remained problems. Ministries and public organisations should be encouraged by the centre to bring strategic foresight out of "narrow circles" and involve more outside and international experts in the work can help bring a diversity of perspectives and keep the focus on long term visions (instead of on reactive response to the crisis of the day). The Prime Minister's Office in their role as a foresight co-ordinator is best to address this in a systematic manner setting guidelines of openness and transparency and encouraging system wide, timely strategic foresight interventions.
- *Oversight function*
  - State Audit Office of Finland could take up a more proactive role in following up on the value chain from futures and foresight, strategic steering to innovation and experimentation and implementation. It should be continuously made transparent and clear how this value chain worked: e.g. which signals/information/scenarios were considered, how they were made actionable and what the results were. Consider which risks and opportunities were taken up, stress-tested or ignored and why and the costs associated with the former.

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UNESCO (2020), *Futures Literacy*, https://en.unesco.org/futuresliterac (accessed on 25 June 2021). [3]

Notes

[1] Futures literacy has been defined as the "capacity to explore the potential of the present to give rise to the future" (Miller, 2007[11]), which means recognising that developments in the present are signals of what the future might hold.

[1] 'Right to Challenge' is a function by which public organisations, local governments and public officials could apply for an exemption from an existing rule, regulation or strategic direction. To be granted this right, applicants have to show how they would be better able to innovate or explore an alternative to deliver improved public outcomes with this 'Right to Challenge.

Part II Assessment of the Finnish Government system and its ability to anticipate

4 Finland – a country where governance matters

This chapter outlines the context of the Finnish government system and its major administrative reforms that have contributed to its image of one of the best governance systems in the world. Throughout years of discussion and advancements of the governance system anticipation and systems approaches to tackle complex issues have been outlined as areas where the governance system has the most to improve.

Finland – a relatively small country with a population of 5.5 million with one of the most sparsely populated territories in Europe (next to Iceland and Norway) – is internationally recognised for its achievement in public sector reform and for its focus on constant enhancement of its public governance (European Commission, 2020[1]; Economist Intelligence Unit, 2020[2]). Historically, the Finnish administration and government has gone through the traditional paradigms from classical public administration, to New Public Management (NPM) to a move towards a more participatory, new public governance approach (Lähteenmäki-Smith et al., 2021[3]). The country is known for high respect for the rule of law, high levels of administrative ethics (Salminen and Ikola-Norrbacka, 2010[4]; Transparency International, 2020[5]) and high trust in government (OECD, 2021[6]). While Finnish society and public governance are known for leading the way in numerous international comparisons, successive governments in Finland have focused on the challenges they face in steering strategy setting and implementation effectively. One of the areas where the Finnish government considers that it needs to improve is connected to anticipation and systems approaches to complex problems (Anttila et al., 2018[7]).

In previous public governance reviews, the OECD (2010[8]; 2015[9]) noted that the government had lost some of its strategic agility and that governance was too fragmented between silos, lacking adequate co-operation models between ministries (Määttä, 2011[10]). The 2010 OECD review also highlighted the need to show more attention to strategic foresight and its role in policy making as the function was not integrated with the traditional policy making system. Since then and especially in recent years, the government has invested heavily in renewing its strategic foresight system (discussed in more detail in the following chapter). The 2015 joint public governance review with Estonia shed light on the need to institutionalise whole-of-government approaches and increase resource flexibility (OECD, 2015[9]). For example, the Prime Minister's Office often shares the whole-of-government leadership role with the Ministry of Finance, whose minister is usually a leading figure in a different party to the Prime Minister in the coalition government. This can sometimes lead to fragmented strategic decision making (OECD, 2015[9]). Based on these insights, successive governments have kept focusing on improving the public governance system in particular introducing mechanisms to increase government agility and capacity to steer the system towards an effective implementation of the government strategy. Taking these and additional insights from the reviews into account, the government has launched several systematic projects and programmes to examine the role of different functions in government over the last decade (see Box 4.1 below). This has also led the Finnish government to look at ways to anticipate better, learn continuously and integrate evidence-informed approaches into its government. The current Government Programme has recognised the need for systemic change within Finnish society[1] which can only be achieved through a rethinking of how government functions and interact with other institutional actors in the system. Among others, the Government Programme explicitly pledges:

- "for **continuous learning** in government amid constant changes, we do not imagine we know in advance what will work and what will not. Instead, we will seek out information and conduct experiments so that we can act in ways that will benefit our citizens."
- "for **long-term policy-makin**g. We commit to taking account of long-term objectives and to engaging in systematic parliamentary co-operation between the Government and Parliament. We can reach our long-term objectives by introducing new practices for co-operation between Parliament and the Government."
- "for **knowledge-based policy-making**. Legislative preparation of a high quality is a key condition for the credibility and legitimacy of policy-making. We commit to knowledge-based policy-making and systematic impact assessment in all legislative preparation. We will engage in deeper co-operation with the scientific community."

Box 4.1. Recent public governance reform projects in the Government of Finland

KOKKA Project for Monitoring the Government Programme (2010-2011)

The project was launched to reform the centre of government steering functions to improve the translation, implementation and monitoring of the Government Programme. The recommendations of the project draw attention to government silos, resource allocation rigidity and the need for evidence-informed decision making.

Governments for the Future (2012-2014)

The project was launched by the Ministry of Finance and the Prime Minister's Office in partnership with Sitra (the fund for innovation operating directly under the Finnish Parliament) to discover new ways to execute significant state administration reforms. In particular the work concentrated on the need to increase the use of systems approaches in the Government of Finland.

OHRA project (2014-2015)

The project was based on a steering framework that was tasked to prepare recommendations for the next parliamentary term after the elections in the first quarter of 2015, in order to improve the impact and effectiveness of government actions. The OHRA activities identified the horizontal nature of many new policy problems, the lack of an evidence base in policy making, and the gap in the feedback loop within the policy-making system from policy implementation to policy design. Finland was seen as a "legalistic society" where regulation was used as the main vehicle of change. The final report among other recommendations proposed that a major part of the research funding supporting government decision making (the so-called TEAS function) should be allocated to the needs of the Government Action Plan.

Experimental Finland project (2016-2019)

Experimental Finland project (2016-2019). The project designed by the Prime Minister's Office involved a dedicated Experimental Finland Team in the organisation engaged with three types of experiments: strategic experiments (policy trials), pilot pools/partnerships (regionally relevant or sector-specific experiments) and grassroots-level experiments (municipalities, regions, academics, charities, etc.). The results of the project are covered in more detail in Chapter 3 of this report.

Pakuri project (2019)

The one-year project of the Prime Minister's Office and the Ministry of Finance, and supported by a parliamentary group, was put together to provide recommendations for the Government. The goal was to improve the co-ordination of policy making and resource processes, make the co-ordination and implementation of government policy more effective, strengthen the joint government communications and ensure policy preparation that extends across parliamentary terms.

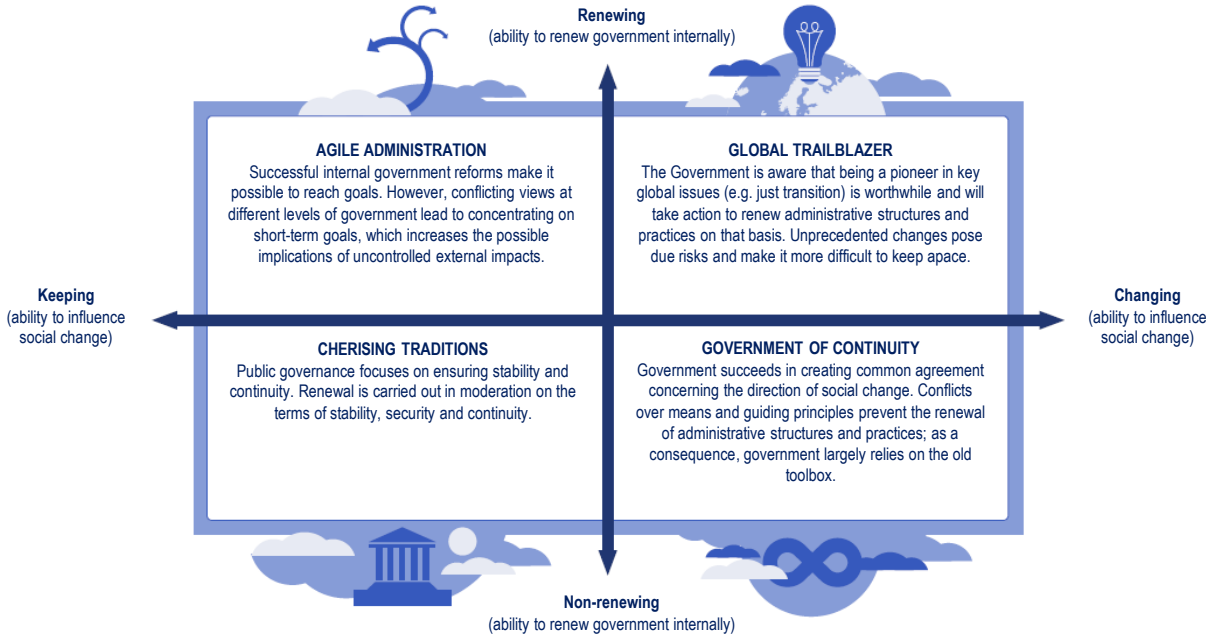
Source: (OECD, 2017[11]; Prime Minister's Office, 2011[12]).

Governance is also one of the strategic themes within the Programme with some key operational action points including:

- *Management of the strategic Government Programme*, with among others, includes the creation of parliamentary committees that were appointed to carry out the preparations of long-term reforms extending across parliamentary terms. These were supported by strategic ministerial working groups, and by strategic agreements with the ministries under the leadership of the Prime Minister's Office.[2]
- The creation of strategic ministerial working groups for the duration of a parliamentary term to support the Government Session Unit of the Prime Minister's Office to draw up a description of the current situation, assign specific tasks, perform impact assessments and develop indicators suitable for monitoring the measures contained in the programme.[3]
- Commitment to become the best public administration in the world. For this the Government has prepared the public governance strategy[4] which will guide and strengthen the renewal of public governance as a whole from 2020 to 2030. The strategy seeks to strengthen the presence of public administration in the daily life of the Finnish people across the country. As part of its strategy work, the Government will improve risk management in public administration and reinforce the public administration's ability to respond to crises that occur in normal conditions. The strategy pledges to: "make systematic foresight and future thinking a key part of management and also of policy preparation and decision making processes." [5]

These elements fit into a central governance steering system where the Prime Minister's Office and the Ministry of Finance act as the main cross-government steering bodies. Known for coalition governments, the Prime Minister tends to take the overall lead for whole-of-government activities and cross-cutting topics; while the Minister of Finance tends to lead through fiscal planning, public service development, and digitalisation. Looking ahead for the next decade (Figure 4.1) the Finnish government aims to identify areas where government can be renewed to reach ambitious goals while maintaining the values of stability and continuity in policy making. The recent Steering2020[6] work revealed that the major elements for an anticipatory approach in the Finnish governance system already exist, but they are rarely put into practice in concrete day-to-day work and implementation (Lähteenmäki-Smith, 2020[13]; Lähteenmäki-Smith et al., 2021[3]).

Figure 4.1. Future scenarios of the capabilities of public governance for change in 2030



Source: (Government of Finland, 2020[14])

An example of how elements of an anticipatory government function have started to be introduced in the public governance system in Finland is the growing interest in a 'phenomenon-based' approach to policy making (Sitra (2018[15]); see Box 4.2). Phenomenon-based policy making means addressing phenomena (e.g. climate change, social disintegration, urbanisation, and immigration) for which no single part of the system holds full responsibility for and which require the collaborative interaction of different parts of a system. This often requires establishing cross-ministerial policy networks and the ability of government to aggregate financial and human resources from across individual entities to cross-administrative objectives to achieve higher impact. The main idea is that societal problems (e.g. climate change, social disintegration, urbanisation, and immigration) tend to get lost in government silos and 'projectification' of government action (Hodgson et al., 2019[16]), meaning that the money in government is divided into small projects that do not sufficiently follow cross-administrative objectives and needs and their combined impact remains unclear. Actors across the government have drawn attention to this issue, in particular, the Committee of the Future in the Parliament and also the National Audit Office (Eduskunta, 2018[17]; Varis, 2020[18]). This has led to pilot research in phenomenon-based budgeting connected to child budgeting and the adjustment of the Government's rules of procedure, requiring Permanent Secretaries to be responsible for cross-sector co-ordination (200/2018, Government Rules of Procedure). A working group in the Ministry of Finance addressed phenomenon-based budgeting in 2018–2019 and also presented the findings to the Parliament of Finland. Yet, it is still unclear if new models around phenomenon-based policy making and budgeting will only describe government action towards phenomena or steer the budget allocation and use of appropriations (Varis, 2020[18]). A phenomenon-based approach to policy making could also be used as a lead-in to mission-oriented innovation and policy approaches (see Box 4.2).

Box 4.2. From phenomenon-based policy making to missions

What are phenomena?

Societal problems, such as climate change, social inequality, urbanisation, future of work etc., that are complex and interdependent that need to be examined in a comprehensive and systemic manner.

How does phenomenon-based policy making challenge the public sector?

Current public administration structures do not correspond with 21st Century phenomena. Hence, a single administrative branch cannot deal with these issues. Furthermore, existing silos in government with their corresponding responsibilities and budget structures may actually impede a cross-administrative, comprehensive approach to phenomenon-based strategic policy making and implementation of reforms.

Could phenomenon-based policy making be linked to mission-oriented innovation?

The European Commission has been supporting a mission-driven approach to upcoming and evolving socio-technical challenges connected to the European Green Deal, Europe's Beating Cancer Plan as well as the Sustainable Development Goals. While phenomenon-based policy making seeks to understand cross-cutting societal challenges, a mission-driven approach sets out to develop bold, inspirational and widely relevant missions for society that can be clearly framed, targeted and measured in concrete timeframes. Hence, a phenomenon-based understanding of systemic issues could be used as an antecedent approach to setting missions.

Source: OECD; (Sitra, 2018[15]; European Commission, n.d.[19])

With the afore-described ambitious agenda to upgrade public administration to 21st century challenges and lead the way in governance in the world, the Government of Finland turned to the European Commission to support the building of a model that would incorporate anticipation into the broader public governance system. Taking into account all of the developments described above, the OECD has undertaken an initial assessment of the system and how it deals with uncertainty and complexity.

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Notes

[1] The Programme of Prime Minister Sanna Marin's Government "Inclusive and competent Finland – a socially, economically and ecologically sustainable society" was submitted to Parliament in the form of a Government statement on 10 December 2019. After the resignation of the Prime Minister Antti Rinne's Government on 10 December 2019, the Prime Minister Marin's Government has adopted the same programme 'Inclusive and competent Finland – a socially, economically and ecologically sustainable society' as its Government Programme (Government of Finland, 2019[20]).

[2] See further (Government of Finland, 2019[21])

[3] See further (Government of Finland, 2019[22])

[4] See further (Government of Finland, 2020[14])

[5] (Government of Finland, 2020[14])

[6] Government of Finland has a tradition to support research in core governance areas through the research and assessment activities (VN TEAS). Previous studies have included deep-dives into experimentation, innovation and other issues. The recent Steering2020–project was undertaken below the same framework with the aim to provide an overall picture of the development and current state of governance, in its societal context, in Finland.

5 Methodology and purpose of the assessment

The chapter outlines the methodology of the assessment of the governance system in Finland carried out by the OECD in between 2020-2021. The aim of the assessment was to identify the gaps within the system that hinder the government from implementing an anticipatory innovation approach. For the latter a mixed method approach using desk research, semi-structured interviews and validation workshops with experts was adopted.

The OECD Observatory of Public Sector Innovation together with the Government of Finland and the European Commission, is developing an innovation governance model. The aim of this initial assessment report is to analyse the preconditions and gaps within the wider public sector policy making and steering system in Finland that may stand in the way or help implement an anticipatory innovation approach in the Finnish context. The assessment will be followed up by an action research phase in which 3-4 pilot case studies will be selected to develop anticipatory innovation capacity or structures within the Government of Finland. Action research is especially well suited to work in public sector anticipatory contexts, where complex challenges, institutional dynamism and rapidly shifting priorities compel researchers to ground their general theories in practitioners' daily reality in order to produce knowledge that is both relevant and readily useful.

The findings of the assessment report draw on the triangulation of data emerging from semi-structured interviews, workshops, and desk research to understand how the public sector responds to complex challenges and uncertainty. The work is supplemented by comparative analysis from the OECD's relevant body of research and country work. In Finland, the OECD triangulated data from the following sources:

- **Desk research**, including previous OECD reports on public governance in Finland, grey literature (policy brief, reports, etc.) on public sector innovation and innovation systems, and Finnish government reports.
- **Semi-structured interviews with over 50 public sector leaders, policy makers, experts, media representatives, and key stakeholders** across jurisdictions and sectors to understand the system elements, key challenges, and experiences of actors within the system (see list in Annex A). The interviews took place between November 2020 and February 2021 and were all conducted virtually. The interviews were recorded, transcribed, anonymised and coded in NVivo. All the interviews were coded following the coding scheme in Table 5.1 covering first level primary codes. In total, 177 codes over three different levels were created. The coding scheme was developed in an inductive, iterative way, by first testing initial codes on five interviews and then expanding on the scheme based on new topics uncovered in the process in a reflexive manner. Codes that proved to be specific to single interviews were merged with other relevant findings or moved to the category "other" (see Table 5.1). In total 1 368 observations were coded, with an average of 27.4 per interview.

Table 5.1. High level coding scheme

Presented are first level codes; additional send and third level codes were created depending on need.

Code	Description
Governance model	Examples of different forms of governance with sub-codes denoting market-based, network-based and whole of government governance mechanisms.
Governance challenges	Structural/organisational, co-ordination, implementation, individual/psychological, collaboration, political, procedural and process challenges connected to the difficulty to anticipate and deal with complexity.
Policy challenges	Substantive policy challenges including climate chance, ageing, democracy, food security, etc. connected to the need for anticipation.
Innovation	Innovative activities in government with sub-categories on causes for differences among organisations, most innovative organisational examples, situations when government acts as an enabler or where the innovation is led by the private sector.
Capacity	Capacities connected to anticipatory innovation governance that were either demonstrated or expected to be needed.
Tools and methods	Tools and methods that were either needed or demonstrated based on their aims (behavioural insights, collaboration, experimentation, foresight, human centred design, etc.).
Decision making	Findings highlighting the premise of how decisions are made in the public sector of Finland based on evidence, political calculations, timeframes and demand for anticipation.
Institutional actors	Findings connected to specific institutional actors on an agency, oversight, local government, ministry, parliament, PMO or National Audit Office level.
Cases	Cases highlighting either successes, failures or windows of opportunity for anticipatory innovation based on past, planned or underway examples.
Other	Unclassified, but interesting contextual findings tied to either specific institutions, situations or individuals.

Source: OECD.

- **Ten different validation workshops** with a cross-section of public sector innovation leaders, experts and practitioners to corroborate and substantiate the preliminary findings were held between January and April 2021. All workshops were virtual and had between 7 and 15 participants with the exception of the general findings workshop, which had higher number of participants. The first validation session was carried out with the high-level advisory board of the project composed of senior government leaders (state secretaries, heads of agencies and constitutional bodies) to test initial findings and the methodology for the following validation workshops. While all subsequent workshops discussed anticipatory innovation governance, most validation workshops where thematic (see Figure 5.1 below) and covered the following topics: citizens, trust and participation; futures and foresight; budget and resources; experimentation; individual and organisational capacity; policy cycles and continuity of reforms and co-ordination across government. One of the workshops tested general findings and ideas brought out of testing; and one of the sessions was carried out as part of the Committee of the Future meeting on April 7th, 2021, with the particular focus on futures and foresight and the role of the Parliament. All the workshops followed a similar approach with a presentation of general findings and insights specific to the topic of the workshop followed by clarifications and questions from the participants. Following this, the participants had the opportunity to individually and anonymously comment and rate all the main findings on a 1-5 point Likert scale, followed by discussion. The ratings are not considered statistically valid, but were used to establish areas of disagreement between participants that were taken up during the discussion. Additional ideas for improvement from all participants were collected at the end of the session.

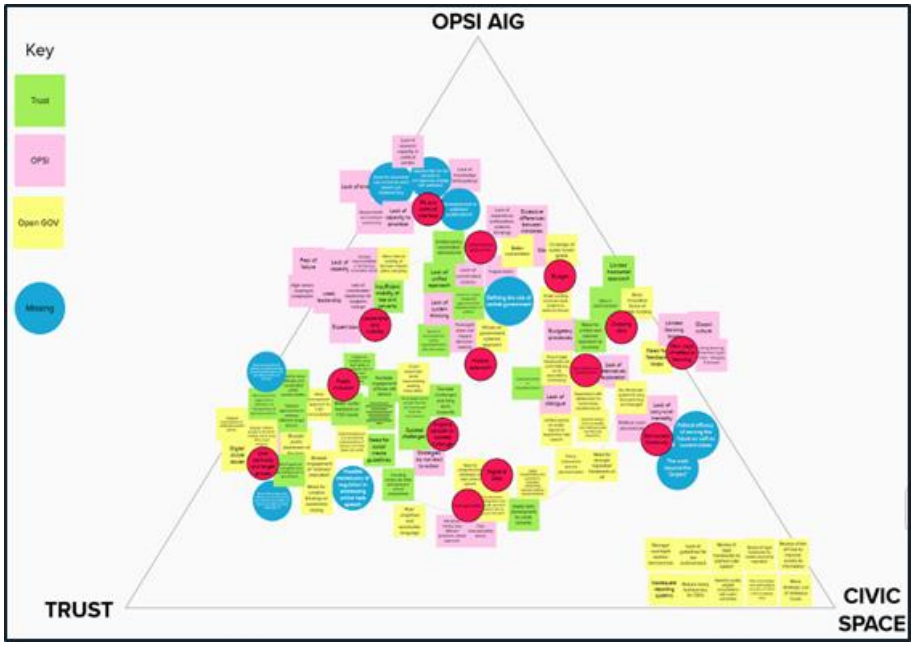
Figure 5.1. Topics of thematic validation workshops



Note: Seven of the ten validation workshops were topical and followed the following themes and questions.
Source: OECD.

- **Two additional workshops** were held: the first in December with the Steering2020 project team to compare initial findings and the second in February 2021 with the OECD's open government and trust teams that are conducting scans and cases studies in parallel in Finland. The first workshop highlighted issues picked up by the teams that could be changed with minor changes within the Finnish government (things to be tweaked), that needed a more systematic transformation (things to reconsider) and challenges that cannot be tackled within the current government model (things to cope with). The aim of the second workshop was to uncover overlapping issues and possibilities for change between the areas of anticipatory innovation, open government and trust (see Figure 5.2). Senior officials from the Ministry of Finance in Finland participated in both workshops.

Figure 5.2. Trust, civic space, and anticipation - three perspectives on systems change in Finland



Note: The insights come from a joint OECD workshop with the OPSI, open government and trust teams held on 4th of February 2021. See further (Holkeri, 2021[1]).
Source: OECD.

- The preliminary assessment report was launched for consultation in the beginning of September 2021. After the pilot case studies were conducted between September 2021 and April 2022 (Part III), a **validation session** was held in Helsinki with government experts at the end of May 2022. The aim of the session was to ascertain if and to what extent the assessment findings were correct and if any updates could be added to the report.

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6 Assessment of the Finnish Governance system and its anticipatory capacity

The chapter outlines the findings of the assessment in seven themes: futures and foresight, public interest and participation, alternatives exploration, individual and organisational capacities, budget and resource allocation, policy cycles and continuity of reforms, and co-ordination across government challenges.

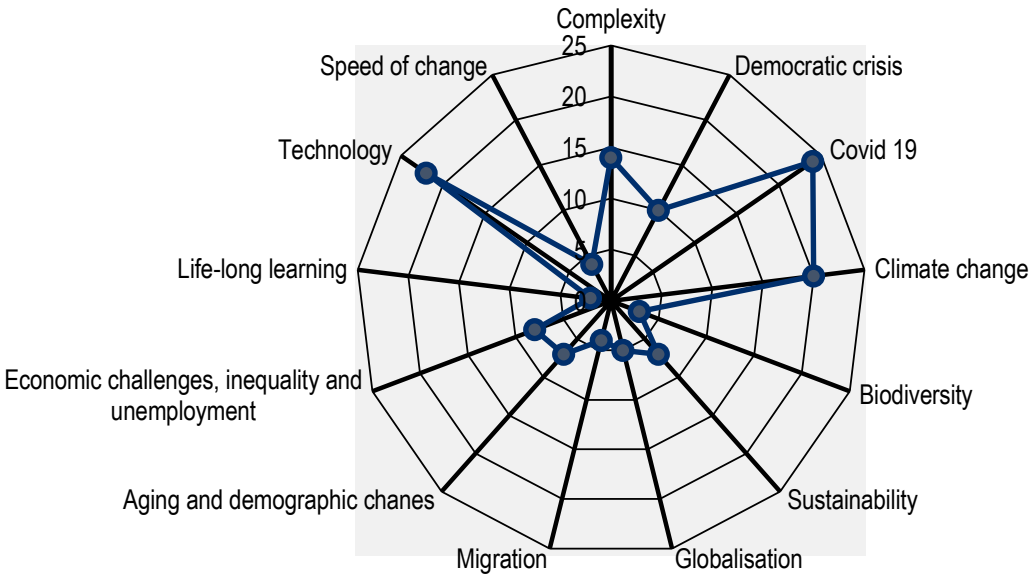
Overall, the research, workshops and interview findings echoed the positive assessment that Finland is among the high ranking countries when it comes to measuring the performance of its government.[1] Most interviewed experts agreed that the government was one of the highest-functioning governments in the world. However, this consensus was also seen as a potential danger that could lead to complacency and avoiding change, while the potential in the governance system is much higher.

> I think there is complacency in the sense that we are kind of saying, well, you know, we were pretty good, and we don't have to do change that much. And of course, because change is always painful, as we know, on many levels, so then it's easier to say that we don't have to change so much. We're kind of trying to tinker with small things, and maybe trying to sometimes change the structures, rather than actually changing how people think or how people work or what instruments our leaders use, or how they relate to their work in their organisational surroundings.

There was a general consensus that there is a need to continue developing the public governance system in a systemic manner and integrate anticipatory practices into policy steering and implementation. Interviewees highlighted a variety of areas where anticipatory action was crucial (Figure 6.1), led first and foremost by the cascading effects of the COVID-19 pandemic and the expansionary measures the government has taken (OECD, 2020[1]), but closely followed by challenges presented by technology, climate change, and democratic crisis (increasing populism, polarisation, misinformation and decreasing trust in government). At the same time, the Finnish society has been relatively successful in containing SARS-CoV-2, flattening the epidemiological curve and avoiding overwhelming hospital capacity (European Commission, 2020[2]; OECD, 2020[1]). Similar to other Nordic countries (except Sweden) the government was especially successful in acting early (OECD, 2020[1]).

Other issues where an anticipatory lens can bring value (identified through interviews) were connected to economic effects, migration, unemployment, health and social security and ageing. These are structural challenges that over time the Finnish government needs to address. Finland for example is a rapidly ageing society and the share of people over 65 is forecast to increase from the current 22% to 26% by 2030 and to 29% by 2060 (THL, 2021[3]). These challenges resonate with the issues identified by the Eurobarometer (Eurobarometer, 2019[4]). Other interviewees also highlighted characteristics of wicked problems, complexity, and speed of change that needed attention across specific policy areas. Especially when it comes to technology, the overemphasis of caution and stability in administrative functions has previously been seen as a threat to Finnish society in the long run (Government of Finland, 2018[5]).

Figure 6.1. Substantive policy challenges needing anticipation



Note: The statistics are provided by individual interview mentions, not by frequency of mentions overall.
Source: OECD based on conducted interviews.

The interviews and validation sessions pointed to a variety of challenges that need to be addressed to make anticipatory innovation and systemic approaches to policy problems possible. These are outlined in Table 6.1 below and categorised according to the type of anticipatory innovation governance mechanism illustrated in chapter 1 (the report will highlight these in more detail later on in the analysis based on topical clusters). Many of the findings are interconnected and dependent on each other within the broader policy making system. For example, many anticipatory tools and methods are dependent on the availability of the right data and measurement.

Table 6.1. General findings based on the anticipatory innovation governance model

	Mechanism	General finding
Agency	**Sense making** *Uncovering underlying assumptions and making sense of trends*	• Sense making and signal collection is not an institutionalised practice in public organisations of Finland • Few organisations have structured signal reading and sense making processes/teams • Existing sense making practices are quantitative (macro-economic) data centric if carried out at all • 'Foresight by number' – preference for highly probable futures aligned with existing plans; risk of "institutionally-bounded futures that limit the range of possible alternatives and solutions
	Tools & methods *Approaches to create new knowledge about possibilities, creativity of thought, and operationalisation of innovations*	• Regulatory instruments such as legal acts are still the most common tools for policy making at the central government level • There is a systemic lack of strategic foresight, systems thinking, design, and experimentation knowledge. If these tools and methods are used, they are usually adopted by single individuals, rather than being part of an institutionalised practice
	Data & measurement *Reading and interpreting signals in time*	• Data interoperability is an increasing issue that limits users centricity and anticipatory innovation: data sources are usually known, but legislation often hinders the use of data for alternative purposes than those indicated by the law. • There is a lack of user- and problem-centricity in collecting data and measuring policy progress limiting how problems can be addressed in a preventing, anticipatory manner and which signals

	Mechanism	General finding
		of change are collected
	Organisational capacity *Organisational structures that give autonomy and resources to explore transformative ideas*	• Organisational capacity for anticipatory innovation (both demand and supply for future-oriented knowledge and action) exists only in a few cases and mostly on an agency level • Specifically, lack of time and other dedicated resources (incl. funding and expertise) are cited as the biggest barriers to anticipatory innovation. Policy and organisational development responsibilities fall on few people with very full portfolios • There is a lack of capacity and futures literacy[1] at both individual and organisational levels • There is an unequal spread of transformative leadership capabilities (aimed to encourage, inspire and motivate employees to innovate and create change) both in public administration and politics
	Alternatives exploration and experimentation *Ability to consider different alternatives that may conflict with current strategic intent*	• Experimentation is well known in the public sector of Finland through awareness raising and broad efforts to socialise experimentation undertaken by previous governments, but it is not yet a mature practice. Most experiments are dependent of individual expert advocates and pioneers in public sector organisations. Practical knowledge and expertise about setting up experiments has not diffused widely in the public sector • Existing strategic planning processes and legal barriers are not conducive to exploring alternatives
	Institutional structures *Institutions that make room for experimentation and testing*	• Outside of the preparation of the Government Programme every four years and the Government Report on the Future, there is little structured 'future seeking' and few experimental moments in policy reform • Three major governance steering systems – strategic/political, budgetary, and legal – are not well aligned and at times have conflicting timelines. Budgetary steering processes precede strategic steering and are not in line with futures and foresight • Institutional settings tend to enforce silo mentality (especially the budgetary process). Money does not follow problems: budget allocations are not phenomenon-based or user centric nor are allocations holistically aligned with the challenges involved • There is difficulty to align anticipatory action with ongoing strategic planning and political decision-making processes • Performance management systems do not support cross-government aims and anticipation/innovation • The role of public administration and politicians in complex and long-term policy issues is unclear and subject to (hidden) power relations • There is a lack of continuity between policy cycles: lack of formal transition procedure between administrations and difficulty to plan for long-term, transformative change
Authorising environment	**Learning loops** *Creating feedback loops from experimentation to dynamically inform policy choices*	• Effective learning loops between strategic foresight, strategic planning and implementation are still fragmented or missing • Implementation for many is a core challenge. Government is able to generate ambitious goals, but lacks clear levers to learn from implementation and often goal-setting becomes a technocratic exercise. Time allocated to implementation is often too short and does allow reflexive practice, develop theories of change and evaluate the impact of changes on the ground. • Futures and foresight are not feeding into innovation and experimentation • Political cycles cut continuity of reforms and learning from previous efforts
	Evidence and evaluation *Evaluating future options based on value and accounting for opportunity costs*	• Evaluation is widely numerical, does not consider competing values, future-orientation and is not often timely to the political process • Solutions are defined too early in regulation-driven policy-making processes. There is a lack of agile and iterative policy design and evidence generation
	Legitimacy *Creating trust in government, experimentation and explored futures*	• Internal legitimacy (acting in accordance with rules and procedures) is often valued more than external legitimacy (reaching outcomes for citizens) • There is a fear of making mistakes • Experiments/innovation/foresight and their role are still not understood by leadership
	Vested interests and biases *Ways to address incumbents' interests and biases in thinking about the future*	• Concentrating on short term policy issues and immediate goals contributes to various biases in policy making (recency bias, allocation of attention, confirmation bias and illusion of control to name a few) • Short-term tasks override long-term thinking • A pervasive myth of implementation not being part of strategic policy making and should only be done by agencies stands in the way of experimentation and agile/iterative policy making

	Mechanism	General finding
		• Quantitative data fallacy (McNamara fallacy): strong belief in numbers and devaluation of other data sources
	Public interest and participation *Involving a variety of stakeholders and new perspectives, and facilitating discussions around values*	• Lack of institutionalised citizen participation methods early on to consider policy alternatives • Closed culture (involving stakeholders once the solution has been already reached), lack of facilitation skills within government and overly large influence of think thanks and politically affiliated lobbies cited as barriers to participation • More acute public interest and media attention is seen in a negative light due to fear of negative perception of innovation • Lack of deliberative processes in futures and foresight exercises outside of more consultative dialogues
	Networks and partnerships *Working together with leading organisations and individuals with transformative ideas*	• Complex issues are mainly tackled through network approaches (e.g. via ministerial working groups), yet, when dealing with new, unique challenges the process of assigning responsibility and a response is often based on had hoc methodology • Foresight happening in narrow circles and problems with transparency and timely sharing of results • R&D (and to an extent, experimentation) is often outsourced through waterfall processes with little iterative learning

1. Futures literacy has been defined as the "capacity to explore the potential of the present to give rise to the future" (Miller, 2007[6]), which means recognising that developments in the present are signals of what the future might hold.
Source: OECD.

The findings above indicate that many co-ordination and steering challenges exist that affect the ability of the public service to anticipate, propose and discuss transformative change needs in an open and participatory way. The system seems to prime compliance with existing rules with limited possibilities to challenge them. User-centricity in addressing present and future policy issues remains a secondary rather than a systematic driver. Strong sectoral specialisation of ministries and not well-aligned steering mechanisms make it difficult to deal with cross-cutting and complex challenges.

More dominant steering systems in government – strategic, budgetary and judicial policy steering – do not always align in timelines or intent. The strategy process primarily led by the Government Programme tries to bring up challenges and phenomena that the government needs to tackle, while the budgetary process functions in an organisation-based logic with clear structural boundaries. This makes it difficult to plan for cross-sectoral interventions, integrate a variety of inputs into planning processes (e.g. knowledge resulting from agile processes and futures thinking), and establish organisation accountability for shared outcomes.

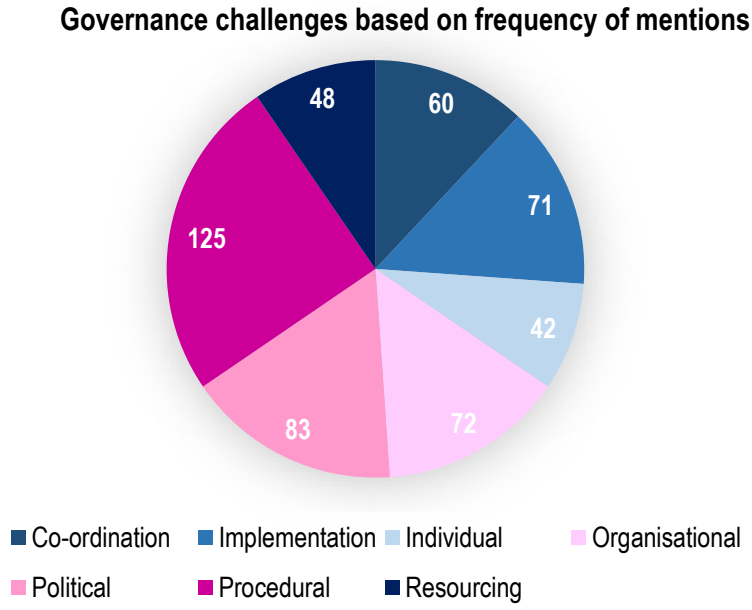
Cross-cutting governance challenges are predominantly tackled through a network approach by transversal working groups). However, these structures are mostly consultative and rarely enjoy formal decision-making powers and when conflict arises the responsibility to take decision fall back onto more traditional structures. Consequently, policy makers are continually challenged by governmental silos and incentive systems. Furthermore, in coalition governments such as the case in Finland, the ability of centre-of-government steering bodies to directly negotiate across the public administration and direct change tend to be weakened (for example, the Prime Minister may have to broker a political agreement with heads of coalition parties).

On the whole, interviewees highlighted various clusters of challenges connected to governance and its ability to deal with complexity and change (see Figure 6.2) directly impacting the anticipatory innovation capacity of the Government of Finland. The most frequently mentioned clusters were associated with:

- Procedural issues (nature of the budget and legislative processes, how evaluation and strategic planning was conducted and openness, flexibility and user-centricity of these processes).
- Organisational challenges (culture, effect of silos, difference between ministries, human resource planning).

- Policy implementation (lack of continuity and available policy mechanisms, influence of foresight on decision making, alternatives exploration and experimentation and connections between strategies and action).
- Policy co-ordination (fragmentation, lack of co-ordinated action and discussion of trade-offs among others).
- Resourcing (lack of time and dedicated funding for anticipatory innovation and dominance of outsourcing development work and R&D).
- Individual factors (linear decision making, expert bias, fear of making mistakes and risk aversion, lack of open-mindedness, etc.).

Figure 6.2. Identified governance challenge clusters



Note: The numbers are based on frequency of mentions across 53 coded interviews. Multiple mentions of a challenge within any given interview account for the frequencies shown exceeding 53.
Source: OECD.

The interview findings presented in Table 6.1 were grouped in more general topic clusters and tested with experts and stakeholders in valuation workshops (see Chapter 3 on methodology). The level of consensus on findings is presented in

Table 6.2 below. The results show strong agreement on the high-level findings with some exceptions based on individual stakeholder roles and perceptions of the system. There was least agreement about organisational and individual capacities to anticipate future changes and deal with complex policy problems. This is understandable as in many cases the perceptions are based on experiences in one or two public sector organisations and it is difficult to form an overall picture. Also, there may be conflicting issues connected to the findings: for example, many interviewees stressed the influence of an “engineering mind-set” and a technocratic approach to policy making as the cause for lack of anticipation. At the same time, recent examples of innovative leadership in the Finnish government that participants in validation workshops discussed were connected to people with digital skill-sets and more iterative approaches to reform. Hence, a conflicting understanding about the usefulness and influence of technology skills emerged especially as the influence of old engineering mentality versus new technology-oriented skills

was deemed different. In other areas (e.g. performance management, research and development outsourcing) issues had not been connected to anticipatory practices before.

Table 6.2. Heat map of validation results

Participation	Futures and foresight	Budget and resource allocation	Exploration of alternatives	Individual and organisational capacities	Policy cycles and continuity of reforms	Co-ordination
Lack of institutionalised citizen participation methods early on to consider policy alternatives	'Foresight by numbers' – preference for highly probable futures aligned with existing plans, institutionally bounded futures	Budgetary steering processes precede strategic steering and are not in line with futures and foresight	Experimentation is talked about, but rarely done beyond agencies: handful of pioneers, but little true high-level support	Short-term tasks override long-term thinking	Lack of formal transition procedure between administrations	Budget, judicial and strategic steering enforce different aims: strategic vs organisational
Closed processes and lack of facilitation skills	Difficulty to align with ongoing strategic planning and political decision-making processes	Money does not follow problems: budget allocations are not phenomenon/user centric nor are allocations holistically aligned with the challenges involved	Experimentation is not always timely in policy-making processes	Development responsibilities fall on few people with very full portfolios: lack of dedicated resources with right skills, capacities and resources (incl. time)	Role of public administration and politicians in complex and long-term policy issues unclear and subject to (hidden) power relation	Budgetary steering process precedes strategic steering and are not in line with futures and foresight
Lack of deliberative processes in futures and foresight exercises outside of more consultative dialogues	Foresight happening in narrow circles and problems with transparency and timely sharing of results	Ability to make agile and iterative changes to projects once the situation develops	Outside of the Government Programme preparation every 4 years and the Government Report on the Future, little structured 'future seeking' and experimental moments in policy reforms	Unequal spread of transformative leadership capabilities both in PA and politics	Strategies do not lead to action – time for proper implementation is too short to develop theories of change, operationalise and evaluate changes on the ground	Very strong governmental silos
Data sources are usually known, but legislation often hinders the alternative use of data.	Futures and foresight not feeding into innovation and experimentation	Aligning commitments across organisational budgets at the same time is very difficult	Regulations as gate keepers of experimentation: experimental law on employment services experiment in municipalities	Performance management systems do not support cross-government aims and anticipation/innovation	Myth of implementation not being part of strategic policy making – stands in the way of experimentation and agile/iterative policy making	Trade-offs between different policy areas are not visible nor are investments across government based on societal challenges (budgeting through excel)
Data interoperability as a barrier to more user focused analysis and examination of citizen centric policy challenges	There is a lack of dedicated capacity and futures literacy on both individual and organisational organisational level	Phenomenon based narrative widely in strategy, but does not work in practice	Solutions defined too early in regulation-driven policy-making process: lack of agile and iterative policy design	Perception that foresight and innovation are side of the desk activities and not part of core processes	Government Programme as future seeking moments and catalysers, but of varying strategic quality	When new, cross-governmental issues arise then the responsibilities assigned on an ad hoc and varying ways: lack of clarity of process
Need for more user centric approaches and systems thinking to analyse complex problems	Few organisations have structured signal reading and sense making processes/teams		R&D tasks are often outsourced through waterfall processes with little iterative learning	Fear of close media scrutiny and making mistakes – internal legitimacy overrides external legitimacy		Diverging ideas on how to tackle co-ordination issues: through stronger organisational reforms or more softer mind-set/leadership tools
	Lack of knowledge in foresight, futures, innovation tools and methods		Experiments/innovation and their role still not understood by leadership	Lack of individual and organisational capabilities in anticipation, innovation and futures literacy		
			Innovation largely depends on the efforts of individuals and pioneers	Engineering mind-set and preference for forecasting standing in the way of systems innovation, yet digital skills and background been very beneficial in modernising the public sector		

Note: Agreement with findings was measured on a 1-5 Likert scale, where the higher score denotes a higher level of agreement. Dark blue – denotes a calculated average score on agreement between 4.5-5 across validation sessions; light blue – average score on agreement between 3.5-4.4; yellow – average score on agreement between 2.5-3.4; light red - average score on agreement 1.5-2.4; dark red average score on agreement below 1.5 (was not represented).
Same statements were validated at least across two different validations sessions, the scores were averaged and added to the heat map. For brevity, not all findings tested across validation sessions are represented.
Source: OECD based on 10 different validation sessions held between January-April 2021.

The following analysis in this report will focus on the clusters of findings that emerged during the validation sessions including: futures and foresight; public interest and participation; alternatives exploration and experimentation; individual and organisational capacities; budget and resource allocation; policy cycles and continuity of reforms and co-ordination across government challenges. Other relevant anticipatory innovation governance mechanisms such as sense making, tools and methods and vested interest will be covered under individual and organisational capacities; while additional mechanisms including data and

measurement, institutional structures, evidence and evaluation, learning, legitimacy and networks and partnerships are strongly intertwined with the above-mentioned topic clusters.

Futures and foresight

As outlined in previous chapters, strategic foresight is a critical driver of insight to inform experimentation and anticipatory innovation, however it needs to be more closely linked to decision making to make insights about the future actionable in the present (Tõnurist and Hanson, 2020[7]). Strategic foresight also acts as a driver for other core values in government: for example, government's capacity to plan ahead and minimise uncertainty is an important driver of trust in government and the civil service (OECD, 2021[8]).

Finland has one of the most highly developed strategic foresight systems – see Figure 6.3 – which comprises various institutions with formal and informal roles related fostering anticipatory governance. These include:

- Sitra,[2] an innovation fund which reports to the Finnish Parliament, has been conducting foresight studies of Finland and spearheading the use of foresight and futures tools in the Finnish public sector for decades (e.g. they recently released the Futuremakers Toolbox, a guide for organisation to integrate futures thinking to their operations).[3]
- The Committee for the Future established in 1993 by the Parliament of Finland. The Committee has been a key forum for raising awareness and discussing long-term challenges related to futures, science and technology policies in Finland (an overview of the committee's activities is included in (Linturi and Kuusi, 2018[9]; Aunesluoma, 2019[10]).[4] The Prime Minister is the executive's representative in the Committee of the Future, which draws members across all parliamentary parties and thus helps to diffuse the knowledge about future challenges and strategic foresight methods in political circles. The committee prepares the Parliament's response to the Government Report on the Future every four years and since 2017, also supervises the implementation of the Agenda 2030 for Sustainable Development (CoF, 2019[11]). While the committee has members across all parliamentary parties, there is a potential to do more, as interviewees outlined that as committee members change after elections some of the expertise has to be built anew and there could be more connections to other permanent committee work on substantive reforms.

Figure 6.3. Futures and foresight activities in the Government of Finland on the national level



Source: OECD.

- The Prime Minister's Office houses the Strategic Department which includes the co-ordinating function for national strategic foresight. The Prime Minister's Office co-ordinates the Government Foresight Group which brings together strategic foresight experts. The Government Foresight Group also has a high level steering group with five State Secretaries from ministries representing all five coalition parties. The steering group sets the direction of the work.
- In addition to the national level foresight work, regions and municipal associations have their own foresight practices and agencies (like Business Finland, Tekes) conduct their own technology assessment and strategic foresight (Jäppinen and Pekola-Sjöblom, 2019[12]).
- Most of the foresight work in the public sector takes place at project-level or is done with the support of internal networks. Some strategic foresight is also outsourced to external actors (Pouru et al., 2020[13]). The National Foresight Network and community events like Foresight Fridays, led once a month by the Prime Minister's Office (see Box 6.1 below), help to share knowledge across different entities including regional councils and organisations such as Sitra. Interviews indicate that cities and municipalities' direct participation in the network activities is less frequent. This has led to a slight fragmentation and confusion among experts on which scenarios and signals to consider as municipalities (depending on size and available capacity) tend to also conduct their own strategic foresight activities.

Box 6.1. Finland's National Foresight Network

The National Foresight Network started with a pilot in 2014 to regularly bring experts together to share and discuss topical future-related themes and create new knowledge. Under the co-ordination of the Prime Minister's Office and Sitra (the Finnish Innovation Fund), Finland's National Foresight Network acts as a forum for discussion and co-ordination among the country's key strategic foresight players. By bringing together ministries, government agencies, regional councils, private sector actors, academia, and NGOs, the Network aims to promote the use of future perspectives and foresight data in the country's decision-making process at various governance levels. It is an open network holding monthly "Foresight Fridays" meetings that involve participants in trainings, presentations and networking events.

In the lead-up to parliamentary elections, it produced future scenarios envisioning Finland's future. The current foresight scenarios cover up to 2025, focusing on digitisation, the needs of an ageing population, and the labour market reform. The scenarios were made widely available online and were successful at bringing discussions of the future into the electoral debate.

Source: (Tiihonen and Hietanen, 2014[14]; Hartikainen, 2021[15]; Prime Minister's Office of Finland, 2021[16])

The co-ordination leaver in which the government is investing most heavily is connected to the Government Report on the Future. The Prime Minister's Office is responsible for co-ordinating the preparation of the Government Report on the Future, which traditionally proceeds national elections and raises long-term future prospects for the country. The previous reports highlighted the need for reforms in the life-long learning system and in the social system (Valtioneuvoston kanslia, 2018[17]).

> The aim of the whole report is to create not only a debate within the government about the future for Finland, but also a public debate about the kind of future we want for Finland. The work is very much hands-on: we are trying to get to a position where a cross-government way of doing foresight is in place. So we are using this Government's Future Report as a vehicle to reach some of the goals for government foresight work.

Increasingly the report is being used as a co-ordination tool to bring together different perspectives and form a collective orientation on future-related priorities. The Prime Minister's Office indicated its intention to engage ministries more actively in its preparation. To prepare for the new report the Prime Minister's Office has requested more dedicated time commitment from ministerial experts to participate in the work and aims to make the writing of the report a joint government endeavour.

Interviewees found that the current model represents a considerable shift from the past and towards greater central co-ordination of foresight activities. Previously ministries have led their own foresight activities and prepared also their own reports (future reviews) leading up to the Government Report on the Future. These were produced in different styles and used slightly varying approaches (Liikenne- ja viestintäministeriö, 2018[18]; Oikeusministeriö, 2018[19]; Puolustusministeriö, 2018[20]; Sisäministeriö, 2018[21]; Valtiovarainministeriö, 2018[22]). Ministries tended to use input from external experts and researchers to contribute to their specific future reviews and Sitra facilitated a joint sense making session

for the ministries to move towards a joint report. However this approach was not deemed sufficient by the Prime Minister's Office to reach a collective, synergic vision of the future as prior work done by single ministries started to predetermine the discussion. While ministries are still expected to their future assessment reports separately from the Government Report on the Future, there is confusion about the roles of different report.

The current model around the Government Report on the Future involves a collective ministerial process from the start, including a joint environmental analysis and identifications of facts affecting the future of Finland before moving towards specific scenarios. These scenarios are also presented early to the cabinet to assure that the findings of the process are taken into account in the government's midterm review, rather than waiting for various parts of the reports to be made available only prior to elections.

> A lot of their resources now are going into the Government Report on the Future. While it is a really good thing, that it is done by the ministries themselves, I don't know how much additional resources in expertise they have put into it. But if you think that usually it was kind of bought from the outside, at least the background parts, and then mostly written within by the Prime Minister's Office, then it is a good development. But it's so much more work and they are quite tied up with that.

The collective, centralised approach, however, does not come without challenges. The interviews showed a large gap in futures and foresight capabilities across ministries, with some having only very limited or no expertise or capabilities in foresight. The result is the level of trust in and commitment to the process differs across ministries. Thus, many saw it as a common capacity building exercise where differing levels of expertise – and at times, commitment – had to be addressed.

> Capability levels differ from ministry to ministry and of course, when you're running a joint scenario project, it might produce some tensions. It is a really promising learning process, but I'm not sure what will come out of that. I might feel very differently in a year.

For those ministries with extensive experience in strategic foresight (e.g. Ministry of Defence, Ministry of Interior, etc.), a centralised approach can result in shifting attention away from internal foresight reviews and processes which represent important sources of knowledge for the organisation. Based on the interviews, many found that common processes tend to edge out more radical views and may not give enough field-specific detail for specific organisations with connection to strategic planning, experiments and innovation activities. Thus, is confusion concerning the roles and connection between the futures reviews of the ministries and the Government Report on the Future. Formally the links between the two have been severed, while the centralised work resumes.

> We are a bit worried that the Prime Minister's Office wants to centralise everything, and we are going to participate in that, no doubt, because we are part of the government. But we are going to keep also our own ministry internal processes going on, because my impression is that too few international ingredients important to us are discussed in this common foresight exercise.

Also, concentrating on the input of ministries, some interviewees found that the broader ecosystem approach had taken a back seat – importance of which was brought out in the review of the national foresight system in 2020 (Pouru et al., 2020[13]). It was deemed very important that the ministries' future reports should remain, because this is information from civil servants and the connected ecosystems directly to all political parties as is not changed under scrutiny of the collective process. Their role is to provide non-partisan info equally to all political parties irrespective of whether they are in the government or not and their broader ecosystems. This does not mean that information from ministerial exercises cannot be used in the Government Report on the Future.

> So perhaps one thing that I've noticed related to this, is that they are doing this scenario, report with the ministries, the focus tends to be inside the government and towards ministries, less so about the ecosystem which was the message of the foresight evaluation report from spring (authors note: see (Pouru et al., 2020[13]). Of course, it there, there is the kind of whole legacy of the foresight network and the role of ministries that is very much alive.

The collective process was perceived to have an underlying political nature that was brought out as a potential danger, due to the Prime Minister's Office's co-ordinating role and need to validate the findings directly with the cabinet. Moreover, the attention to day-to-day issues (such as tackling the COVID-19 crisis) was found to take attention away from the long-term goals as the Prime Minister's Office is also responsible for preparing the COVID-19 scenarios for the government (see Box 6.2 below). Some interviewees felt that the report preparation process should be more transparent and institutionalised so that the expert bias and political interest to subdue more radical propositions would not influence the results.

> I was a bit surprised, because I thought that the kind of the processes in the National Foresight Network and, and the steering group would be more established. But they are tied to what the current government wants.

> The government wants to do foresight more together. Nothing wrong with that. But my fear is that it will be too much Finland- and current interests centred. And we are anyway going to keep our own foresight and try to bring the world to this country, this administration. Participating in the common effort, but also keeping our own and actually strengthening our own capabilities. Because this is really important.

This suggests that the role of different strategic foresight actors within the system needs more clarity as some organisations with more autonomy could be better suited for posing more radical ideas and stress-testing existing policies or planned solutions. Otherwise, day-to-day policy challenges and crisis response may override long-term visions.

Impact gap

There are a variety of ways to set up strategic foresight systems, but the key is that both demand and supply of strategic foresight is present at the same time (OECD, 2021[23]). This is often very difficult. Based on the variety of levels of futures and foresight capability across public sector organisations in Finland, it was not surprising that the interviews showed a prevalent perception that foresight and innovation were considered "side-of-the-desk activities" and not part of core government processes. A majority of the interviewees and participants in the validation sessions strongly agreed that there is a significant 'impact gap' when it comes to strategic foresight and how it is used in the Finnish government. This has been also noted in prior reviews of the system (Pouru et al., 2020[13]).

While the resources for central foresight efforts have increased with input from individual ministries, the work does not directly contribute to strategic plans, innovation programmes and decision making in ministries. Across the board, interviewees found that it is difficult to align strategic foresight with ongoing strategic planning and political decision-making processes.

> There are strategic foresight exercises, but how to use that material later on? It it's not that easy, and actually, not very clear. I mean, it was good that the high level leadership was there for the exercise we carried out, but, it took quite a while for the material to come back in a sort of distilled form. And then to be honest, the strategy process had its own life in between. It was hard to bring back future-oriented thinking into the process. When we needed to prioritise, people very much stuck to their guns already, in their own sector specific thinking. And it was very difficult to bring people to think in new terms and to inject new concepts, where we would have gotten beyond the more traditional things.

While Finland has invested substantially in recent years in the production of foresight knowledge, engaging with the demand side and usability of the knowledge has been lagging behind. The interviewees found that the producers of futures and foresight insights should also take into account the expectations and communication needs of decision makers. The general attitudes encountered during the interviews were confrontational on both sides: either the futures and foresight experts felt not heard and appreciated, or the senior decision makers felt that they were under-engaged and their needs were not taken into account. Experience indicates that the problem usually lies at both ends: on the one hand, there is a lack of ability to communicate foresight information in ways that are useful and digestible for senior leadership; on the other, there is still a low level of futures literacy and knowledge about the uses and benefits of strategic foresight among the leadership which limit their capacity to absorb and interact with this content. Until both issues can be systematically tackled, there is a need for intermediaries in public organisations able to translate anticipatory information to politicians and decision makers and a need for capacity building at different strategic foresight practitioner levels: expert, policy makers and decision makers. The government could also benefit from better communication principles for different government participants. In addition, more structured demand for futures and foresight in strategic planning processes should be created and a clear value chain to innovation outlined.

> Sometimes I find it funny that in that government asks what's the impact of foresight? Or does it have an impact? At the same time, traditionally the Finnish government has not seen the purpose for doing foresight in making better decisions. It is a bit double – I think it is a bit peculiar. There has been some anticipation, of course, but the link to direct decision making and to budgets has not been so straightforward.

Closed process and predictability

Although external engagement and government investment in foresight activities is at an all-time high, interviews indicate that foresight activities across government are not widespread but are conducted in narrow policy circles. Problems with transparency of the work and timely sharing of results were often mentioned as critical issues. While there has been an attempt from the centre of government to engage a wide spectrum of actors in foresight activities (for example, as part of the Government Report on the Future process the Prime Minister's Office ran also a wide future dialogue process), very few of the policy makers and senior leaders in government who participated in the interviews were actually aware about these processes.

Connected to the issue above, interviews indicate that often strategic foresight results are not widely shared or released in a timely manner. The latter seems to be mainly due to leadership hesitancy to share more debatable results and transformative ideas widely and the lack of 'futures literacy' (i.e. the ability to comprehend how, for what reason and for what purpose anticipatory knowledge is used) not only in government, but also in media. This latter factor in particular makes presenting and interpreting more transformative/radical scenarios and wild-card exercises more difficult. Some interviewees speculated that this may also "file the edges off" more radical ideas and limit the stress-testing role of strategic foresight. For example, the government quickly developed COVID-19 scenarios (Box 6.2) to respond to the crisis and think of alternative routes forward; however, once completed, the scenarios were approved to be shared only months later (and only internally), which constrained their uptake and use by ministries and other stakeholders.

> It takes a surprisingly long time, you know, to politically accept more transformative/radical scenarios, and for them to be approved to be published. It took a very long time for the COVID scenarios to come out. And then of course, it was a bit late, you know. Things moved fast in that situation and it was a bit sad if you want to be ahead of things, and then you are not allowed to publish the analysis.

Box 6.2. COVID scenarios of Finland

The COVID-19 crisis has been a significant change driver to start talking more about complexity and uncertainty (and based on our interview results in Finland), has dominated the discussion around foresight and futures since March 2020. While the crisis developed, the Prime Minister's Office started to prepare COVID-19 crisis scenarios in 2020 in co-operation with the Finnish Institute for Health and Welfare, the Ministry of Social Affairs and Health, the Ministry of Finance, the Ministry of Economic Affairs and Employment and the Ministry of Education and Culture. The scenarios were published in April 2021.

The medium-term and long-term COVID-19 scenarios describe three possible paths of development of the epidemiological situation in Finland and in the world and their potential impact on society in the period covering summer 2021 through end of 2023:

- The epidemic will be under control in Finland and globally by summer 2021
- The epidemic will be under control in Finland by summer 2021, but it will take until 2022 to gain control of it globally
- Gaining control of the epidemic will be delayed until 2022 both in Finland and globally.

The scenarios were not developed on the basis of forecasts, but on the assessment of the potential effects and impact of COVID-19 mitigation measures and their possible alternative paths. The work also includes a qualitative overview of the potential impact of the epidemic in 2024–2026. The scenarios also describe the effects of the epidemic with regard to the economy, healthcare and social welfare services and the population in general.

Source: (Valtioneuvosto, 2020[24]).

The interviewees also referenced futures work as 'foresight by number' as in highly predictable in their results. There is a preference for highly probable futures aligned with existing plans, and institutionally bounded futures. Decision makers participating in the interviews found that there is little coming out of the foresight work that is surprising, meaning that the system does not function as a stress-test for conventional ideas or as a means to propose more radical ideas for experimentation.

> If you have this kind of rather mechanical idea that, you know, every ministry has to have their own ideas, then this kind of big, unknown or difficult to foresee future is hard to collectively to put on paper. I personally think that we should also think about things we don't like, things we have no solution for. But that's not very popular.

For example, one interviewee described: “in the ministry they did a corporate report and already know what they want as an outcome from this – there is a strong path dependence.” Hence, both the expectation gap, path dependencies and also the fear of potential backlash need to be addressed at the same time. Furthermore, as outlined above, ministries lack clarity as to the degree to which foresight activities should be carried out centrally and the extent to which should they develop internal capacities for futures and foresight work; and how these should tie in with their daily policy making and strategic tasks.

This raises another area of concern among the interviewees: the influence of expert bias, group think and predictability of futures in relation to foresight work. Most interviewees noted that there is no substantive evaluation or assessment of futures and foresight work – making it difficult to systematically identify critical biases in the production of future-oriented knowledge. This may at times be convenient for both civil servants and politicians as it allows them to avoid difficult topics and more radical, but potentially relevant, ideas and signals that are not considered as their ability to prepare for uncertain situations is not really under scrutiny. Ideas expressed during interviews pointed to the need of increasing inclusion and transparency of the process to counter these biases – by including experts and people (locally and internationally) more widely into the process, more transformative ideas would be difficult to ignore or exclude.

> There is no evaluation or assessment of foresight work and the Government Future’s Report whether it does have an impact or not. One thing that that is perhaps needed in these policy processes is the bringing more inclusion there or playing more bringing more participation there as well. I think this kind of current digital leap, if you will, has perhaps provided opportunities to that as well.

From leadership perspective, the foresight process appears to be a distant exercise separated from core ministerial activity. Most decision makers interviewed tended to refer to futures and foresight work being done in “narrow circles”, to a degree in which they had little overview about the work itself. As was described by one of the senior leaders in government:

> So few people have been involved doing these kinds of reports. So that we don't even know that these reports have been done. And when the reports come to our ministry, to people from our ministry, who have been involved in the process, the content sometimes comes as a surprise. So it still feels like coming from the outside. We need to be more involved in this process, so that we can find relevant findings from there. I think these reports have been done by too few people and I think it is the biggest weakness.

With the current Government Report on the Future, the Prime Minister’s Office in co-operation with the Timeout Foundation has tried to address this by introducing future dialogues with citizens in the process (see Box 6.4 in the next section) (Government of Finland, 2020[25]). People from a variety of backgrounds and walks of life were invited to participate. This was seen as a very positive approach forward: “*there has been these future dialogues using the timeout dialogue method, which I think is a really good a good step*

towards what inclusion might mean in practice." Other interviewees questioned how different ideas from the dialogues were prioritised and which were taken forward. There is a need to strengthen communication on these initiatives as interviews with policy makers outside of the foresight network indicate limited awareness of these initiatives outside the expert circles.

> During the last 10 years, the ministerial future reviews and the Government Report have been done in a very traditional way. I think we can't use them, for example, in my own ministry and in its strategy process. Now last year, we started a new process led by the Prime Minister' Office, where we had this kind of dialogue with citizens and companies and third sector. I hope this is going to open our minds to the fact that we need to have new ways to do these future reports. So more people actually know what kind of report it is and that we get more insightful knowledge out of it.

Section findings and key considerations

The prior analysis has shown that there is a need to deliver on the potential of strategic foresight by integrating it with core strategic processes, innovation and experimentation. This requires better futures literacy among public servants. This includes building up the government's futures literacy and setting up structures to overcome the impact gap of strategic foresight (the individual, collective, and institutional limitations that prevent the use of high-quality futures knowledge in innovation, policy, and strategy), and integrating it with core strategic processes and innovation and experimentation needed to build up the anticipatory innovation capacity. Furthermore, different strategic foresight actors within the system need more clarity as some organisations with more autonomy could be better suited for posing more radical ideas and stress-testing existing policies or planned solutions. This may help the government go beyond more predictable futures and consider more radical long-term opportunities that could serve as a vision of the future. This means also bringing strategic foresight out of "narrow circles" and involving more outside and international experts in the work. Otherwise, day-to-day policy challenges and crisis response may override long-term visions.

There is also an opportunity in the upcoming recovery plans and Government Programme formation to reinforce reliability of the use of strategic foresight by reviewing future-oriented policy-making processes to make design and implementation more inclusive. Currently, prior Government Reports on the Future feeding into the elections and the Government Programme have taken a four-year term perspective and not prioritised longer-term transformation. In general, prior research has shown that the average foresight timeframe for Finnish public sector organisations is 4-10 years (Pouru et al., 2020[13]). In view of the important transformation of Finnish society, the government could improve the formulation process of government programmes by clarifying responsibilities with regards to foresight and anticipation and enhancing dialogue between the political leadership and the senior civil service with regards to their respective roles in anticipatory innovation.

Since the assessment was concluded in September 2021, OECD controlled the robustness of its findings in May 2021. The results from validation workshops with Finnish experts showed that in futures reviews and strategic foresight practice within governments are still fragmented and not inclusive. Ministries are developing their futures reviews; Permanent Secretaries are also creating a joint review; however the there is no model on the table for continuous strategic foresights within the system and it is challenging to get insights for ad hoc needs (e.g. assessing how a new virus might affect service and policy needs) despite

the fact that different ministries probably have relevant scenarios (e.g. Ministry of Health for disease; Ministry of Defence for conflict). There is a need for a clearer centre of government steer in terms of developing strategic foresight and its further integration within the policy-making system. There are plans to create a common foresight platform on the ministerial level to tackle the problem, but functions of the new role are still unclear and need to be piloted. It is unclear whose responsibility it will include information to the platform and uphold its functions. The view of and use of foresight data and also contact points should become more systematic, because currently it takes too much time to get a line of sight of all programmes, scenarios and innovation processes connected to the field. Currently it is also unclear what capacities are planned to work in a platform manner. .

Main Findings	Key considerations
Futures and foresight	
Unclear roles of futures and foresight at the centre of government and ministry levels	• Clarify the roles and expectations of strategic foresight and futures beyond the Government Future's Report • Outline which capacities ministries and public organisations should develop internally and which issues are tackled across government; this may mean that different foresight processes internally and across government are run simultaneously and hence, should be also adequately resourced • Create an evaluation system to outline how strategic foresight contributes to anticipatory innovation capacity of organisations (not the accuracy of predicting the future)
Impact gap: futures and foresight not feeding into strategic planning, innovation and experimentation Difficulty to align with ongoing strategic planning and political decision-making processes	• Strengthen the link between foresight and decision-making • Clarify the expectations of decision makers and policy makers for strategic foresight and create demand for the latter • Demonstrate how anticipatory innovation knowledge could be used in strategic planning, innovation and experimentation processes; create clear expectations on how and when different strategic foresights tools and methods (for visioning, stress-testing etc.) will be used in strategy making processes • Take into account strategic planning and policy making timelines in designing strategic foresight and futures exercises so that there are touchpoints and uses of this information during the government term
'Foresight by number' – preference for highly probable futures aligned with existing plans, institutionally bounded futures	• Involve more varied stakeholder groups and international experts in the futures and foresight work • Release results on an ongoing, timely and open manner • Build in autonomy to explore more alternative scenarios and use the future as a neutral, safe space to discuss and reframe issues that block progress
Closed process: foresight happening in narrow circles and problems with transparency and timely sharing of results	• Involve decision makers throughout the process • Present results to a wider audience on an ongoing basis • Take into account the ecosystem perspective in strategic foresight

Public interest and participation

Participation and dialogue are essential mechanisms for anticipatory innovation in that they are a starting point for the exploration, contextual understanding, and creation of narratives about the future that help to define areas where governments need to invest more and test out different scenarios and possibilities for innovation (Tõnurist and Hanson, 2020[7]). As anticipatory innovation touches upon how the future is sought and how to act upon it, it requires broader participation from all stakeholders and the public in order to: 1) generate a collective view and experience of the futures scenarios around which innovations are explored; 2) help orient the direction of innovation as early as possible in the process; and 3) engage in diagnosis change given possible disruptions to existing modes of production and consumption (e.g. the long-term effects of climate change). For this often large-scale engagement in diagnosing change and influencing society is needed. In order for strategic actions to make sense, people need to have experience or at least appreciation about the futures perspective in which those actions make sense. From an innovation point of view, it is also important to involve upstream stakeholders as early as possible, because innovations tend to become more entrenched and, thus, harder to change later on. For all of this, effective

and deliberative approaches are essential. An anticipatory innovation governance system depends on public participation and also how (for legitimacy reasons) the general public is involved with the process.

While public participation methodologies are well-known in Finland, they are not promoted through a concerted effort across ministries and they are not yet mainstream across the public sector. It is important that ministries will be able to experiment and innovate in this area, but sharing participation methods to understand what works and inspire those that are less active is needed. A full review of this and other related factors was recently covered by the OECD Civic Space Scan of Finland (OECD, 2021[26]). Interestingly, the public's trust in the civil service is still very high, but it is subject to something very specific to the country coined as the 'Finnish Paradox' (OECD, 2021[8]) While the levels of trust are high in government, people have low efficacy (belief that they can affect change) leading to diminishing participation rates through formal channels. Levels of trust also vary across groups; therefore, involving citizens and other stakeholders in future-oriented policy creation may require a differentiated approach, otherwise it is likely to miss the target. Actions related to that could include strengthening political efficacy by engaging citizens in policy choices and monitoring results, and by giving regular feedback on inputs provided by civil society (OECD, 2021[27]). This also has an impact in the anticipatory space.

> Public trust in the polls is still quite high. There is kind of an understanding that civil servants are reliable and there is no major resistance from the public, so to say. So, overall, these are really good starting points for innovative and anticipatory practices, because there is no kind of an automatic reaction from the public that this is something that we should not do. So in a way, we have a good foundation, but again, we don't have any concrete policies in this area – if we would do more, then maybe the reaction would be different.

Interviewees pointed to lack of institutionalised citizen participation methods especially early on to consider policy alternatives. This limits the perspective and contributes to expert bias and groupthink that were also discussed in the context of strategic foresight. Public consultations often occur at the stage when policy solutions are already worked out and they are focused to see comments to existing ideas rather than to seek new input (OECD, 2021[26]). The interviews surfaced views on the barriers to more open anticipatory processes related to lack of political will and lack of time especially when sensitive issues with high public and political attention do not allow for extended consultation process. Some of the interviewees found that politicians did not want the processes to be open. Furthermore, public interest and politicians' attention on topics tends to speed up the policy making process, making it more difficult to have an open-ended engagement process. Invariably, decisions need to be made, so there needs to be a balance between open and inclusive consultations with meaningful and transparent feedback loops and the need to get things done.

Furthermore, the consultations and also external partnerships, stakeholders often involve only "usual suspects", the circle of known participants. As discussed before, this was wider trend in policy making and can be dependent on different organisational cultures.

> I have understood that the culture in different ministries varies. so there are ministries that are very open to opinions coming from stakeholders, or from researchers, and then there are other ministries where the one and only "truth" is more strongly in favour. Well, we do know how things are, and if you try to present something else, it's not preferred. And if you try to present something that is opposite to what they think, then you're almost excluded from the discussions. So it's a question of culture.

Many interviewees also found that the input into the policy process often comes from "usual suspects" and tend to be "specialised" i.e. originating from known groups or professional communities (see also (OECD, 2021[26])). This counter the intent of anticipatory innovation where the range of alternatives under exploration is usually dependent on the networks and partnerships (both national and international) connected to transformative change. For strategic foresight and signal-reading public organisations in Finland tend to rely on local sources and reports (Pouru et al., 2020[13]). Hence, many interviewees found that the policy making system is still characterised by closed processes.

> If I think about it, the input mainly comes from the usual suspects, so other people or other institutions organisations, in the sector. Also, it's mainly in Finnish or English. When it comes to a more participatory approach and trying to get different stakeholders behind the same table to think, what does this mean, for Finland? There's definitely work to be done there.

> We do it nationally. We do it regionally. We do it maybe sector-wise, we do it in all the ministries separately. But what we do not do is to consider interesting work internationally. We should do it [strategic foresight and signal reading] with the Japanese, we should do resilience work with the US, we should work more with the Europeans on these topics, because we can't think about potential futures which could be substantially different here in Finland and elsewhere.

The interviews also underscored a lack of relevant facilitation skills in the public sector that would utilise new ways of engaging people also through new and emerging technologies.

> It's worth doing participatory processes, because you can find the right policy actions, instead of just pasting and doing small decisions, designing small actions that poor impact. However, the issue is if public organisations have the rights skills for this, especially, if you are used to work in a different way? If you are not doing it, it's no wonder that you have no skills or knowledge of how to, for example, facilitate.

As in most OECD countries, the use of deliberation as a participatory method is still underutilised in Finland (OECD, 2020[28]). This method is useful in exploring uncertainty and outline various values connected to technological change and beyond.[5] There have been few deliberative citizens' panels/juries or mini publics based on random sampling in Finland to date, and most of these have been led by academics (OECD, 2021[26]). While the forthcoming Government Report on the Future included citizens dialogues into the preparatory process and the government carried out lockdown dialogues during the pandemic (Box 6.3 and Box 6.4), it is unclear how the views of the citizens were incorporated or if there is impact on strategic planning processes. Hence, there could be further opportunities to get future-oriented citizens' perspectives directly to the official Government Programme.

Box 6.3. Finnish Lockdown Dialogues

As part of the responses put forward by the Finnish government to monitor the evolution of COVID-19 and with the intention of capturing people's feelings, opinions and expectations, the Lockdown Dialogues were initiated jointly by the Dialogue Academy, Timeout Foundation and Ministry of Finance. These dialogues have been not only a vivid testimony of the social experience caused by the pandemic in its different phases, but have also contributed to identify issues that may require government attention and have become inputs for shaping policy responses. The dialogues started during the first months of lockdown and continued after the restrictions were lifted (renamed Finnish National Dialogues). The Lockdown Dialogues lasted from April 2020 to December 2022 and had 13 rounds of dialogue days, 296 discussions with 111 different organisations with 2 130 individuals participating altogether in 47 different geographic locations. Information gathered during dialogues feed into the government's COVID-19 crisis management co-ordination, as well as the exit and recovery strategies. Furthermore, synopsis forms a basis of open government strategies, and they have benefited many other areas. Source: Highlights from the OECD webinar: "The ties that bind: Government openness as key driver of trust", 11 September 2020; Lockdown Dialogues Synopsis provided by the Finnish Ministry of Finance.

Source: (OECD, 2021[8]; Henttonen, 2022[29])

Box 6.4. Dialogues on the future of Finland

The Prime Minister's Office in co-operation with the Timeout Foundation, as part of the process of the Government Report on the Future, organised 50 citizen dialogues on the future of Finland. Four two-hour groups of citizens from various backgrounds were invited to share their thoughts, hopes and dreams about the future of Finland. After the dialogues were conducted, the Prime Minister's Office analysed the outcomes of these dialogue and the outcomes of the internal scenario process to see, where there are differences in the topics that arose and how these could be aligned. The results showed that many of the insights were missed during the issue identification phase and the process has a strong value-added role.

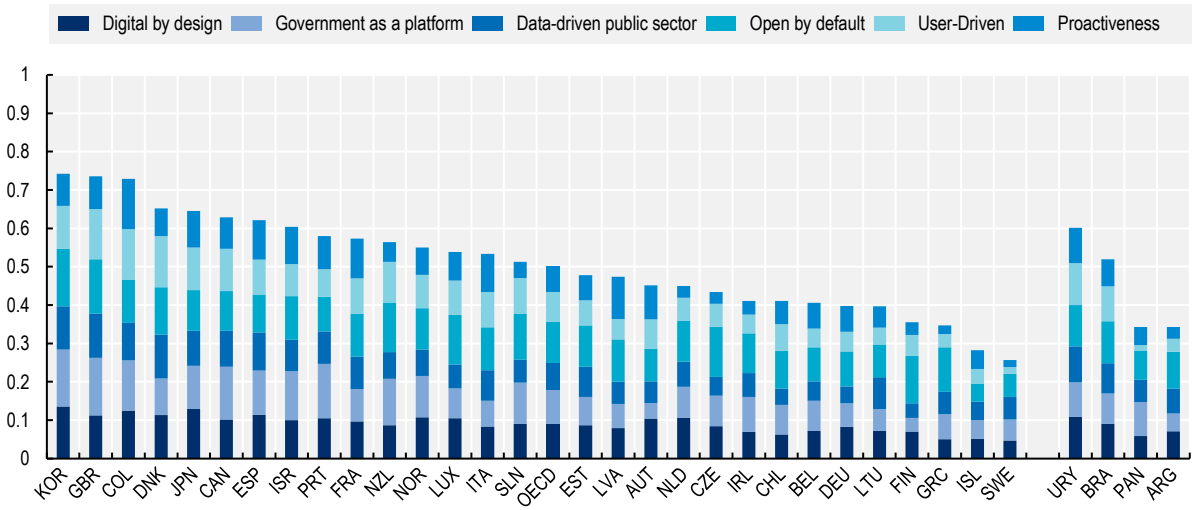
Source: OECD based on interview data.

Some interviewees highlighted the need to also tackle the challenges presented by the influence of vested interest and external lobbying into policy processes, but more prone to excessive ties and linkages between the public and private sectors (Moilanen, 2018[30]; OECD, 2021[8]; OECD, 2021[26]). Furthermore, the COVID-19 crisis also highlighted the risks posed by new lobbying channels such as social media on politicians that can distort transparency of policy making (OECD, 2021[8]). This is very important for anticipatory innovation as transformative change can be held back through incumbent interests.

User centricity

Anticipatory innovation, especially in the public sector, benefits from a user-centric view. It helps to look at complexity of emerging issues from the perspective of those impacted rather than a silo perspective and concentrate on the developing issues and needs, rather than existing programmes, strategies and inventions (Tõnurist and Hanson, 2020[7]). In well-established government structures this is challenging for most governments. As such, connected to public interest and participation, the interviews pointed to the need to increase responsiveness in service design and delivery from an anticipatory perspective, going beyond established services and imagining new possibilities for future users. A large part of the conducted interviews, showed that future-oriented, user-centric services that spanned different organisations and agencies inside the government was a burning issue for Finland. This was found to hold back innovation significantly. Consequently, it is not surprising that Finland fares comparatively low among OECD countries in several components of the OECD Digital Government Index including user-driven approaches (see Figure 6.4).

Figure 6.4. OECD Digital Government Index



Note: Data are not available for Australia, Hungary, Mexico, Poland, the Slovak Republic, Switzerland, Türkiye or the United States.
Source: (OECD, 2020[31])

In Finland, there are organisations that have totally transformed themselves based on a user-centric approach, but this is rather an exception than the norm. For example, the Tax Administration used to be a very process-driven organisation, but now has changed the whole structure to be user-oriented with a customer unit, operational and process units and dedicated signal reading activities to be sure that the organisation picks up quickly what is going on with their users. The change was associated with the change of leadership in the organisation, influx of digital skill-sets and resulting organisational changes.

> There is a group that is collecting information about what changes are happening in our customer base. Also the people who are working with our customers directly are recording signals that the customers mentioned. Often it's the first place where they are noticed.

Another issue raised during the interviews was the lack of consideration for future generations needs and perspectives connected to anticipatory innovation. Connecting to younger generational ideas and values help establish a baseline of future needs on which to focus new service and policy offerings.

> We don't really deal with future generations and their user perspective in government. We don't talk too much about users or customers –; it's almost a prohibited word to talk about customers. But if we think about future generations and what might they want – it is really important. It is of course a complex matter, but we should try.

A rare, but striking example of future-oriented service development is the AuroraAI programme led by the Ministry of Finance (Box 6.5). The programme aims at developing a new future-oriented approach to public services to Finnish citizens based on life-events which integrates the use of foresight and innovation methodologies and is powered by artificial intelligence. AuroraAI showcases that to radically innovate not only new knowledge is needed about possible future user expectations and need, but also enabling conditions such as system interoperability and innovative data matching are needed.

> In Finland, we have many administrative registers that are very valuable in evaluating field experiments, especially in the field of social security. But then if you are not specifying the data rights early on, then you end up with a very bureaucratic and time-demanding process of acquiring the data and combining it.

In Finland, the regulatory framework connected to data is more stringent than the EU regulatory framework (Government of Finland, 2018[5]). This makes it difficult to understand the full range of possibilities for new types of services across different policy areas. Exploring these new opportunities would also require a more systemic approach to data and also service development (capacity for which is not widespread in the public sector – see further under the section of individual and organisational capacities). Even if there are technical ways around privacy issues, then taking these changes further in legislative terms is burdensome and stand in the way of user centricity both in the present and thinking of next generation services.

> So we don't need to know who you are, we just need to know that you are some anonymous person who has permission to use this. That's it. And you should be able to operate with many, many services in a totally anonymous way.

Box 6.5. National Artificial Intelligence Programme – AuroraAI

AuroraAI is looking for solutions on how to apply artificial intelligence technologies in an ethical and sustainable way. The aim of the AuroraAI programme is to implement a service operations model based on people's needs, where artificial intelligence helps citizens and companies to utilise services in a timely and ethically sustainable manner. The vision of the initiative is to build a people-oriented and proactive society, in which organisations work together to help ensure people's ability and motivation to deal with life events easily. The programme assumes that users in similar life situations are considered to require similar services, in order to advance into favourable life situations and avoid undesired ones. AuroraAI uses services from a pool of available ones, in order to facilitate transitions between various life states. The work is based on the following assumptions:

- **The customer journeys** are guided by people's needs and are seamless.
- **People's well-being and empowerment** are supported by smooth service chains.
- **Digitalisation and use of AI** is enabled by cross-sectoral collaboration at all levels.
- **Data interoperability** is based on new incentive models of the data economy and people's ability to manage their individual data through the portal, MyData.

The prerequisite for the system is a cross-sectoral data interoperability. To make this possible an AuroraAI network was created. This is based on core components including profile management, APIs, service catalogues and recommendation engine (Figure 6.5) coupled with UX services and pilot life events to act as proof cases.

Figure 6.5. AuroraAI network



Source: (Hahto, 2020[32]).

The term set by the Ministry of Finance for the preliminary study on the Aurora national artificial intelligence programme ran from 15 September 2018 to 28 February 2019. The preliminary study was carried out as extensive, open networking between the public, private and third sectors and, at the same time, was one of the suggestions made in the report AI Finland. Then on an implementation plan was developed with an experimental period for 2020-2022.

Source: OECD based on interviews; (Hahto, 2020[32]).

There are initiatives in government that try to address data usage and skills, for example the Tietokiri initiative,[6] which tries to provide an internal consultative service to government agencies in analysing and making use of data from collection to visualisation of processes. Yet, this does not tackle the more profound issues connected to data interoperability. But another issue here that needs to be addressed is if data from different sources is valued the same way – many in the Government of Finland tend to put the emphasis on forecasting based on current trends, rather than foresight or ethnographic (experiential) user data. Hence, user centricity tends to be bound by and also futures thinking tends to be bound by what can be measured, rather than what is possible.

> Foresight is sometimes confused with forecasting, which of course, the Ministry of Finance is a very strong player. And sometimes people don't really know, the differences and forecasting and scenario work.

> Often people think that prediction is foresight. So they want these linear numbers and they don't want quality of thought about what is going to happen. It is much easier to make decisions if you don't have someone saying that you can do it in two or three different additional ways or that you can do something altogether different. If you are that kind of person, who likes numbers, then you don't even come to those discussions and workshops.

Section findings and key considerations

Research shows that a more open approach to participation needs to be taken to counter biases connected to anticipatory innovation processes. Closed processes, paired with the lack of institutionalised citizen participation methodologies hinder the consideration of possible policy alternatives. Here, user-centric approaches could help influence how emerging policy problems are tackled and spur on more transformative innovations. Moreover, there are barriers connected to accessibility and interoperability of data that stand in the way of developing novel, cross-cutting solutions.

Since the assessment was concluded in September 2021, OECD controlled the robustness of its findings in May 2021. The results from validation workshops with Finnish experts showed that in certain areas, practices for participation are used throughout the policy-making cycle; very comprehensive tools - libraries, web consultations etc. The practices are well connected to the actual decision-making; however, civil servants do not always know what tools/methods to use at what point of the policy cycle. Here the Ministry of Finance has particularly invested into the Dialogues model, but additional tools, methods and also facilitation capacities are clearly needed.

Main Findings	Key considerations
Public interest and participation	
Closed processes and lack of facilitation skills Lack of institutionalised citizen participation methods early on to consider policy alternatives	• Involve people early in the policy development cycle to think about useful alternatives today, but also to consider options for the future • Take steps to institutionalise citizen participation methods and develop capacity in using them (including the increase in facilitation skills) • Organise targeted outreach to typically underrepresented groups, including future generations • On cross-border issues, partner with other countries to collect insights regionally or globally • Counter 'standard' counter-arguments for citizen participation: e.g. politicians do not want the processes to be open, expedited processes do not allow for it. Demonstrate the social and economic value of open processes.
Lack of deliberative processes that are future-oriented outside of more consultative dialogues	• Introduce citizen-led deliberative futures exercises to counter silo-effects in government thinking (outline challenges that are human centred) as citizens tend to structure their thinking in government silos • Take a differentiated approach to involving citizens and other stakeholders in future-oriented policy based on their levels of trust in government. • Get future-oriented citizens' perspectives to inform the government programme • Consider across ministries dialogues on issues connected to emerging phenomena
Need for more user centric approaches and systems thinking to analyse complex problems	• Analyse barriers to user-centricity and create demonstration cases (similar to AuroraAI) that help to engage with future generation needs • Prioritise also human-centric ethnographic data and foresight data to operationalise challenges alongside 'hard data'
Tackle the issue of digital rights which may hinder the possibility for alternative use of data. Data interoperability as a barrier to more user focused analysis and examination of citizen centric policy challenges	• Devise ways to counter legislative issues connected to data interoperability and solutions to overcome privacy and other issues innovatively • Look for alternative uses of data including data mining to create insights

Alternatives exploration

The general assumption presented in chapter 1 was that future cannot be predicted, yet knowledge about what is reasonably possible or plausible is needed. This is where exploring alternatives, experimentation and innovation become a part of the anticipatory innovation process. Through continuous exploration it is possible to prepare for the unexpected and make judgments about what plausibly may happen in the world as we know it, but also how the world as we know it could possibly change. Complex problems are characterised by uncertainty and need continuous, iterative development (Raisio, Jalonen and Uusikylä, 2018[33]). The only way to deal with this is either wait and see (and take the associated risks of lock in, inability to influence change etc.) or continuously investigate different options and test them in contexts where they will be implemented. While the foresight system in Finland is quite developed, as argued before, this does not always lead to using the knowledge as input in experimentation and innovation. Outside factors connected to futures and foresight, the latter are also not fully institutionalised and established in the public sector of Finland.

Experimentation

While experimentation as a policy area is not new in Finland and initiatives to foster a culture and practice of experimentation have been carried out over the past decade (see Box 6.6 below), experimentation is still far from being institutionalised in the public sector. While previous governments have spearheaded important initiatives, these have not resulted in a strong take up of experimentation across government. Most interviewees found that while experimentation was high on the last government's agenda, it was and still is carried forth by a handful of expert pioneers with limited high-level support.

> We have to be like endurance sportsman, you know, running a marathon, we have to be patient with the innovation and experimentation work. We have to keeping repeating that this is important.

A majority of interviewees found that experimentation is often talked about, but rarely done beyond government agencies or municipalities and regions. While there is a diversity of experiments carried out across the public sector, most of them are not randomised control trials (RCTs) as capabilities across different levels of government to scope and prepare experiments (RCTs, trials or tests) properly are missing. This is especially the case in smaller municipalities. This is an inherent feature of the Finnish decentralised system, where municipalities and regions are responsible to deliver the biggest public policy areas – health, education, social services etc. Yet there is not assigned responsibilities to support decentralised initiatives and ensure that learning is shared across the system:

> There is no one at the ministries, who is able to learn from different experiments in municipalities and regions – it is very decentralised and there is no ownership. And currently, there is also no possibility to interfere in municipalities and the city activities. It is both a strength and the weakness of the Finnish public policy formulation and the experimentation and innovation system. It is really a context-sensitive system with all its innovative ways of formulating public policies, designing local solutions, but only one civil servant responsible for the topic on the national level.

Box 6.6. Finland support to experimental policy design

In 2012, the Committee of the Future in the Parliament held hearings regarding new methods of policy steering for the country including the uptake of an experimental culture. Following to that, the committee commissioned a special report, "Kokeilun paikka! Suomi matkalla kohti kokeiluyhteiskuntaa" ("Time to Experiment! Finland on its way to the Experimental Society") (Berg, 2013[34]), which argued for rapid iteration, grassroots experiments and a strategic outlook focused on experimentation in government. The report also suggested the creation of an office or ombudsman for experimentation and public sector innovation. This spurred on additional research on the topic and preparation of the experimental approaches for the next government term.

In 2015, Finland started to develop a new framework for experimental policy design. Together with Demos Helsinki, a Nordic think tank, the Prime Minister's Office (PMO) of Finland employed a combined systems and design thinking approach to develop a new policy framework to carry out experiments in government. As a result, experimentation was incorporated into the strategic government programme ("Finland, a land of Solutions") in May 2015 and an experimental policy design programme was set up. The new approach to policy design allowed both broader "strategic experiments" (formalised policy trials) – for example, the ongoing basic income experiment – and a grassroots experiment designed to build up an "experimental culture" in the public sector in Finland. In addition to the original six strategic experiments introduced by the government, hundreds of experiments and policy pilots emerged across the country both at the central government and municipal level. In 2017, the Finnish government launched a digital platform called Kokeilun Paikka (Place to Experiment) to support the government's key goal: finding innovative ways to develop public services. Following, the government also invested in basic ethical guidelines for conducting experiments. Through the facilitation of the Prime Minister's Office, specific programmes in Sitra (Ratkaisu 100) and in municipalities, a variety of grassroots and strategic experiments were supported between 2016 and 2018.

As the initiative was a high on the political agenda of the prior coalition, the new government coalition of 2019 deprioritised experimentation and de facto dispended the dedicated unit within the Prime Minister's Office, redirecting efforts to promote the use of behavioural insights and more traditional evidence-informed activities based on existing data analysis.

Source: (Berg, 2013[34]; Annala, 2015[35]; 2016[36]; Poskela et al., 2015[37]; OECD, 2017[38]; Antikainen et al., 2019[39]); and OECD based on interviews conducted.

Experimentation is also not always timely in policy-making processes and does not suit linear policy-making processes. Experiments take time to develop and carry out, which under current conditions does not suit political timelines nor pre-established legal processes. Hence, the benefit and use of experimentation in policy making is not yet fully understood. There still is a need to share more sharing of 'what' and 'how' of experimentation and build up more capacity towards the former.

> Ministries are still a little bit hesitant to use experiments, because they don't want to run up against what is fair and equal and if it is allowed to do an experiment -all the topics connected to how to handle the scoping of an experiment.

In Finland, regulation appear to be acting as a constraint to experimentation as specific laws are required to frame experimentation activities. Not only regulation per se, but the slowness of the regulatory process was indicated as a constraint in interviews. The slow regulatory processes and political interest have

derailed timelines of large experimentation projects such as the basic income experiment (see Box 6.7), as well as recent experiments connected to the municipal trials initiated by the Government of Finland on employment services (Association of Finnish Municipalities and Regional Authorities, n.d.[40]; Job Market Finland, n.d.[41]). As the regulatory process lacks agility, it also acts as barriers to alternatives exploration and innovation in government. Under specific conditions experimentation has the potential to improve regulatory quality, it is important for governments to explore the potential (OECD, forthcoming[42]). It was noted during interviews that more extensive use of regulatory sandboxes[7] and testbeds would increase the innovation-friendliness of the regulatory environment (Attrey, Lesher and Lomax, 2020[43]), but these solutions are traditionally externally oriented (targeting private businesses) in Finland and do not give room for government to explore and experiment (Salminen and Halme, 2019[44]). Simply put, currently there is little room for government to explore and experiment that needs to be addressed in concrete terms.

> I think that guides to experimentation platforms and exceptions in legislation for could allow certain type of experiments. It would be a good working mechanism to make the process easier. I think it would probably accelerate innovation and bring the research results into real life.

At the same time, the parliamentary process connected to processing legal acts connected to experiments, shed light on them and increased public debate. Some interviewees found it to be very positive as it gave additional legitimacy to the process and also enhanced transparency. But it requires strong political commitment from the cabinet and the slowness of the procedures was considered a problem, especially as often experiments at the national scale run against political timelines. Consequently, there is a need to rethink regulation not only as a barrier to experimentation, but also as an enabler.

Box 6.7. Basic income experiment

One of the best-known flagship experiments in Finland was on basic income. Conducted between 2017 and 2018, the experiment was explicitly mentioned as a key project of Prime Minister Juha Sipilä's government programme, and was conducted by the Social Insurance Institution (KELA) under the direction of the Ministry of Social Affairs and Health.

The design and roll out of the experiment was largely framed by the legal provisions authorising the experiment and the more general constitutional principles. In order to abide to the respect of the principle of equal treatment in the Constitution of Finland. This issue was raised by the Constitutional Law Committee and following, the KELA-led consortium and the Ministry of Social Affairs and Health modified the design of the experiment which meant that different amounts and conditions of basic income could not be tested. Instead, the amounts were downscaled to equal the net level of unemployment benefits (EUR 560 per month), putting a ceiling on the experiment and cutting out part of the hypothesis that needed testing. Also the need to keep a tight schedule, change regulations to simplify the experiment and build an ICT platform to administer the benefits required the experiment to be kept as simple and linear as possible.

The draft law act creating the legal basis for the experiment was handed to Parliament in August and was passed and came into force on 29 December 2016, three days before the first money was paid out. Throughout the experiment, a total of 2 000 unemployed persons between 25 and 58 years of age received a monthly payment of EUR 560, unconditionally and without means testing.

The experiment showed small positive employment effects, better perceived economic security and mental well-being. Topics surrounding the role of activation policies in shaping the behaviour of the participants in the experiment needs more follow up over a longer period of time. Unfortunately, the work on basic income was not carried on by the next government. Similarly to the Experimental Finland example, there seems to be a lack of long-term thinking in experimentation.

Source: OECD interviews; (OECD, 2017[38]; KELA, 2022[45])

There is a lack of demand and opportunity to propose more radical ideas for experimentation. The interviewees found that outside of the Government Programme preparation every 4 years and the Government Report on the Future, there are few structured 'future-seeking' and experimental moments in policy reforms (opportunities to propose and test radically new alternatives). Hence, proposing large topics for experiments mid-government term is much more difficult than align it with the 4-year government mandate. Depending on topics there may be more room for alternatives-exploration than others as the Government Programme also varies in terms of top-down solutionism,[8] based on political interest. Highly politicised topics are difficult to carry out experiments on even if uncertainty on effects of proposed solutions is objectively very high.

> I'd say that there is a possibility to open the discussion as a civil servant if issues need to be reframed coming from the Government Programme, but I'd say that you need to be aware on which issues that is possible. We know that some issues are very important to certain parties. For example, the Green Party might have a strong opinion on solutions for carbon neutrality. So I'd say that we need to know when and on which cases we have more room to look for alternatives. We kind of have to put our nose out and see if there is very high political interest or not and then see if there is room to propose something.

This also means that experiments in Finland have to be de facto designed, legal acts (if necessary) passed and experiments conducted in the same time period – with more transformative and complex issues this may, however, not be possible.

> Experiments like the basic income experiment are very demanding. Finnish experiments in general require decision makers to sketch a little piece of legislation for the experiment and get it passed in the parliament and so on. So they are very demanding from the politicians' and ministers' point of view. Even if some political parties are interested to continue experimenting, for example, in the case of social security reforms, the toll is high and it's an open question when a new experiment will emerge.

For example, the government pushed strongly for the basic income experiment to start in 2017 for the same reasons leaving less time for preparations and simplifying the experiment itself (OECD, 2017[46]). If these timelines are exceeded, it becomes questionable whether the knowledge of the experiments is taken into account by the next coalition. Hence, it should be clearer how the experimental knowledge base is taken into account in evidence-informed decision making and what are the concrete and transparent steps that follow an experiment (both in the case where the experiment shows positive results or shows no support for the proposed hypothesis). In many cases it remains an open question what happens later.

> The current government actually did state in their Government Programme that they will be starting kind of a second phase/second experiment, based on the basic income experiment, maybe testing a little bit different model – they are referring to this negative income tax scheme. So this is actually in the Government Programme, but to my knowledge, there's nothing happening at the moment or at least they have not publicly stated anything about the design of the experiment.

There is also a question of how data for experimentation can be accessed. As mentioned above, another barrier for more cross-government experimentation lies in data interoperability: data sources are usually known, but legislation often hinders the alternative use of data. This also limits areas where data-driven, quasi-experimental designs would be possible.

Innovation

> "I became very reflective, when you used the word innovation, because it's really a word that we probably use way too little." (Senior leader in government)

Public sector innovation (defined as implementing something novel to the context with impact to public value) has not enjoyed the same high-level attention as experimentation. Nevertheless, Finland adopted the OECD Declaration on Public Sector Innovation together with the other OECD countries at the OECD Ministerial Council Meeting on 22 May 2019. The Finnish population assesses positively the innovation capacity of civil servants and this has a positive effect on trust in the civil service and local government (OECD, 2021[8]). Innovation is mostly talked about in connection with transformative, system-level changes (such as large-scale socio-economic reforms), but it does not trickle down to programme and organisational-level supports, and vice versa: smaller organisational level innovations do not scale up or inform large, more ambitious changes, because these feedback systems from practice are missing.

> The concept of innovation is seen as something really ambitious, so people don't understand that innovations can also be a small step. How can we improve our operations and daily routines as well? Only something that changes everything is called innovation – it really limits activities. so in our operations and also at the ministerial level, but people don't understand the different aspects of innovation and how they come together.

The Ministry of Finance has responsibility for pushing forward public sector innovation at the national level as part of broader public governance reform, while at the subnational level the Association of Finnish Municipalities plays a support and co-ordination role, including in the context of the roll out of the Innovation Barometer[9] exercise among municipal workplaces in 2018 (Jäppinen and Pekola-Sjöblom, 2019[12]). The Innovation Barometer exercise was repeated in 2022 (see Box 6.8) across the public sector involving both the national and municipal levels. There are a variety of actors within the public sector innovation system (see Table 6.3) which the Ministry of Finance brings together through the public sector innovation network. At the same time, there is no dedicated funding specific for innovation in the public sector and most initiatives are project-based or digitalisation- or productivity-oriented (e.g. (Kaunismaa, 2019[47])).

> The challenge with innovation projects is that they are projects. so maybe the best ideas really have some impact, but they are very context-specific. We launched innovation project support programmes twice in our organisation and we found some nice things, but they were not connected to our basic work. They remained projects.

Table 6.3. Key public sector innovation entities

Actor	Role
Ministry of Finance	Ministry of Finance co-ordinates the work on public sector innovation at national level. It is the host for a public sector innovation network which is mainly used for spreading knowledge about public sector innovation. This network consists of representatives from ministries and other national organisations like Vero and KELA, the biggest cities, Innokylä and the Association of Finnish Municipalities. The ministry has also responsibility for the work on public sector innovation productivity (ex. through digitalisation projects like Tietokiri), open government and public sector leadership development.
Prime Minister's Office	Responsible for strategic steering of government, co-ordinates the implementation of the Government Programme through cross government working groups. The PMO chairs the national strategic foresight network and co-ordinates the Government's Futures Report and initiatives on evidence-informed policies and behavioural insights.
Ministry of Economic Affairs and Employment	Supports innovation in enterprises, energy, working life, private consumption and regions by different programmes and financing, but also is responsible for the Sustainable Growth Agenda for the country.
Public sector innovation working group	Cross-government working group led by the Ministry of Finance tasked to propose avenues for further development of the public sector innovation system of Finland.
SitraLab	Situated in the government think-tank Sitra, SitraLab is a futures laboratory where change-makers are trained and where Sitra helps organisations and communities take advantage of new approaches and advocate for change.
Liikennelabra	Transport lab under the Ministry of Transport and Communications specialised in digital and innovative transport and communication and logistics services.
Technology Advisory Board	A time-bound ((2020-2023) entity under the Ministry of Finance tasked to prepare a technology policy based on digitalisation that creates well-being for Finland and support national competitiveness.
Hankinta Suomi/ Procurement Finland	Placed under the Ministry of Finance, it works in co-operation with the Association of Finnish Municipalities to promote the social impact of funds used in public procurement and the sustainability of public finances.
Centre of Expertise in Impact Investing	Established in 2020, it assists public sector actors in preparing and managing outcomes contracting. It is part of the administrative organisation of the Ministry of Economic Affairs and Employment, but serves the entire public sector.
Motiva	Motiva is a sustainable development company that owns and runs the platform KokeilunPaikka that provides support to experimentation in the public sector.
KelaLab	Social Insurance Institution's (KELA) development lab with high-level skills and capacities in experimentation.
Innokyla	Innokyla (InnoVillage) is a co-creation platform for social innovation supported by Ministry of Social Affairs and Health, The Association of Finnish Local Authorities and SOSTE Finnish Federation for Social Affairs
KEINO-osaamiskesku	KEINO is a network-based Competence centre for Sustainable and Innovative public procurement in Finland. The founding members responsible for the operation and co-development were Motiva, the Association of Finnish Local and Regional Authorities, VTT Technical Research Centre of Finland Ltd, The Finnish Funding Agency for Innovation – Business Finland, the Finnish Environment Institute SYKE, Hansel Ltd, KL-Kuntahankinnat Ltd and

Actor	Role
	the Finnish Innovation Fund Sitra. At the moment the first six are still part of the consortium and are responsible for the operation and co-development of the centre.
Tietokiri	Tietokiri is an initiative co-ordinated by the Ministry of Finance and was launched in November 2017 and will continue to the end of 2021. The programme aims to collect enterprise level data from shared service providers from their operational areas; entitle shared service providers to use the data in managing and developing government; provide consultative service to government agencies in analysing and making use of data; seek productivity gains and other benefits in order to develop and manage government as a whole; and promote models, best practices and build capacity for data-driven decision-making in central government.
AuroraAI	AuroraAI is a programme to apply artificial intelligence technologies in an ethical and sustainable way. The aim of the AuroraAI programme is to implement an operations model based on people's needs, where artificial intelligence helps citizens and companies to utilise services in a timely and ethically sustainable manner. See also Box 6.5.
BI in decision making working group	Behaviour Change Science & Policy (BeSP) is an Argument-project (2019-20) funded by the Finnish Cultural Foundation, which aims to create a scientific and interdisciplinary discussion forum on issues affecting behaviour and policy design.
Tyo 2.0 Lab	Tyo 2.0 Lab is a cross-government co-working space to facilitate interactive workshops and working on projects across government.
Törmäämö	Open public service network organising events connected to innovation, experimentation and foresight.
6Aika	Sustainable development initiative crossing six biggest cities in Finland. Under the Six City Strategy, Helsinki, Espoo, Vantaa, Tampere, Turku and Oulu tackle sustainability challenges together and develop better services.
Association of Finnish Municipalities and Regional Authorities	Advocate for all Finnish municipalities and regions with its own innovation, foresight and experimentation programmes.
VTT Technical Research Center	VTT is a limited liability company that is fully owned by the Finnish state and operates under the ownership steering of the Ministry of Economic Affairs and Employment. The aim of VTT as a research institution is to help companies and society in solving global challenges by utilising science and technology.
HAUS	HAUS a state-owned company under the Ministry of Finance. HAUS concentrates on full-service public administration training. HAUS is currently pursuing its "New Horizons" vision – a fully virtual international training for aspiring young leaders, current experts and specialist and future potential change makers.

Source: OECD.

In Finland the public sector innovation approach is largely mixed with private sector innovation support measures and, consequently, developed between different silos. Thus, innovation is more externally oriented: most analyses look at the external effects of regulation or creation of ecosystems (Valtteri et al., 2019[48]; Salminen and Halme, 2020[49]; Salminen et al., 2020[50]) or as part of the Agenda2030 strategy (Naumanen et al., 2019[51]). For example, indications of this can be seen in the Ministry of Economic Affairs and Employment "Agenda for Sustainable Growth") highlighting growing future areas (MEAE, 2021[52]). This may help to spur on a more ecosystem based approach, but it makes difficult to establish an innovative practice in the public sector itself. Finland is lagging behind other Nordic countries in terms of introducing specific support programmes to public sector innovation (e.g. such as the case in Norway and Sweden) or bodies to co-ordinate capacity building and broader action on public sector innovation? (OECD, 2021[53]). Previous research which compared the Nordic countries' efforts to promote public sector innovation found that Sweden, Finland and Iceland focus more on structural instruments related to incentives and acting environment, while Denmark and Norway to a greater extent have a practice-based and process-oriented approach focusing on tools and support for individual organisations (NIFU and Ramboll Management Consulting, 2019[54]).

From interviews a diversity of approach emerges as to where to place the innovation portfolio: some see innovation as connected to the achievement of the organisation strategy or sectoral policy goals, others as ways to improve the internal functioning of the organisation (more on the ministerial level), or directly related to more operational issues (for examples in agencies and government institutes). In few organisations, however, the drive for innovation appears to be set at corporate level and innovation efforts largely comes from the bottom up and is dependent on individuals. This makes also innovation processes more ad hoc.

> Innovation relies more on individual civil servants and enthusiasts. It's not so much in the strategy processes even if leaders tend to talk about it. The reality is more in little units in different organisations and people who are enthusiasts, or have this innovation in their working agenda.

There is not a clear common view emerging from the interviews on which organisations are the most innovative in the public sector. Most interviewees brought out examples of agencies such Tax Administration and National Land Survey of Finland, but also of municipalities or cities (e.g. Helsinki, Oulu) leading with practices, while ministries were rarely mentioned. There were a couple of exceptions based on 'inbound' innovation practices where ministries were using strong collaborations and innovation procurement from the private sector to insource solutions (such as the Ministry of Defence, Ministry of Environment and Ministry of Transport and Communications).

The above results are also reflected in the recent results of the Innovation Barometer (Box 6.8) which highlight the importance of the Government Programme for innovation agenda and the organisation-centric approaches to innovation at least on the national government level.

Box 6.8. Public sector Innovation Barometer 2022: Preliminary results

The Finnish Government conducted its first national public sector Innovation Barometer in 2022 covering innovation activities of two prior years. The Ministry of Finance sent the survey to leadership of the following public sector organisations: ministries, government agencies, state-owned companies and universities. The response rate was around 5%. 44% of organisations gave at least one response to the survey, but the respondents represented generally their own views, not their organisations views. The Association of Finnish Municipalities sent the survey to municipalities and municipal organisations. The response rate was around 39% of municipalities that gave at least one response to the survey. The two surveys have similar general outlines and questions, but are not fully comparative.

The results are at the time of the finalisation of this report being analysed, but preliminary analysis indicates that:

- The Government Programme seems to be the key steering component of public sector innovation on the national level; on the municipal level also regional councils and ministries seem to have a key role in steering public sector innovation. In bigger cities (above 50 000 inhabitants), EU is a more important steering component than ministries.
- Motivation for innovation on the national government level tends to stem from citizens' and customers' needs, productivity and new technology; on the municipal level processes, citizens' and customers' needs, need for better quality, savings and productivity take the lead and technology seems to play a lesser role.
- Organisations role in making innovation possible (analysing responses regarding most significant innovations) seems to be the dominant on the national compared to other factors including stakeholder involvement; on the municipal level, the most significant innovations are done in collaboration with other municipalities, municipal organisations and regions and financed from the organisations own budget.

While innovation is prevalent in the public sector of Finland, overall the data indicates that the biggest gaps seem to be connected to lack of time for innovation, lack of funding for innovation (innovation

activities which are dependent on organisations' own development funds) and the existence of right skills and capabilities for the work in public sector organisations.

Source: Preliminary Innovation Barometer data shared by Finland, June 1, 2022.

Interviews indicate that often research and innovation development tasks in ministries are outsourced to agencies and other partners (e.g. Aalto University, private companies like InnoLink were mentioned during interviews). During validation sessions it was discussed that ministries used to have development units, but these have now been cut and merged with other activities, meaning that ministry-wide innovation, foresight and development activities receive less attention as they have to compete with day-to-day crises and other urgent issues.

> I think it is mainly the private sector: it is more free to bring in new ideas. Compared to other ministries we have a really close connection with our partners in the private sector, but we also have really smart people inside the ministry that know what to do with this information.

> The cooperation with the private sector is very important especially in the area of emerging technologies. organisation […] Sometimes it is not for us, but it's good to hear because it's usually things we don't see ourselves and comes from a totally different perspective that is not visible to us.

> In Finland, we are focused on everyday life, and innovation issues seem to be far from it. People in public service say that they don't have time for even the business at hand. so they don't relate to the innovative stuff.

Nevertheless, having some internal research competence and resource slack is needed to set up experiments and more robust testbeds for innovation (Tõnurist and Hanson, 2020[7]). The reliance on outsourcing and also dividing policy making from implementation (principals from agents) may be explained by lasting influence of previous public management paradigms (e.g. NPM): often the interviewees argued that "ministries' task is to do policy, while the agencies job is to implement" and thus, de facto innovate. This belief was quite strong throughout the interviews and may become a substantive barrier for anticipatory innovation.

> What is this sort of relation between innovation taking place in the frontline versus innovation promoted by the central government units? You know, once a professor stated in a lecture I was attending, that the time has passed for those central government bureaus, which tried to steer frontline workers on how to innovate. People are educated enough in all the administration in order to address these questions themselves. And I think that a lot of things happen in those agencies, which constantly have to interact between the environment between markets, between people, between companies. They get signals from the environment every day: how the markets are changing, how people are responding, what they want, versus us who are dealing with central government ministries. We're sort of thinking about policies and drafting legislation, and very far from the fieldwork and we are the ones missing out. We are living in a world where networking and cooperation and working with stakeholders, it's growing more and more important.

Already during the OHRA project (see Box 4.1 in Chapter 4) the fragmented connection and lack of feedback loop between policy design and implementation were brought out. This is still the case and will be described in detail in following sections, but it also has a very strong impact on innovation capacity more broadly and anticipatory innovation particularly. Existing research indicate that it is very difficult to create an iterative anticipatory innovation practice if policy direction cannot be changed as a result of a learning process (Tõnurist and Hanson, 2020[7]). If this possibility is not provided, innovations that are considered and undertaken are those that do not challenge the bigger objectives or the status quo of the system. In addition, existing evidence indicates that often anticipatory innovations are undertaken by individuals that do not have necessarily the mandate to do so or are poorly connected to feedback loops on the systems level. For example, agencies tend to have more radical innovation projects as was also confirmed by the interviews in Finland. Lacking feedback mechanisms from implementation, it cuts off a large part of the on-the-ground learning that is needed for an anticipatory innovation governance system to emerge. This is not a unique problem for Finland: agencies often perform highly diverse, and often technically, legally or operationally complex tasks. This makes it hard for "outsiders", including central government, to fully grasp the strategic and substantive decisions taken by agencies including the far reaching implications of innovations they tend to work on (Schillemans et al., 2020[55]). The problem will become much larger once more data-driven and real-time governance in the public sector emerges, where policies can become more in tune to environmental changes.

Section findings and key considerations

The results of the research showed that there is still work to be done to institutionalise experimentation and innovation practices inside the public sector of Finland. This also means a more systematic demand in policy making processes and timelines to make room for more alternatives exploration. This requires capacity and investment in public sector organisations in both experimental and innovative processes and capabilities. Furthermore, clarity in the role of the regulatory environments that sets boundaries for experimentation is needed.

Since the assessment was concluded in September 2021, OECD controlled the robustness of its findings in May 2021. The results from validation workshops with Finnish experts highlighted that the motivation for innovation stems from citizens' and customers' needs (adaption), productivity and new technologies rather than scanning future challenges.

Main Findings	Key considerations
Alternatives exploration	
Experimentation is talked about, but rarely done beyond agencies: a handful of pioneers, but little consistent high-level support	• Experiments and the information obtained from them must be better linked to long-term policy development work • There should be more clarity on when it is appropriate to apply experimental approaches and what support can be expected from government to do so
Regulations as gate keepers of experimentation (e.g. experimentation law on employment services experiment in municipalities)	• Consider a comprehensive legal framework to carry out experiments or an established procedure to regulate more transformative experiments • Consider providing guidance to help public organisations better assess the legal implications of designing and running an experiment
Experimentation is not always timely in policy-making processes	• Set a clear path/role for experimentation within established evidence-informed policy development processes • Consider the development of evaluation criteria for experimentation, including for pilot test and initiatives. • Facilitate a structured learning process from bottom-up experimentation connected to missions, support for scaling and last-mile innovations
Outside of the Government Programme preparation every four years and the Government Report on the Future, there are little structured 'future seeking' and experimental moments in policy reforms	• Create concrete, structured and open opportunities to propose innovative or experimental policy designs during the Government's mid-term review • Leave room in the Government Programme for innovation and experimentation and avoid leading by solutions if not validated before
Solutions defined too early in regulation-driven policy-making process: lack of agile and iterative policy design	• Create concrete feedback loops for implementation and space for experimentation and innovation within regulatory frameworks • Create a framework for using regulatory sandboxes, testbeds and other agile and iterative regulatory solutions for public sector innovation
R&D tasks are often outsourced through pre-defined (waterfall) processes with little iterative learning	• Consider ways to strengthen government's organisational capacity for innovation to ensure internal learning. Create the role of boundary spanners who can facilitate learning from external partners into the public sector
Experiments/innovation and their role still not understood by leadership	• To create the demand and supply for experimentation in a functioning anticipatory innovation system, organisations need to be systematically supported and encouraged to start their innovation/experimentation journey. This should include dedicated funding, training and leadership programmes to support innovation management • Expand the view that innovation is connected mostly to digitalisation and productivity projects and create clear links to core policy making and policy implementation processes (including government challenges, phenomenon and missions; adaptive change and anticipatory innovation)
Innovation largely depends on the efforts of individuals and pioneers	• Consider the development of overarching system enablers (e.g. innovation challenge, fund, etc.) to ensure innovation is systematically recognised and supported as an intentional activity and not a sporadic undertaking. • Consider increasing individual capabilities for innovation including making training available on experimental designs and innovation methods • Provide adequate resources for public sector innovation and experimentation

Individual and organisational capacities

Public sector organisations need to be able to create anticipatory knowledge and act on it. Previous research has shown that there are cultural and capacity constraints within the Finnish public administration that are not conducive to tackling complex issues (Lähteenmäki-Smith et al., 2021[56]). These include a lack of systemic management skills, capacities and tools (Lähteenmäki-Smith et al., 2021[56]). The interviews indicated that there is limited expertise in ministries and agencies connected to either futures, foresight, innovation or systems thinking. This is accompanied by a view that innovation skills should be diffused and made a responsibility of each civil servants. While the absence of centre of expertise (innovation labs or units) may signal a stronger appropriation of innovation by individual civil servants, interviews highlighted that this is not the case in Finland where the innovation development and diffusion at individual level is still sporadic and depending on individual time prioritisation and resource availability. There might be a positive side to this it keeps the system forming closed bubbles around futures, foresight and innovation that are not linked with the day-to-day strategic activities. But this assumes that people who participate in networks and across government working parties have time to diffuse and use the knowledge in their own context, which is currently not the case.

> It should not be seen as problematic that we don't have specific people working on innovations or foresight in Finland. I do really think that it's something everybody should do when we are leading different projects or fulfilling tasks that are under our responsibility. It should not be something extra to our daily work, but part of it – how we can improve our daily operations.

Consequently, these challenges were not only connected to resourcing and competence constraints (although the latter came up also as a challenge with changing political leadership), but more to prioritisation of activities and lack of time to explore. With limited resources, priorities have to be set, but it may influence the capacity and effectiveness of the public sector in the long term.

> The big problem is lacking time. If you set up a meeting of one and a half hours or two hours, it's not possible to have such deep discussions where you could really achieve a common understanding of the issue. so in reality everyone has done very good preparatory work that civil servants then present to the minister and the other civil servants. And then they will say that, well, we have now discussed this issue. I'm exaggerating, but you get the idea. The political decision maker should also understand that it takes time; that they need to give their time for this kind of discussion because, we need it to understand complex issues.

> To be honest, time [due to the constraints it places] would not really allow me think of what my biggest problems in my policy area are. There are lots of things coming all the time. So would there be time to actually do that? That would be sort of difficult. Difficulty – not so much any attitude or conservativeness on my part. Just having the time.

As mentioned before in the previous section, following consolidation of policy development functions, strategic policy development responsibilities in ministries currently fall on few people handling substantive portfolios. This, coupled with the lack of dedicated resources and skills for innovation, results in futures and foresight activities not systemically feeding into strategic planning, innovation and experimentation. One of the interviewees described: "Ministries do not necessarily have a strategic department or strategic directors responsible for strategies. So how can we link this knowledge to strategy formation? If the ministry doesn't even have any people responsible for it?" It is indicative that only a few organisations in the public sector have structured signal reading and sense making practices. For example, the Tax Authority has a transformation unit that collects signals from both clients and external and international partners about emerging trends, which are then evaluated based on their importance and decisions made if these topics should be further explored or not. Sitra, in addition to their more structured foresight and megatrends work, also operates with weekly signal reports that are less structured, but help to collect new knowledge about emerging topics.

Leadership skills and capacities

Leadership skills and capacities in areas connected to anticipation (sense making, experimentation, strategic foresight, innovation etc.) and more general transformative leadership capabilities (leading by vision, giving autonomy to explore etc.) were found to be unequally spread both among the civil service and political leadership according to the result of the interviews. This is consistent with the result of an OECD initial mapping of the personas of director generals (DGs) in the Finnish government who tend to be the heads of substantive policy areas (see Box 6.9). The personas revealed a varied picture of skills, traits, capacities and motivation factors across the public sector.

> I think there are some old-fashioned models of leadership. It's too hierarchical. Aside from that it's very much about expertise, but then it goes into this hierarchical structure, which becomes more important than the experience.

There is a need to analyse leadership behavioural traits and decision-making tools around uncertainty and what is the best format to communicate anticipatory information to leaders both political and administrative (see also (Gerson, 2020[57])). As outlined above, interviewees outlined a perception that foresight and innovation are side-of-the-desk activities and not part of core processes. Support from senior decision-makers, is indispensable to setting up and sustaining impactful foresight processes, but this requires leaders to understand and appreciate the necessity of anticipatory work. It is also important to note that regardless of skills, leadership motivations may not always coincide with the effective tackling of particular issues because electoral cycles do not correspond with the development of those issues. It is also important to recognise the varying time horizons and motivations of different interest groups. These are also important elements to take into account in leadership development as future generations may be greatly affected by a decision relating to carbon emissions but lack a voice to advocate their position.

Box 6.9. Leadership personas in the Finnish government

The following personas are archetypical descriptions of certain characteristics that may be observed in certain people occupying various posts throughout government. They are intended to illustrate general experiences, not to draw conclusions on specific characteristics or individuals in the Finnish public administration.

The Law-maker

This DG persona values rules and process, and believes that co-ordination and collaboration work when mandated through formal means and mechanisms (e.g. legislation, traditional consultation mechanisms). The Law-maker finds discomfort in new or different ways of working. The challenges faced by this DG stem from a tendency to revert back to traditional or old forms of co-ordination that have proved successful in the past. However, the interconnectivity of government priorities suggest that previously used techniques will not prove as effective.

Subject Matter Expert

This DG rose to senior management levels quickly based on particular expertise, and successful performance related to a policy issue that was previously a government priority. They did not have any career planning or management that prepared them for leadership demands. While their expertise, in-depth knowledge, and passion for his specific files is to be commended – and can, if used properly, engage or energise civil servants in his organisation – this type of leadership is often challenged with an ability to see the bigger picture (which is essential for implementing horizontal initiatives) or the value in building other leadership capabilities such as collaborating outside of silos and managing the political interface.

Overloaded Achiever

This DG is new to this level of leadership and finds it difficult to balance competing demands and political priorities. They view horizontal collaboration and changing ways of working as positive, though they struggle to manage both their vertical organisational pressures and the horizontal cross-cutting issues. They are particularly challenged with understanding that the priorities of the government should drive the work of their organisation, and at linking their organisation's work to horizontal projects.

Frustrated Newcomer

This DG is relatively new at managing an organisation at the central government level, and is highly frustrated that their previous leadership style is not proving effective in this new environment. In their previous leadership role, they rarely got bogged down with expert details, preferring to trust their employees and focusing on bigger-picture strategic issues, and how they could get the most out of employees in the organisation. Now, as a result of how the political level is operating (namely the minister), this DG is pushed to be an expert on all topics covered by their organisation, and to collaborate horizontally with ministries that may not see the value in co-operation. They are challenged with learning the new system and the complex environment they now operate in, which will require a recalibration of expectations, and a focus on leadership capabilities necessary for this role such as agility – the ability to effectively confront and nimbly transform obstacles and roadblocks. Adapting and thriving in this new working environment will be of key importance for this DG.

Source: (OECD, 2018[58]; Gerson, 2020[57])

One interviewee referred to as the distribution of leadership styles in the Finnish public sector as "leadership lottery," where it was more up to chance which kind of leadership specific areas ended up with. Many interviewees cited the "engineering mind-set" (linear, reductionist, causality-based planning culture coupled with control-based management models) and preference for forecasting standing in the way of systems innovation. At the same time, digital skills and background were seen in a very beneficial light in modernising the public sector, especially as a driver to include more agile, iterative and technology oriented working methods into the government.

> We really need to be ready to challenge mind-sets. Then again, there are kind of more practical-level problems like lack of resources or time that also need to be tackled. Also there are many biases, foresight is viewed as something kind of external that you need an external project for to create some scenarios, which probably nobody will read. But I think good foresight is something that's really ingrained into the culture.

Leadership development, however, is not often seen as part of reforms – it is in the background as part of the continuous development of the public sector.

> Finnish people are very keen on organisational structure tools. If you have a problem that a bureau is not working effectively or has cooperation issues, then Finns see it as a structural problem to be solved: let's put organisations together and hope that issues get solved if they are handled together. But you often forget that people are those who make the cooperation, not the organisations. You can see it in a big ministry in Finland that was put together over 10 years ago and they still have huge problems making those different sectors work together. And it is something that needs to be addressed when you choose leaders to organisations that they would understand more clearly that they work for state governance not just a small silo. It is the same with regional level organisations – after the structural reform we are just done and we are heading to the next problem.

Box 6.10. Enhancing anticipatory capacity in the Ministry of Interior

One of the efforts of the Finnish government to enhance its anticipatory capacity is currently underway in the Ministry of Interior. The ministry is undertaking a project to build capacity and establish an enhanced model of anticipatory governance in its administrative branch. This entails programmes to enhance the use of strategic foresight and futures thinking in order to develop effective policies that are able to respond to an evolving contextual environment. The Ministry aims to develop a shared strategic vision around internal security issues that it must have the ability to manage going forward. The new governance model will allow to assess how well operations and resources are set out to tackle the issues and strategic circumstances identified and which changes need to be put in place in order to achieve strategic objectives.

Demos Helsinki, a globally operating think tank based in Finland with experience in the field of strategic foresight, supports the Ministry's effort through a thorough assessment, analytical and capacity-building support. In collaboration with the Ministry this work led to the identification of four main action points:

1. **Capacity building:** Strengthen the methodological foresight expertise through the creation of a medium-term capacity building plan, role-specific development paths and qualifications related to foresight expertise. Link this effort with the annual budget planning cycle and reassess the capabilities on a bi-annual basis.
2. **Strengthen strategic interaction:** Develop a strategic interaction plan including concepts and methods for interaction within the government and with external stakeholders around futures issues with a special focus on participants' motivations.
3. **Strengthening knowledge-based leadership:** Establish foresight training for leadership to better identify where foresight approaches can add the most value. Establish futures dialogue to develop shared understanding amongst leadership, internal and external experts. Incorporate anticipation in the steering of agencies by the Ministry as well as the insights used for decision-making.
4. **Clarifying the impact pathways:** Clarify the impact pathways of foresight knowledge by developing key success indicators, both qualitative and quantitative. Enhance the usability of futures knowledge through co-creation and simulation approaches. Use key channels such as the annual budget planning, steering of agencies, strategic planning, thematic strategies by agencies and the government reports on the future.

The Ministry will create a centre of excellence that will facilitate strategic foresight activities and strategic planning, co-ordinate key knowledge inputs and orchestrate the foresight network's activities of both civil servants and external stakeholders. Key activities of the centre will be:

- Futures Dialogue of the Leadership
- Facilitations of peer-learning within the administrative branch
- Futures Sparring
- Network dialogue (events and seminars)
- Futures' panel
- PostDocs in Government

Source: OECD based on interviews with stakeholders.

While there are exceptions (see Box 6.10 above), in general, more systemic drivers for anticipatory innovation in human resource management are not deployed. For example, performance management systems do not directly support cross-government aims, or solving complex problems that may take more time or will be a continuous process of anticipation/innovation. Also human resource practices do not explicitly value innovation as a criterion for recruitment and enhancement in the system.

> How do we promote the innovation capacities? I think the human resource and recruitment policies are a key issue. Recruit innovative people in the first place to the government, if you want to have innovations. There should be a statement in the HR policy that demands that when you when you hire new people or promote them, you have to think about this capacity.

The Ministry of Finance, who is in charge of developing the public administration of Finland, co-ordinates the training and the public sector innovation network of the civil service and is also setting up to tackle some of these leadership issues.

> In all our ministries there are people who are interested in developing their field in a future-oriented way, but they may not be interested in leading the endeavour. I think we need to have people who want also to lead this kind of development. Leading is a weak point in our system. And that's why Ministry of Finance has also started new training programmes where all these management trainings are integrated in-house to develop new leaders in this sector.

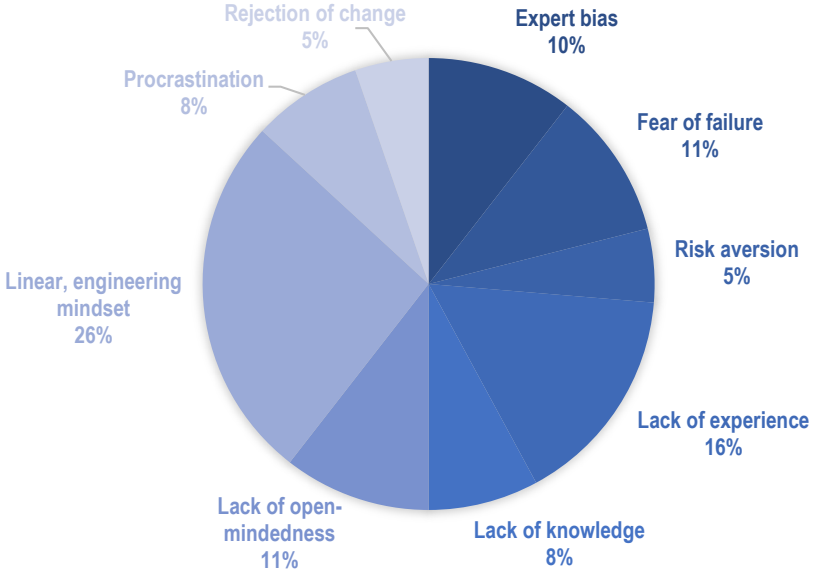
But of course these capabilities need to be more widely spread than just to the leadership level. There are a variety of issues described below that need to be addressed public sector wide. Some interviewees also found that public administration and political leadership issues should be looked at together in a holistic way. At the moment they tend to be tackled separately.

> The education and the human resource policy should concentrate on the whole workplace community, whole ministry, not only the leader. There are so many layers in a ministry, that it doesn't help anything if the chief is well educated in ecosystem thinking and anticipatory innovation. It is not sustainable if it's only one in the top that may even get his or her chop during the next government, because of their five-year appointments.

Individual factors and cognitive biases

Having an anticipatory mind-set is an important factor in supporting anticipatory innovation. This includes being open to change, iterative approaches to policy making, consideration of variety of future possibilities and also a higher risk tolerance in weighing alternatives (Tõnurist and Hanson, 2020[7]). The data generated from conducted interviews shed light on a variety of individual level challenges that were connected to lack of an anticipatory mind-set (see Figure 6.6). These were most often connected to a linear, engineering mind-set, lack of experience with new types of approaches, lack of open mindedness, fear of failure, expert bias and at times procrastination, risk aversion and rejection of change. Many of these issues are interlinked: for example, procrastination can be both spurred on by risk aversion and fear of failure. There may be misconception that an issue deemed 'long-term' does not require immediate attention and limited time is spent elsewhere. Often also loss aversion plays a role, as well as denial or failure to act on the future when it involves letting go of something – as discussed before, there are few points in which trade-offs can be openly discussed. Often these issues individuals face are very rational and justified based on the feedback the system gives back to them. For example, spending on recovery from a crisis might be valued and rewarded higher than spending for preventing a crisis that potentially never occurs.

Figure 6.6. Individual level challenges associated with lack of an anticipatory innovation mind-set



Note: Based on number of uniquely coded observations from interviews.
Source: OECD.

A majority of interviewees also described that doing things in accordance with rules and not making mistakes was very important for civil servants. Thus, internal legitimacy (doing things by procedure) overrides external legitimacy (reaching the outcomes needed). Previous analyses have also pointed to the need to encourage practices and leadership that accepts justified risks and failures, and especially learns from them (Lähteenmäki-Smith et al., 2021[56]).

> Challenges come from many different directions - they can be political, they can be environmental, they can be economical, you name it. We need to be more resilient and be more innovative. And if we want to be good innovators and developers, we will need to have resilience and courage to fail. But at this moment, we do not have the courage to fail.

Also close media scrutiny was perceived as a source of potential stress. While politicians were found to bear the brunt of negative press, it puts a lot of pressure on the public administration to find solutions quickly, meaning that often there was not enough time to do due diligence, causing problems later on in the process.

> It's more important to do the right things, even if not so correctly. But I have a feeling that in some places, currently, we are kind of trying to do wrong things better and better. And it's not like we can develop our current processes forever. But if the processes are not okay, the result won't be right. And it is not just about developing management by results – we can try to develop and develop and refine that process over and over again, but if the whole process, the whole management idea, doesn't work, it doesn't help.

Other cognitive biases that may play a role in the Finnish public administration include aversion to uncertainty; a tendency towards group think, recency, availability, and status quo biases[10] and pressure to agree on a single 'official' version of the future – all of which are contributors to the formation of expert biases, lack of open-mindedness and rejection of change.

> A lot of managers don't like things they are not that used to. Okay, but there is little open mindedness or foresight. They just think that they know what kind of future we will have. And we are just going that way. Then we end up writing what we already know. I almost know what we are going to write down in the next two years. It's quite depressing, but there is no-one in ministries or even the Prime Minister's Office challenging that.

Prior research has also highlighted that Finland's resilience can be hampered by "living in a bubble" – concentrating on internal issues rather than engaging actively in reading signals from global for a (Hyvönen et al., 2019[59]). There also seems to be limited debate and complacency within the public sector around considering alternative views and approaches (which was also highlighted before in connection to futures and foresight activities). It is important to use processes and methods which identify and overcome these cognitive biases in futures thinking. Overall, there is a need to increase futures literacy of individuals and the foresight capacity of organisations and utilise more global knowledge sources. Some interviewees also

pointed to the lack of mobility of people in the public sector and the need to foster it as a way of circulating new ideas. Additionally, opportunities to develop external networks from varied backgrounds is important. This might help avoid expert identity being too silo-centric and people could develop different perspectives that would be helpful to tackle cross-cutting issues and complexity better.

> For anticipating changes, it's very crucial that the people that work in the ministries have enough networks outside the ministries. And I think that's one of the deficits nowadays, because I think the ministries have somewhat grown to look too much inside themselves.

Tools and methods

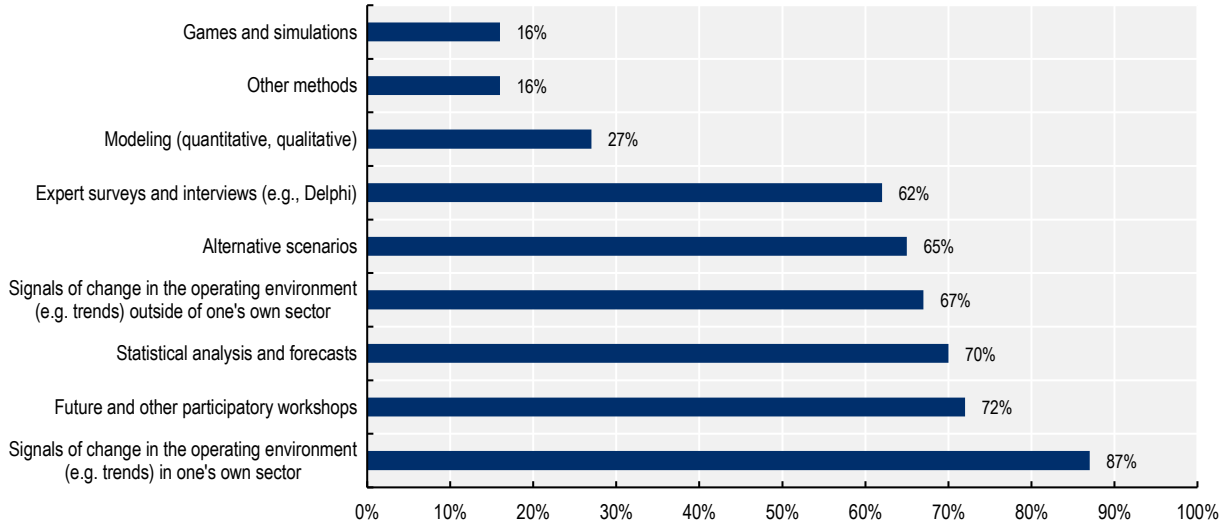
As mentioned in the section before, the mechanisms for anticipatory innovation governance that tends to be prioritised in Finland are those related to regulations and legislative instruments, however anticipatory innovation rely on a wide range of tools and methods. These including those that enhance creativity and imagination (e.g. visioning, historical analogy, gaming); promissory tools and methods conveying permission to proceed, or need to rethink (stress-test) and that weigh values and give licence to explore options (scenarios, course of action analysis); operational tools that allow testing in practice (e.g. adaption pathways); and epistemic tools that make it possible to generalise knowledge and validate it (e.g. developmental evaluation) (Tõnurist and Hanson, 2020[7]).

> We don’t have this anticipatory thinking so much in ministries […]. We need to focus more on these tools and methods, but I don’t think we have many [methods] to think about where we will be in, for example, 10 years’ time. We think about what was going to happen now and we think about our own sector this year and next.

Interviews indicate that these tools are not very well know or used in the public sector. For example, a small minority of the interviewees had personal experience with strategic foresight tools – 11% with scenario approaches, 4% with horizon scanning, 4% with megatrends analysis and 2% with concrete visioning tools and methods. Most of the mentioned tools are analytical in nature – they describe emerging issues and try to put them in context – or strategic or perspective – they create pictures of a preferred future that capture values and ideals – but they are not action-oriented. As indicated above, in the context of anticipatory innovation governance, futures tools need to also bridge with innovation tools and methods, so that different possibilities can be worked on in practice.

Prior organisational-level research in Finland has shown broader results in terms of the use of future-oriented tools and methods (see (Pouru et al., 2020[13])). Most organisations in the Finnish public sector apply five different methodologies (Figure 6.7): signal detection (within and outside of one’s sector), participatory workshops, statistical analysis and forecasts, scenario approaches, and expert surveys and interviews. Confronting this and other existing research (Lähteenmäki-Smith, 2020[60]; Lähteenmäki-Smith et al., 2021[56]) with the results of the interviews, the picture is more contrasted as it appears that while elements of new tools and methods connected to anticipation have been introduced and used , they are far from mainstream, and are not embedded enough to serve all anticipatory governance needs. They are also not exploited in key governance processes, especially budgeting or legislative preparation, which are areas that tend to act as bottlenecks for other activities.

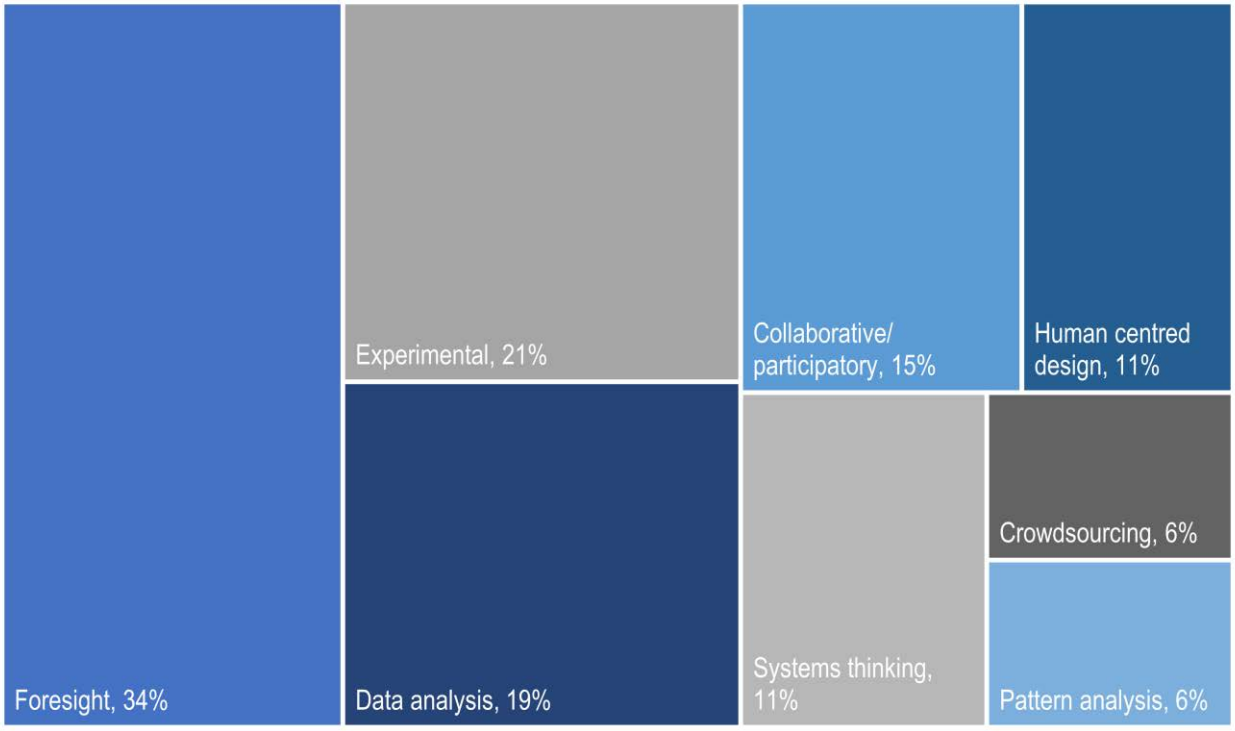
Figure 6.7. Types of foresight and futures methods used in Finnish public sector organisations



Note: Based on a survey of 78 organisations with a response rate of 44%.
Source: (Pouru et al., 2020[13])– OECD translation from Finnish to English.

The research showed (Figure 6.8) that the biggest areas where the interviewees saw the need for new tools and methods were connected to foresight, experimentation, data analysis, collaborative and participatory tools, systems thinking, human-centred design, crowdsourcing and science of crowds and pattern analysis. As the importance for user centricity and also participation for the Finnish government have been outlined before, the need to develop skills and methods towards these areas is clear. When it comes to data analysis, not only was quantitative data science mentioned, but also more qualitative, phenomena-based skills and capacities that were often lacking in organisations. Systems thinking as a topic has also been on the rise in the public sector in Finland, as seen as an essential capacity to tackle complex issues and phenomenon-based policies.

Figure 6.8. Perceived needs for tools and methods in the public service of Finland



Note: Based on coded interview data across all respondents (one observation per category per respondent taken into account).
Source: OECD.

There are certainly blind spots in the reported tools and methods areas based on interviewees' limited experience, particularly with innovation and experimentation approaches in general. For example, experimentation skills without good research capacity will not work – there needs to be a sufficient baseline to build and design experiments that actually measure the right things.

> Initiating experiments requires a level of research competence. There are lot of issues that need to be taken into account in the design phase. If an RCT is deemed the right methodology then you have to make sure that everything that is required when designing the experiment is actually there. For example that the data can be collected the right way and it doesn't take years. Having this researcher's point of view is a very important aspect.

At the same time, as described in previous sections, the research and development capacities in ministries tend to be declining with the increasing reliance on insourced information. This may create a barrier for absorbing knowledge and also utilising the tools and methods necessary for anticipatory innovation.

> The number of people who work here permanently in the ministries has decreased. Those who go to pension [retirement], we don't replace them. Instead we buy a lot of research and this knowledge should help us to anticipate. But it means that we don't build up the skills in the ministries and have difficulty using the information. These skills are becoming more and more scattered.

Section findings and key considerations

The conducted research showed a variety of barriers to implementing anticipatory innovation approaches in the Government of Finland on the organisational and individual capacity levels. As discussed in the beginning of Chapter 4, there is a difference in the approach and needs of various public sector organisations. While some have invested heavily in innovative skills and capacities and use foresight tools, it is far from a systematic approach with dedicated resources across public sector organisations. Hence, different elements on the individual and organisational level (e.g. leadership, culture, perceptions, resource investments, availability of tools and methods etc.) need to be addressed to spur on a wider anticipatory mind-set in the public sector.

Since the assessment was concluded in September 2021, OECD controlled the robustness of its findings in May 2021. The results from validation workshops with Finnish experts showed that the main findings of the assessment connected to capacity issues hold and additional attention especially on the middle management level are needed as they tend to considerable amount of overburden, while holding the gates to processing anticipatory information and following action.

Main Findings	Key considerations
Individual and organisational capacity	
There is a lack of dedicated capacity and futures literacy on both individual and organisational levels Few organisations have structured signal reading and sense making processes/teams Lack of knowledge in foresight, futures, innovation tools and methods	• Expand both leadership and public service training programmes to systematically include foresight, futures, experimentation and innovation knowledge with a specific aim to show the interlinkages between methods and approaches and how they can be used in practice • Support the creation of signal and trend detection functions in public organisations and give insights to tools and methods and ways to tie this work to daily operations • Share good practices in public organisations in these areas across government levels
Short-term tasks override long-term thinking	• Ensure enough time is allocated for long-term thinking at the organisational level • Create slack in organisations to respond to crises, but also leave room for development and innovation work
Development responsibilities fall on few people with very full portfolios: lack of dedicated resources with right skills, capacities and resources (incl. time)	• Analyse where development, innovation and experimentation support tasks fall within public sector organisations and create dedicated structures for their support
Unequal spread of transformative leadership capabilities both in PA and politics	• Continue leadership development programmes incorporating anticipatory innovation capacity elements target to both PA and political leadership
Perception that foresight and innovation are side-of-the-desk activities and not part of core processes Performance management systems do not support cross-government aims and anticipation/innovation	• Create clear expectations that innovation, experimentation and foresight are part of business as usual and are capabilities that are valued in staff and in organisations
Fear of close media scrutiny and making mistakes – internal legitimacy overrides external legitimacy	• Create programmes to increase futures literacy of media, involving them early in the process and make the purpose and expectations clear

	• Promote risk-taking and safe failing approaches in the public sector and facilitate learning from the former
Engineering mind-set and preference for forecasting standing in the way of systems innovation, yet digital skills and background have been very beneficial in modernising the public sector	• Highlight skills and capacities that are associated with positive transformation and modernisation of the public sector • Make clear how to use data from alternative sources and how to integrate foresight and experimental knowledge into evidence informed decision making • Acknowledge that not all aspects of uncertainty can be tackled and cognitive biases connected to the future need to be openly dealt with

Budget and resource allocation

Anticipatory innovation invariably is influenced by one of the most dominant steering mechanisms in government – budget and resource allocation. As argued above, without dedicated resources it is difficult to create the necessary experience needed to engage with anticipatory innovation. Furthermore, considering more transformative, future-oriented change is also influenced by the budgetary steering processes that influence policy making as a whole. Consequently, there were a variety of budgetary and resourcing issues connected to anticipatory innovation brought forward during the interviews and workshops.

As outlined above, Government Programme tends to be the biggest window of opportunity for transformative ideas. However the overlap between the election calendar and the budget cycle, leaves a tight schedule for negotiations to reach an agreement on the programme.[11] Interviewees noted that in the period preceding government formation, consideration on futures and foresight activities have difficulty to find their space and be systematically included in the strategic planning discussion and budgetary steering processes. With very strict deadlines seem to precede strategic steering and are not in line with futures and foresight activities. Following national elections, there is a very tight schedule to reach an agreement on the Government Programme for the next four years as Finland has predominantly coalition governments that do not rely on single party programmes. Then the government proceeds to form an action plan for the Programme. In parallel the new government has to deal with the budget formation (see Table 6.4 the yearly budget cycle), which means that usually the strategic elements get overshadowed by budget negotiations. Opinions on this varied, but most found that due to the pressures of the budgetary process, strategic steering was sped up, limiting the opportunity to consider alternatives. This directly influences the possibility to introduce anticipatory innovation into policy making especially as policy reform directions tend to get locked following the Government Programme negotiations.

> I suppose the process to make the action plan itself started a few months after the Government Programme. So if the programme was published in June, then the action plan came in October. So honestly, looking in hindsight, it should have maybe taken a bit longer to make the action plan, because in four months, the ministries could not have – you know, with the summer vacations and everything –, established exactly how they will implement some of the more unclear goals in the Government Programme.

Table 6.4. Budget cycle in Finland

	Timing
Budget circular	May
Pre-budget fiscal policy statement	April
Negotiations with line ministries	August
Executive budget proposal	September
Parliamentary vote on budget	December
Start of the financial year	1 Jan
In-year budget execution reports	N/A
Mid-year implementation report	N/A
End of financial year	31 December
Year-end financial statement	April
Audited financial report	May
Parliamentary accounting	May

Source: (OECD, 2019[61])

Another issue that was outlined by a majority of the interviewees was the conflicting logics between the strategic and budgetary steering systems. While the first aims to outline strategic goals and phenomena to tackle, the latter is based on organisational allocations accompanied by some performance information. While organisation-based allocations are a way to assign responsibility and accountability, there needs to better ways align allocations and promised outcomes. Currently the basis of performance budgeting is based on mutual agreements on outputs and outcomes: morally, not legally binding performance agreements between sector ministries and their agencies form the system (OECD, 2019[61]). Furthermore, the interviews indicate that the allocation of budgets in administrative silos is perceived as a substantive barrier to the implementation of more cross-cutting goals. Budget allocations are not phenomenon/user-centric nor are allocations holistically aligned with the challenges involved.

> When the strategic level is concerned, I think that we reach missions and targets that are cross sectoral, but the problems arise concerning the implementation, where these broader collective goals get lost in the sector silos. The budgeting system is based on the sector and the budget system isn't cross-sectoral enough.

Allocation-based monitoring and composition of budgets limits the understanding of how much is invested in complex issues and what the intervention portfolios across public organisations looks like. Many interviewees found it very difficult to put the picture back together again and understand how much the state is actually investing in different challenge areas and whether the investment was proportionate to the size of the problems. While the Government Programme has phenomenon-based indicators, the budget system does not follow suit.

> In the Government Programme we have a few 'Phantom Menace'-based indicators and targets, but in the budget proposals and the budget bill, we don't have any exact phenomenon-based targets or indicators.

There seem to be room for improvement in the availability and use of data for monitoring the implementation of the Government Action Plan. As was described by interviewees, it is very difficult to find quarterly or monthly data that corresponds with what the government wants to measure. This also limits signals reported to government about emergent change influencing the ability to anticipate changes early in the policy making processes. There are some actions with several corresponding indicators, while other have none or have serious time-lags connected to them, making it difficult to monitor the effect of government actions in real time. However, aligning resource commitments across organisational budgets in general at the same time is very difficult. This also limits the possibility to look at concrete government action connected to different emerging challenges and phenomena across the public sector.

> There should be more cooperation about how phenomena between different agencies and organisations are dealt with in the whole system in the public sector, but also in the private sector. We cooperate with a couple of agencies and they have their own programmes and they may not have funding and funding for certain area or a problem that is interesting for us. Even an important topic, if they don't have resources at the same time, we cannot put it to work so we are pausing a lot and trying to find ways to go forwards with minimum funding, to see what is possible.

Research indicates that it is challenging to plan and monitor portfolios of investments according to a phenomenon-based logic across the ecosystem. In addition to better online planning and monitoring tools, new instruments are needed for cross-sectoral budget analysis and assessment of how resources are used across policy problems (Varis, 2020[62]). There is an ongoing budgetary renewal ("Buketti 2020") project in the Finnish Ministry of Finance which is hoped to produce a modern tool that enables cross-sectoral monitoring of phenomenon-related cash flows by means of new technologies, artificial intelligence and digitalisation (Varis, 2020[62]).

Furthermore, the validation workshops highlighted the difficulty of taking into account the many trade-offs between different policy areas in tackling complex issues when their concrete financial impact are not visible, nor are investments across government based on societal challenges (described as "budgeting through spreadsheets"). There might be enough fora for discussion, but there may not be enough (political) willpower to make clear the trade-offs and dynamics between policies.

> Of course, climate change is linked to the work of everyone, including our ministry, there's no doubt about that. Yet, there are many competing topics – for example, biodiversity has become a big issue as well. so when you're working in the Ministry of Environment, you can just think about how to protect. If you are in the Ministry of Trade and Economic Affairs, the only thing you should think about is money. And in the Ministry of Agriculture and Forestry, you have to have the balance between both because you cannot produce food without thinking about the environment. But at the same time, you have to

> think about money. Because if the farmers don't get salaries, they don't produce anything. And the same thing is linked to forestry. so you have to cut the pace, you know, to earn money. And at the same time, we have to take care of biodiversity and synchronise these issues.

These issues are very important for the budget process itself, because long-term fiscal sustainability depends on stress-testing for unforeseen phenomena that may influence future generations beyond the immediate trends connected to demographic changes, pensions, economic cycles etc. This may affect fiscal, physical, human and natural capital which may impact fiscal stability directly or indirectly (Mulgan et al., 2021[63]). At the moment, when it comes to fiscal planning and other activities, there are no dedicated resources for anticipatory innovation as few organisations have the resources (time and money) to undertake these activities.

Phenomenon-based budgeting

While phenomenon-based narratives widely use in the strategic processes in Finland (see Box 6.2), it does not seem to work in practice (at least not yet) in Finland. Nevertheless, phenomenon-based budgeting is something that is on the radar of the Finnish government. Among others, the National Audit Office has called the government to develop tools for phenomenon-based budgeting (Varis, 2020[62]). 53% of OECD countries practise gender budgeting to a degree[12] and 40% of OECD countries practise green budgeting, with considerable OECD support to help countries implement these practices (OECD, 2021[26]). Globally, there are already budget models that also take into account SDGs such as those in Mexico, Ireland and Scotland. Additionally, New Zealand has a well-being budget model (OECD, 2019[64]; The New Zealand Treasury, 2019[65]). OECD has also been developing tools to support governments especially in gender budgeting and green budgeting (OECD, 2019[64]).

In the Finnish context, the introduction of phenomenon-based budgeting is challenging given the attribution of substantive spending areas to municipalities and regions, which makes getting a phenomenon-specific resourcing view across government very difficult (see Box 6.11).

> Most of the activities actually are happening in municipalities – health care policy, social policies, educational posts - they are all implemented in municipalities. The Finnish system is heavily based on the so called autonomous local administration, and has really like limited possibilities to actually implement or design different policies.

Box 6.11. Phenomenon-based budgeting: On the road towards child budgeting in Finland

The Prime Minister's Office has set up a working group to study child budgeting as part of the national children's strategy. The aim is to promote children's rights and child impact assessment in the budget process and at different levels of government. According to the UN Committee on the Rights of the Child, children's rights should be taken into account at all stages of the budget process. However, attention to child budgeting in Finland has so far been very low.

Child budgeting refers to looking at the budget from the perspective of the rights of the child. It can be used to assess what proportion of public money is spent on children. This helps to outline the services and benefits for children and their costs. Child budgeting also makes it possible to assess the effects of different investments.

The aim is to pilot the child budgeting with the state's 2022 budget process. The task of the working group is to prepare a concrete proposal on how the child budgeting section will be introduced in the state budget process. This is to be piloted already in the 2022 draft budget and consolidated in the 2023 draft budget. To support this the Ministry of Finance is working on an assessment of the possibilities to move towards a phenomenon-based budgeting system in Finland.

Source: OECD interviews; (Sosiaali- ja terveysministeriö, 2021[66])

Interviews indicated that there is still a lack of clarity about the mechanisms of how this will look like in practice and how responsibilities will be identified.

> I guess there has to be one ministry, who is responsible for one phenomenon? So how would they manage it and assure coordination differently to today? I don't know about solutions for that. But I would be open to the idea to have phenomena-based budgeting, definitely.

Currently according to interviewed experts, the government's budget is quite rigid and transfers between different budget items are quite small. While this increases transparency and parliamentary oversight, it limits ability for align strategic actions when needed. This is due to the fact that around two-thirds of the budget are law-based transfers. However, the interviewees indicated a wish for transfers between different organisations within state administration to be made more flexible.

> If the government changes and creates new strategies it doesn't mean that they will be fulfilled right away, because always something in the next year's budget is based on the use of the resources of the last year. So bigger strategic decisions and implementation in certain areas are so difficult to make, because the resources don't follow, even if the decisions are made. And as you know, it's difficult to implement something if you don't have resources.

Section findings and key considerations

Budgeting and resourcing is an area that influences all government and policy making processes. Hence, it is not surprising that this also influences substantially the extent to which anticipatory innovation approaches can be adopted in the government of Finland. The misalignment of budgetary and strategic steering processes makes it difficult to integrate futures and foresight practices in policy making and it is easy to miss opportunities to consider more long-term reform agendas and alternatives for the former. Silod budgetary processes do not also allow to approach policy challenges from a phenomena or user-centric manner meaning that it is difficult to explore emerging topics that do not fit or expand beyond existing organisational structures. This does not only limit collaboration, but also the ability of government to have a unified view about what impacts they are making on the ground and what further changes are needed. Furthermore, anticipation also presumes the possibility to experiment and innovate in an iterative manner, which might be considerably constrained by budgetary processes that do not account for that or presuppose ex ante (cost) evaluations that do not account for the uncertainty involved.

Since the assessment was concluded in September 2021, OECD controlled the robustness of its findings in May 2021. The results from validation workshops with Finnish experts showed that in complex policy areas challenges are still abound and budgetary tools have difficulty in supporting complex reforms. For example, well-being counties face funding challenges (aligning resources to tasks) and harmonising the system involving people from a variety of backgrounds.

Main Findings	Key considerations
Budget and resource allocation	
Budgetary steering processes and strategic steering do not account for consideration of futures and foresight	• Review the timeframes connected to strategic decisions on the Government Programme and increase flexibility of the simultaneous budgetary planning system with the possibility to re-evaluate the budget according to strategic directions • Include a long-term vision into the budgetary process that utilises strategic foresight inputs and also aligns itself with the government's long-term plans
Money does not follow problems: budget allocations are not phenomenon/user centric nor are allocations holistically aligned with the challenges involved Aligning commitments across organisational budgets at the same time is very difficult	• Implement clear monitoring and evaluation tools that are outcome and phenomena specific and make government investments visible • Make trade-offs between different policy areas visible
Phenomenon-based narrative widely in strategy, but does not work in practice	• Pilot and test phenomenon-based budgeting which also allow for joint budgets between ministries and cross-ministerial taskforces
Ability to make agile and iterative changes to projects once the situation develops	• Consider ways to make the budgetary process more iterative and agile and look for ways to create stability in long-term funding in areas with longer time horizons • Look for ways to include innovation and experimentation in the budgetary process giving alternatives to funding routes

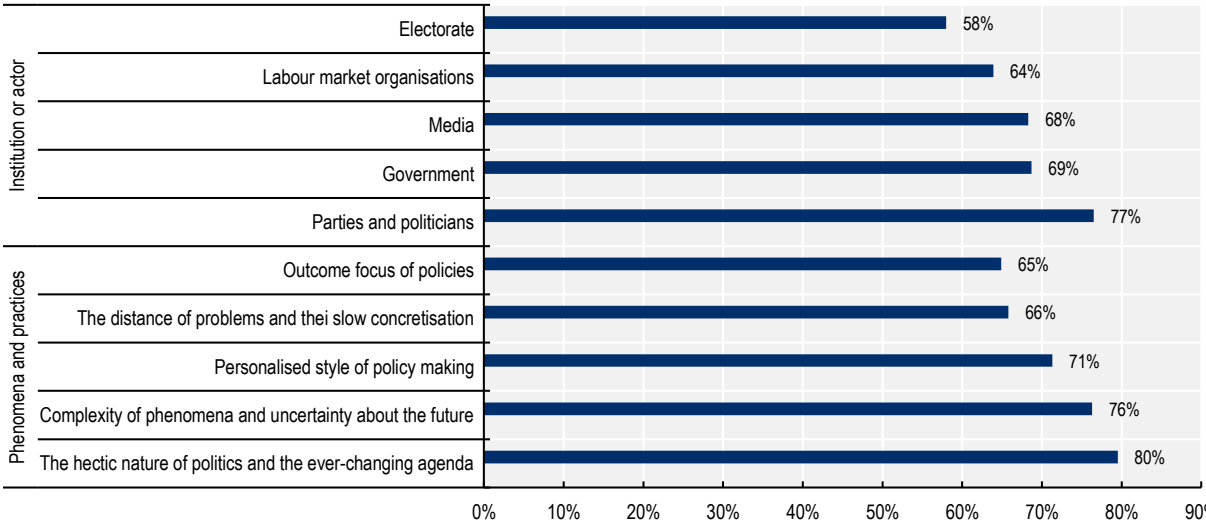
Policy cycles and continuity of reforms

OECD research indicates that anticipatory innovation processes need to gain legitimacy in order to be recognised as able to produce change and carry it through effectively (Tõnurist and Hanson, 2020[7]). Part of the legitimacy comes from a general government commitment to a long-term vision on policies and overall consensus on the long-term nature of the challenges that societies are confronted with. This is not only dependent on the analytical capabilities of civil servants, but also the organisational skills and capacities of ministers and political staff that lend legitimacy to processes and decision-making and consider longer-term aims. Correspondingly, one of the biggest clusters of observations that emerged during the conducted research was around the strategic aim and the continuity of reforms, and how they are connected to the policy-cycle.

Overall, short-term tasks tend to override long-term thinking in the Finnish government. Both conducted research and prior studies pointed to a trade-off in all governments to either serve short-term needs and pressures or also invest in proactive responses (Määttä, 2011[67]). Prior research (Figure 6.9) in the Finnish context attempted to map the explanatory factors related to short-term orientation of politics and decision making. These refers to factors both external to the government (electorates, media, strong advocacy groups like labour market organisations and the nature of policy problems themselves etc.), but also issues directly related to how government is organised (distance from problems and their slow concretisation; personalised style of politics; quick outcomes/output focus of politics). Conducted interviews also pointed to the divisive and short-sighted nature of politics which often makes not politically rewarding to be address long term cross-cutting issues where several ministries are involved and rewards take time to emerge. Some of these factors governments can tackle, others they need to contend with.

> The biggest challenges are the nature of politics itself. While there are problems that need systemic change and often require long-term solutions and commitment, politicians tend to focus on short-term political success. Then the interests of a nation and interests of a party, worrying about the next poll or the next election, they don't always go hand in hand. so for big changes spanning over years, some kind of political consensus is needed. Sometimes it's pretty difficult. Political parties may want different things from the reforms and the reasons might be good. But it's hard to fit into a simple, big change plan, especially when we need pretty drastic changes, for example, facing our ageing population and running out of money [in the] social and healthcare system…

Figure 6.9. What makes politics short-term?



Note: Sample population top and middle management of ministries and central agencies, members of parliament + party officials, labour market organisations (approx. 3 500 people); respondents approx. 700, weighted to match the population by job description and gender.
Source: (Koskimaa and Rapeli, 2020[68]), translated into English by the OECD.

Government programs provides a proxy of the commitments to a long-term future-oriented vision and more transformative change. Previous analysis on the Finnish government programs indicates that they have responded to different needs including that of providing a shared perspective on the government's vision and priorities in facing the future; stating an intended position for the country, for example in the global economy; offering a political plan or roadmap for the decisions and policies to be drafted and implemented; and providing clear and transparent objectives and guidelines for the formation of policies (Määttä, 2011[67]) However, as interviewees pointed out, the government programs have often been accompanied by a high number of strategic goals and action with limited prioritisation. For example, the Government Programme for the 2011-2015 had over 900 action items with no clear priorities for implementation (OECD, 2015[69]). The previous government's action plan (2015-2019), with five cross-cutting strategic priorities, are materialised in the form of 26 key projects (five key projects per strategic priority with the exception of six in the priority of Knowledge and Education). The current government action plan has again increased activities. Interviews indicated that while that the high number of items included in the plan is an expression of political negotiations and hard-won agreements around the programme especially in the case of coalition governments, this may be leading to a lock-in effect and overemphasis on the present more immediate issues (sometimes described as "political oversteer"), limiting agility and ability to reconsider the possibility of long terms changes reforms in uncertain situations and reducing the space for alternatives exploration, experimentation and innovation. With too many action points it also becomes easier to "pick and choose" which ones to implement. Yet, with many parties in government coalitions, it may be the only way to keep stability.

> This government made a very, very heavy program. It's 200 pages and there are over 1000 policy actions connected to it. But it has actually kept the government together. It's a critical reference point, if any party who wants to divert our vote back an issue into that programme then it is possible to say: look, everything worked, what we agreed we will do, but nothing beyond if we don't find a consensus. In the Finnish government within a five-party setting it is very important to stick to that.

It was also observed that the 4-year timeframe offered by the plan might be too short. Interviewees found that this diminished agility and ability to reconsider reforms in uncertain situations as political will to open up hard-won agreements was often absent. The lock-in effect can be rather large with the time available to negotiate the Government Programme being limited. This does not reflect the pivotal importance of the document to introducing transformative reform agendas to the government. Furthermore, as described before, the timeline is also pushed forward by budget negotiations. This, together with the fact that it is a four-year document with the aim to fulfil as many coalition goals as possible within the timeframe, strongly highlights the problems of the present, easily leaving behind broader issues of greater complexity and uncertainty. Due to this and the focus on government programmes, policy-making for future problems is challenging to co-ordinate and difficult to find resources for (Koskimaa and Rapeli, 2020[68]).The reality is that many complex issues need a much longer time frame.

> Very often it will be much longer than a four-year period. We should have longer programmes – maybe six or eight years. I think then we will be able to get big changes.

One of the examples outlined was the digitalisation process. This that took several government terms and consecutive programmes to implement and the process is far from over. The political backbone of the Digitalisation Strategy (2015-2019) was specifically connected to implementation and the project ideas were collected extensively, while the Ministry of Finance was directly responsible for key projects (Lähteenmäki-Smith, 2020[60]). Financial grants for public organisations in line with the aims of the strategy was one of the biggest incentives of change. However, challenges remain as the horizontal nature of the projects tends to disappear once the funding runs out and such issues as described above continue with legacy systems and lack of data interoperability.

> I would say that we have the possibilities to do far, far better in the field of digitalisation. In creating human-centred anticipatory services that's very, very difficult to do with the existing way of governance thinking.

One of the biggest and most frequently mentioned policy failures in recent years mentioned by the interviewees was connected to the ongoing health and social services reform (SOTE) which has spanned 15 years without completion – see further in Box 6.12. This was indicated in the interviews as an example of both misalignment between complexity of the reform and the narrow policy cycles framing it, and lack of specific tools and methods to work with complex issues. The reform process also demonstrates the difficulty to reach a clear vision and political consensus around complex reform and contend with vested interests in the system. Many interviewees pointed out that the reform effort at that scale and complexity also started to overshadow other topics and contributed to burn-out of many departments. Meanwhile the system is comprised of multiple components layered on top of each other, adding to the complexity.

> With the health and social services reform, it's always easier said than to actually do the reform. It's a complex system by nature. They've been building those systems bit by bit, part by part over years and over decades. And now the system is very varied, and more detail is continuously needed to take into account the needs of different people. So more complexity on complexity. There is almost no way around it.

The reasons for the decades long delay are connected to various factors including the extreme complexity of the reform programme that has not fit into the policy cycles nor the tools and methods available for government.

> I think one of the reasons why structural reform has been so difficult in Finland is because we were often kind of incapable of identifying or realising when we are actually dealing with a complex problem. And when we're just dealing with a traditional problem, when traditional tools would be appropriate to dealing with it.

As an area of reform that will influence the whole policy domain for years to come and will involve a large organisational, process and service innovations, it is a ripe area to include anticipatory innovation approaches to the process. This means also a closer connection to the implementation of the reform programme which might be challenging as there seems to be large distance between political decision-making versus evidence-informed decision making was also noted by interviewees. As one interviewee described connected to the SOTE reform: “There are all kinds of research and statistics and papers and we study them very, very closely, but then we realised that there is not the essence of policy making in these papers and we put them aside.”

Box 6.12.Health and social services reform (SOTE)

The Finnish health system is governed at national and local levels. At the national level, the Ministry of Social Affairs and Health is responsible for developing and implementing health reforms and policies, with extensive support from a large network of expert and advisory bodies. Local authorities (over 300 municipalities) fund and organise (often jointly) the provision of primary care, and form 20 hospital districts to fund and provide hospital care.

The national Social Insurance Institution runs the statutory National Health Insurance (NHI) scheme. It funds outpatient pharmaceuticals, healthcare-related travel costs, and sickness and maternity allowances. The NHI is financed through compulsory employment contributions, while primary and hospital care are funded through taxes collected by the municipalities as well as subsidies from the national government.

While high levels of decentralisation allow the health system to adapt to the needs of a dispersed population, it generates some inequalities and inefficiencies. Agreement has been broad on the need to reform the Finnish health system for over a decade, but reaching policy consensus on how the reform should be implemented has proven very difficult.

The current ongoing reform pursues several objectives that could be described around the following lines: recentralisation of the organisational structure from the local to the regional level; containment of costs; ensuring fair and high-quality social and health services for all Finns; securing the availability of skilled labour in the health sector in view of demographic and social changes; strengthening the focus on prevention, diagnosis and early detection; and increasing patients’ choice.

Preparations for the legislative work for the current version of the reform started in autumn 2019. The Government's proposal regarding the establishment of welfare areas and the reform of the organisation of social and health care and rescue services was approved by Parliament on 23 June 2021.

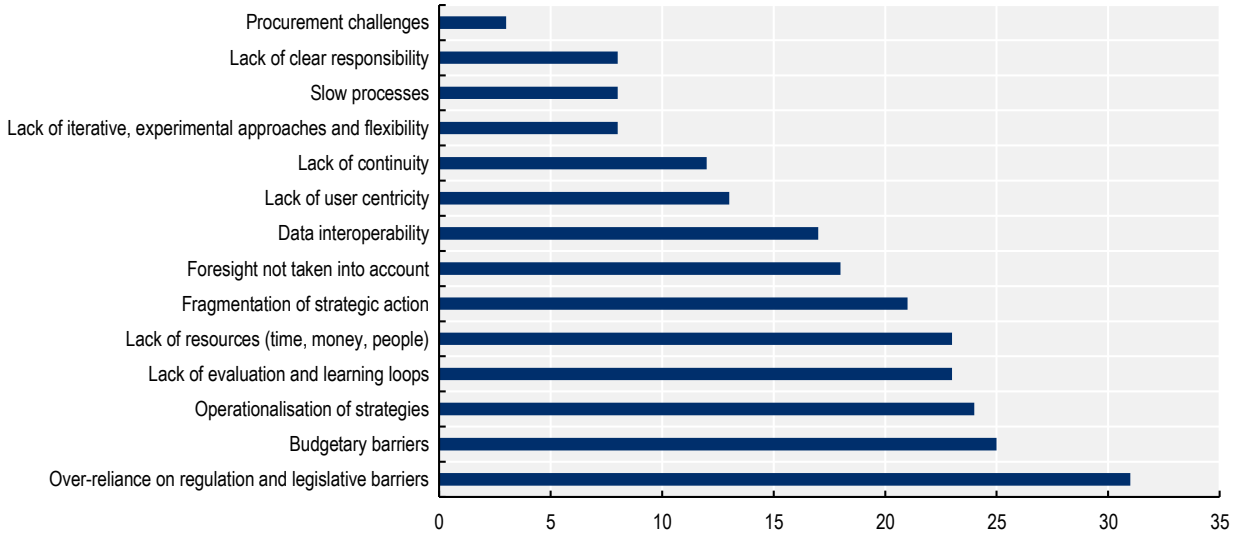
Source: (OECD, 2019[61]; OECD, 2021[8]; Government of Finland, 2021[70])

Strategies do not lead to action

The previous considerations highlight that one of the most discussed and recurring topics in the interviews was that strategies do not automatically transform or lead to action. The interviews echoed that in government, time for policy execution is often too short to reflect on possible alternative approaches, implement and operationalise and evaluate changes on the ground. The pace of policy implementation is also highly dependent on policy cycles that disrupt continuity of reforms and follow-through.

OECD research has identified various factors that emerge from the interviews as challenges to implementation (Figure 6.10). These range from problems with operationalising strategies and fragmented action to policy mechanisms (overreliance on regulation and lack of iterative, experimental approaches and flexibility, procurement challenges, issues with data), budgetary barriers and learning and evaluation. Some of these have been covered in more detail in prior sections.

Figure 6.10. Challenges connected to implementation



Note: Based on coded interview data and frequency of mentions across 53 interviews.
Source: OECD.

Previous OECD research in Finland has pointed to the risk of excessive fragmentation in translating the government action plan into concrete actions (Gerson, 2020[57]). The problem is more acute, as the interview data showed the prevalence of the myth that implementation is not part of strategic policy making, which tends to be widespread and stands in the way of experimentation and agile/iterative policy making. Changes overall are speeding up and so is policy making getting closer and closer to real-time policy making through implementation (as was also illustrated through the case of COVID-19).

> The problem with decision making nowadays, especially in some fields like climate change and biodiversity, is that things are moving so fast. So basically, when you make a decision, you have to be ready to make the next decision, and then start to make the next decision right away when you only have the first one in place. It is a moving target and our policy making and implementation needs to take that into account.

At the same time, policy evaluation has traditionally been a retrospective activity, which undermines its value in future decision-making (Raisio, Jalonen and Uusikylä, 2018[33]). Furthermore, it may not always be timely before the new policy cycle begins. Thus, ongoing and developmental evaluation[13] should be considered to get a more timely feedback system from practice (OECD, 2018[58]).

When it comes to long-term policy reforms and their continuity, interviewees found that there is a need for a more institutionalised transition processes between government terms assuring that policies actually reach implementation and learning from prior reforms is collected in a meaningful manner. Interviewees saw opportunities in the parliamentary process connected to the re-established committee system (outlined in Chapter 2), but it is not clear if it works in practice. The government has created parliamentary committees to ensure continuity of long-term reforms; however most interviewees did not know of their existence nor what their tasks actually were.

When it comes to continuity and long-term policy reforms, there appears to be an over-emphasis on power relations and political interests and tensions between political and civil-service steering (Lähteenmäki-

Smith et al., 2021[56]). The roles between civil service and politicians in anticipatory innovation governance are far from clear and should be further examined. With the current government's establishment of political state secretaries, the interviewees found also that the discussions with civil servants had decreased, because the political state secretaries preferred to run negotiations in their own circles.

Section findings and key considerations

Policy cycles and political terms are a normal part of democratic governance systems. However, it does not mean that they do not influence how and under which assumptions governments consider long-term issues and future opportunities. Not everything can be accomplished or tackled in a 4-year government term and in some areas like climate change, natural resource management, socio-economic reforms etc. changes need to be considered decades in advance to make a real difference. Hence, the policy cycles tend to directly influence the anticipatory innovation capacity of governments when considering future visions and implementing them in an iterative manner. The research indicated closer ties between policy implementation and policy making are needed to make anticipatory innovation possible, especially as in many policy areas public sector is getting closer to real-time policy making as changes are speeding up. This means also new evaluation and measurement procedures for government and procedures to transition from one government administration to the next. In these areas connected to anticipation, the role of public administrators and politicians is not always directly clear especially in preparing reforms across government terms or proposing alternatives for exploration before a clear direction has been set. All of the above needs to be tackled to make the Finnish government more anticipatory in nature.

Since the assessment was concluded in September 2021, OECD controlled the robustness of its findings in May 2021. The results from validation workshops highlighted that there is interest in the centre of government to tackle issues connected to policy cycles and continuity of reforms. There is a project (KOVA) at the Prime Minister's Office for change of government and government negotiations and the technical support politicians need from public officials to manage these processes. Interviews and workshops with political parties are conducted. Each party has nominated one person who they think will be vital in negotiations and preparatory workshops will be conducted in the autumn. Having anticipatory innovation governance issues discussed in these would be vital for the development of the system. What roles within the systems different high level political and politically neutral civil servants (e.g. state secretary, permanent state secretaries, administrative under-secretaries etc.) need to play, should be also discussed

Main Findings	Key considerations
Policy cycles and continuity of reforms	
Lack of formal transition procedure between administrations	• Pilot different transition procedures between administrations including the role of civil servants
Role of public administration and politicians in complex and long-term policy issues unclear and subject to (hidden) power relations	• Clarify the roles politicians and civil servants need to play within a long-term anticipatory innovation governance system
Strategies do not lead to action – time for proper implementation is too short to develop theories of change, operationalise and evaluate changes on the ground	• Develop actionable theories of change connected to strategic goals that are realistic to the effort and resourcing to deliver • Ensure that policy makers are actively involved in the ongoing evaluation of policy implementation
Myth of implementation not being part of strategic policy making stands in the way of experimentation and agile/iterative policy making	• Ensure flexibility and learning from the implementation process • Leave room for experimentation and innovation: e.g. create testbeds to see how different options would work in practice
Government Programme as future-seeking moments and catalysers, but of varying strategic quality	• Agree on the level of technical detail for the Government Programme and leave room for innovation and experimentation • Create stress-testing moments for the Government Programme that are open and transparent

Co-ordination across government challenges

One of the fundamental challenges to anticipatory innovation governance is governments' tendency to address problems in closed compartments and silos (Tõnurist and Hanson, 2020[7]). Research has pointed to the limitation of silo-based structure and mentality in dealing with complex challenges that cuts across multiple subject domains, and further reduces its capacity to respond successfully (Tõnurist and Hanson, 2020[7]). As argued above, keeping up with the pace of change requires addressing the issues of administrative silos and corresponding behaviours to enable a more real-time and iterative policy making which can influence the design of solutions themselves.

In Finland, the interviewees found that the policy steering system rather old, compartmentalised and lacking innovative organisational approaches. Thus, it is not surprising that one of the most challenging issues around this topic is vertical and horizontal co-ordination in government and dealing with public sector silos. The effect of silos, especially when money and task division is discussed, has been highlighted many times in the context of Finland (Hyvönen et al., 2019[59]). As argued above, budget, regulative and strategic steering enforce different aims: strategic, rule-based or organisational. Unsurprisingly, the topic of silos was the most discussed during the interviews and validation workshops.

> I would say that even though we have a rather impressive bits or pieces in innovation, system, risk management, etc., they are a little bit too much working in our kind of isolated islands.

There are many structural issues that contribute to this that have been discussed before: trade-offs between different policy areas are not visible, nor are investments across government based on societal challenges. Moreover, factors connected to incentive systems, how cross-government goals are tackled in management structures and culture in different public sector organisations remain barriers.

In Finland, the strength and independency of Ministries is perceived by interviewees as slowing down government decision-making when dealing with cross-governmental issues. In this context, often the Prime Minister's Office within a coalition government can exercise limited steering and has fewer levers to co-ordinate change across policy sectors. Hence, interviewees found that cross-governmental issues and following negotiations tend to make decision-making much slower. The involvement of other levels of government increases the complexity of decision-making for example when phenomenon-based approaches are attempted. Some interviewees argued that this requires new meta-governance functions that currently do not exist.

Currently there is not a unified process to identify and assign responsibility for new, cross-governmental issues – this happens often in an ad hoc manner. Co-ordination on cross-government issues happens most frequently through networks and working groups. For example, the Prime Minister's Office supports the ministerial working groups appointed by the Government that guide the implementation of the Government Programme in terms of employment promotion, climate and energy policy, health and social services reform, competence, education and innovation, child and youth policy, and internal security and the strengthening of the rule of law (Government of Finland, 2019[71]). The ministerial working groups are also responsible, within the scope of their remit, for providing guidance on the preparation and implementation of the objectives and measures contained in the Government Action Plan (Government of Finland, 2019[71]). While the Prime Minister's Office is involved, the ministerial working groups are led by ministers that work in co-ordinating ministries and also the head secretary for the groups comes from co-ordinating ministries. This, however, is not deemed to be enough.

> In Finland we talk about phenomenon-based policy making. Well, it hasn't worked out well. Every ministry is just sticking with their main goals and defending them. For the Ministry of Finance it is all about money, for Ministry of Social Affairs and Health – welfare, for Ministry of Environment… It is really hard to combine all this around a cause, when people keep on defending their ministry and their ministry's money. The silo mentality is still really strong.

While some interviewees were sceptical about how much co-ordination these working groups accomplished on truly anticipatory and innovative topics, many agreed that the COVID-19 situation had actually improved cross-government collaboration in these groups. The regular permanent state secretaries' steering meeting has now come to function as a COVID-19 taskforce, co-ordinating actions between branches of administration and in crisis situations. At the same time, the discussion in this group has switched to more tactical issues (such as immediate tasks needed to be implemented across government connected to the pandemic) rather than strategic outlook. Interviews indicated that the COVID-19 situation also highlighted the difficulties in co-ordinating action across different levels of government and raised issues between the national government and regions and municipalities. In some cases, regions and cities reportedly felt micromanaged by the state and hindered in taking care of their own actions. Yet, the situation also illustrated areas where problems crossed boundaries and adequate co-ordination vehicles did not exist. For example:

> When people started returning from abroad to Finland during the pandemic, it seemed that no one had taken responsibility for the process and the Helsinki airport, how they were being questioned, if they were put into quarantine, etc. It took forever to get this organised, because it was between four or five different ministries, cities, local municipalities, the airport officials and so forth and so forth. And everyone just blamed everyone else. This is something that our government admitted was a big failure, and we should have done better and we learned that some of our functions are spread in way too many different directions.

The creation of dedicated temporary cross-government taskforces emerged – from the interview validation sessions – as a proposal to overcome silo approaches. Taskforce participants would be picked up centrally and report to Government and not individual ministries. One of the interviewees found that "the civil servants at the ministerial level should have a position owned only by the government, not owned by one ministry." Other proposals involved allocation of clear accountability lines for senior civil servants driving the implementation of politically-sensitive government reforms. The validation sessions also highlighted that the centre of government organisations (Prime Minister's Office, Ministry of Finance and also Ministry of Justice) could take a more direct role in steering whole of government approaches and to 'build bridges' between different organisations. These different solutions should be tested and piloted to see what is viable in real-life situations.

> It would be great if it would be possible to create a temporary team that works across ministries. Accompanied by a phenomenon-based budgeting experiment or a pilot at least. Maybe this would create a window of opportunity to actually make things work in practice.

> The administration could, for instance, have a sort of joint exercise on complex problems. Over the time, it could lead to a more common understanding of what the others are doing in this field. And what I could do differently in order to contribute to what the others are doing.

Consequently, ideas on how to tackle co-ordination issues vary from stronger organisational reforms to softer mind-set/leadership tools (serving the government or one ministry/minister). Leaders, for example, have difficulty in balancing horizontal and vertical priorities and adapting to new ways of working (Gerson, 2020[57]).

> We need to work more across sectors to develop these capabilities. It's very much dependent on the individuals at the moment, those who want to make things work together. It's easier if you are an introvert, because I think that the government itself is introvert, by its nature.

Section findings and key considerations

Emerging challenges and future-oriented opportunities often do not follow the current structures of government and get stuck between different organisational boundaries in the public sector. This has been a prevailing issue in Finland that has been raised in prior OECD studies (OECD, 2010[72]; OECD, 2019[61]) (OECD, 2019[61]). In a highly decentralised governance system, addressing co-ordination challenges and creating ways to work across government in a meaningful way is often a prerequisite for anticipatory innovation. This means aligning budgetary and strategic steering processes and also regulatory processes, all of which were discussed in prior chapters. Various ways to tackle the influence of government silos could be tested, including organisational solutions (e.g. phenomenon-based taskforces) and staff rotation to disseminate futures, foresight and innovation knowledge across government. Also a more unified approach to analyse and tackle new emerging problems is needed – this would help to incorporate anticipatory innovation approaches from the start and examine these issues in a more institutionalised manner.

Since the assessment was concluded in September 2021, OECD controlled the robustness of its findings in May 2021. Much in the area of co-ordination across government challenges has remained the same. However, there is more reporting connected to environmental social and governance (ESG) criteria which is takes up additional resources in the system.

Main Findings	Key considerations
Co-ordination across government challenges	
Budget, regulatory and strategic steering enforce different aims: strategic vs organisational	• Set up a process by which these aims and incentives could be synchronised
Very strong governmental silos	• Counter silo mentality by creating stronger counter-structures to work in a horizontal manner (e.g. phenomenon-based taskforces) • Increase staff rotation in government to provide a more natural exchange of knowledge between sectors, possibly accompanying phenomenon initiatives • Set up demonstration cases around cross-government issues on how to tackle cross-government challenges led by central steering bodies (including a variety of organisational and leadership level solutions)
When new, cross-governmental issues arise, responsibilities are assigned in ad hoc ways: lack of clarity of process	• Set up concrete procedures to analyse different types of policy problems based on their uncertainty and complexity • Outline responsibilities for different ways in which policy problems could be assigned
Diverging ideas on how to tackle co-ordination issues: through stronger organisational reforms or softer mind-set/leadership tools	• Analyse in greater detail how co-ordination issues could be tackled and which options – structural and leadership level – would be the most viable • Use foresight and futures thinking to explore different avenues of reform and use prototyping and other innovation tools and methods to create possible pilots/experiments on how these issues could be tackled and tested in practice

Conclusions of the assessment

> "The problem with Finland is that in international comparisons we are doing pretty well in these issues. But if you compare it to the kind of possibilities, what our skill base would allow us to achieve, and even the low hanging fruits that are left unpicked, we could do much, much better." - Senior leader in the Government of Finland

Based on strong foundations, the Finnish government has the potential to build up its governance systems to deal better with uncertainty and complexity. The prior discussion outlined reform needs and opportunities to make the Finnish government more conducive to anticipatory innovation governance. Here, the main challenges will be covered:

Futures and foresight. The research showed there is a significant 'impact gap' when it comes to strategic foresight and how it is used in the Finnish government. While the resources for central foresight efforts have increased with input from individual ministries, the work undertaken does not directly contribute to strategic plans, innovation programmes and other executive instruments. It is difficult to align strategic foresight with ongoing strategic planning and political decision-making processes. Overall, futures and foresight are not feeding into innovation and experimentation which is fundamental to anticipatory innovation governance.

A contributing factor to this impact gap is a lack of 'futures literacy' across the government. Ministries are uncertain about the degree to which they should develop internal capacities for futures and foresight activities, and to what extent this work should be carried out centrally. It is important that the ministries have an opportunity to challenge collectively aligned futures and for civil servants to distribute anticipatory knowledge to all parties and stakeholders as was the goal of ministerial futures reviews. Futures methods need to be mainstreamed and tied to core government tasks, while 'opening the system' would allow for more radical ideas to emerge.

Main Findings	Key considerations
Futures and foresight	
Unclear roles of futures and foresight at the centre of government and ministry levels	• Clarify the roles and expectations of strategic foresight and futures beyond the Government Future's Report • Outline which capacities ministries and public organisations should develop internally and which issues are tackled across government; this may mean that different foresight processes internally and across government are run simultaneously and hence, should be also adequately resourced • Create an evaluation system to outline how strategic foresight contributes to anticipatory innovation capacity of organisations (not the accuracy of predicting the future)
Impact gap: futures and foresight not feeding into strategic planning, innovation and experimentation Difficulty to align with ongoing strategic planning and political decision-making processes	• Strengthen the link between foresight and decision-making • Clarify the expectations of decision makers and policy makers for strategic foresight and create demand for the latter • Demonstrate how anticipatory innovation knowledge could be used in strategic planning, innovation and experimentation processes; create clear expectations on how and when different strategic foresights tools and methods (for visioning, stress-testing etc.) will be used in strategy making processes • Take into account strategic planning and policy making timelines in designing strategic foresight and futures exercises so that there are touchpoints and uses of this information during the government term
'Foresight by number' – preference for highly probable futures aligned with existing plans, institutionally bounded futures	• Involve more varied stakeholder groups and international experts in the futures and foresight work • Release results on an ongoing, timely and open manner • Build in autonomy to explore more alternative scenarios and use the future as a neutral, safe space to discuss and reframe issues that block progress
Closed process: foresight happening in narrow circles and problems with transparency and timely sharing of results	• Involve decision makers throughout the process • Present results to a wider audience on an ongoing basis • Take into account the ecosystem perspective in strategic foresight

Public interest and participation. Both are essential to an effective anticipatory innovation system as starting points for the exploration, contextual understanding, and creation of narratives. The findings pointed to lack of institutionalised citizen participation methods to consider policy alternatives early on, closed processes and lack of facilitation skills in the public sector. There is a need to counter 'standard' arguments against citizen participation, such as that politicians do not want the processes to be open, or that sped-up processes do not allow for wider engagement. While the forthcoming Government Report on the Future included citizen dialogues in its preparatory process, it is unclear how the views of the citizens were incorporated or whether there was an impact on the strategic planning processes. Hence, there could be further opportunities to incorporate the future-oriented perspectives of citizens directly into the Government Programme.

Furthermore, governments own data analysis methods and barriers to data interoperability are standing in the way of user-centric approaches and development of new, future-oriented services. It is difficult to triangulate knowledge from citizen participation and other sources of data for anticipation, which could help to improve the government's ability to pick up on emerging changes or unfulfilled goals. Frameworks to go beyond this, but still assure the privacy of data and its ethical use, should be considered.

Main Findings	Key considerations
Public interest and participation	
Closed processes and lack of facilitation skills Lack of institutionalised citizen participation methods early on to consider policy alternatives	• Involve people early in the policy development cycle to think about useful alternatives today, but also to consider options for the future • Take steps to institutionalise citizen participation methods and develop capacity in using them (including the increase in facilitation skills) • Organise targeted outreach to typically underrepresented groups, including future generations • On cross-border issues, partner with other countries to collect insights regionally or globally • Counter 'standard' counter-arguments for citizen participation: e.g. politicians do not want the processes to be open, expedited processes do not allow for it. Demonstrate the social and economic value of open processes.
Lack of deliberative processes that are future-oriented outside of more consultative dialogues	• Introduce citizen-led deliberative futures exercises to counter silo-effects in government thinking (outline challenges that are human centred) as citizens tend to structure their thinking in government silos • Take a differentiated approach to involving citizens and other stakeholders in future-oriented policy based on their levels of trust in government. • Get future-oriented citizens' perspectives to inform the government programme • Consider across ministries dialogues on issues connected to emerging phenomena
Need for more user centric approaches and systems thinking to analyse complex problems	• Analyse barriers to user-centricity and create demonstration cases (similar to AuroraAI) that help to engage with future generation needs • Prioritise also human-centric ethnographic data and foresight data to operationalise challenges alongside 'hard data'
Tackle the issue of digital rights which may hinder the possibility for alternative use of data. Data interoperability as a barrier to more user focused analysis and examination of citizen centric policy challenges	• Devise ways to counter legislative issues connected to data interoperability and solutions to overcome privacy and other issues innovatively • Look for alternative uses of data including data mining to create insights

Alternatives exploration. The research showed that a few expert pioneers are pushing forward experimentation and innovation in the government of Finland, but largely these approaches were seen as a side-of-the-desk activity. Inside government, there is a lack of capacity and futures literacy at both individual and organisational levels and few organisations have structured signal reading and sense making processes or teams. Experimentation specifically is not always timely in policy-making processes and does not suit established linear policy-making processes. Outside of the Government Programme preparation every 4 years and the Government Report on the Future there were few structured 'future seeking' and experimental moments in policy reforms, where policy making timelines create clear demand for future perspectives and experimental approaches. In ministries, experimentation, research and development fall on few individuals with large portfolios or are often outsourced through predefined (waterfall) processes with little iterative learning. This means that there is no clear value chain from futures and foresight to exploration, experiment design, innovation and policy development.

Main Findings	Key considerations
Alternatives exploration	
Experimentation is talked about, but rarely done beyond agencies: a handful of pioneers, but little consistent high-level support	• Experiments and the information obtained from them must be better linked to long-term policy development work • There should be more clarity on when it is appropriate to apply experimental approaches and what support can be expected from government to do so
Regulations as gate keepers of experimentation (e.g. experimentation law on employment services experiment in municipalities)	• Consider a comprehensive legal framework to carry out experiments or an established procedure to regulate more transformative experiments • Consider providing guidance to help public organisations better assess the legal implications of designing and running an experiment
Experimentation is not always timely in policy-making processes	• Set a clear path/role for experimentation within established evidence-informed policy development processes • Consider the development of evaluation criteria for experimentation, including for pilot test and initiatives. • Facilitate a structured learning process from bottom-up experimentation connected to missions, support for scaling and last-mile innovations
Outside of the Government Programme preparation every four years and the Government Report on the Future, there are little structured 'future seeking' and experimental moments in policy reforms	• Create concrete, structured and open opportunities to propose innovative or experimental policy designs during the Government's mid-term review • Leave room in the Government Programme for innovation and experimentation and avoid leading by solutions if not validated before
Solutions defined too early in regulation-driven policy-making process: lack of agile and iterative policy design	• Create concrete feedback loops for implementation and space for experimentation and innovation within regulatory frameworks • Create a framework for using regulatory sandboxes, testbeds and other agile and iterative regulatory solutions for public sector innovation
R&D tasks are often outsourced through pre-defined (waterfall) processes with little iterative learning	• Consider ways to strengthen government's organisational capacity for innovation to ensure internal learning. Create the role of boundary spanners who can facilitate learning from external partners into the public sector
Experiments/innovation and their role still not understood by leadership	• To create the demand and supply for experimentation in a functioning anticipatory innovation system, organisations need to be systematically supported and encouraged to start their innovation/experimentation journey. This should include dedicated funding, training and leadership programmes to support innovation management • Expand the view that innovation is connected mostly to digitalisation and productivity projects and create clear links to core policy making and policy implementation processes (including government challenges, phenomenon and missions; adaptive change and anticipatory innovation)
Innovation largely depends on the efforts of individuals and pioneers	• Consider the development of overarching system enablers (e.g. innovation challenge, fund, etc.) to ensure innovation is systematically recognised and supported as an intentional activity and not a sporadic undertaking. • Consider increasing individual capabilities for innovation including making training available on experimental designs and innovation methods • Provide adequate resources for public sector innovation and experimentation

Individual and organisational capacity. There is a lack of individual and organisational capabilities in anticipation, innovation and futures literacy and an uneven spread of transformative leadership capabilities both in public administration and politics. For both administrators and decision-makers, the research showed that short-term tasks take precedence over long-term thinking. As outlined above, strategic development responsibilities in ministries fall on few people with very full portfolios. Prior development functions have been consolidated and organisations lack dedicated resources with right skills, capacities and resources (including time).

There is a need to strengthening the capacity of public servants to reflect and act on future policy challenges by increasing access to and experience with anticipatory innovation approaches and tools. To create demand for anticipatory innovation, leadership skills and capacities need to be addressed and additional support structures and practices put in place in organisations to develop signal reading and anticipatory policy making skills that lead to innovation.

Main Findings	Key considerations
Individual and organisational capacity	
There is a lack of dedicated capacity and futures literacy on both individual and organisational levels Few organisations have structured signal reading and sense making processes/teams Lack of knowledge in foresight, futures, innovation tools and methods	• Expand both leadership and public service training programmes to systematically include foresight, futures, experimentation and innovation knowledge with a specific aim to show the interlinkages between methods and approaches and how they can be used in practice • Support the creation of signal and trend detection functions in public organisations and give insights to tools and methods and ways to tie this work to daily operations • Share good practices in public organisations in these areas across government levels
Short-term tasks override long-term thinking	• Ensure enough time is allocated for long-term thinking at the organisational level • Create slack in organisations to respond to crises, but also leave room for development and innovation work
Development responsibilities fall on few people with very full portfolios: lack of dedicated resources with right skills, capacities and resources (incl. time)	• Analyse where development, innovation and experimentation support tasks fall within public sector organisations and create dedicated structures for their support
Unequal spread of transformative leadership capabilities both in PA and politics	• Continue leadership development programmes incorporating anticipatory innovation capacity elements target to both PA and political leadership
Perception that foresight and innovation are side-of-the-desk activities and not part of core processes Performance management systems do not support cross-government aims and anticipation/innovation	• Create clear expectations that innovation, experimentation and foresight are part of business as usual and are capabilities that are valued in staff and in organisations
Fear of close media scrutiny and making mistakes – internal legitimacy overrides external legitimacy	• Create programmes to increase futures literacy of media, involving them early in the process and make the purpose and expectations clear • Promote risk-taking and safe failing approaches in the public sector and facilitate learning from the former
Engineering mind-set and preference for forecasting standing in the way of systems innovation, yet digital skills and background have been very beneficial in modernising the public sector	• Highlight skills and capacities that are associated with positive transformation and modernisation of the public sector • Make clear how to use data from alternative sources and how to integrate foresight and experimental knowledge into evidence informed decision making • Acknowledge that not all aspects of uncertainty can be tackled and cognitive biases connected to the future need to be openly dealt with

Budget and resource allocation. The results of the analysis showed that often budget allocation and strategic steering in the Finnish government serve different aims: the first enforcing organisational silos, while the other emphasising cross-governmental goals. There are a variety of improvements that could be made to make resource allocation more iterative and agile, including more flexibility in government transfers, budget monitoring tools etc. Alongside more incremental improvements, phenomenon-based budgeting could act as a more transformative approach, tackling co-ordination and organisational issues while including anticipation and innovation in the budgetary process. Setting up phenomenon-based resourcing and budgeting pilots can also shed light on how to counter the effects of organisational silos.

Main Findings	Key considerations
Budget and resource allocation	
Budgetary steering processes and strategic steering do not account for consideration of futures and foresight	• Review the timeframes connected to strategic decisions on the Government Programme and increase flexibility of the simultaneous budgetary planning system with the possibility to re-evaluate the budget according to strategic directions • Include a long-term vision into the budgetary process that utilises strategic foresight inputs and also aligns itself with the government's long-term plans
Money does not follow problems: budget allocations are not phenomenon/user centric nor are allocations holistically aligned with the challenges involved Aligning commitments across organisational budgets at the same time is very difficult	• Implement clear monitoring and evaluation tools that are outcome and phenomena specific and make government investments visible • Make trade-offs between different policy areas visible
Phenomenon-based narrative widely in strategy, but does not work in practice	• Pilot and test phenomenon-based budgeting which also allow for joint budgets between ministries and cross-ministerial taskforces
Ability to make agile and iterative changes to projects once the situation develops	• Consider ways to make the budgetary process more iterative and agile and look for ways to create stability in long-term funding in areas with longer time horizons • Look for ways to include innovation and experimentation in the budgetary process giving alternatives to funding routes

Policy cycles and continuity of reforms. Policy cycles and political factors play a large role in anticipatory processes. One of the recurring topics in the interviews and validation sessions was that strategies do not lead to action. Time for proper implementation is too short to develop theories of change and operationalise and evaluate changes on the ground. Effective implementation of reforms and tackling complex challenges is highly dependent on policy cycles that disrupt continuity of reforms and follow-through, leading to the proposal of additional institutionalised transition processes for switching of governments. The Government Programme tends to spur on actions, but is often of varying strategic quality and leads through proposing solutions rather than giving strategic direction.

Thus, the conducted research indicates a need to account for the chronological distance between developing visions for alternative futures and their implementation which often spans across several policy cycles. Anticipatory mechanisms could help bridge this gap by reducing time-to-implementation of policies (e.g. through constant iteration and testing). This becomes especially acute in many policy areas, where changes are speeding up and public sector is getting closer to real-time policy making. To assure the continuity in development, mechanisms are needed that allow to continue policy exploration and development across policy cycles supported by new evaluation and measurement procedures.

Main Findings	Key considerations
Policy cycles and continuity of reforms	
Lack of formal transition procedure between administrations	• Pilot different transition procedures between administrations including the role of civil servants
Role of public administration and politicians in complex and long-term policy issues unclear and subject to (hidden) power relations	• Clarify the roles politicians and civil servants need to play within a long-term anticipatory innovation governance system
Strategies do not lead to action – time for proper implementation is too short to develop theories of change, operationalise and evaluate changes on the ground	• Develop actionable theories of change connected to strategic goals that are realistic to the effort and resourcing to deliver • Ensure that policy makers are actively involved in the ongoing evaluation of policy implementation
Myth of implementation not being part of strategic policy making stands in the way of experimentation and agile/iterative policy making	• Ensure flexibility and learning from the implementation process • Leave room for experimentation and innovation: e.g. create testbeds to see how different options would work in practice
Government Programme as future-seeking moments and catalysers, but of varying strategic quality	• Agree on the level of technical detail for the Government Programme and leave room for innovation and experimentation • Create stress-testing moments for the Government Programme that are open and transparent

Co-ordination across government challenges. The conducted research shows that the Government of Finland is still characterised by very strong silos. When new, cross-governmental issues arise, responsibilities are assigned in ad hoc ways, lacking clarity of process. There is a possibility to explore organisational solutions for cross-cutting challenges. For example, by increasing mobility across silos or creating dedicated challenge-based teams (e.g. phenomenon taskforces), within or spanning across public-service institutions.

Main Findings	Key considerations
Co-ordination across government challenges	
Budget, regulatory and strategic steering enforce different aims: strategic vs organisational	• Set up a process by which these aims and incentives could be synchronised
Very strong governmental silos	• Counter silo mentality by creating stronger counter-structures to work in a horizontal manner (e.g. phenomenon-based taskforces) • Increase staff rotation in government to provide a more natural exchange of knowledge between sectors, possibly accompanying phenomenon initiatives • Set up demonstration cases around cross-government issues on how to tackle cross-government challenges led by central steering bodies (including a variety of organisational and leadership level solutions)
When new, cross-governmental issues arise, responsibilities are assigned in ad hoc ways: lack of clarity of process	• Set up concrete procedures to analyse different types of policy problems based on their uncertainty and complexity • Outline responsibilities for different ways in which policy problems could be assigned
Diverging ideas on how to tackle co-ordination issues: through stronger organisational reforms or softer mind-set/leadership tools	• Analyse in greater detail how co-ordination issues could be tackled and which options – structural and leadership level – would be the most viable • Use foresight and futures thinking to explore different avenues of reform and use prototyping and other innovation tools and methods to create possible pilots/experiments on how these issues could be tackled and tested in practice

In addition to the key findings and considerations during the process, participants in the validation workshops suggested concrete opportunity areas and pilot ideas. These are presented in Table 6.5 below.

Table 6.5. Opportunity areas and pilot ideas

Findings cluster	Pilot examples and ideas
Futures and foresight	• Opportunity to organise cross government topical foresight exercises with citizens • Counter backlash against considering negative futures by piloting a futures literacy programme for the medial • Build stress-testing methodologies and toolkits for strategic planning with permanent state secretaries
Public interest and participation	• Pilot citizen-led deliberative futures exercises that could help counter silo effects in government. These could include superforecasting, AI matchmaking, seamless services, deliberative process, gender budgeting and human rights budgeting with a future generations perspective
Alternatives exploration	• Opportunity to identify natural experiments and set up a learning system around them • Test solutions for common sandboxes and datasets to make experimentation easier • Opportunity to direct part of "*tulosohjaus*" to produce learning. Pilot experimental academy, agile funding, experiment with civil servants' responsibilities in relation to AI
Individual and organisational capacity	• Opportunity to establish teams based on societal challenges and opportunities rather than representatives from ministries and agencies • Create guides to roles for anticipatory innovation governance in the public sector, such as a 'field expert' (also in innovation and futures; policy makers and decision makers and leaders both administrative and political)
Budget and resource allocation	• Opportunity for anticipatory innovation governance pilots in phenomenon-based budgeting pilot • Pilot an open budgeting platform, across policy area budget lines, ex ante/ex post prescriptive budgeting
Policy cycles and continuity of reforms	• Opportunities seen in the parliamentary process as part of the long-term committees, but it is not clear if it works in practice, hence, more learning needed • Opportunity to experiment with transition processes for the next administration and set up different experimental transition protocols

Findings cluster	Pilot examples and ideas
	• Opportunity to build on capacities developed in the COVID-19 crisis to introduce more scientific input to policy making and integrate experimentation and innovation more with evidence-informed policy agenda
Co-ordination across government challenges	• Opportunities in sustainability roadmap 2030 to showcase new approaches • Opportunities in the field of continuous learning • Opportunities in EU recovery fund and experimentation with new processes; the Democracy Programme • Pilot state-level strategic transformation office, agile team-of-teams pilot

Source: OECD based on information collected in the validation workshops.

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Notes

[1] See further (Statistics Finland, 2018[77]).

[2] Sitra is a Finnish Innovation Fund, which is an independent public foundation operating directly under the supervision of the Finnish Parliament. In 1967, the Finnish Parliament established Sitra as a gift to celebrate the 50th anniversary of the country's independence. The Bank of Finland granted approximately EUR 84 million to Sitra as endowment capital to generate future profits to finance future-oriented projects. At the end of 2020, the endowment was valued at market value of EUR 976 million. See further (Sitra, 2021[81]).

[3] See further (Sitra, 2020[75]).

[4] Committee of the Future, 2018. See further (Parliament of Finland, 2018[79]).

[5] See for example (RSA, n.d.[76]; UNICEF, n.d.[74])

[6] The Tietokiri project was launched in November 2017 and will continue to the end of 2021. The programme aims to collect enterprise level data from shared service providers from their operational areas; entitle shared service providers (State Treasury and Palkeet for finance and HR) to use the data in managing and developing government; provide consultative service to government agencies in analysing and making use of data; seek productivity gains and other benefits in order to develop and manage government as a whole; and promote models, best practices and build capacity to data-driven decision-making in central government (Siltanen and Pussinen, 2020[73]).

[7] The traditional role of regulatory sandboxes is to incubate innovation and allow innovators to test new technologies and enable regulators to understand their implications.

[8] Solutionism refers to the idea that the right idea can solve any problem effectively without any friction from implementation.

[9] Read further in about (Innovation Barometer, 2020[78]).

[10] Recency, availability and status quo biases are cognitive biases. The first favours recent events over historic ones. The second denotes a tendency to think that examples of things that come readily to mind are more representative than is actually the case. Lastly, status quo bias leads people to prefer things stay as they are or that the current state of affairs remains the same.

[11] National elections are usually held on the third Sunday of April in the election year, unless Easter affects this schedule, which means that the new government forms at the end of May at the earliest (and in previous years in the second half of June).

[12] See further (OECD, 2016[80]).

[13] Developmental evaluation is an approach that assumes a long-term relationships between evaluators and project or programme staff as evaluation is ongoing, meaning that feedback can be provided on a continuous basis. Development evaluation is especially appropriate in circumstances where the work is done in complex or uncertain environments.

Part III Pilot case studies

7 Pilot selection and methodology

Experimental cases for anticipatory innovation should explore unknowns and unexpressed values or the impacts of uncertain future events. The chapter outlines the methodology by which the four pilot case studies – on continuous learning, carbon neutrality, child well-being and collaboration between politicians and public officials – were selected. Factors such as variety of case content, ownership, alignment with policy priorities grounded the selection. A collective sense making and scoping sessions with experts in Finland followed to prepare the content of the pilots.

> "I have sometimes been asking this question: if our governance system of Finland had never been invented, what kind of system would we invent now?" - Senior executive in the Government of Finland

The OECD Observatory of Public Sector Innovation (OPSI) is working with the government of Finland and the European Commission to examine how Finland's governance processes and mechanisms can be refined to deal with complex and future challenges in an even more systemic manner. As part of this work, four policy domains have been identified as case studies to gain greater understanding and pilot initiatives to build further Finland's anticipatory capacity: **carbon neutrality, continuous learning, child-well-being, and collaboration between politicians and public officials.**

This assessment has highlighted a variety of issues related to the anticipatory innovation governance system in Finland, and identified small and large changes that could help address these. How can these changes be made in reality? The next step is to develop a working anticipatory innovation governance model based on the findings of the assessment report. This prototype will be tested through four experimental cases in Finland and will help to tackle some of the challenge areas specific to Finland. The cases should inform learning about the effective governance of anticipatory innovation, demonstrating how Finland's governance structures can deal with shifting values, new public expectations, uncertain future shocks and a variety of preferable futures that the country wants.

In April-May 2021, the OECD developed case selection criteria (Box 7.1) and discussed these with the high-level advisory board. In order to include the widest potential variety of governance mechanisms in the experimental cases and to address areas with disruptive potential, the OECD proposed including cases:

- Involving deliberative or public participation methods, but with the flexibility to adapt them with future-orientation in mind.
- Involving how leaders, both administrative and political, engage in shared sense making of knowledge about the future.
- Involving a forum in which trade-offs are discussed and explored, but not necessarily decided
- Addressing cross-government co-ordination and resourcing.
- Addressing continuity and long-termism beyond political cycles.
- Addressing anticipatory innovation capacity issues in ministries both on the political and administrative levels.

Box 7.1. Criteria for a good anticipatory innovation governance pilot

Experimental cases for anticipatory innovation should explore unknowns and unexpressed values or the impacts of uncertain future events. For these projects, cause and effect can be difficult or impossible to predict and often challenging to connect, even indirectly and after the experiment. Deductive reasoning is not the primary logical basis for these experimental cases. While research questions may serve as guidance, hypotheses, quantitative evidence and control groups are not well suited to an anticipatory innovation approach.

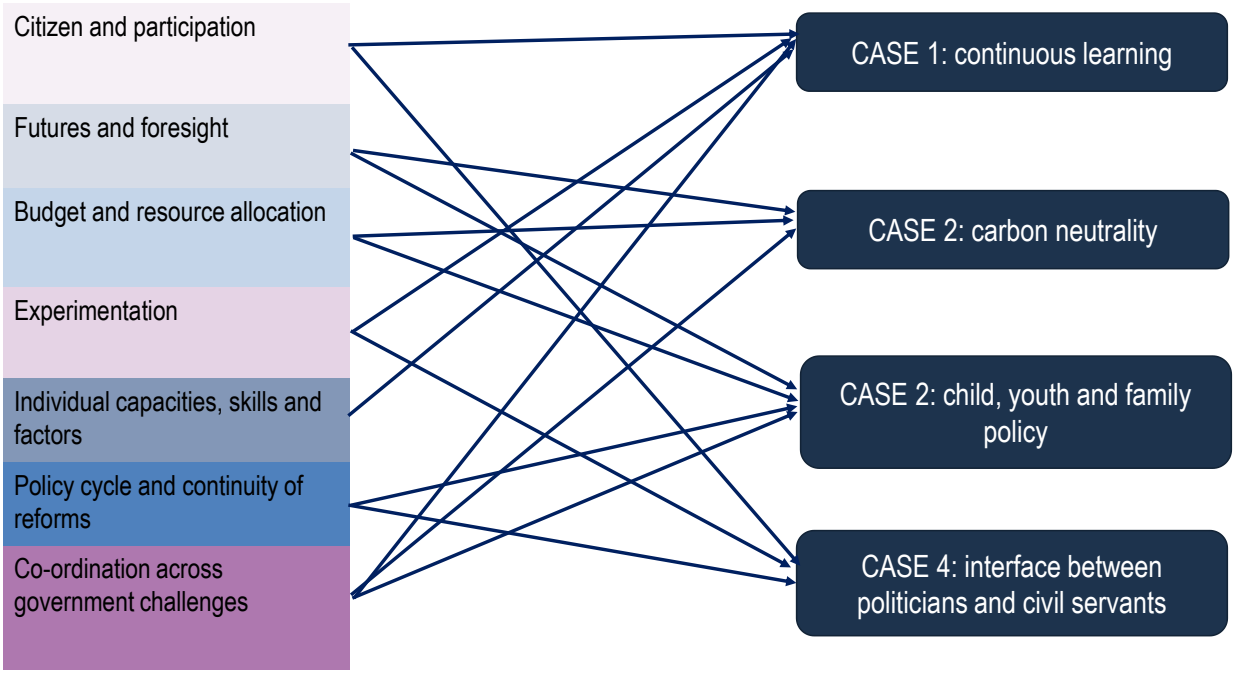
Characteristics of a good pilot

- **Variety** – One of the outcomes of the overall anticipatory innovation governance project is to inform an emerging model, so pilots should represent a variety of different mechanisms in terms of both authorising environment and agency (see Figure 7.1). The cases should also be varied across different policy sectors.
- **Significance** – The cases should be in policy areas that are important to the Government and serve as a significant demonstration case.
- **Ministry-level ownership** – Cases should have top-level legitimacy but should not be subject to the same administrative constraints and evaluation methods as other innovation projects. Cases should be relevant to national government but can also be cross-governmental and involve agencies.
- **Willing partners** – Cases should involve trusted relationships with project-owners in Finland. Experimental case owners and the OECD should be able to have frank and direct conversations about the experimental cases, both to design them well and to learn from them.
- **Alignment with current priorities** – Given the limited duration of this project, and the need for both topical legitimacy and on-the-ground experimental case operational support, cases should involve ongoing work areas or work planned for 2021 or have a clear window of opportunity to propose/prepare change.
- **Do no harm** - Experimental pilots should reveal and uncover unknowns and surprises. Invariably operating in emerging policy the impacts might not be known up front or to be benign or positive.
- **Avoid entrenched positioning** – There are certain topics for which cultural narratives are deeply entrenched or about which open discussion is more difficult due to strong positioning by politicians or interest groups (e.g. immigration, employment policy). These topics should be avoided to allow for open exploration in the experimental cases.

Source: OECD.

Based on the discussion at the previous advisory board meeting and the following outreach, the OECD chose to support cases in four areas: 1) continuous learning; 2) carbon neutrality and evidence about the future; 3) children, youth and family policy; and 4) dialogues between politicians and leading civil servants on anticipatory innovation governance roles. Figure 7.1 illustrates how the case topics are connected to the challenges outlined in the assessment of the Finnish government system (Part II).

Figure 7.1. Planned cases and their ties to thematic cluster areas



Source: OECD.

The cases are outlined as follows:

- **Continuous learning and implementation of reforms.** One of the most frequent challenges described in the prior research was the ability to implement strategic visions in complex policy areas. Finland has been working on a strategic approach towards continuous learning over the last decades and has one of the most successful skill-development systems among OECD countries. Yet trends such as ageing and digitalisation are now challenging the system. The OECD conducted a review on the topic last year concluding that the Finnish skill-development system must get future-ready (OECD, 2020[1]). One of the goals here is to develop a new forward-looking system with partners from the public, private and third sectors participating in a continuous learning centre that anticipates and tests future needs in the policy area. The case will analyse how this future-oriented implementation system could look like in the context of continuous learning centre and what the new engagement model it would entail. The reform is supported by a parliamentary group that started its work in 2019, making a roadmap for the reform. In autumn 2019, Sitra facilitated the first phase of the work by applying constructive dialogue methodologies to facilitate the discussion between stakeholders in the policy area.
- **Carbon neutrality and evidence about the future**. Much of policy making today, especially macroeconomic policy, depends on forecasting and predictions based on existing data. These models are probabilistic and only capture a small set of future possibilities. They tend to discount more transformative change that is difficult or impossible (due to complexity and uncertainty) to model robustly using quantitative methods. In complex policy situations like climate change, these models rarely illustrate the conditions in real life. This case will look at the anticipatory knowledge base, decision-making mechanisms and institutional roles of ministries in facilitating one of the biggest transitions of our lifetime: the green transition. The case will highlight which tools are needed to take anticipatory climate needs into account in macroeconomic policies and how climate actions could be better supported by macroeconomic policies in a future-oriented way. This is a topic where the learning could be shared across countries as Finland is the current acting chair of the initiative "Finance Ministers for Climate Action."

- **Steering change across government levels in the area of child well-being**. In 2020 Finland adopted its first ever National Child Strategy, which aims to create a more child- and family-friendly Finland. The strategy concentrates on developing a vision that spans across government terms and crosses administrative boundaries. Beyond the vision, many multi-level governance and co-ordination challenges emerge. A key issue is how to co-ordinate challenges specific to the area and support mechanisms of the future to deliver on the strategy. The Ministry of Finance has been working on the topic of phenomenon-based budgeting in connection to the strategy. Project leaders would like to explore what would this look like and how it could be incorporated into the anticipatory innovation governance model. Tackling these questions will help address several themes coming out from the research conducted by the OECD: policy cycles and continuity of reforms, resource allocation and co-ordinating across government challenges.
- **Interface between politicians and public officials on their role in anticipatory innovation governance**. A well-functioning interface of politicians and leading civil servants is a vital part of public governance. Acknowledging the mutual roles, functions, processes and challenges connected to anticipation is vital for a new governance system. This topic has come out across the anticipatory innovation governance themes, from complex and long-term policy issues to knowledge creation and advice by civil servants. The case will take the format of joint dialogues between politicians and leading civil servants around the identified anticipatory innovation governance themes. Each dialogue will be undertaken by different groups of six to ten individuals, with positions divided equally between politicians and civil servants. The dialogues will be facilitated by the Finnish project secretariat and the OECD will use the insights for a guidance document on the emerging roles and communication mechanisms.

All of the pilot case studies were scoped in workshops with experts in Finland September and October 2021 after which core outputs were defined in project plans by the end of 2021. The pilot cases were developed and supported until April 2022. All the cases benefited learning sessions with international peers and owners of similar challenges, facilitated by the OECD. For each pilot case study a taskforce in Finland with relevant experts was assembled (see Annex B). The taskforces convened to discuss the issues connected to the case and co-create in workshops and meetings a way forward. In parallel, OECD consulted both internal and external experts, international peers for the relevant learnings to the case. Case on the relationships between politicians and public officials (Chapter 5) was conducted slightly differently as the Timeout dialogues (see further in Chapter 5) were organised by Finland which generated essential insights to challenges. OECD for the sake of the impartiality of the process and robustness of the methods did not participate in the dialogues, but relied on anonymised notes for the analysis. The findings and recommendations of all pilot case studies were validated in expert workshops at the end of May 2022. The findings of the cases fed into the revision of the anticipatory innovation governance model (Part I, Chapter 3).

Following sections will present the summary findings of the pilot case studies and their similarities, convergences (Chapter 2), which is followed by detailed descriptions of the pilot cases on continuous learning (Chapter 3), carbon neutrality and evidence about the future (Chapter 4), child well-being (Chapter 5) and collaboration between the politicians and public officials (Chapter 6). The chapters can be read independently from each other as they outline the pilot case studies in detail starting from the context of the specific case (based on semi-structured interviews and desk analysis), purpose of the research, and outline of current anticipatory activity, gap analysis and recommendations for improvement. As mentioned above, all pilot ca studies also feature international case studies and learnings from peer sessions. The cases were selected based on their potential to provide relevant insights into forms of collaboration in the context of AIG in general and in Finland more specifically.

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8 Summary findings and comparison of the pilot case studies

This chapter introduces the summary findings of the case studies in a comparative perspective. Specific learnings from each of the pilot case study for the anticipatory innovation governance model are outlined together with the tailored approaches and recommendations for each of the policy fields. Throughout the pilot case studies re-occurring topics connected to working across silos, co-ordination, collaboration and the systematic use of anticipatory innovation approaches emerged.

All the selected cases had a strong commonly understood need for future-consciousness and anticipatory approaches. Case pilot case studies had some elements of anticipatory action already in place be it through forums that looked through the future or medium- or long-term plans. Below the cases are summarised outlining the key challenges and developments of the work. In following chapters (3-6) the pilot case studies are covered in detail and can be read separately from the rest of the report.

Continuous learning

The world of work is continuously transformed by the complex interaction of trends such as automation, climate change and an aging population. The changes they precipitate affect the demand for skills: jobs and tasks in one sector may disappear while others emerge which require new combinations of competencies. According to OECD estimates, 46% of jobs may experience significant change or be automated in the coming 10 to 20 years (Nedelkoska and Quintini, 2018[1]). In addition, these trends alter demands for the provision of learning: new forms of self-employment such as 'gig-work' may create opportunities for individuals to learn at times that suit them, but they also challenge expectations about employers' role in skill development.

Against this backdrop, Finland has recognised the need for a reform of continuous learning to create a system that is able to anticipate and respond to changes in the demand for skills and learning across the labour market and broader society. The Continuous Learning Reform project was initiated on 25 September 2019, and is due for completion on 31 March 2023. This pilot case engaged representatives from the Ministry of Education and Culture, Ministry of Economic Affairs and Employment, Ministry of Finance, Ministry of Social Welfare and Health, and the Service Centre for Continuous Learning and Employment to explore together how anticipatory innovation governance could facilitate the development and implementation of the Continuous Learning Reform. This group was known as the Continuous Learning AIG Taskforce.

In order to identify gaps and challenges, the OECD conducted online group interviews with 21 representatives from labour market organisations, educational institutions, central government and regional government in Finland. This research was complemented by a review of government papers and reports, academic texts and grey literature relating to continuous learning in Finland and around the world. Working with the Taskforce, the OECD identified the following challenges for the development of an anticipatory continuous learning system in Finland.

The work identified three types of challenges: 1) co-ordination challenges; 2) anticipatory information challenges; and 3) issues concerning funding of continuous learning. These can be summarised as follows:

Co-ordination challenges

- The system for continuous learning is complex and effective implementation of the reform is reliant on the consistent action of autonomous stakeholders across Finland
- Co-ordination of the reform requires a consistent shift in mind-set and practices among these stakeholders
- Governance of the system must co-ordinate stakeholders horizontally and vertically

Anticipatory information challenges

- Anticipatory information is regularly produced but fragmented and not used in a systematic fashion to inform policy or curriculum planning
- Information related to continuous learning is complex and uncertain. There is a need for a collective approach for interpreting anticipatory information and the impact of trends and challenges on the labour market and continuous learning system
- Anticipatory information must better serve the needs of stakeholders

Issues concerning funding of continuous learning

- There is a lack of clarity around funding responsibilities for continuous learning
- Current funding model for adult learning (free or low-cost) provides few levers to promote training for anticipated in-demand skills
- The benefits of continuous learning are realised in the long-term and distributed among a wide range of actors – this means 'urgent' concerns often take precedence

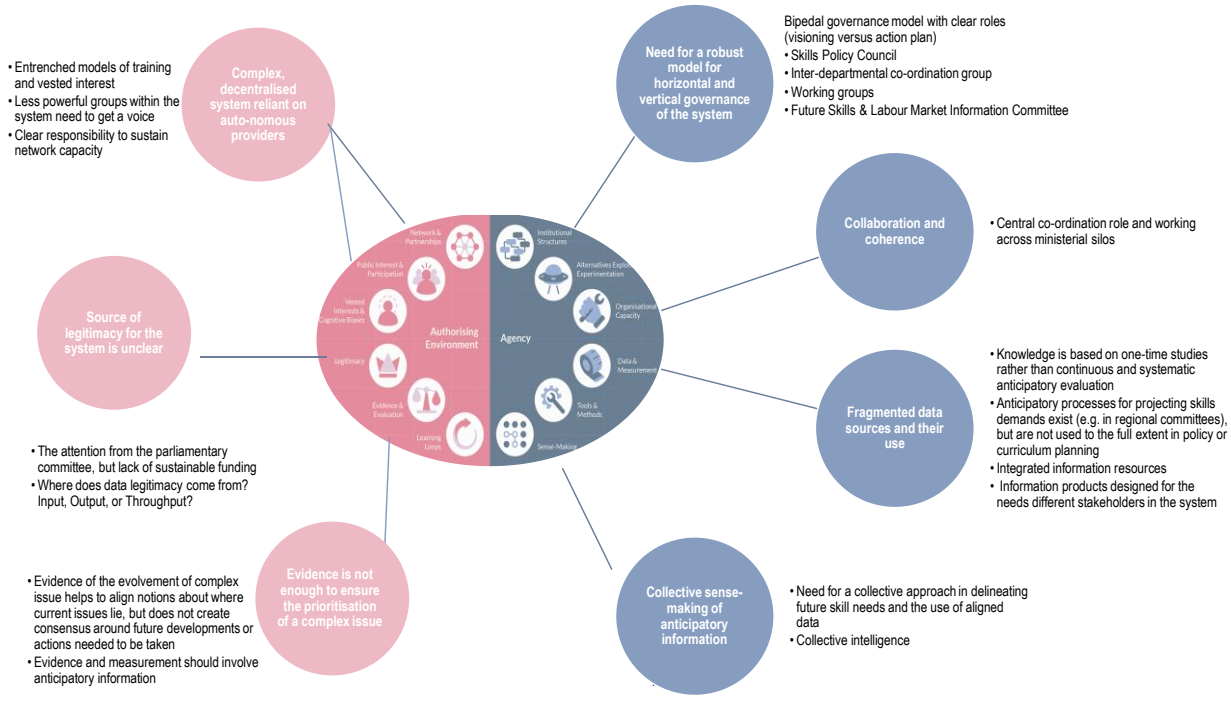
Given the complex and context-specific challenges relating to finding, it was decided with the Taskforce to focus on the first two challenge areas in this pilot. Recommendations pertaining to those were developed through the consideration of the anticipatory innovation governance model (Tõnurist and Hanson, 2020[2]) and analysis of good practice in international cases.

The OECD proposed a 'bipedal' governance model in which one 'leg' engages key government and non-government stakeholders in co-ordination for decision-making, while another 'leg' ensures that relevant anticipatory information is identified and interpreted through collaborative processes. Four key principles were proposed as foundational for governance through the model.

- The continuous learning system will function most effectively if the autonomy and knowledge of stakeholders is respected and leveraged
- Governance structures should establish meaningful and fair co-operation with relevant ministerial and non-government stakeholders throughout the policy process
- A shared understanding of information about jobs and skills is a core pillar of co-ordination for continuous learning
- The application of anticipatory approaches should aim to do more than facilitate timely matching of skills to jobs

For the overall anticipatory innovation governance model (see Figure 8.1 below), the pilot case study showed that collective sense-making of anticipatory information is vital to enable co-ordinated action among stakeholders trying to address complex phenomena. Leveraging the knowledge of networks and partnerships can help to build a better understanding of the diverse future challenges associated with complex phenomena such as the changing demand for skills. Such participation also builds the legitimacy of a shared information resource, which can be relied upon by different stakeholders as a foundation for shared decision-making. Anticipatory information must be packaged in ways that help stakeholders to address their jobs to be done. Level of integration of anticipatory data sources (data and analytics) and the collaborative networks it depends on is crucial for action in complex policy domains. Regular use of anticipatory approaches should allow stakeholders to align on objectives, and stress-test and readjust strategies Regular collaboration and engagement of high-level stakeholders in complex issues is essential for their prioritisation, however, holding the attention of senior decision makers is difficult with competing day-to-day issues. There must be functions in government that call for senior decision makers to continuously engage with complex issues and anticipatory information. The summary findings from the pilot case study are presented in Table 8.1 below.

Figure 8.1. Gaps in anticipatory innovation governance mechanisms: Case of continuous learning



Source: OECD.

Table 8.1. Summary of the continuous learning pilot case study

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
• Components of the system are advanced (e.g. existing data sources), but overall anticipatory capacity is fragmented and projections are not aligned • Knowledge is based on one-time studies rather than continuous and systematic anticipatory evaluation • Anticipatory processes for projecting skills demands exist (e.g. in regional committees), but are not used to the full extent in policy or curriculum planning	Co-ordinated reform: • Complex, decentralised system reliant on autonomous providers • Shift to continuous learning requires a shift in mind-set and practices from education providers • Need for a robust model for horizontal and vertical governance of the system Sub-optimal use of anticipatory information: • Fragmented information sources • Information is complex and uncertain. Need for a collective approach in interpreting anticipatory information and the impact of trends and challenges on the labour market and continuous learning system. • Need for anticipatory information to better serve the needs of stakeholders Lack of sustainable funding: • Lack of clarity around funding responsibilities for continuous learning • Current funding model for adult learning (free or low-	The Continuous Learning Reform 2019-2023: • Key creation of a Service Centre for Continuous Education and Employment (Service Centre) • Enhancing co-operation between employers and education providers Anticipatory information: • New model for medium term skills anticipation • New reporting system to make anticipatory information more accessible	• High-level strategic governance through collaboration with non-governmental stakeholders in NOR and DE (Skills policy councils) • Working level co-ordination between ministries and with some non-governmental stakeholders in NL • Governance of (anticipatory) information about skills and jobs in NOR & EST (Labour Market Information Committees)	Bipedal governance model with clear roles (visioning versus action plan): • Skills Policy Council • Inter-departmental co-ordination group • Working groups for specific issues • Future Skills & Labour Market Information Committee • Collective intelligence • Integrated information resources • Information products designed for the needs different stakeholders in the system Key principles for anticipatory governance of continuous learning: • The continuous learning system will function most effectively if the autonomy and knowledge of stakeholders is respected and leveraged • Governance structures should establish meaningful and fair co-operation with relevant ministerial and non-government stakeholders throughout the policy process • A shared understanding of anticipatory information about jobs and skills is a core pillar of co-ordination for continuous learning • The application of anticipatory approaches should aim to do more than facilitate timely matching of skills to jobs, for example promoting a shared vision	**Learnings for the AIG model:** • Collective sense-making of anticipatory information is vital to enable co-ordinated action among stakeholders trying to address complex phenomena • Leveraging the knowledge of networks and partnerships can help to build a better understanding of the diverse future challenges associated with complex phenomena such as the changing demand for skills. Such participation also builds the legitimacy of a shared information resource, which can be relied upon by different stakeholders as a foundation for shared decision-making. • Anticipatory information must be packaged in ways that help stakeholders to address their jobs to be done. Level of integration of anticipatory data sources (data and analytics) and the collaborative networks it depends on is crucial for action in complex policy domains. • Regular use of anticipatory approaches allows stakeholders to align on

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
	cost) provides few levers to promote training for anticipated in-demand skills • Benefits of continuous learning realised in the long-term and distributed among a wide range of actors – this means 'urgent' concerns often take precedence			and stress-testing strategies Anticipatory Continuous Learning Governance: • High-level strategic governance with non-governmental stakeholders ensures that policy decisions are perceived as legitimate • Working-level co-ordination across ministries enables co-ordinated responses to future and present changes in the system and its context • Shared governance with non-governmental stakeholders of anticipatory labour market information ensures that it is consistently understood, legitimate and addresses the needs of stakeholders throughout the system	objectives, and stress-test and readjust strategies. • Regular collaboration and engagement of high-level stakeholders in complex issues is essential for their prioritisation, however, holding the attention of senior decision makers is difficult with competing day-to-day issues. There have to be functions in government that call for senior decision makers to continuously engage with complex issues and anticipatory information.

Source: OECD based on the analysis presented in Part III, Chapter 3.

Carbon neutrality

Finland aims to be carbon neutral by 2035 and eventually become the world's first fossil-fuel free welfare society. Carbon neutrality means that emissions and the sinks that sequester carbon are in balance or that greenhouse gas (GHG) removals are as high as the emissions produced by humans. Finland is also party to the Paris Agreement, which sets per country GHG emission mitigation targets, or nationally determined contributions.

Achieving this balance is not easy. Carbon neutrality is characterised as having numerous interconnected factors, incomplete and contradictory information, and no clear idea of what an ideal solution would be if it existed. The field is subject to evolutions and transformations in the future involving society, technology, environment, and the economy. It is therefore increasingly necessary for a network of domains to address this wicked problem in concert. Finland has demonstrated a commitment to a networked approach through the creation and renewal of its Climate Change Act, and the creation of the Climate Policy Roundtable, an advisory body set up in 2020 and chaired by the Prime Minister. These initiatives engage a wide range of stakeholders to develop plans and strategies to attain carbon neutrality.

However, no governance model—even with the most successful of reforms—can deliver support to transition to carbon neutrality unless it has the ability to constantly perceive, understand, and act upon the changes of the future as they emerge. For this reason, the Government of Finland sought to work with the OECD to explore how anticipatory innovation governance approaches could be applied to support the country's transition to carbon neutrality. The OECD worked with the Ministry of Environment, the Ministry of Economic Affairs and Employment, the Prime Minister's Office, and the Ministry of Finance, which co-chairs an international Coalition of Finance Ministers for Climate Action.

Climate change policy plans in Finland have been produced for the medium-term and long-term by the Ministry of the Environment and the Ministry of Economic Affairs and Employment, respectively. The National Climate Change Adaptation Plan 2022 was published by the Ministry of Agriculture and Forestry in 2014-15 and was reviewed in 2020. Although the plans are comprehensive and detailed, the OECD found that they lack a systemic engagement with uncertainty, for instance relating to energy imports, regulations, and the effectiveness and timing of proposed emissions reduction measures.

The pilot case identified additional challenges that inhibit consistent anticipatory action to achieve carbon neutrality:

- Traditional approaches to forecasting, planning, and evidence do not engage with uncertainty in policy making and budgeting.
- Responsibilities for achieving carbon neutrality are divided between a wide set of actors both on the national and subnational levels, making co-ordinated action challenging.
- Ambitious carbon measures are cross-cutting and require sense-making across different government levels that is currently not undertaken.

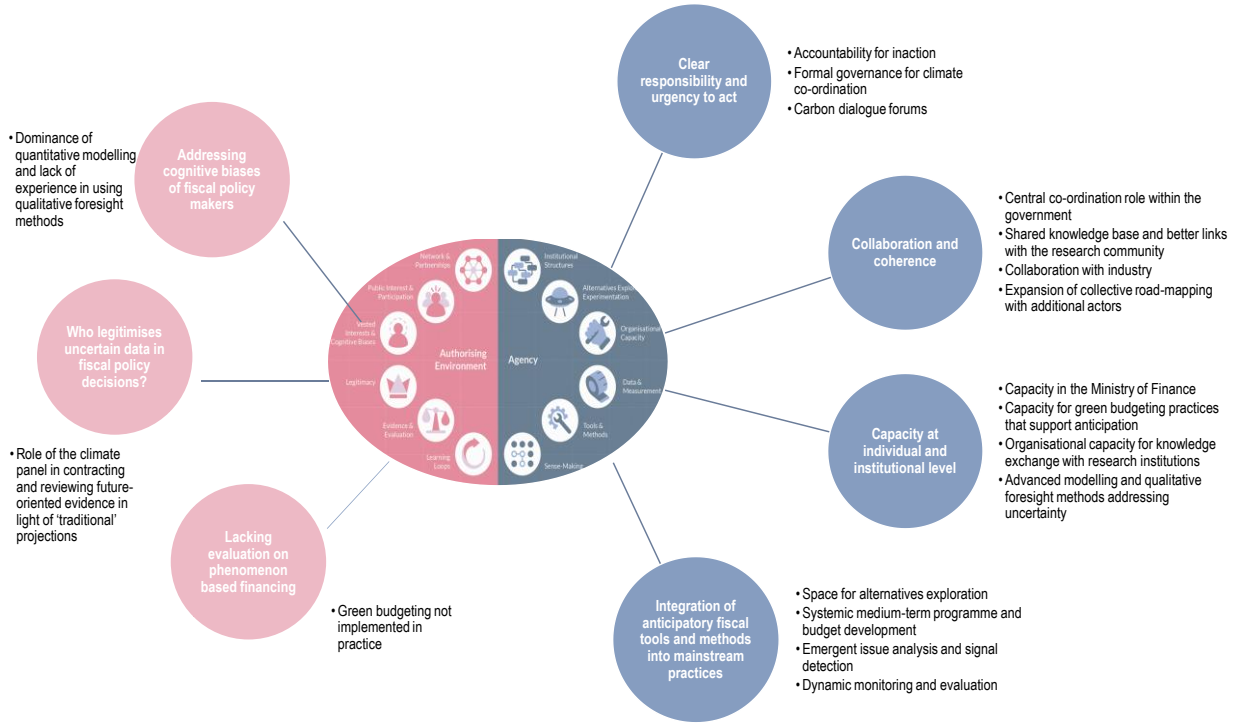
In order to for Finland to develop and act on anticipatory strategies for carbon neutrality, the OECD considers that the country should prioritise the following actions:

- Creating responsibility and urgency to act: setting clear accountability, roles, functional mandates, and resources.
- Collaboration and coherence: overcoming silos between ministries, facilitating expert and political consensus around policy measures and information gaps, and creating whole-of-government sense-making and decision forums.
- Capacity development: building expertise, capabilities and tools at an individual and institutional level.

- Integration of green fiscal practices into the mainstream: alternatives exploration, dynamic monitoring and evaluation, alignment of decision-making cycles (i.e. budget, strategy, planning).
- Holistic medium-term strategic planning: systems approach, engagement with uncertainty, bridging short-term cycles and long-term ambitions.

The pilot case study highlighted for the overall anticipatory innovation governance model (see Figure 8.2) the importance to pay attention to cognitive biases and vested interests in implementing new tools and methods need to be taken into account as much as the capacity to use the latter. The case showed that organisational cultures and structures are not supportive in hiring or building up anticipatory capacities and alternatives exploration is often not directly aligned with their immediate priorities or expert biases. It is difficult to create demand for new approaches that are uncertain in nature and do not fall into anyone's specific field of responsibility. Creating demand for anticipation should be a core feature of the anticipatory innovation governance system. It is clear that creating responsibility to act on complex, systemic challenges through functional mandates does not happen a priori. There must be a follow up function that evaluates if the work is actually undertaken and urgency is created by establishing dynamic evaluation and accountability for inaction. Co-ordinating across government challenges requires an actor who has the legitimacy to convene and incentivise both politicians and civil servants to work transversally across existing silos. Similar to the continuous learning case, there is a broader lack of capacity to support signal detection on the policy ecosystem level and the analysis of that information on a continuous basis. The summary findings from the pilot case study are presented in Table 8.2 below.

Figure 8.2. Gaps in anticipatory innovation governance mechanisms: Case of carbon neutrality and uncertain evidence



Source: OECD.

Table 8.2. Summary of the carbon neutrality case

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
• Very ambitious climate target set at a high political level for 2035, but not yet entirely on track to achieve it • Annual Climate Change Report drawn up by the MoE and presented to the Parliament • Existence of long-term climate change policy and climate change adaption plans • Legitimacy from various expert bodies including the Finnish Climate Change Panel and the Coalition of Finance Ministers for Climate Action	• Traditional forecasting, planning, and evidence discounts uncertainty in policy making and budgeting particularly • Responsibilities divided between a wide set of actors both on the national and subnational levels • Ambitious carbon measures are cross-cutting and require legitimacy to act, sense-making across different government levels that currently are not undertaken • The Finland's decarbonisation plans are quite detailed, but they lack a systematic engagement with uncertainty. Scientific knowledge is rapidly changing and policy needs to keep pace	• In 2015 the first Climate Change Act adopted with following medium-term and long-term strategies and national adaption plans • Finland's Climate Policy Roundtable, an advisory body set up in 2020	• Physical and transition risks in modelling practices in Switzerland, the EU, US, UK, NZ, AUS region of New South Wales • Organisational capacity for climate risk modelling: UK Treasury, NZ, DK, the NL • Climate-related uncertainty in fiscal policy: EU, NZ • Tracking climate related expenditure: EU • Future-oriented decision making: the NL	• Creating responsibility and urgency to act: setting clear accountability, roles, functional mandates, and resources • Collaboration and coherence: Overcoming silos between ministries, expert and political coherence around policy measures and information gaps, and whole-of-government sense-making and decision forums • Capacity: building expertise, capabilities and tools at an individual and institutional level • Integration of green fiscal practices into the mainstream: alternatives exploration, dynamic monitoring and evaluation, alignment of decision-making cycles (budget, strategy, planning) • Holistic medium-term strategic planning: systems approach, engagement with uncertainty, bridging short term cycles and long-term ambitions	• Cognitive biases in implementing new tools and methods need to be taken into account as much as the capacity to use the latter • There is a need to experience new tools and methods, provide peer examples and socialisation before adoption • Organisational cultures are not supportive in hiring or building up anticipatory capacities that is not directly aligned with their immediate priorities • Established structures and processes are difficult to unpack and resistant to experimentation due to constant time pressures and expert biases • Very difficult to create demand for new approaches that are uncertain in nature and do not fall into anyone's specific field of responsibility. Creating demand for anticipation should be a core feature of the AIG system • Creating responsibility to act on complex, systemic challenges through functional mandates does not happen a priori. There has to be a follow up function that evaluates if the work is actually undertaken and

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
					urgency is created by establishing accountability for inaction • Co-ordinating across government challenges requires an actor who as the legitimacy to convene. • There has to be measures in place to deal with politically-motivated interests in getting credit for transversal work and ways to incentivise both civil servants and politicians to go beyond the existing silos. • There is a broader lack of capacity to support signal detection on the policy ecosystem level and the analysis of that information on a continuous basis

Source: OECD based on the analysis presented in Part III, Chapter 4.

Child well-being

Finland published its first National Child Strategy in February 2021. The aim of the Strategy is to create a consistent foundation and better co-operation for all policies and practices concerning children in Finland, embed consideration for children's rights in the mainstream, and better secure the status of vulnerable children. The task is to formulate a vision for a child and family-friendly Finland that spans government terms and crosses administrative boundaries. The implementation of the Strategy is to be undertaken alongside changes occurring as part of Finland's social and welfare (SOTE) reform, which completely re-envisages how child well-being services are governed and organised. Co-ordination for child well-being is to shift from national-local to a three-level approach, namely national-county-local.

Anticipatory innovation governance has particular relevance to the challenges associated with developing and implementing policy in this context. Its approaches enable governments to prepare for and create alignment around:

- The changing nature of childhood, whereby the world in which children grow up tomorrow is different from the world in which previous generations grew up
- Changing policy and measurement considerations for childhood, with new concepts emerging and an eternally incomplete evidence base
- The sense of uncertainty and complexity inherent in policies affecting people early in their lives, whereby the impacts could be unpredictable, profound, and long-lasting for the future of society, economy, and the environment

The pilot case study on child well-being was conducted by OECD experts in close collaboration with a task force from Finland composed of officials from several ministries, in regular contact with interested parties from newly formed welfare service counties. Through analysis of international cases as well as desk research and consultation with stakeholders on the current characteristics of the Finnish system, a number of areas were identified as gaps in the ability to develop and carry out anticipatory innovation in the governance of child well-being. These included:

Lack of systemic ways of working

- Different actors within the system (welfare counties, municipalities, service providers, etc.) pursue objectives without adequate co-ordination and coherence.
- There is no universally agreed upon concept of the child or definition of child well-being.

Implementation challenges

- The implementation process is overly legalistic and focused on rights to the exclusion of well-being.
- Well-being counties have difficulty transposing the provisions of the National Child Strategy into the planning and day-to-day running of services at the local level.

Silos, fragmented knowledge and "institutional amnesia"

- Siloed nature of Finnish child well-being governance and service provision inhibits co-ordinated action.
- Incoming administrations tend to develop policies and programmes with little reference to the initiatives or achievements of prior administrations.

Insufficient connection with actors on the ground and inability to detect where problems are coming from now and in the future:

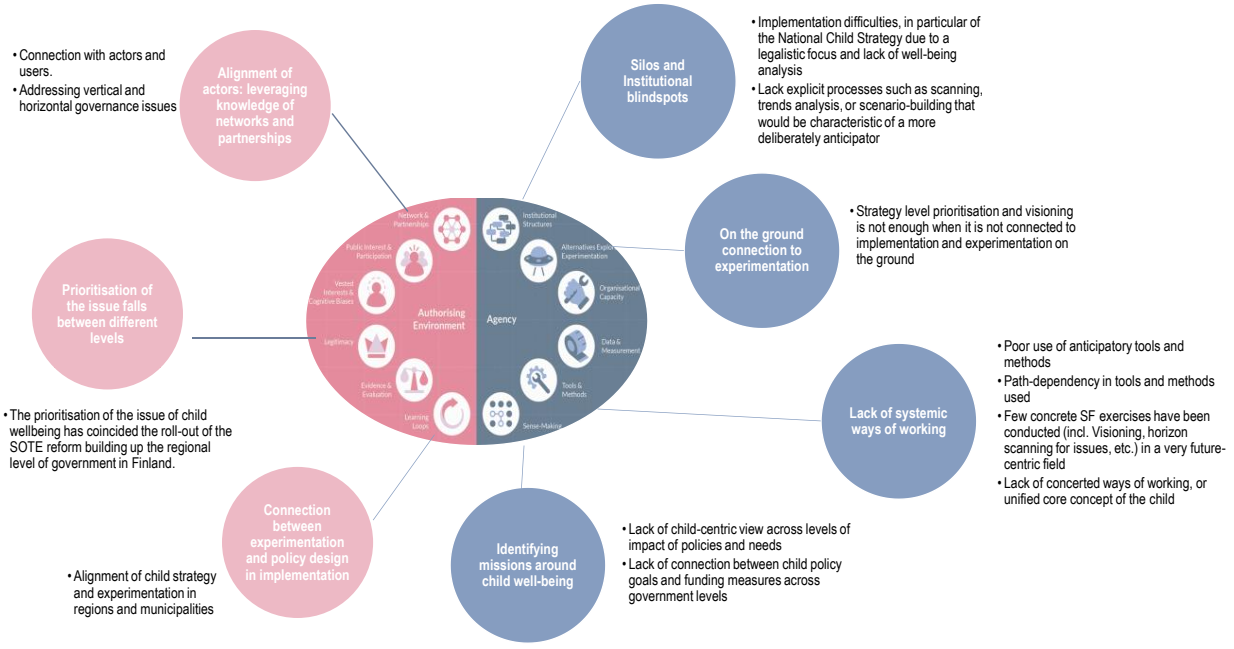
- It is not clear how children will be able to participate in dialogue to shape the proposed models for welfare and education systems.

- It is not clear how sources of futures knowledge are used in child-oriented policy making and service delivery.

The pilot case study on child well-being showed that, by addressing some of the missing mechanisms of anticipatory innovation governance (see Figure 8.3), it is possible for Finland address existing challenges while preparing to better meet the needs to future generations. The OECD proposes focusing on the mechanisms of public interest and participation, sense-making, networks and partnerships and tools and methods. These enable the identification of the following options for action.

- Child-wellbeing missions: These would consist of unifying, ambitious, and measurable objective that engage actors at multiple levels, most notably the welfare counties, to define a common cause and commit to mutually reinforcing activities to further child well-being in Finland.
- Ecosystem building: An inventory of all stakeholders and their contribution to child well-being could be used to review and develop the interactions between different elements of the system and identify points for strengthening collaboration or initiating it where it does not yet exist. It would also help actors to navigate the complex space of child well-being in Finland in order to facilitate ad hoc collaborations, exchange information, and prototype and test new initiatives.
- Signal exchanges: Regular exchange sessions between actors that do not usually share information can promote the sharing of futures knowledge.

Figure 8.3. Gaps in anticipatory innovation governance mechanisms: Child well-being



Source: OECD.

For the overall model the pilot case highlighted that anticipatory processes should be underscored by collective sense-making and identification of specific tasks and areas of action that are more manageable (e.g. introducing annual cross-sectoral priorities (missions) to be tackled to ensure responsiveness to emerging themes). It is necessary to commit to transparency in and dynamic upgrading of indicator development and the monitoring practice. Co-ordination activities need to be separately resourced as ecosystem management is badly organised, which means that continuous and collective intelligence is missing on emerging issues. Signal detection requires a more immediate connection to implementation to achieve impact. The summary findings from the pilot case study are presented in Table 8.3 below.

Table 8.3. Summary of the child well-being case

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
• While anticipatory and future-oriented elements are present, few concrete strategic foresight exercises have been conducted (incl. visioning, horizon scanning for issues etc.) • Anticipatory elements of the National Child Strategy	• Implementation difficulties, in particular of the National Child Strategy due to a legalistic focus and lack of well-being analysis • Lack explicit processes such as scanning, trends analysis, or scenario-building that would be characteristic of a more deliberately anticipatory approach • The prioritisation of the issue of child well-being has coincided the roll-out of the SOTE reform building up the regional level of government in Finland. • Blind spots in the currently fragmented system. The effect of silos, fragmented budgeting and "institutional amnesia" • Lack of concerted ways of working, or unified core concept of the child • Lack of child-centric view across levels of impact of policies and needs • Lack of connection between child policy goals	• The Finnish National Child Strategy adopted in 2020 • SOTE reform with added elements (Innokylä, Perhekeskus and Ohjaamo) and the responsibility to organise health, social and rescue services in 21 self-governing "well-being service counties" • Consideration of the Child-oriented budgeting pilot, a forthcoming initiative for the 2022 budget	• Use of strategic foresight studies in policy making connected to child well-being: the NL and UK • Whole of government approaches to well-being: Scotland, Ireland • Multi-level co-ordination: AUS, NOR	Child well-being missions • Build more targeted missions for child well-being for government terms Ecosystem building • Study of current actors and stakeholders as well as their relationships • Identification of new processes, meetings, and interactions • Opportunities for collaboration between those who do not normally interact Signal exchanges • Developing organisational habits in anticipatory practice • Connecting public consultation with service-delivery partners and policy makers	• Actors become entrenched in their functional roles and though the anticipatory process it should be possible to expand or create new roles for actors in the system (e.g. expanding the responsibilities of the ombudsman to include foresight activities together with ITLA and their funded future-oriented research and experimentation) • Anticipatory processes should be underlined by collective sense making and identification of specific tasks and areas of action that are more manageable (e.g. introducing annual cross-sectoral priorities (missions) to be tackled to ensure responsiveness to emerging themes) • There is a need to assure that funding is aligned with policy goals, hence, broader stress-testing of policies and accountability is required • Transparency in and dynamic upgrading of indicator development and the monitoring practice • Co-ordination activities need to be separately resourced as

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
	and funding measures across government levels				ecosystem management is badly organised, which, means that continuous and collective intelligence is missing on emerging issues • Need tools, methods and capacity to build ecosystems in ways that break silos and discourage competition between ministries, agencies, etc. • Signal reading requires more immediate connection to implementation and its partners

Source: OECD based on the analysis presented in Part III, Chapter 5.

Collaboration between politicians and public officials

Finland aims to better incorporate the anticipatory innovation function within its governance structure. The Government Programme adopted in 2019 pledges "to make systematic foresight and future thinking a key part of management and also of policy preparation and decision-making processes." (Government of Finland, 2020[3]). To date, future-oriented policy making in Finland is conducted mainly by a 'coalition of the willing' and co-exists alongside traditional policy-making processes and mechanisms (Tõnurist, 2021[4]). An important question is how different actors within the Finnish government can work together on anticipatory policy making and what forms of collaboration between public officials and politicians could be instrumental.

This pilot case was steered by a taskforce of members of the overall project secretariat in Finland from the Ministry of Finance and the Prime Minister's Office. The purpose of the pilot case was to:

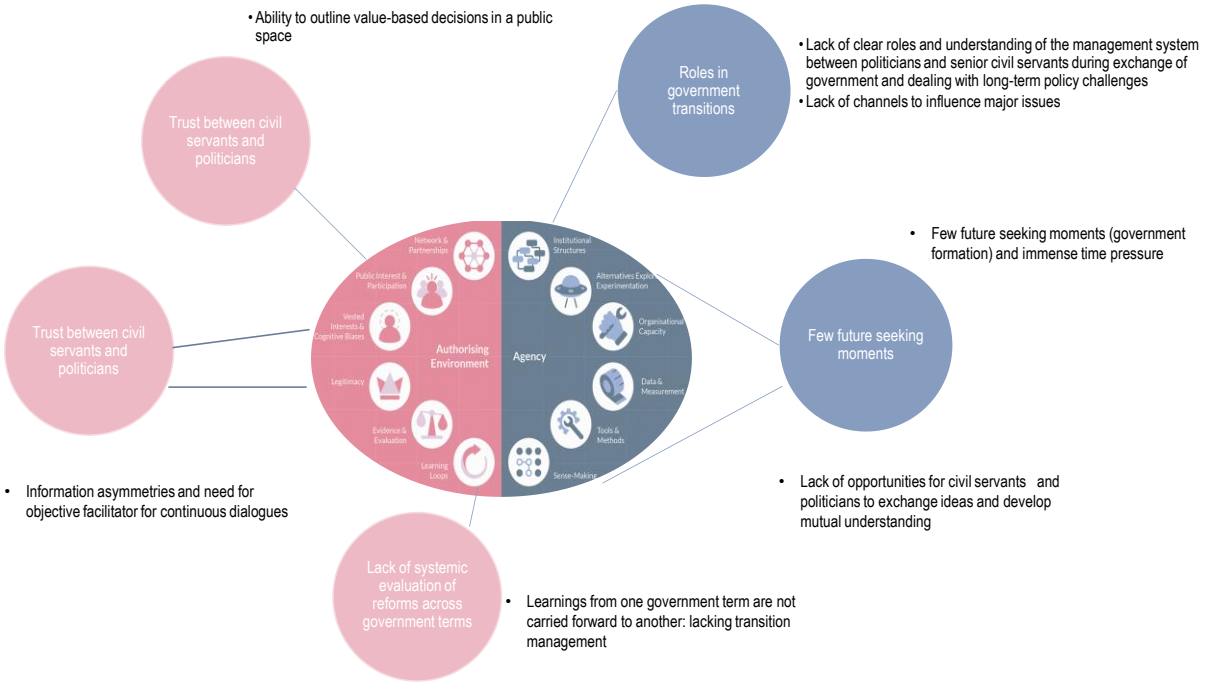
- Contribute to further build Finland's anticipatory capacity by identifying insights about collaboration between politicians and public officials in the field of anticipation through literature, international case studies and peer-learning sessions
- Contribute to the development of the AIG model by assessing how politico-administrative collaboration could be integrated into the model

As part of the project, several public-sector leadership dialogues ("AIG dialogues") were held using the Timeout[1] method to discuss the development of anticipatory innovation governance and policy making between members of parliament, key party actors and senior officials of the Ministries. They addressed various governance issues including how the political and administrative branch can best work together when it comes to futures work and anticipation.

Participants in the dialogues identified a range of challenges relating to collaboration between politicians and civil servants around issues characterised by uncertainty (see Figure 8.4). These include:

- Diminishing trust between civil servants and politicians as part of declining overall trust between Finland's elites
- Fuelled by real-time media reporting, politicians face public scrutiny characterised by a lack of acceptance of uncertainty and errors. This can lead to short-termism on the political side. Civil servants tend to me more shielded from public opinion, and can take a longer-term view on issues
- Lack of 'future seeking moments' characterised as opportunities for civil servants and politicians to exchange ideas, discuss complex issues, explore alternatives and develop mutual understanding
- Lack of clear roles and understanding of the management system between politicians and senior civil servants when dealing with long-term policy challenges
- Differences in communication between parties in municipalities and agencies, while interaction is more closed on the ministerial level
- Lack of transition structures to build trust between politicians and public officials with an incoming government, lack of opportunities for handover and in-depth analysis

Figure 8.4. Gaps in anticipatory innovation governance mechanisms: collaboration between politicians and public officials



Source: OECD.

A literature review was undertaken to identify cases which incorporated mechanisms of anticipatory innovation governance to provide illustrations of how collaboration between politicians and public officials in future-related fields can look like in practice. To complement the research from literature and international cases, three cases from Scotland, the province of Gipuzkoa and Ireland were selected for peer-exchange sessions with relevant representatives. This work informed the following recommendations:

Trust between politicians and civil servants is an essential resource and needs to be a constant concern

- Opportunities to foster dialogue, such as the Timeout method, can help to build trust through a common understanding of the issues at hand
- An objective facilitator for dialogues that enjoys trust from both sides can support the development of trust

Transition processes for government terms should be leveraged to build effective relationships between civil servants and politicians

- There should be an institutionalised anticipatory dialogue proceeding the government elections between the public administration and politicians
- Finland should establish a dedicated process for politicians and public officials to get to know each other, their respective expertise & priorities at the beginning of a new term

Establish new 'future-seeking moments'

- Facilitate dialogues to create future seeking moments on complex issues that benefit from human centricity and a shared commitment by all stakeholders
- Embedding anticipation into existing future seeking moments, such as the development of the Government Programme

The pilot case study showed that while crises can create windows of opportunity for different stakeholders to come together on some policy issues, but in general limit opportunities for informal exchange and relationship-building that is crucial to establish trust. The increasing speed of policy decisions and external changes direct attention away from the development of anticipatory capacity. Media reporting on a real-time basis can create additional tension between politicians and civil servants. To overcome these issues, public officials need to take a role in producing and presenting futures knowledge and insights in a format that is ready for decision-making while politicians need an understanding of the context and limitations of the analysis. Politicians and public officials need dedicated fora to collectively engage in sense-making of futures knowledge, develop a common understanding of the overarching objectives and work towards concrete actions. The design of anticipatory processes should include accountability to participants. There is a need to make sure that all inputs (such as the advice of civil servants) are seriously considered. The summary findings from the pilot case study are presented in Table 8.4 below.

Table 8.4. Summary of collaboration between politicians and public officials

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
• Independence of civil servants is seen critical to provide counterbalance to short-term policy development • Senior leadership training programs	• Diminishing trust between civil servants and politicians • Politicians face public expectations, lack of acceptance of uncertainty and errors, while civil servants tend to be more shielded. This leads to short-termism on the political side • Role of real-time media speeding up policy-making processes and deprioritising complex, long-term policy issues • Conflict between openness and discussing complex and difficult issues and future (existential) risks • Lack of opportunities for civil servants and politicians to exchange ideas and develop mutual understanding • Lack of clear roles and understanding of the management system between politicians and senior civil servants during exchange of government and dealing	• Introduction of the Timeout dialogues	• Collectively preparing for an uncertain future; interdepartmental futures model: the NL • The UK • Institutionalised collaboration: Singapore • Smooth handover: Stockholm SWE • Different modes for collaboration: Ireland • Room for dialogue: Gipuzkoa • Human centricity: Scotland	Instituting **trust as an essential resource** between politicians and civil servants • Platforms to foster dialogue • Need for an objective facilitator for dialogues (e.g. SITRA) that enjoys trust from both sides Transition structures for government terms: • There should be an institutionalised anticipatory dialogue proceeding the government elections between PA and politicians • Finland should establish a dedicated process for politicians and public officials to get to know each other, their respective expertise & priorities at the beginning of a new term Future seeking moments: • The AIG dialogues can help foster collaboration in fields that are cross-cutting, in VUCA areas or without a dedicated process • Topical framing dialogues to create future seeking moments and reverse engineer how to reach outcomes defined in the Government Programme • Embedding anticipation into existing future seeking moments i.e. Government Programme: dialogues in preparation of the Government Programme aligning visions with available resources • Other areas to consider	• Crisis mode creates windows of opportunity for some policy issues, but in general means less opportunities for informal exchange and relationship-building that is crucial to establish trust • Increasing speed of policy decisions and external change and shocks have taken too much attention to build anticipatory capacity. Both sides are consumed by emerging issues and pressures, very focused on the day-to-day, lacking a long-term perspective. • Media reporting on a real-time ad hoc basis can create tension between both communities, reinforced by social media bubbles and echo chambers • Public officials need to take a role in producing and presenting futures knowledge and insights • Politicians and public officials need to collectively engage in sense-making of that knowledge and work towards concrete actions • When designing anticipatory

Existing anticipatory practices (continuous/one-time)	Gaps and challenges in the system	Reform responses	Example international cases	Recommendations for the case	Learnings for the AIG model
	with long-term policy challenges • Few future seeking moments (government formation) and immense time pressure • Lack of channels to influence major issues • Differences in communication between parties in municipalities and agencies, while interaction is more closed on the ministerial level • Time pressure during government change leaving little opportunity for handover and in-depth analysis (Government Programme short and open for misinterpretation). Need for a transition period and structures to ensure that learning does not start from zero (continuity)			• joint working parties on existential risk • Role of the Futures Committee in the parliament to bring together the civil servants and politicians	processes, accountability should also play a role: there is a need to make sure that inputs (e.g. the advice of civil servants) actually matter and are taken into account

Source: OECD based on the analysis presented in Part III, Chapter 12.

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Note

[1] The Finnish Innovation Fund Sitra together with other organisations developed the dialogue model "Timeout". It brings different actors and groups together to engage in a constructive dialogue, question preconceptions and seek understanding and ideas based on trust.

9 Towards a model for the anticipatory governance of continuous learning in Finland

The world of work is continuously transformed by the complex interaction of trends such as automation, climate change and an aging population. This pilot case study proposes principles and structures for the anticipatory governance of a continuous learning system that ensures Finland's population is able to develop skills for the country to flourish in this uncertain and changing environment.

The pilot case study on continuous learning seeks to identify structures and practices for the development of a continuous learning system in Finland that effectively anticipates and addresses the changing needs of stakeholders in a shifting labour market.

The world of work is continuously transformed by the complex interaction of trends such as automation, climate change and an aging population. The changes they precipitate affect the demand for skills: jobs and tasks in one sector may disappear while others emerge which require new combinations of competencies. According to OECD estimates, 46% of jobs may experience significant change or be automated in the coming 10 to 20 years (Nedelkoska and Quintini, 2018[1]). In addition, these trends alter demands for the provision of learning: new forms of self-employment such as 'gig-work' may create opportunities for individuals to learn at times that suit them, but they also challenge expectations about employers' role in skill development.

Against this backdrop, Finland has recognised the need for a reform of continuous learning to create a system that is able to anticipate and respond to changes in the demand for skills and learning across the labour market and broader society. The Continuous Learning Reform project was initiated on 25th September 2019, and is due for completion on 31st March 2023. The reform outline, 'Competence Secures the Future – Parliamentary Policy Approaches for Reforming Continuous Learning' (Government of Finland, 2022[2]) powerfully articulates the importance of skills for Finland's future: "Competence is our best safeguard in the midst of transformations of work, technology and the world at large. We need new kinds of skills, individual training paths, upskilling and reskilling. This need is addressed through continuous learning" (Government of Finland, 2022[2]). In doing so, it does not downplay the challenge it intends to address: 'Some of the trends [that the continuous learning system must be prepared for] are predictable, but changes can be rapid and have surprising effects, as demonstrated by the coronavirus pandemic that began in spring 2020' (Government of Finland, 2022[2]).

Box 9.1. Defining continuous learning

"The term 'continuous learning' was introduced in Finland to emphasise the importance of upskilling and reskilling as opposed to lifelong learning, which takes place occasionally during a person's lifetime."(Continuous learning reform - OKM - Ministry of Education and Culture, Finland)

In this report, the term continuous learning refers to learning undertaken by individuals outside of the compulsory schooling system, often termed 'adult learners'. The continuous learning system refers to the relationship between stakeholders who direct, implement, inform or participate in continuous learning.

Source: (OECD, 2020[3]; Government of Finland, n.d.[4])

While shifts in the demand for skills and learning can be rapid and unpredictable, "conversion of people's skills is always relatively slow" (Prime Minister's Office of Finland, 2018[5]). For this reason, a continuous learning system can only function effectively if it implements approaches to anticipate and provide training for skills that are likely to be in demand once the learning period is complete, and remains resilient in the face of changes that challenge its capacity to deliver timely and relevant training.

In this regard, the AIG model can provide useful support to identify gaps in the agency and authorising environment that are necessary for an anticipatory continuous learning system to function, and propose enhancements to the system itself. In this summary paper, the OECD assesses Finland's current capacity to govern and manage an anticipatory continuous learning system through the lens of the AIG model.

Scope and steering of the pilot case for Continuous Learning

To steer the pilot case for continuous learning, the 'Continuous Learning AIG Taskforce' was assembled in September 2021, consisting of representatives from the Ministry of Education and Culture, Ministry of Economic Affairs and Employment, Ministry of Finance, Ministry of Social Welfare and Health, and the Service Centre for Continuous Learning and Employment. Through online workshop sessions, the Taskforce outlined key challenges for the continuous learning system in Finland, and collaborated with the OECD team to set the scope and objectives of the pilot case.

It was agreed to focus on the following two issues:

- Robust models for horizontal and vertical governance are necessary for co-ordination to achieve broader systemic change and overcome emerging challenges associated with the continuous learning reform of 2019-2023 (including sustainability of reform across government terms).
- Anticipatory information does not have a sufficient impact on actors of the continuous learning system at the national strategic, regional and local level.

A project plan was created, and regular meetings were set up every three weeks for the OECD and the Taskforce to share information relating to the pilot case.

Assessment of the context for continuous learning in Finland

The context for continuous learning in Finland and the role of anticipation was explored systematically through online group interviews with 21 representatives from labour market organisations, educational institutions, central government and regional government in Finland.

This research was complemented by a review of government papers and reports, academic texts and grey literature relating to continuous learning in Finland. This report is particularly indebted to the 'Continuous Learning in Working Life in Finland' (OECD, 2020[3]), which provides a comprehensive assessment of the continuous learning system in Finland prior to the development of the continuous learning reform.

Inspiration from international examples

A literature review was undertaken by an external researcher to identify cases which incorporated mechanisms of anticipatory innovation governance (Tõnurist and Hanson, 2020[6]) to provide illustrations of how anticipatory approaches can enable skills and adult learning systems to better prepare for the future.

While it does not have an explicit focus on anticipation, the OECD report 'Strengthening the Governance of Skills Systems: Lessons from Six OECD Countries' (OECD, 2020[7]) provided valuable cases and robust analysis of the foundations of successful governance of skills systems. The report's authors were also helpful in connecting the OECD team with representatives of international cases for further information gathering.

In addition to the literature review, interviews were conducted with representatives of a number of international cases to gather more information and determine the relevance of their cases for the challenges experienced in Finland.

Three cases from Norway, Singapore and the Netherlands were selected by the Taskforce for peer-exchange sessions with relevant representatives. These 90-120 minute online meetings provided Finnish representatives with an opportunity to directly pose questions to civil servants in Norway, Singapore and the Netherlands, and for all parties to identify areas of similar challenges in which they could provide mutual support.

Preparing the principles and prototype governance model for the anticipatory governance of the continuous learning system in Finland

Following analysis of the Finnish context and international cases, draft principles and a prototype governance model for the anticipatory governance of the continuous learning system in Finland were presented to the Taskforce for feedback in an online meeting. The Taskforce shared their immediate thoughts, and followed up with more detailed responses through email. This summary report presents principles and model for the anticipatory governance of continuous learning in Finland that have been developed through this exchange.

Understanding the context of continuous learning in Finland

The decision to prepare a reform of continuous learning in Finland results from sustained thinking about the future by a range of governmental and non-governmental stakeholders. To determine how an anticipatory innovation governance approach can help to ensure the success of the reform, it is necessary to understand the current structure of the continuous learning system in Finland, and the perspectives and trends that may affect its reform.

Stakeholders responsible for continuous learning in Finland

Based on studies conducted in 2019, 'Continuous Learning in Working Life in Finland' (OECD, 2020[3]) presents an assessment of the existing system of continuous learning in working life in Finland. While the Ministry of Education and Culture (MoEC) is responsible for the majority of the continuous learning system, the Ministry of Economic Affairs and Employment (MoEE) has responsibilities for vocational labour market training and integration training. The Ministry of Social Affairs and Health (MoSAH) is responsible for a large part of the benefits available to the working-age population during education and training, such as adult education allowance. Working groups with other ministries, including the Ministry of Finance (MoF) and MoSAH have been set up to inform the development of continuous learning. The Employment, Education and Economic Affairs Council (TKE-neuvosto), which is composed of representatives of MoEC, MoEE, MoSAH, MoF, Ministry of the Interior (MoI) and Social Partners facilitates co-ordination at the political level. The Council is a joint expert body of the MoEE and MoEC. The task of the Council is to discuss the key challenges and strategies of labour and education policy related to the Government Programme and Government strategy document, as well as closely linked industrial policy issues. It may put forward initiatives and general policies on matters relating to this agenda.

Other agencies and expert bodies support the work of the MoEC and the MoEE. The Finnish National Agency for Education develops education and training, and hosts the National Skill Anticipation Forum. The Finnish Evaluation Centre evaluates education providers. Centres for Economic Development Transport and the Environment (ELY centres) supervise the offices of the public employment service, and implement policies of the MoEE.

The 311 municipalities of Finland act as organisers and financiers of educational services. The responsibility for funding education and training has been shared between municipalities and the central government. Most general upper secondary education and a large part of vocational education and training are organised on the basis of municipalities' own activities or together with other municipalities. The majority of municipalities are owners or partial owners of universities of applied sciences.

Education and training providers for continuous learning are largely public or quasi-public institutions and highly autonomous. Current funding models, which enable the delivery of training at low cost or free to individuals, create a challenging market for private providers.

Non-state actors such as social partners and civil society organisations provide funding for continuous learning (such as the adult education allowance) and typically play a consultative role in the policy-making process.

Use of anticipatory approaches to inform continuous learning in Finland

In 'Continuous Learning in Working Life in Finland' the OECD highlights the advanced but fragmented nature of the application of anticipatory approaches to inform continuous learning in Finland: "A great wealth of anticipation tools and processes are employed throughout the country, focusing on different governance levels, using different methods and time-horizons" (OECD, 2020[3]).

This section of the report describes how various stakeholders have used different tools and processes to explore future scenarios for continuous learning in Finland, and normatively determine visions for the role of the system. The uptake of these approaches demonstrates a willingness to engage with anticipation exercises among actors in Finland, though members of the Continuous Learning AIG Taskforce identified that the insights and recommendations that result are rarely applied in a systematic manner.

Exploratory approaches

Exploratory approaches for foresight allow stakeholders to explore and assess different dimensions of uncertainty 'in the aim to foresee as many characteristics of the future and maintain a state of preparedness whatever may happen' (Tõnurist and Hanson, 2020[6]). Two key exploratory studies are highlighted below. While more recent publications exist, such as the 'The Future of Work in the Nordic countries' from the Nordic Council of Ministers (2021), these studies have been chosen as they were led by the Finnish government and engaged a range of actors in the country to explore and assess different dimensions of uncertainty about the future of work. Both determined that continuous learning would be a key tool to ensure Finland and its people are prepared for the uncertain impact of multiple trends on the labour market and wider society. While their findings and recommendations are echoed in the Continuous Learning Reform, the members of the Continuous Learning AIG Taskforce find that they have not been used to their full potential.

Government Report on the Future: A shared understanding on the transformation of work (2017-2018)

Starting in March 2016, the Government Report on the Future engaged a wide range of governmental and non-governmental stakeholders to explore how the world of work will transform in the future, and "raise questions about the kind of future we want for Finland" (Oksanen, 2017[8]).

The report, which was prepared by the office of the Prime Minister Juha Sipilä, was published in two parts, published in 2017 and 2018 respectively. Part 1 identifies five principle dimensions of change: "1. Changes in the contents, practices and ways to organise work 2. Change in the employer–employee relationship 3. Change in livelihood 4. Change in skills 5. Change in the social importance of work" (Oksanen, 2017[8]). While change is expected in each of these dimensions, the overall impact of their interaction is unpredictable and uncertain.

To address this, the report's authors emphasise the importance of skill development: "Competence has…been recognised as the best security when navigating in an uncertain future. Ensuring employees' competence, both before and during the career, is highlighted as a means of alleviating polarisation and improving the adaptation of employees and the economy" (Oksanen, 2017[8]). To develop relevant skills in a work environment that is undergoing continuous transformation, it is necessary that "studying becomes part of work to an increasing extent and is split into smaller units." (Oksanen, 2017[8]). Alongside relevant competences, 'strong social capital' is identified as a key facilitator of resilience in the face of the transformation of work.

Part 2 of the Government Report on the Future builds on these insights to set out 18 proposals for action to address for the potential challenges associated with the transformation of work. Recommendations to support skills development include reimagining the role of higher education to provide more flexible modular courses and to maintain relationships with graduates throughout their lives. Proposals are also made to test new approaches for financing learning that are compatible with new types of employment such as gig-work (Prime Minister's Office of Finland, 2018[5]). Regarding skills anticipation and matching, the report makes the case for novel approaches to data analysis (employing artificial intelligence) to inform businesses and individuals' decisions about skill development. However, it argues that investment in basic skills and meta skills (such as critical thinking) is likely to prepare people for the continuous transformation of the labour market better than narrow competences identified through skills forecasting (Prime Minister's Office of Finland, 2018[5]).

Work in the Age of Artificial Intelligence (2018)

Published by Ministry of Economic Affairs and Employment and initiated as part of the Artificial Programme set up by Minister of Economic Affairs Mika Lintilä, this report represents the personal views of a working group of 20 governmental and non-governmental stakeholders. It explores the impacts of artificial intelligence on four areas of work: the economy, employment, skills and ethics.

Like the Government Report on the Future, it highlights the uncertain nature of the changing demand for skills in the future, and calls for a lifelong learning reform to support the development of more flexible opportunities for people to learn throughout their lives. In addition, it emphasises the value of meta skills over training in narrow skills that may become redundant: "learning will become a key coping skill for humans that will increase their likelihood of remaining in the world of work. When creating education systems of the future, methods that stress the themes of responsibility, self-regulation and willingness to learn should be emphasised" (Koski and Husso, 2018[9]).

The report asserts that non-governmental stakeholders have key roles to play in the creation of a learning system in which skills provision anticipates and meets demand: "Individuals themselves in many cases have the best understanding of their skills. Employers, on the other hand, have the best knowledge of changes in skill requirements. Consequently, we should consider how power over and responsibility for maintaining human capital could be decentralised in a sustainable and acceptable manner" (Koski and Husso, 2018[9]).

Normative approaches

Normative approaches to foresight aim to identify 'some idea, goal or norm that is desirable' (Tõnurist and Hanson, 2020[6]) in order to co-ordinate activities around a shared consensus.

Competitiveness and Well-being from Lifelong Learning, Sitra (2018-2021)

Sitra, the Finnish Innovation Fund, managed a project on Competitiveness and Well-being from Lifelong Learning from 2018-2021. The project engaged 30 representatives from the public sector, education, business and industry to lay the foundations for the development of 'cross-sectional policy for lifelong learning' (Sitra, n.d.[10]).

In 2019, Sitra published 'Towards Lifelong Learning'. Based on collaborative workshops with the 30 representatives, it presents a shared vision for 'how lifelong learning should be developed in order to meet the challenges of the future' and identifies key challenges for the attainment of this aim. The vision is presented as 'four theses on lifelong learning' which articulate the transversal benefits of lifelong learning on individual and social well-being, working life, and the Finnish economy. To achieve these aims, the paper's authors argue that the governance of lifelong learning must be co-ordinated across all

administrative sectors. Like 'Work in the Age of Artificial Intelligence', they go on to highlight the key role of individuals and non-governmental organisations in the development of an effective learning system.

This emphasis on cross-system collaboration is further developed in 'Sitra's seven recommendations for lifelong learning in Finland' (Sitra, 2022[11]). This report presents practical proposals based on insights generated throughout the period of the Competitiveness and Well-being from Lifelong Learning project. It makes the case for a 'decentralised knowledge-based management model' for lifelong learning which leverages the full potential of stakeholders in the skills system to serve the needs of individual learners.

In this model, "the entire system is directed on the basis of goals and objectives established through a collective process" (Sitra, 2022[11]). Stakeholders in it work in a co-ordinated way to achieve agreed strategic goals, but maintain the flexibility to determine their own activities "and develop their operations to better match the needs of diverse customer groups." (Sitra, 2022[11]). Such an approach requires commitment from actors across the system to develop a "shared situational awareness" and "assume the responsibility for initiating and co-ordinating collaboration", while funding must be reformed to incentivise greater collaboration.

At the core of this model, Sitra envisions an integrated information resource that enables evidence-based decisions by collating data from stakeholders across the system. The rules governing the production of knowledge through this resource are determined through collaboration, ensuring that it presents an inclusive picture of the system that can be interpreted in a consistent manner.

Skills anticipation and foresight exercises

The OECD (2020[3]) describes the breadth of skills foresight and anticipation approaches used in Finland. At the national level, groups of stakeholders comprising social partners, representatives of educational providers, trade unions of teaching staff and members of the education administration participate in sector-specific anticipation exercises as part of the 'National Forum for Skills Anticipation' (OEF) established in 2017. The approach combines quantitative information, such as the long-term VATT forecasts produced by the Government Institute for Economic Research, with qualitative anticipation exercises into a 'Basic Anticipation Process' to produce scenarios for the future of nine sectors. The Finnish National Agency for Education (EDUFIN) translates these into quantitative estimates of educational needs. Alongside this, the MoEE produces short-term forecasts for labour demand across the Finnish economy and in broad sectors in spring and autumn each year.

At the regional level, most regions bring together multi-stakeholder anticipation committees to conduct skills anticipation exercises. Centres for Economic Development, Transport and the Environment (ELY centres) produce short-term forecasts to support the matching of training to skill demands. Employment and Economic Development Offices (TE offices) produce regional 'Occupation Barometers', which anticipate demand for 200 key occupations in the following 6 months. Higher and vocational education institutions also conduct anticipation activities, typically involving labour market representatives.

The 'Continuous Learning in Working Life in Finland' report (OECD, 2020[3]) finds that the outputs of these anticipation exercises are not being used to their full potential. At a national level, they do partially support educational planning, though "forecast results and targets set in development plans were never fully aligned" (OECD, 2020[3]). At the regional level, anticipation informs career guidance and commissioning of labour market training in ELY-centres and TE-offices, but is not effectively used by individuals to make choices about learning. A key challenge is that the free or low-cost nature of adult learning in Finland means that the government has few options to incentivise the uptake of training that is better aligned to labour market needs.

Objectives for the reform of continuous learning in Finland

The Continuous Learning Reform project was initiated on 25th September 2019, and is due for completion on 31st March 2023. Its preparation has engaged stakeholders across government, as well as non-governmental actors, and it has been informed inter alia by the work of Sitra and the OECD. A parliamentary group was appointed to guide the reform, chaired by Minister of Education and vice-chaired by Ministers of Labour and Ministers of Science and Culture. Expert representatives from the Ministry of Education and Culture, the Ministry of Economic Affairs and Employment, the Ministry of Finance and the Ministry of Social Affairs and Health have provided input. This group is additionally supported by representatives of the central labour market organisations, and a broad-based monitoring group.

The reform outline was published in 2020. An English translation, 'Competence Secures the Future', was published in 2022 (Government of Finland, 2022[2]).The outline explicitly addresses the challenges for Finland identified by the OECD in 'Continuous Learning in Working Life in Finland' (OECD, 2020[3]) and sets out three key visions for the development of continuous learning in a 'long-term and systematic manner':

- "Everyone will have the knowledge, competence and skills required for employment and a meaningful life
- Everyone develops their skills and competence during their working careers
- Competence renews the working life and working life renews competence" (Government of Finland, 2022[2])

These goals will be monitored through key performance indicators, such as participation in continuous learning and the competence and skills of working age people.

The 27 measures outlined for achieving these goals show a strong reliance on co-ordination and co-operation, often demanding the reorientation of existing relationships between stakeholders. For example, 'Measure 5: Intensifying the co-operation between employment and competence service providers' highlights the necessity of 'new forms of co-operation between educational institutions and workplaces' (Government of Finland, 2022[2]).

Four measures are identified for the 'Systematic and comprehensive development and better utilisation of anticipation' (Government of Finland, 2022[2]), including creating a model for medium term anticipation (Measure 11), and renewing the reporting system for anticipation so that information is coherent and accessible (Measure 13). These measures are complemented by a renewed focus on 'utilising the opportunities of digitalisation'. Of particular importance is the development of a digital service package for continuous learning (Measure 15). This will consist of interconnected electronic services and data such as skill survey and competence recognition services, application services for education and training, labour market information (LMI) and linked data repositories. The reform outline highlights key actors in such measures as EDUFIN, ELY Centres, TE offices, MoED and MoEE.

A central proposal of the reform is the creation of a Service Centre for Continuous Education and Employment (Service Centre). The Act on the Service Centre entered into force on 1 September 2021. The Service Centre reports to and is steered by a board on consisting of representatives of the Ministry of Education and Culture, the Ministry of Economic Affairs and Employment and labour market social partners. The Service Centre serves as a separate organisational unit for the Finnish National Agency for Education.

The key role of the Service Centre will be to promote and support the development of new training opportunities based on anticipation of skills needs. By accumulating and analysing anticipatory knowledge about skills requirements, and identifying service needs through active relationships with labour market and skills stakeholders, the Service Centre aims to inform policy objectives and guide policy

implementation for the Ministry of Education and Culture and the Ministry of Economic Affairs and Employment.

Gap analysis: Challenges for the implementation of anticipation in the continuous learning reform in Finland

The OECD conducted several scoping sessions with representatives of the Finnish government in order to determine the issues to be addressed through an anticipatory innovation governance approach. This 'Continuous Learning AIG Taskforce' group consisted of representatives from the Ministry of Education and Culture, Ministry of Economic Affairs and Employment, Ministry of Finance, Ministry of Social Welfare and Health, and the Service Centre for Continuous Learning and Employment. Two key challenges were identified:

- Robust models for horizontal and vertical governance are necessary for co-ordination to achieve broader systemic change and overcome emerging challenges associated with the continuous learning reform (including sustainability of reform across government terms).
- Anticipatory information does not have a sufficient impact on actors of the continuous learning system at the national strategic, regional and local level

In subsequent discussions, co-ordinated financing for continuous learning was raised as an additional area of reform.

The impacts and causes of the challenges were further explored through online group interviews with 21 representatives from labour market organisations, educational institutions, central government and regional government in Finland. A literature review identified these challenges as common across projects to reform continuous learning systems and enhance their anticipatory capacity.

Horizontal and vertical governance

'The responsibility for adult learning is often split across several ministries, the social partners and other stakeholders, and encompasses different levels of government' (OECD, 2019[12]). For this reason, 'Getting Skills Right: Future Ready Adult Learning Systems' (OECD, 2019[12]), which presents analysis of 34 OECD countries, highlights horizontal and vertical governance and co-ordination as essential to ensuring policy coherence and the effective implementation of adult learning policies.

'Strengthening the Governance of Skills Systems' (OECD, 2020[7]) places the issue of governance centre-stage, making the case for a 'whole-of-government approach' with the aim of facilitating a 'collective and well-co-ordinated policy response to pressing problems' (OECD, 2020[7]) associated with the changing demand for skills. Extending this concept, the authors argue that "the involvement of non-governmental stakeholders in governance decisions is crucial" (OECD, 2020[7])to ensure that policies to promote skills are effective. While challenging to achieve, this approach to stakeholder engagement and governance delivers two key benefits for the creation of an anticipatory and resilient skills system.

Firstly, it leverages the collective intelligence of stakeholders across the skills system to anticipate and identify issues around the implementation of policies and ensure they are addressed in future policy development. "Implementation experiences from stakeholders are therefore a valuable input into governmental decision making not only during the implementation phase, when governments try to improve the implementation of existing policies, but also during the policy design phase, when they attempt to design "better" policies for the next loop of the policy cycle" (OECD, 2020[7]). This is particularly valuable for the holistic development of skills systems, which demand that policies from a range of government departments, such as ministries of education, employment and finance, are aligned to ensure that skills provision is inclusive and accessible in practice.

Secondly, the meaningful engagement of non-government stakeholders on whom the successful implementation of policy is dependent, such as employers, education providers and trade unions, "generates political legitimacy" (OECD, 2020[7]), thereby ensuring that key actors in the continuous learning system are motivated to support the aims of government.

Perceptions of vertical and horizontal governance among Finnish stakeholders

In interviews, Finnish stakeholders felt that the process of the reform had enabled ministries and non-government stakeholders to move in the same direction. However, some stakeholders identified the alignment of national goals with local needs as a continuing challenge, and expressed concern that the government would have the capacity to support a sustainable reform. To help address this, non-governmental stakeholders expressed a strong desire to participate in collaborative decision-making, and stated that empowering local ecosystems and grassroots initiatives is perceived as key to delivering on the objectives of the continuous learning reform.

Key AIG mechanisms

Networks and partnerships

Tõnurist and Hanson propose that "networked or collaborative governance models are relevant to anticipatory innovation, especially those involving engagement with those with access to weak signals and early insights about forthcoming transformative changes" (Tõnurist and Hanson, 2020[6]). They can build capacity for anticipation formally by engaging relevant stakeholders to take co-ordinated actions to address emerging issues, such as the changing demand for skills, and informally by developing a trust-base that "can open up situations for exploring uncertainty".

Legitimacy

"To be able to commit to change and carry it through effectively, anticipatory innovation processes need to be legitimate" (Tõnurist and Hanson, 2020[6]). In the uncertainty that surrounds the future of skills and employment, it is particularly important that stakeholders distributed across the system view decisions as legitimate and based on a shared understanding of the challenges.

Use of anticipatory information by actors across the continuous learning system

The challenges in the domain of continuous learning are complex and often subject to different ideological interpretations, for instance about the causes of low levels of engagement in adult learning.

"In a world where information about the education system and the labour market involves a high degree of uncertainty, effective collaboration between policy makers and stakeholders may be blocked by competing problem definitions. Rather than devising solutions to these problems, stakeholders engage in conflicts about the nature and extent of the underlying problem." (OECD, 2020[7]).

Robust evidence can therefore facilitate a shared understanding of the issues that must be addressed, and inform collaborative decisions about how to do so. Such an evidence base must collate and provide analysis of a wide range of data, including anticipatory information, and itself be perceived as legitimate by the actors in the skills system. The European Centre for the Development of Vocational Training (CEDEFOP) highlights the necessity of ensuring that approaches for skills foresight and anticipation are "embedded into a structure in which the results are developed, discussed and used with the various stakeholders and decision-makers" (Bakule et al., 2016[13]). Taking up the question of key principles for effective skills anticipation, 'Skills Anticipation: Looking To The Future' (European Centre for the Development of Vocational Training, 2017[14]) identifies the following: "clear policy aims; use and ownership

of results by all stakeholders; dissemination to ensure wide-ranging impact; sustainable financing" (European Centre for the Development of Vocational Training, 2017[14]).

Perceptions of anticipatory information among Finnish stakeholders

Finnish stakeholders were in agreement about the necessity of anticipatory information and the value of developing a shared information resource as a foundation for co-ordination. It was felt that the information should take into account a wide range of qualitative signals about changes to society, as well as quantitative skills foresight. Given the complexity of such information, and the range of interpretations it may lead to, stakeholders stated that dialogue is important to create a shared understanding of anticipatory information. To facilitate the co-ordinated use of anticipatory information, they expressed the opinion that information products should be designed to fit the needs of stakeholders in the continuous learning system, and that their skills to interpret and generate it should be enhanced.

Key AIG mechanisms

Sense-making

Sense-making refers to the process by which diverse sets of expertise are applied to better understand complex cross-sectoral societal issues such as changes to the demand for skills and the world of work. The creation of structures that enable different and sometimes contradictory approaches to observing and interpreting change to complement one another can be challenging. However, a commitment to sense-making can help to ensure that relevant information is not ignored, interpretations of change are subject to a robust interdisciplinary assessment, and that a shared understanding of future challenges and opportunities is reached. This helps to provide a firm foundation for legitimate decision-making.

Data and measurement

Knowledge and information that is relevant to continuous learning come from a multiplicity of sources, from skills shortages at a local level to technological developments occurring outside of Finland. To enable these signals to inform the development of the continuous learning system, processes must be developed for their identification, selection and analysis. For effective sense-making to occur, such processes must support the collection of both qualitative and quantitative information.

Sustained and co-ordinated financing

Investment in skills often suffers because its benefits are largely realised in the longer-term. For this reason, shorter-term concerns can often divert funds from skills. Furthermore, the OECD finds that "investments in skills may…lose out to other policy areas in terms of fiscal resources because the benefits of education and skills are shared between a multitude of stakeholders, and the incentives for investing in skills are often not well-aligned between these stakeholders." (OECD, 2020[7]). Approaches for diversifying sources of funding and appropriate resource allocation are necessary for the effective functioning of a skills system.

Financing in Finland

The OECD (2020[3]) found that a key challenge for the continuous learning system in Finland is "a financial incentive system that leads to inefficiencies by encouraging participation in formal education, such as bachelor degrees, rather than non-formal or informal learning, such as participation in seminars and learning from peers." (OECD, 2020[3]). Confirming this finding, some stakeholders interviewed highlighted the limited policy levers to incentivise labour-market aligned learning in a system in which access to adult learning is low cost or free.

The OECD highlights that financing models for adult learning are dependent on "political conditions, historical developments and culture" (OECD, 2020[7]). Given this complexity, it was decided that recommendations to facilitate co-ordinated financing of continuous learning in Finland would be outside of the scope of this project.

Key AIG mechanisms

Vested interests and biases

Existing ways of working and power dynamics can often create an environment in which change is resisted and alternatives are not pursued. This is a barrier to the development of effective systems that apply anticipatory innovation governance, which invites stakeholders to actively explore and prepare for change. Practices and institutional mechanisms that enable stakeholders to look beyond short-term concerns and expose them to the opinions and values of a wide range of actors can help to challenge biases and promote a more balanced consensus that opens opportunities for anticipatory innovation. These include experiential futures and scenarios and formalised critical dissent practices (Tõnurist and Hanson, 2020[6]).

Principles for the anticipatory innovation governance of continuous learning in Finland

The Finnish Continuous Learning AIG Taskforce requested that the OECD propose a prototype governance model that would enable them to address the challenges uncovered through gap analysis, namely:

- Robust models for horizontal and vertical governance are necessary for co-ordination to achieve broader systemic change and overcome emerging challenges associated with the continuous learning reform (including sustainability of reform across government terms).
- Anticipatory information does not have a sufficient impact on actors of the continuous learning system at the national strategic, regional and local level.

In order to determine the structure of this governance model, the OECD combined insights from literature review (notably 'Strengthening the Governance of Skills Systems' (OECD, 2020[7]) and 'Anticipatory Innovation Governance: Shaping the Future through Proactive Policy Making' (Tõnurist and Hanson, 2020[6]) and stakeholder engagement to propose the following set of foundational principles.

1. **The continuous learning system will function most effectively if the autonomy and knowledge of stakeholders is respected and leveraged**

Centralised control of the continuous learning system would not only be challenging to achieve; it is also likely to result in poor outcomes. The autonomy of municipalities and education providers in Finland is likely to mean that imposed changes to the learning system will experience resistance. Furthermore, central government is unlikely to have sufficient capacity for processing information about the actions and effects of sub-agencies, making centralised management "simply not feasible", while the superior knowledge of local needs by regional actors is not acted upon effectively (OECD, 2020[7]). A decentralised approach, such as that proposed by Sitra (Sitra, 2022[11]) may help to harness the knowledge and commitment of stakeholders throughout the system.

2. **Governance structures should establish meaningful and fair co-operation with relevant ministerial and non-government stakeholders throughout the policy process**

The sustainability of the continuous learning system is identified as a key challenge by stakeholders in Finland. The OECD (2020[7]) highlights how meaningful co-operation with relevant stakeholders throughout the policy process can help to ensure that there continues to be co-ordinated support for continuous learning. By establishing regular opportunities for collaboration and engaging high-level stakeholders, continuous learning can be maintained as a visible priority, issues during implementation can be raised and addressed in a timely manner, and decisions will continue to be perceived as legitimate.

While the benefits of horizontal and vertical engagement are clear, it can be challenging to achieve. Stakeholders must be carefully selected and their numbers limited in a way that balances legitimacy with complexity. Such co-operation requires clear rules for governance so that less powerful actors are heard, and that conflicts and 'gridlock' resulting from vested interests and biases can be resolved. Sustained support from government over an extended time period is necessary to build trusted relationships between actors to create a 'joint problem solving perspective' (OECD, 2020[7]).

3. A shared understanding of information about jobs and skills is a core pillar of co-ordination for continuous learning

The development of a shared information resource to inform decisions about jobs and skills delivers benefits at multiple levels of the continuous learning system. A strong evidence base that allows a shared assessment of the dynamics of the system sets a foundation for collaboration between stakeholders around collectively understood issues. If regularly updated, such a resource enables actors to make continuous adjustments to enhance the effectiveness of the continuous learning system: "integrated information systems can provide policy makers with more detailed data on educational outcomes and trajectories, in particular the effects of policies and programmes. This kind of information is crucial to assess whether existing policies effectively address a particular problem, or whether they need to be amended." (OECD, 2020[7]).

To achieve these benefits, an integrated information resource must incorporate many types of data (qualitative and quantitative) gathered from a wide range of sources and stakeholders (horizontal and vertical). "Stakeholders, both governmental and non-governmental, can help to identify the different kinds and types of data needed from their perspective to better inform governance decisions" (OECD, 2020[7]). As there is a high degree of uncertainty inherent in analysis of the education system and labour market, the information must be understood through collective sense-making. To ensure that it is used by stakeholders to make relevant decisions about jobs and skills, it must be presented in ways that address the use-cases and needs of stakeholders in the continuous learning system.

4. The application of anticipatory approaches should aim to do more than facilitate timely matching of skills to jobs

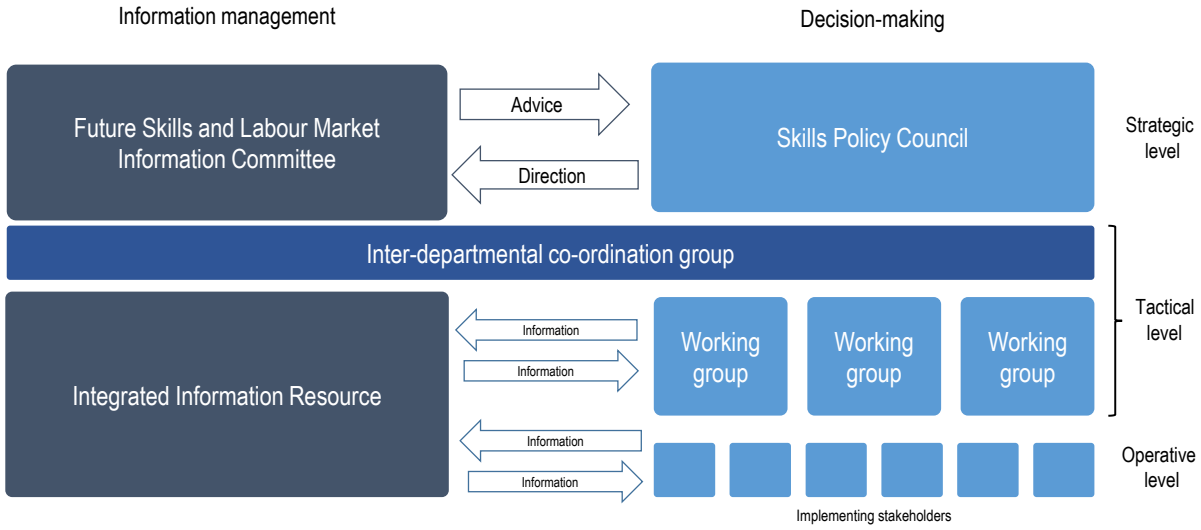
Anticipatory approaches can promote alignment and co-ordination around a shared vison, as demonstrated in Sitra's lifelong learning project.

Additionally, anticipation enables governments and other stakeholders to stress-test strategies and systems against possible future challenges. The OECD identifies that skills policy is often prioritised only at moments of crises, meaning that "policy responses are likely to focus only on the most pressing short-term problems, thus neglecting structural and long-term challenges to the skills system" (OECD, 2020[7]).

A prototype anticipatory innovation governance model for continuous learning in Finland

To develop a proposed governance model for the application of the principles outlined in the previous section, the OECD conducted a scan to identify effective approaches from other countries. From these, representatives from Norway, Singapore and the Netherlands were invited to participate in peer-exchange sessions with the Finnish taskforce to develop a better understanding of how these approaches could be applied in the Finnish context. Insights from these conversations were combined with literature review to develop the following model.

Figure 9.1. A prototype anticipatory innovation governance model for continuous learning in Finland



Source: OECD.

A 'bipedal' governance model

An anticipatory innovation governance model for continuous learning requires that decisions pertinent to the horizontal and vertical functioning of the system are informed by relevant, timely and anticipatory information. For this information to be relevant, legitimate and useful, data must be provided and understood by stakeholders engaged at all levels.

The OECD proposes therefore that an anticipatory innovation governance model must be 'bipedal', having two legs. One 'leg' is responsible for the governance and management of information that is pertinent to the continuous learning system. To achieve this, a mix of government representatives, social partners and experts are engaged. The other 'leg' concerns the design and implementation of policies and programmes. The two elements of governance, information development and policy making, propel each other forwards.

The separation of the governance of policy decisions and the information system ensures that the high-level stakeholders from government, social partners and education are provided with the best possible anticipatory information, but are not required to engage in technical discussions which require specialised knowledge about data and anticipation.

Dual level governance

In ‘Strengthening the Governance Skills Systems’ the OECD states that two levels of governance are valuable to maintain the visibility, momentum and co-ordination of policy for continuous learning (OECD, 2020[7]). A top-level governance body which engages politicians and heads of social partner organisations two to four times a year can develop strategic priorities based on a holistic understanding of the needs and objectives of the continuous learning system. The participation of leadership lends legitimacy and visibility to this process.

The work of implementing the strategic priorities should be facilitated through regular meetings of government advisors and experts. Vertical and horizontal co-ordination undertaken at this level can ensure that actions are aligned and adjusted in response to new information from ‘on-the-ground’ experiences, and parallel priorities identified in the ministries.

Furthermore, the OECD identifies that "two levels of decision making may also help to mitigate conflicts, with political level conflicts delegated to the working level for further discussion. Vice versa, if there is disagreement at the working level, political leaders ultimately decide on how these should be solved" (OECD, 2020[7]).

Skills Policy Council

A Skills Policy Council in Finland would build on the foundations of multi-stakeholder collaboration that shaped the Reform for Continuous Learning. It should aim not only to ensure that the implementation of the reform is undertaken, but also that the strategy for continuous learning in Finland is regularly reviewed and tested against anticipated challenges and opportunities. Such issues should be informed by information provided by the Future Skills and Labour Market Information Committee (see below) and identified by Council members.

Mandate

The overarching role of the Skills Policy Council is to provide direction for the continuous learning system in Finland based on a holistic assessment of the country’s present and future needs. The mandate of the Skills Policy Council should be defined to ensure that overlap with existing bodies is limited. A decision must be made whether the council has the power to make decisions relating to policy, or is an advisory body.

A clear mandate encourages stakeholder participation as it allows members of the council to see the effects of their work. Members of the Continuous Learning AIG Taskforce have stated that the work of council would need to be ‘goal-oriented’ and possibly linked to the Budget process timetable in order to ensure that is has impact.

Participation

Participant selection should focus on achieving four objectives: promoting the visibility of continuous learning as a priority, ensuring that decisions are perceived as legitimate, enabling the sharing of knowledge and expertise, and facilitating action.

Members of the Continuous Learning AIG Taskforce identified the promotion of continuous learning policy among leadership levels as a challenge. To address this, they have considered renewing the Employment, Education and Economic Affairs Council (TKE-neuvosto) to focus on continuous learning, as it already engages key stakeholders and has a minor focus on skills. One risk of this may be that continuous learning remains a peripheral concern to the Council. To address this, the mandate must be clear.

The range of participants should ensure that the inclusion of relevant stakeholders is balanced with the ability of the Council to make decisions, which becomes a challenge when numbers become too great. The case of Norway's Skills Policy Council demonstrates that the inclusion of stakeholders who have not traditionally participated in similar bodies can improve the knowledge base and legitimacy of the Council. However, steps must be taken to ensure that the voices of such organisations are not secondary to those with existing links to government.

Leadership and agenda-setting

Providing participants with a level of control over the agenda can ensure that emergent and future issues are raised which fairly represent the concerns of different group members. The case of Norway's Skills Policy Council shows how too much control of a single member over the agenda can result in friction and dissatisfaction, while Germany's Alliance for Initial and Further Training demonstrates how a model of equal membership can create the conditions for the development and testing of innovative policy ideas.

The OECD recommends that the agenda for each meeting is developed in partnership with council members, for example through a working group managed by a government secretariat. Members of the Continuous Learning AIG Taskforce considered that the inter-departmental co-ordination group detailed below could function as the secretariat, while rotation of the meeting chair through council members would provide opportunities for a range of relevant issues to be raised.

While collective agenda-setting is beneficial, clear rules and a degree of government leadership should help to ensure that Council meetings are inclusive, and that conflicts between members can be resolved.

Frequency and length of meetings

As meetings of the Skills Policy Council pertain to strategic priorities and not the day-to-day implementation of policies for continuous learning, meetings can be limited to two to four times per year.

Discussion and deliberation to develop a shared understanding of challenges for continuous learning is necessary, especially when dealing with the uncertain nature of anticipatory information. For this reason, it is recommended that meetings of the Council provide enough time for dialogue.

Role of anticipation

While a Future Skills and Labour Market Information Committee (see below) will provide evidence about future skills needs and potential challenges to the Finnish economy, the role of the Council should be to explore how a wider range of future trends and possible events may affect the needs and purpose of the continuous learning system in Finland.

The Council should proactively commission anticipatory exercises such as scenario planning, collate anticipatory reports from national and international organisations, and provide a forum for collective sense-making about the future. The aim of this is to enable the Council to assess the continued relevance of the objectives and activities of the Continuous Learning Reform and to make collective decisions to ensure that the continuous learning system is prepared for the challenges of the future.

Box 9.2. Norway, Skills Policy Council and Future Skills Needs Committee

Norway was selected as a country of interest by the members of the Continuous Learning AIG Taskforce, and a peer-learning session with three public servants involved in the governance of the country's skills system was set up.

The creation of the Norwegian Strategy for Skills Policy 2017-2021 brought partners from public institutions, social partners and non-governmental organisation into greater alignment to "ensure that individuals and businesses have the skills that give Norway a competitive business sector, an efficient and sound public sector, and an inclusive labour market" (Ministry of Education, 2017[15]). One representative from the peer-learning session credited the OECD, which published OECD Skills Strategy Diagnostic Report: Norway in 2014, with 'mobilising' actors at regional and national levels to engage in discussion about skills policy in Norway.

In order to facilitate the development and implementation of policies to achieve the aims of the strategy, two new governance arrangements were set up: the Skills Policy Council and the Future Skills Needs Committee. These bodies, and the relationship between them, provide a useful model for the governance of the Finnish continuous learning system, as they build on a similar corporatist structure of social partner engagement present in Finland.

Skills Policy Council

The peer-learning session between Norwegian and Finnish civil servants took place following the election of a new government in Norway. In this period, Norwegian representatives did not have a clear view of the new government's intentions for the Skills Policy Council. For this reason, the Skills Policy Council will be referred to in the past tense.

The Skills Policy Council was made up of representatives from all the partner organisations of the Norwegian Strategy for Skills Policy 2017-2021. It was overseen by the Minister of Education, and attended by representatives from the Ministry of Labour and Social Affairs, The Ministry of Trade and the Ministry of Local Government and Rural Development. Other governmental bodies in the Council included Skills Norway (Kompetanse Norge), a directorate under the Ministry of Education, the Sami Parliament, and one representative of the counties. Social partners were represented by top-level employer and employee organisations, and the Norwegian Association for Adult Learning (VOFO), which represents non-profit education providers. In 2020, the University of Norway was given a seat on the Council.

The Skills Policy Council met two to four times a year for about two hours (though this was reduced during the coronavirus pandemic), and the agenda was set by the Ministry of Education and Research. The mandate of the council was to ""follow-up" on the strategy and to continue to promote co-operation between the involved stakeholders, which should include regular discussions and advice on current skills policy issues, regular reports on the strategy partners' own policy measures to implement the strategy, as well as a potential revision of the strategy if needed" (OECD, 2020[7]).

The OECD (2020[7]) and civil servants present at the peer-learning session note a number of key benefits of the council. It was seen by stakeholders as an appropriate structure for the governance of skills policy in Norway, as it built on the pre-existing model for tripartite engagement and the relationships this entailed. Additionally, it enabled actors not traditionally involved in existing tripartite bodies such as VOFO and the regions to contribute their views and ideas to the development of skills policy. This engagement was described by a civil servant as 'a wise way to make partners responsible for the complex development of skills policies in Norway', and highlighted by the OECD as "giving the

government legitimacy and capacity to introduce more ambitious and innovative policies" (OECD, 2020[7]).

By engaging a wide range of stakeholders in a systematic manner, the Skills Policy Council was also credited with improving both horizontal and vertical co-ordination and co-operation. Leveraging their diverse areas of expertise enabled the development of a more holistic view of the challenges to be addressed through skills policy.

Challenges for the Council related largely to the perception that members did not have sufficient or equal power to influence its agenda, which was set by the Ministry of Education. To address this, an administrative group was created to allow Council members to propose agenda items (source: discussion with Norwegian civil servant). It was also felt by some stakeholders that the meetings did not allow enough time for discussion and deliberation (OECD, 2020[7]). An additional issue was the imprecise mandate of the Council and the impact of its advice. This raised concerns about its potential overlap with pre-existing councils, risked increasing fragmentation of skills policy, and threatened the commitment of some members.

Takeaways for Finland

There are four clear takeaways for the Finnish context:

- The involvement of a wide range of high-level stakeholders to advise on the development of skills policy enables policy decisions to be informed by diverse relevant expertise, and enhances their legitimacy
- Regular engagement of high-level stakeholders on the topic of skill policy can ensure that the design and implementation of new policies takes place in a co-ordinated manner
- A clear mandate for a new governance arrangement for skills policy can help to ensure that stakeholders remain committed to it, and that fragmentation does not occur
- Commitment among stakeholders can be enhanced and frictions reduced by allowing members to influence the agenda of the council and by providing time and space for discussion

Future Skills Needs Committee

The Future Skills Needs Committee was renewed in 2021 to continue until 2027, and was therefore in continued existence at the time of the peer-learning session. Its mandate is "is to provide the best possible evidence-based assessment of Norway's future skill needs. This assessment will form the basis for planning and strategic decision making of both authorities and in the labour market, regionally and nationally" (Norwegian Committee on Skill Needs, 2021[16]).

As well as providing analysis of future skills needs in the short, medium and long term and the capacity of the education system to address these needs, the Committee is focused on 'pointing out challenges' for the future of skills in Norway. To achieve this, the Committee is required to: "Facilitate and stimulate open dialogue and discussion about society's skill needs with different stakeholders and society more generally" (Norwegian Committee on Skill Needs, 2021[16]).

The committee is chaired by the Directorate of Higher Education and Skills (where it has a dedicated secretariat), and comprises 18 members who are appointed every two years. Eight members are representatives of social partners (four from the employer side, and four from the employee side). Nine further members are researchers, and there is one representative of the county councils.

In its first iteration, the Committee met for approximately five all-day meetings per year. It produced three Official Norwegian Reports which are credited with providing stakeholders engaged in skills policy with a holistic common understanding of the problems to address in Norway (source: interview with

Norwegian civil servant). Decisions about the content of the reports and relevant data and information were made unanimously by the Committee. According to the renewed mandate for the Future Skills Needs Committee, it will no longer produce Official Norwegian Reports, and its outputs will focus on more specific topics, such as higher education. The Committee has an annual budget financed by the Ministry of Education.

The OECD (2020[7]) and civil servants present at the peer-learning session note several key benefits of the Future Skills Needs Committee. First and foremost, it has facilitated a shared understanding of the current issues and future challenges relating to skills, providing a foundation for collective problem solving among government, social partners and researchers. The Committee's engagement of a wide range of stakeholders in the selection and analysis of data in the complex field of skills ensures that its interpretation is perceived as legitimate among social partners, as well as encouraging the contribution of valuable information for analysis. The Committee's work has also enhanced vertical co-operation by developing information resources that are relevant to regional challenges, and acting to address gaps in data that inhibit evidence-informed decision-making at regional and sectoral levels. In the peer-learning session, it was noted that the Committee's work has initiated a more 'scientific' approach to skills policy from national to regional level.

The OECD (2020[7]) notes that in spite of the Committee's role in enabling consensus among partners, some frictions were experienced in its first iteration. These related to a difference in an understanding of the mandate between the previous secretariat, which was headed by an economist based at Skills Norway, and the social partners. The secretariat viewed the Committee's role as providing 'objective' insights based on quantitative data. Social partners viewed all data as subject to political interpretation. They sought more time for deliberation and sense-making, as well as an increased use of qualitative evidence. The renewed mandate addresses this by highlighting that: "The future is difficult to predict, and therefore, the Committee will also describe dilemmas that arise when assessing future skill needs" (Norwegian Committee on Skill Needs, 2021[16]).

Takeaways for Finland

There are three clear takeaways for the Finnish context:

- The development of common problem definitions based on strong evidence provides a foundation for co-operative problem solving between government and social partners
- Engaging stakeholders in the development of information resources encourages the contribution of data which can be used to make better evidence-informed decisions
- Information that concerns the future is inherently uncertain, and so practical application to skills use is dependent on collective and consistent interpretation by affected stakeholders

Sources: (OECD, 2020[7]; Norwegian Committee on Skill Needs, 2021[16]); OECD Peer-exchange with Norwegian civil servants

Box 9.3. Germany, Alliance for Initial and Further Training

While it focuses on Vocation Education and Training (VET) and not the more holistic scope of continuous learning, Germany's Alliance for Initial and Further Training demonstrates some benefits of a non-hierarchical approach to the development and implementation of skills policy. This case study is based on analysis from 'Strengthening the Governance of Skills Systems' (OECD, 2020[7]).

The Alliance is both an agreement and a forum for deliberation that represents the latest development of a governance structure that has persisted since 2004. Its current form was initiated in 2014, and engaged the Ministry of Economics and Labour, Ministry of Education and Research, State Secretariat for Migration, Refugees and Integration, The Federal Employment Agency, Länder (regions), business associations, employer associations and trade unions as official signatories to a document in which initiatives for the support of VET are agreed.

The top-level actors of the Alliance meet annually, and its work is supported at a lower level by regular meetings of working groups. The pact was renewed in 2019, and will continue until December 31, 2022.

The OECD highlights the four key benefits of the Alliance. First, the signing of an agreement initiatives to address skills needs by high-level representatives regularly raises the profile of skills policy, ensuring that it remains high on the agenda of both governmental and non-governmental stakeholders. Second, the space for discussion provided by the Alliance allows for challenges relating to the development and implementation of initiatives to be explored and deliberated, and has supported the development of trust and a mind-set of joint problem-solving among signatories. This has also enabled questions of funding to be negotiated. Third, the participation of ministries as equal partners in the Alliance means that initiatives to support skills development can be developed and tested by Alliance members without the need for legislation, meaning that "the Alliance has become a kind of laboratory for innovative policy instruments" (OECD, 2020[7]). Fourth, it has provided a platform for the engagement of the Länder in skills policy, promoting vertical co-ordination. Furthermore, it has provided a model for similar complementary alliances at the regional level.

Takeaways for Finland

- A written commitment from high-level stakeholders can ensure that skills policy remains a priority and promote a sense of responsibility among stakeholders
- Non-hierarchical collaboration can create opportunities for the proposal and testing of more ambitious policy interventions
- A forum for discussion can promote trust, consensus-building and a joint problem-solving mindset
- Decentralised governance arrangements at a national level can provide a template which promotes co-operation at the regional level

Sources: (OECD, 2020[7]; Allianz für Aus- und Weiterbildung, n.d.[17])

Inter-departmental co-ordination group

A consistent inter-departmental group can enhance co-ordination among the ministries (and potentially with social partners) on a more regular basis than a high-level skills policy council. The example of the Netherlands (Box 9.4) demonstrates how such a group can function in practice.

Mandate

The key role of the group is to enhance co-ordination on policy development for continuous learning. The group should also ensure that anticipatory knowledge and insights from the implementation of policy are shared and that action is taken to assess and iteratively improve interventions and ensure that they prepare for future needs.

Participation

At the very least, the group should consist of the Ministry of Education and Culture (MoEC), the Ministry of Economic Affairs and Employment (MoEE) and the Service Centre for Continuous Learning and Employment (Service Centre). It may also be valuable to include representatives of the Ministry of Finance (MoF), The Ministry of Social Affairs and Health (MoSAH). The involvement of one or more representatives of the municipalities would promote vertical co-ordination, while non-governmental representatives can provide insights into the impact of policy at the operational level.

Leadership and agenda-setting

In the Netherlands, the chair of the group rotates between members. Adopting this approach in Finland may facilitate a more balanced representation of the key issues for each ministry, and alleviates pressure on an individual ministry to manage group meetings.

Frequency and length of meetings

Meetings should take once a month in order to provide ongoing adjustments to maintain policy alignment and respond to new information and political decisions.

Role of anticipation

Anticipation should be a standing agenda item so that group members are encouraged to share and collectively make sense of new anticipatory information. The group should reflect on how trends, potential challenges and opportunities may impact stakeholders in the continuous learning system in Finland, identify who is likely to be affected, and agree on actions to support them to understand and respond to these issues.

Box 9.4. The Netherlands, Inter-departmental co-ordination

As described by the European Centre for the Development of Vocational Training (Cedefop), the Netherlands has a long tradition of using detailed economic analysis in policy making, including 60 years of experience conducting skills anticipation exercises. Nationally, foresight in the Netherlands includes cross-ministerial co-ordination through the Council of Ministers, but foresight research is mostly decentralised and executed by agencies and universities.

The example of the Netherlands clearly demonstrates the value of having a clear structure for collaboration. Before 2017, the Ministries of Economic Affairs, of Education and of Social Affairs and Employment already exchanged regularly on the topic. Participation in the 2017 OECD Skills Strategy research required the three ministries to co-ordinate on a more regular basis, together with the Dutch Social and Economic Council, an established body of employer organisations, employee organisations and independent experts. This provided the foundation for the current system, where monthly meetings are organised with a meeting chair and agenda, and where policy developments are discussed, and efforts are co-ordinated among the ministries. The introduction of regular and structured meetings has provided the opportunity for the ministries to exchange on decisions and plans of their respective ministers and discuss what has been said in parliament.

Forecasting is a recurring topic in the monthly meetings. Each Ministry has its own strategic foresight unit to support evidence-based policy making. This includes foresight in relation to risk and trends affecting the labour market. For example, the Netherlands currently faces labour shortage in the fields of energy and climate, and health and education. The strategic unit in each ministry studies whether this trend is likely to continue and what factors influence these developments. The implications of forecasting within a ministry are discussed in the monthly meetings to identify the implications of the forecast and agree on joint or co-ordinated actions. Each strategic unit also informs their minister of the foresight results and shares the results of the minister's views in the co-ordination meeting.

However, the skills anticipation system of the Netherlands is also quite decentralised, through the involvement of the 35 Dutch labour market regions. In these regions employers and educators work together to take stock of labour demand. The Ministry of Social Affairs co-ordinates these efforts (and co-ordinates the 35 regions) together with the unemployment office. If there is an update from 35 regions, the Ministry of Social Affairs brings that to the monthly meeting with the other ministries.

An important element of regional-level forecasting and co-ordination is the insurance that regional education supply meets the regional labour demands. Eindhoven is a good example, which hosts the High-Tech Campus with 235 companies and 12 000+ staff working on innovative technology. Co-ordination between the labour regions ensures that education related to such high-tech work is also concentrated in Eindhoven rather than in the north of the country.

An example of co-ordination between the Ministerial working group and the labour market regions can be found in the current plan to design a common skills ontology. Given that various actors are implementing a wide range of skills initiatives, co-ordination requires the use of a common language on skills across all Dutch skills stakeholders. This will facilitate the co-ordination between national actors and labour market regions, as well as co-ordination among the labour market regions. The final skills ontology will be integrated into a new education portal.

Takeaways for Finland

- Regular meetings at the working level:
- Enable information sharing, which enhances horizontal and vertical co-ordination
- Promote innovation to enhance the functioning of the continuous learning system

Sources: (CEDEFOP, 2017[18]); OECD Interview with representative of the Dutch Ministry of Education.

Working groups

While the aforementioned governance structures enable co-ordination, working groups can facilitate collaborative working on specific issues identified by the stakeholders in the Skills Policy Council.

Such groups can draw on information provided by the Future Skills and Labour Market Information Committee and supplement it with additional evidence in order to advise on current and future challenges.

Interviews with Finnish stakeholders identified the following as current issues for continuous learning in Finland, making them suitable candidates for working groups:

- Enhancing the development and use of anticipatory information
- Improving SME awareness of skills needs and participation in training

Role of anticipation

The Skills Policy Council could stipulate that working groups must employ anticipatory approaches and take into account anticipatory information in the preparation of their recommendations. Working group members could be given capacity building support by members of the Future Skills and Labour Market Information Committee to enable them to confidently identify and apply relevant anticipatory methods.

Future Skills and Labour Market Information Committee

While a strong evidence base provides a foundation for co-ordination and supports the legitimacy of policy decisions, the analysis of future skills needs and challenges for continuous learning is complex and subject to interpretation. A Future Skills and Labour Market Information Committee (FSLMIC) is a governance structure to facilitate the development of a trusted, high-quality evidence base for decision-making at all levels of the continuous learning system. The examples of the Norwegian Future Skills Needs Committee (Box 9.2.) and Estonia's OSKA initiative (Box 9.5) demonstrate the value of multi-stakeholder governance for this purpose.

In the proposed governance system, the FSLMIC and the Skills Policy Council take on distinct but complementary roles. While their members may be drawn from the same organisations, those participating in the Committee will be expected to have the expertise and capacity to develop a nuanced understanding of the benefits and limitations of different types of evidence. Stakeholders participating in the Council are expected to have the legitimacy to make decisions based on the evidence provided by the Committee.

Mandate

The core role of the FSLMIC should be to ensure that anticipatory information about learning and skills in Finland is accessible, based on the best possible evidence, trusted by key stakeholders, and presented in ways that enable them to make informed decisions about continuous learning. This is in line with the objectives outlined under REFORM 1: Reform of continuous learning (P3C2R1) in the Sustainable Growth Programme for Finland (Government of Finland, 2021[19]).

To achieve this, the FSLMIC should develop methodologies for the analysis of data about learning and skills, identify suitable data sources, promote the contribution of information by stakeholders throughout the continuous learning system and identify future issues and challenges for more in-depth research. It should oversee and participate in the production of information resources, such as reports and dashboards, which provide anticipatory insights that serve the needs of stakeholders in the continuous learning system. These can be hosted on the Integrated Information Resource.

The FSLMIC in Finland could act as a board to oversee the development of the new model to forecast labour and competence needs, which is the responsibility of the National Agency for Education, the KEHA Centre, ELY Centres, TE Offices and Service Centre (Government of Finland, 2021[19]). In this role, the

Committee will ensure that the resulting model is assessed and trusted by stakeholders throughout the continuous learning system.

Participation

Information about the future is complex and uncertain. For this reason, collective sense-making is necessary to ensure that it is interpreted consistently and lays a foundation for co-ordinated action. To ensure that the insights that the FSLMIC generates are trusted, its membership should be drawn from government and social partners. Seats on the Committee should be held by experts from a range of disciplines, including economics, sociology and foresight, so that both qualitative, quantitative and anticipatory evidence can be considered. The steering group of the OEF (National Forum for Skills Anticipation) already brings together many of these stakeholders, and may therefore undertake the tasks of the FSLMIC with a revised mandate (Finnish National Agency of Education, 2020[20]).

Leadership and agenda setting

The case of Norway demonstrates that friction between committee members may occur if leadership of the FSLMIC is too centralised in a particular organisation or ministry. This is partially because the uncertain nature of anticipatory information about continuous learning and the labour market means that interpretations of future challenges and which issues to prioritise can differ. For this reason, it is recommended that a process is developed for the collaborative identification of issues for the agenda of each meeting.

Frequency and length of meetings

Given the technical nature of the development of insights for skills and continuous learning and the importance of a multi-disciplinary approach to create a full picture of the changing situation, it is likely that meetings of the FSLMIC will need to be relatively long. Norway's Future Skills Needs Committee initially met for five all-day meetings per year. As well as ensuring that committee members understand the benefits and limitations of different data sources, the meetings should also allow time for deliberation about the interpretation of information.

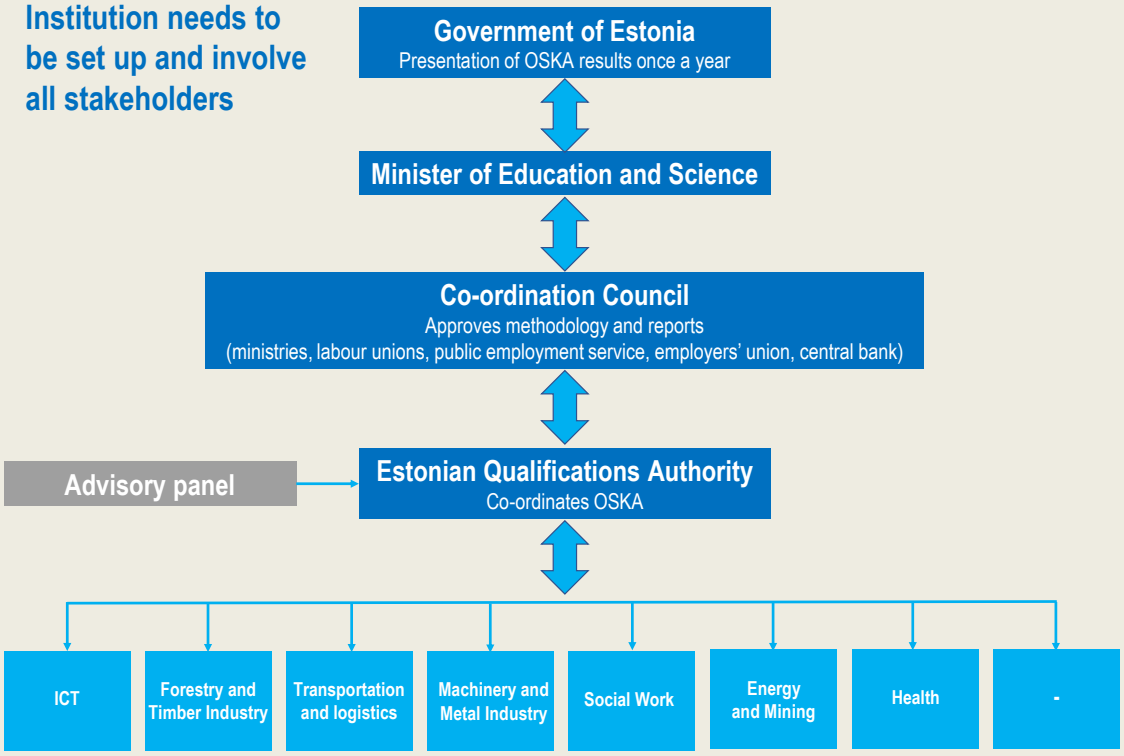
Role of anticipation

The FSLMIC should actively promote the application and development of anticipatory methods to provide insights and inform decision-making in the continuous learning system. Novel approaches should be sought to continuously enhance its anticipatory capacity. Anticipatory approaches which highlight the role of particular trends shaping the demand for skills can help the FSLMIC to identify data sources that provide an early signal of changes in the labour market. For example, anticipatory insights could be gleaned about developments in the automation of key industries for Finland by analysing patents and job advertisements in other countries.

Box 9.5. Estonia, OSKA

In 2015, Estonia established its skills assessment and anticipation exercise (OSKA) for the purpose of conducting labour and skills anticipation research for the 10 years ahead and to better co-ordinate skills anticipation activities and enhance stakeholder involvement in skills anticipation. The introduction of OSKA formed a significant change in terms of the foresight ecosystem: As forecasting became situated in the Estonian Qualifications Authority (EQA), foresight results are directly available to employers and employees already engaged with EQA. OSKA therefore enhanced the participation of its existing partners, but also engaged new stakeholders such as the unemployment insurance fund. Furthermore, the introduction of OSKA meant that traditional foresight shifted from the traditional narrow labour market-oriented research to include also the education system.

Figure 9.2. Governance of OSAKA



Source: (Leoma, 2019[21])

OSKA is managed by the co-ordination council comprising 11 members that represent ministries, labour unions, the public employment service, employers' unions, and the central bank. The co-ordination council approves the methodology for the foresight research and approves the reports and other outcomes. Subsequently, the co-ordination council reports to the Ministry of Education, who reports the results to the government.

Before the introduction of OSKA, stakeholders were involved in skills anticipation merely by commenting on forecasts of the Ministry of Economic Affairs. The OSKA Coordination Council guarantees that stakeholders can provide recommendations and determine which sectors should receive greater focus. Their involvement has also become more systematic. The added value of this approach is that

stakeholders are not consulted separately or in silos. There is a form of co-creation of research that benefits from dialogue between stakeholders, rather than separate inputs. This facilitates building common grounds, joint objectives, and avoids overlaps among actors working on similar topics.

Foresight research is conducted by OSKA's 24 sectoral panels, established at the Estonian Qualifications Authority, which comprise 20-30 experts each. The composition of each panel includes approximately 50% employers, 25% education providers and 25% policy makers. The large number of diverse stakeholders means occasional conflicting interests. The co-ordination council is tasked to balance the interests. OSKA aims to find the common good among the stakeholders, but also supports the messages that are brought forth by the research. The discussions taking place within the structure of OSKA, allowing all stakeholders to participate, is already a key resource to ensure that mutual objectives can be identified.

OSKA's research relies on both qualitative and quantitative assessments, combined with data obtained from Statistics Estonia on the annual employment forecast, to provide deeper insights into skills demand, supply and mismatch in the future. Cedefop also noted that OSKA introduced a switch in the purpose of anticipation. While skills anticipation earlier served only to inform education policy, it is now also used for career counselling and qualification design.

The Minister of Education of Estonia reflected in his 2021 reflection of OSKA that future analyses of OSKA should also focus on professions that do not yet exist, that may be supported by new trends in education such as microlearning and hybrid solutions.

Takeaways for Finland

- The collaborative engagement of stakeholders to identify future skills needs and objectives builds trust and enables a holistic assessment of the skills system
- A foundation of collaborative problem identification supports the development of more sophisticated approaches to develop anticipatory information
- A co-ordination council or committee plays an important role to balance and resolve conflicting interests

Sources: (CEDEFOP, 2017[22]; Leoma, 2019[21]; OSKA, 2022[23]); OECD Interview with Praxis; OECD Interview with Estonian Qualifications Authority.

Integrated information resource

An accessible source of consistent, relevant and timely information about jobs, skills and continuous learning should provide the backbone for co-ordination across the continuous learning system. The 'Sustainable Growth Programme for Finland' (Government of Finland, 2021[19]) sets out a vision for an integrated digital services package which gathers, collates and presents information about jobs and skills for a range of stakeholders in Finland. EUR 2.5 million of European Union Recovery and Resilience Facility (RRF) funding has been allocated for reforming the foresight reporting system for continuous learning by the Service Centre, which has created a project plan for implementation.

Participation

The OECD states that "involving stakeholders in the design and upgrading of information systems increases the likelihood that these systems will actively be used" (OECD, 2020[7]). Such participation can ensure that stakeholders recognise the benefits and limitations of the system, are encouraged to contribute useful information which improves its utility (such as evaluations of training), and become more invested in supporting and promoting it.

The level and type of participation should be defined by the FSLMIC, whose members can also promote engagement with the resource through their networks. SkillsFuture Singapore, which co-ordinates and manages the production and dissemination of anticipatory information about jobs and skills in Singapore, shows how stakeholders are engaged to provide data, validate insights, and ensure that information resources are designed to address user needs.

Leadership and management

According to the Sustainable Growth Programme for Finland, the digitalisation programme for integrated continuous learning services is to be led by the MoEC, MoEE, National Agency for Education, KEHA Centre, Service Centre and universities.

As the Service Centre is responsible for the ongoing analysis of competence and labour market needs, and support of co-operation, it is suitable for it to take over responsibility for the ongoing management and development of the integrated information resource.

Role of anticipation

As well as hosting anticipatory information about jobs and skills, the integrated information resource should support stakeholders to understand its benefits, limitations and uses so that they are confident applying it to their own contexts. This could be achieved through a range of resources and services, such as webinars and digital tools, whose development is informed by user research.

Box 9.6. Singapore, Future Economy Council and SkillsFuture Singapore

Globally, Singapore is known for its advanced foresight infrastructure that has developed already over decades. Besides dedicated strategic foresight centres and networks within the government and outside, the country also invests in building foresight skills within its civil servants as part of the civil service curriculum.

Under the Industry Transformation Programme in 2016, 23 Industry Transformation Maps (ITMs) for 2025 were drafted, which serve as roadmaps for each industry to address core issues and deepen partnerships between Government, firms, industries, trade associations and chambers. Each ITM includes four pillars of growth, including a pillar on jobs and skills, to:

- Promote manpower-lean enterprise development
- Equip Singaporeans with the necessary skills to support greater value creation
- Develop a comprehensive ecosystem for skills development and lifelong learning
- Strengthen enterprise HR capabilities to maximise workforce potential

The Future Economy Council (FEC), set up in 2017, is the main framework for foresight and future planning with regard to economic developments in the country. The FEC is also responsible to ensure the implementation of the ITMs. However, the ITMs are not completely static. A revision of the ITMs is planned for 2022, based on accelerated changes caused by COVID-19.

The Council is chaired by the Deputy Prime Minister & Minister for Finance, and comprises 41 members representing the government, industry, unions, and educational and training institutions. The Council is further divided in seven sub-committees, each of which oversees a group of ITMs in the same cluster or industrial group.

The Future Economy Council works closely with SkillsFuture Singapore (SSG). SSG is described as “a national movement to provide Singaporeans with the opportunities to develop their fullest potential

throughout life, regardless of their starting points." The role of SSG as a skills authority is to support the whole economy with the identification of current necessary skills, emerging skills, and future skills in tandem with how the industry transforms. The organisation reports to the Ministry of Education.

Through sectoral working groups, the FEC identifies trends that are likely to affect Singapore and create innovation or changes in sectoral practices. The SSG analyses the likelihood to which such trends create a significant change in skills needs. This is assessed through the development of partnerships and proof of concept projects that may signal that the trend or innovation is being adopted in Singapore. SSG subsequently translates this to education and skills needs, in co-operation with education providers.

Higher education institutions usually participate in the sectoral meetings to hear the main developments likely to affect skills needs. Some HE institutions additionally organise regular meetings with advisors (sectoral representatives and SSG) to discuss how such trends should be reflected in education. SSG supports the building of-house capacity of HE to monitor labour trends and adjust education programmes. Modular courses can now be developed to address new skills needs in as little as three months, while longer courses can be developed in six to nine months (source: peer learning with representative of Skills Future Singapore).

The SkillsFuture online platform hosts information resources about the anticipated demand for skills aimed at students, working adults at different career stages, employers and training providers. These are developed through user-centred approaches to ensure that they are comprehensible and valuable to the stakeholders they target. For example, social media posts may be used to provide information to individuals, while webinars are hosted to update employers on developing skills demands. SkillsFuture also launched a report in 2021 on the priority skills necessary for the future economy.

The activities of SSG serve as an example of the value of stakeholder engagement to track changing needs for skills, information and support, and facilitate the rapid development new courses to address the anticipated demand for new skills. It success is partially owed to the development of a trusted methodology for generating skill insights and a taxonomy of about 11 000 skills. These assets provide a common understanding of skills needs. This enables the more rapid validation of insights with industry representatives, and acts as a foundation for collaborative action to identify and address current and future skills gaps.

Takeaways for Finland

- Setting industry-focused visions to enable them to better address future challenges and opportunities can promote futures-oriented collaboration for skill development
- The development of a skills taxonomy and a trusted approaches to generating skills insights can facilitate more rapid collaboration and action to address anticipated skills needs
- User-centred approaches to communicate information about future skills needs can increase uptake of anticipatory information

Sources: (School of International Futures, 2021[24]; Government of Singapore, 2022[25]; Singapore Ministry of Trade and Industry, 2022[26]; The Business Times, 2022[27]; Today Online, 2022[28]); OECD Interview with Skills Future Singapore.

Pilot case findings and key considerations

The pilot case study on continuous learning sheds light on the challenges associated with facilitating the consistent interpretation and application of anticipatory approaches in a policy domain demands effective horizontal and vertical co-ordination.

It demonstrates the value of investing in the development of **networks and partnerships** between governmental and non-governmental stakeholders so that information about the changing context of continuous learning is gathered from a wide range of sources, and that policy decisions are based on consistently understood evidence and perceived as legitimate and realistic. The pilot case also highlights the importance of developing practices that facilitate **collective sense-making** to achieve a consistent understanding and overcome the 'impact gap' between anticipation and implementation that has affected Finland's adult learning system in the past.

Main Findings	Key considerations
Continuous learning in Finland	
Working with the complexity of an anticipatory continuous learning system requires the application of collective intelligence from diverse stakeholders	• Ensure that relevant governmental and non-governmental stakeholders are actively engaged in a continual assessment of the continuous learning system • Facilitate information sharing and dialogue with decision-makers throughout the continuous learning system to identify implementation challenges, develop solutions and encourage a shared problem-solving orientation
Anticipatory information related to continuous learning can be collected from a wide range of sources and subject to different interpretations	• Develop knowledge and information management processes that ensure qualitative and quantitative signals of change are collected from a wide range of sources • Engage relevant governmental and non-governmental stakeholders in the selection and sense-making of information so that anticipatory knowledge is interpreted and acted upon in a consistent manner • Apply user-centred methods to develop anticipatory knowledge products which serve the specific needs of stakeholders
Anticipatory approaches suitable for continuous learning encompass more than skills foresight	• Ensure that top-level governance structures regularly engage in anticipatory approaches to stress-test the continuous learning strategy • Stipulate the use of anticipatory information to encourage the exploration of alternative options when developing new policies or initiatives

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10 Carbon neutrality and evidence about the future in fiscal and economic policy

Finland aims to be carbon neutral by 2035 and eventually become the world's first fossil-fuel free welfare society. To reach this goal incorporating anticipation into fiscal and economic decision-making is essential. This pilot case study outlines different models through with uncertainty can be included into fiscal planning in the context of carbon neutrality.

Purpose and context of the research

The purpose of the carbon neutrality research is to contribute to further building Finland's anticipatory governance capacity by identifying interesting international cases of how governments (can/could) deal with (climate change) uncertainty in fiscal modelling, policy and budgeting in practice.

Also at the core of this case is **anticipatory governance**, since carbon neutrality is (like many policy fields) in a context of uncertainty, complexity, and novelty. This is because it is subject to evolutions and transformations in the future involving society, technology, environment, and the economy. No governance model—even with the most successful of reforms—can deliver support to transition to carbon neutrality over meaningful periods of time, unless it has the ability to constantly perceive, understand, and act upon the changes of the future as they emerge.

To identify ways forward, the OECD undertook multiple activities to support the analysis in this document:

- **Carbon neutrality task force**: a dozen experts in carbon neutrality, senior policy makers, and public officials met during October 2021 to March 2022 to provide information on the Finnish context, reflect on critical questions, and provide feedback on the ongoing study.
- **Workshops and expert consultations**: experts and peers from the Ministry of Finance, Prime Ministers Office, Environment Ministry, and Sitra participated in discussions on elements of the analysis, and responded to information and updates on the study.
- **International case study analysis and learning sessions**: in consultation with Finnish partners, a set of case studies from was chosen to highlight successful practices in anticipatory mechanisms as applied to carbon neutrality; country peers presented their approaches with the carbon neutrality task force; results include a set of most pertinent findings for Finland, provided in this report.
- **OECD consultation**: experts from several OECD directorates in the field of green budgeting, carbon modelling, net-zero transitions, and governance brought multidisciplinary knowledge to bear.

Findings in this report are supported at several instances with anonymised quotes from task force members, as well as participants in dialogues between civil servants and policy makers, hosted internally by the Finnish Government.

Uncertainty and complexity in carbon neutral transitions

The challenge of carbon neutrality is characterised as having numerous interconnected factors, incomplete and contradictory information, and no clear idea of what an ideal solution would be if it existed. Nevertheless, the problem of climate change is one of the most pressing existential challenges of our time. To solve the challenge, the solution necessarily must not be relegated to an individual institution or ministry; indeed, Ministries of Environment have in many cases been solely responsible for driving the issue. However, it is increasingly necessary for a network of domains to address this wicked problem in concert with its overall strategic importance for governments.

The changing roles of Ministries of Finance

Ministries of Finance are key players in addressing the issue of long-term investment levels not matching up with the reality of the threats nor mid and long-term government goals. Finance ministries are also key players in the green transition as they are responsible for ensuring adequate fiscal management to mitigate risks and for implementing public investment, spending and taxation policies to leverage the opportunities offered by the green economy. These play a key role in promoting a just transition. However, in most cases, governments around the world are only now beginning to incorporate emissions targets in their budgeting processes. Green Public Finance Management (PFM) practices are mostly in an embryonic stage even in

the advanced economies (International Monetary Fund, 2021[1]). An (OECD[2]) survey of green budgeting practices found that 60% of OECD member country budgets did not incorporate green budgeting. Currently, only 14 countries around the world have implemented some form of green budgeting, most limited to *ex ante* or *ex post* environmental impact analyses to inform their budget decisions. Implementation of green budgeting practices in Europe is limited and comprises various different methodological approaches (European Commission, 2021[3]).

Carbon neutrality ambitions in Finland

Carbon neutrality goals and Finland's Climate Law

Finland's climate policy and targets are mainly aligned with those of the EU, with slightly higher ambitions overall. Finland has a long tradition of addressing climate issues and environmental challenges and is ahead of its European peers in terms of ambition and implementation. The Government Programme set out that Finland aims to be climate neutral by 2035 and eventually becomes the world's first fossil-fuel free welfare society. Carbon neutrality means that emissions and the sinks that sequester carbon are in balance or that greenhouse gas (GHG) removals are as high as the emissions produced by humans. Finland's obligation under EU law is to reduce the effort sharing sector's GHG by 39% by 2030, compared to 2005 levels.[1]

According to a report submitted by the Finnish Climate Change Panel in 2020, Finland was not yet on track to reach these targets. The Panel identified a gap of about 19 megatonnes of emissions between target and actions. It estimates the size of the carbon sink to be 21.4 megatonnes. To address this, the report lays out that more rapid decisions and swift implementation of effective measures need to be put in place. This will also require a clear and effective budgetary process to implement the measures at all levels of government.

In 2015, Finland approved its Climate Change Act that set out emission reduction targets and intended measures. It was under revision to account for the gaps identified and to include the government's new ambitious targets and measures considered necessary to meet the EU's 2030 emissions reduction targets and to achieve carbon neutrality by 2035. The revisions respond to the recommendations proposed by the Climate Policy Roundtable,[2] which advises on the adequacy of the measures to be included in the medium-term Climate Change Policy Plan. The recommendations of the Finnish Climate Change Panel included 60% reduction in emissions by 2030, 80% by 2040 and 90% by 2050 compared to 1990 levels and the ambition to achieve carbon neutrality by 2035. Putting these inputs into practice, the new Climate Change Act was approved by government on 3 March 2022 and will enter into force on 1 July 2022. The reform also extends the scope of the Act to the land use sector, and a target to strengthen carbon sinks will also be included in the act.

The 2015 Act requires government to prepare and keep updated, a series of detailed plans to deliver the targets set out. These include: a medium-term strategy extending until 2030; a long-term strategy to tackle longstanding environmental issues; and, development of a national adaptation plan, to be updated at least every ten years. Different Ministries were involved in preparing these plans according to a sectoral division of responsibilities. The plans are discussed in the next section.

To regularly monitor the extent to which the climate plans are implemented, the Ministry of the Environment draws up an Annual Climate Change Report. It describes the trends of emission reductions and assesses the adequacy of the reduction measure relative to the targets. The report is submitted to Parliament, and it serves as the basis for public discussion on climate change mitigation and adaptation. In 2021, the report stated the Ministry of the Environment's estimates that Finland was on track overall, but additional climate measures were needed to attain carbon neutrality by 2035. It states that a key factor for carbon neutrality

is the expected carbon sink number in 2035. The necessary additional measures will be proposed in the new Energy and Climate Strategy, set to be completed and published during 2022.

Preparation of climate plans: Division of sectoral responsibilities across national ministries

Find below which ministry is responsible for preparing climate plans in the various sectors:

- Ministry of Economic Affairs and Employment: the implementations of projects in industrial sectors, related to: electricity consumption; total energy consumption; supply of electricity; and district heating.
- Ministry of the Environment and Climate Change: sectoral aspects of F-gas emission policy scenarios; waste sector (quantity of waste incinerated, landfill emissions, and waste water and composting emissions) policies; buildings (area, demand for heating and heat sources, and related changes); machinery energy consumption.
- Ministry of Agriculture and Forestry: non-energy-related emissions, biomass volumes and energy consumption in agriculture.
- Ministry of Transport and Communications: energy consumption and emissions related to road, waterborne, air and rail transport; biocomponent percentages in fuels.
- Ministry of Finance: economic growth.
- Ministry of the Economic Affairs and Employment: responsible for co-ordinating the medium-term plan.
- Ministry of the Environment: responsible for co-ordinating the long-term plan.

Ministry of Finance: responsible for financing issues, decisions about where to invest and these targets are included in the budget process.

Finland's Climate Policy Roundtable

Finland's Climate Policy Roundtable, an advisory body set up in 2020 and chaired by Prime Minister Sanna Marin, convenes stakeholders from local and national governments, ministries, trade associations, NGOs, and others to advise on Finland’s national climate actions. One particular focus of the Roundtable's discussions is the transition into a carbon-neutral society as a socially and regionally fair and just transition by making low-carbon solutions attractive and profitable for businesses and people. The Roundtable meets 5 to 7 times per year and has discussed topics such as sectoral low-carbon roadmaps, the Climate Change Act and green recovery.

Finland’s current carbon neutrality strategies, activities and capabilities

To reach its greenhouse gas emissions target, Finland will need to implement significant measures in all sectors. Particularly crucial are the changes in energy production and consumption, transportation, construction and living, and agriculture and forestry. Inevitably, the share of electricity in final energy consumption will increase, but will require Finland to make energy production more secure and less dependent on foreign suppliers.

Within the EU, carbon neutrality strategies are drawn up partly on European and partly on national level. Industries that are included in the EU’s emissions trading scheme (electricity production, energy-intensive industries, most of Finland’s district heating and aviation) are subject to emission caps fixed at EU level that apply to all EU emissions trading sectors. The emissions trading system requires these sectors to match emission levels with predetermined allowances aligned with the EU’s reduction goal. Therefore,

there is no need for national governments to define separate national emissions reduction targets for these sectors. The purpose of the emissions trading scheme is to achieve reductions where this is most economical within the EU.

Member state-specific reduction goals such as Finland's are set for sectors (see Box 10.1) not covered by the EU emissions trading system (transportation, agriculture, heating of buildings, etc.; usually described as "effort sharing sectors"). Member states can exploit the emission reductions implemented by another EU member or non-member country, to contribute to their own reduction obligations. This is mostly due to cost-efficiency: emissions reductions implemented elsewhere may be significantly cheaper than domestic reductions.

Box 10.1. Finland Low-carbon roadmaps 2035

The Government of Finland is working to ensure that the country reaches the objective of being carbon neutral by 2035 and carbon-negative in the future. The roadmaps' purpose is to accurately picture the scale, costs, and conditions of the measures needed to move to a carbon-neutral country.

Led by the Ministry of Economic Affairs and Employment guidance, 13 economic sectors produced their low-carbon roadmaps in joint co-operation with their stakeholders. The sector-specific roadmaps provide a comprehensive description of the current situation, evaluation of emission-reducing technologies and measures, and estimate of achievable reductions.

The design method relies on scenario analysis to assess future developments that may affect the carbon neutrality objective. Most roadmaps also include assessments of future investment needs, such as in workers' upskilling, research and technology, and recognizing the potential of various existing resources.

The Government highlighted the roadmaps as the potential to effectively reduce greenhouse gas emissions in different sectors and reach the carbon neutrality objective by 2035. It also remarks that favourable investment conditions are critical for this. The sector-specific roadmaps will be utilised in the incoming climate and energy policy.

Source: (Government of Finland, 2021[4])

The medium-term climate change policy plan

Finland's medium-term plan covers the period up to 2030. It falls under the responsibility of the Ministry of Environment. The most recent document was issued in 2017 (Government of Finland, 2017[5]).

This medium-term plan specifies and complements the emission reduction measures outlined in the Energy and Climate Strategy prepared by the Ministry of Economic Affairs and Employment. According to the Climate Change Act, the medium-term plan must be co-ordinated with the national energy and climate strategy in terms of timing and content. This requires both documents to be prepared at approximately the same time using similar base-line calculations.

The 2017 plan takes account of the energy policy measures included in the strategy, which will affect future emissions, and focuses on the following sectors: transport and land use; agriculture; machinery energy consumption; F-gas emissions scenarios; waste (quantity of waste incinerated, landfill emissions, and waste water and composting emissions); buildings (building area, heating demand, heat sources and related changes).

The emissions reduction measures outlined in the medium-term policy plan also support the long-term emission reduction targets for 2050. The development of long-term solutions to achieve a low-carbon

society, assumes sustainable and consistent achievement of the goals set for 2030. It is clear that the long-term targets, set by the Paris Agreement, will require even greater emissions reductions, many of which will involve “effort sharing”.

The long-term climate change policy plan

The long-term policy plan falls under the responsibility of the Ministry of Employment and the Economy. It covers the period up to 2050 and the most recent plan was published in 2014 (Government of Finland, 2014[6]). The roadmap to 2050 can be considered a strategy-level guide to achievement of a carbon neutral society. The plan includes analyses of how to achieve a low-carbon society and the actions required, at multiple levels.

A major focus of Finland’s long-term strategy is transportation, which is not covered by the EU’s emissions trading system, but is particularly relevant for a large and sparsely populated country such as Finland. Currently, the most efficient way to reduce the emissions from transportation in Finland would be to replace fossil fuels with bio-based fuels. The greenhouse emissions caused by transportation must also be reduced by exploiting alternative propulsion systems and technologies.

The long-term plan also emphasises buildings. The goal is for all new buildings to be near zero-energy by the end of 2020. Finally, it calls for the promotion of cost-efficient energy and input efficiency in several sectors and more sustainable consumption and production alongside support for municipalities trying to reduce their carbon use

The national adaptation plan

The National Climate Change Adaptation Plan 2022 was published by the Ministry of Agriculture and Forestry in 2014-15 and was reviewed in 2020 (Government of Finland, 2020[7]). The plan is aimed at building capacity among Finnish society, to manage and adapt to the physical risks associated with climate change.

The Finnish Meteorological Institute has published climate projections for Finland based on fifteen global model simulations of future climate, all of which show that temperature rises in Finland will be above global mean temperatures (Jylhä, Tuomenvirta and Ruosteenoja, 2004[8]). In the short time, this could have some positive impacts, such as reduced expenditure on heating and reduced risks of the effects of cold weather on health, and the possibility to plant high-yield crops. However, in the agriculture sectors, these opportunities will only be realised if other climate risks, such as wind and pest damages, can be controlled and adaptation measures, such as breeding and introduction of more high-yielding and resilient varieties, are put in place.

Current carbon neutrality strategies: Challenges and uncertainties

Although the plans are comprehensive and detailed, their implementation is not straightforward. Several research institutes were asked to assess the adequacy of the measures included in the draft medium-term Climate Change Policy Plan (Government of Finland, 2021[9]). These assessments show that for Finland to achieve its climate objectives it will need to draw up plans that are more robust. Finland faces several challenges related to reducing emissions and current emissions targets are higher than what is outlined in the current emissions targets. This is evidence of the slow pace at which the plans are being implemented in practice.

Uncertainties related to energy imports and geopolitics

Finland faces several energy related problems. It currently imports 65% of its energy from Russia: electricity (produced mainly via nuclear, coal and gas); gas and oil; coal for the city of Helsinki and uranium for its nuclear power plants. The situation here has become critical since February 2022. Improving energy self-sufficiency will require increasing the share of domestically produced electricity, which in turn will lead to higher emissions. Finland is part of the Nordic Electricity Market, along with Denmark, Norway and Sweden and would need to increase its electricity purchases in this market. The restructuring of the energy sector and electricity production will pose a serious challenge in the coming years, as any change will inevitably affect emissions levels and energy self-sufficiency in different ways. The 2022 Russia-Ukraine crisis is having serious impacts not only to the energy sector but broadly in many policy areas. The crisis will certainly impact the proportion of energy imports from Russia, proportion of domestically-produced electricity, and restructuring of energy sectors in the region, with related impacts on calculated carbon emissions. While decarbonisation may not be the top priority in restructuring due to the crisis, there is broad political interest in the topic and legitimacy to take actions, and it may be an opportunity to address decarbonisation in a more systemic way.

In early 2022 the Climate Policy Roundtable pointed out that Russia's actions gives strong reasons to phase out fossil fuels even faster. The Roundtable discussion emphasised the need to consider how climate actions could be accelerated and security of supply improved at the same time, targeting actions in specific industries without leading to growing conflicts and unrest (Government of Finland, 2022[10]). In this case, accountability for doing nothing is strong, even if the consequences of action are uncertain, which are prime conditions for anticipatory innovation in Finland.

Need for systematic engagement with uncertainty

Finland's decarbonisation plans are quite detailed, but they lack a systematic engagement with uncertainty. First, the Land Use, Land Use Change and Forestry or LULUCF sector are a source of significant uncertainty while there is no agreement about how to account for negative emissions from the large stock of Finland's forest area. Forests in Finland serve as carbon sinks, that is, as the trees grow, they absorb carbon-dioxide from the atmosphere. The extent of these carbon sinks relative to emissions has varied over the years, but are estimated to grow in future decades.

Second, there is uncertainty related to the regulations that will be proposed by the European Commission regarding non-EU ETS efforts sharing sectors. Drawing up new reduction trajectories and choosing from a range of mechanisms will have to take place in the context of that uncertainty.

Third, there is uncertainty related to the effectiveness and timing of the proposed emissions reduction measures. Although Finland is a leader compared to many other countries, it faces challenges related to the construction and maintenance of reliable, real-time emissions prediction and monitoring models (the collection of this information is the responsibility of the Ministry of the Environment). This problem applies also to other countries and institutions since these models are at a very early stage. The effectiveness of such measures could also benefit from qualitative strategic foresight methods to stress-test them against possible future disruptions in the social, environmental, technological, economic, and political domains. One tool to use for the former is the strategic foresight tool developed by the OECD for net-zero transitions (see Box 10.2).

Box 10.2. Strategic foresight for successful net-zero transitions

The Strategic Foresight Unit in the OECD Office of the Secretary General works across the OECD to increase the use and impact of strategic foresight in policy-making by governments. As part of the OECD Horizontal Project on Building Change and Economic Resilience, the Strategic Foresight Unit has developed an approach to support global and national efforts to design future-ready net-zero transition strategies in a context of high uncertainty. The approach involves stress-testing ambitious commitments to net-zero GHG emissions using qualitative foresight methods for expanding the awareness of possible future disruptions in the 2030-2050 period.

The associated toolkit addresses disruptions related to social, technology, green-tech, environment, economy, and governance changes and includes a five-stage intervention to effectively develop country-specific and cohesive policy recommendations, as follows:

1. Identify disruptions in the global, regional and national context (i.e. what would happen if green technology disappoints, and net-zero commitments are reliant on behaviour changes instead).
2. Explore interaction that would occur if two or more disruptions occur simultaneously (i.e. green technology disappoints and conspiracy theories undermined efforts to behaviour change).
3. Create alternative future scenarios based on key strategic disruptions (i.e. highly polarised multilateral world crisis or grassroots green revolution).
4. Develop vision and strategies for successful net-zero transition under alternative scenarios. (i.e. empowerment of civil society for participatory actions for economic transformation).
5. Identify key implications for policy and determine actions to strengthen the net-zero strategy (i.e. integrate cybersecurity and disinformation risk assessments into net-zero strategies).

Figure 10.1. OECD Foresight Process to stress-test net-zero transitions



In OECD member states similar initiatives are under way. For example, UK's GOScience has a similar initiative to use foresight to help achieve net zero society.

Source: (OECD, 2022[11]); https://www.gov.uk/government/publications/net-zero-society-scenarios-and-pathways/a-net-zero-society-scenarios-and-pathways

Uncertainties in adaptation

Fourth, Finland is expected to be affected strongly by climate-related natural events, with mean temperatures projected to rise faster than average global temperatures. The country is already experiencing an increase in forest fires. In practice, Finland is poorly prepared for coping with the physical hazards related to climate change. Although adaptation projects are underway, especially in Finland's largest cities and municipalities, information obtained from interviews with government officials conducted for the 2020 review - with the possible exception for flood risk zones, most Finnish municipalities ignore climate change in their risk assessments and preparedness plans (Räsänen et al., 2017[12]). All the interviewees saw the responsibilities of municipalities in relation to climate change adaptation and preparedness to be exigent, which means that the planning and execution of adaptation projects will need support from central government. It cannot be left entirely to local authorities.

Further, adaptation strategies and plans will need to address qualitative uncertainties related to how impacts and actions could play out in Finland, prompting exploration of alternative trajectories and outcomes beyond current assumptions and expectations about the future. Application of futures thinking to identify potential implications for policies, including new strategies and actions can help incorporate adequate treatment of uncertainties into the design of public policies (OECD, 2020[13]). Adaptation measures that are applied in one sector can have ripple effects in others due to interconnectedness of the natural and human systems involved. For instance, as physical impacts such as forest fires are experienced by the public, perceptions about the need to act may become more acute. A holistic treatment of uncertainties related to adaptation is currently lacking as is the utilisation of qualitative foresight practices to develop policy responses for Finland.

Expert advisory bodies

Several notable expert advisory bodies provide Finland with local and global expertise in carbon neutrality knowledge, peer efforts and options to inform policy development, decision-making, and design of supportive institutional structures.

Finnish Climate Change Panel

In Finland, the Climate Change Panel is a scientific and independent expert body for supporting the planning of climate change policy and related decision-making and has been a trusted source of information for the government, such as providing science-based evaluations on gaps in knowledge. The Panel was established officially in 2016 by the Finnish Climate Change Act of 2015, preceded by a council of the same name for two terms (2011-2013 and 2013-2015) and publishes formal statements on climate change policy drafts or plans, as mandated by the Climate Act. The Panel relies on a small secretariat and top academics in diverse research fields affiliated with a university or institute to provide scientific information and advice, so drawing on the most current knowledge and skills in the scientific community. The Panel has liaison officers from relevant ministries and annual funding of EUR 300 000 to support operational costs (Weaver, Lötjönen and Ollikainen, 2019, p. 40[14]).

Coalition of Finance Ministers for Climate Action

Finland co-chairs the Coalition of Finance Ministers for Climate Action, which includes fiscal and economic policy makers from over 70 countries in leading the global climate response and in securing a just transition to low-carbon development with regard to the Paris Agreement. Since its launch in 2019, finance ministers from over sixty countries have signed the Helsinki Principles, which promotes national climate action through fiscal policy. The group has contributed on the analysis of mobilizing private finance to combat climate change, climate-related financial risks, integration of climate into economic and financial policies

and green recovery from the COVID-19 pandemic (The Coalition of Finance Ministers For Climate Action, 2022[15]).

Finland chairs the group and therefore shows international leadership on this topic. However, while this global leadership has created legitimacy outside of Finland, provides access to a wealth of analysis and best practices, and contributes to the perception as Finland as a leader in climate neutrality, the benefit of this activity for Finland may not be fully exploited for the purposes of creating internal legitimacy to act and adjusting the administrative apparatus internally to support bold, anticipatory actions.

Practices analysed as part of the Coalition's work could be better integrated given Finland's access to global knowledge and position of leadership on the global stage. For example, the need for an anticipatory approach in fiscal policies clearly emerged from the Coalition's reports and recommendations (The Coalition of Finance Ministers for Climate Action, 2022[16]).

A global view: Existing knowledge and remaining challenges on how to integrate (climate change) uncertainty in fiscal modelling, policy and budgeting

This section includes a summary of how governments can and do deal with climate change uncertainty in fiscal modelling, fiscal policy and budgeting to facilitate the green transition and ensure long-term sustainability of public finances.

Fiscal policy tools

In the EU, climate policy is included in the framework of the European Green Deal (European Commission, 2019[17]). The European Green Deal or European Green Pact is a set of policy initiatives proposed by the European Commission, aimed at achieving climate neutrality in Europe by 2050. The European Commission recently proposed a set of policies within its "Fit for 55" plan, aimed at reducing net greenhouse gas emissions by at least 55% by 2030 to ensure achievement of the ultimate 2050 net-zero target. This policy package includes legislative proposals related to a revision of the entire EU 2030 climate and energy framework and includes laws related to effort sharing, land use and forestry, renewable energy, energy efficiency, emission standards for new cars and vans and the European Commission's Energy Taxation Directive. This new framework allows European countries to formulate individual national policies to ensure fulfilment of their carbon reduction commitments.

Mitigation policies

In 1990, Finland introduced a national carbon tax, which is the main fiscal policy tool to reduce carbon emissions. Other tools include green incentives (such as tax breaks for expenditure related to energy-saving), negative carbon taxes for green energy producers, feebates, etc. Regulation is widely used to set standards for construction and car emissions, for instance.[3] These different instruments have different pro and cons in terms of their impact on the economy and the budget.

Although carbon taxes are an effective means to encourage economic agents to produce and consume less emissions-intensive goods, they come with a range of challenges, which can make them difficult to implement. They lead to an increase of energy prices and can be contractionary and regressive. If the revenue derived from carbon taxation is returned to the economy, their effect is less contractionary. However, even environmental tax reform to ensure that carbon tax revenue is used to support private green investment, might not be enough to achieve a swift transition to a low-carbon economy. The scaling up of public investment is essential to support the low-carbon transition (Catalano and Forni, 2021[18]).

Adaptation policies

At the European level, all countries can expect higher average and more volatile temperatures and an increased likelihood of increased rainfall in the northern regions and heatwave and wildfire episodes in the southern countries (Intergovernmental Panel on Climate Change, 2022[19]). Global level temperatures are already more than 1 degree Celsius above pre-industrial levels and, at this stage, make the Paris Agreement target of an increase contained to around 1.5 degrees Celsius by the end of the century, seem very optimistic. (Climate Action Tracker, 2021[20]) Fiscal policy must tackle these challenges and scale up adaptation spending.

Physical risks tend to be categorised as chronic or acute. Chronic risks refer to progressive slow-moving phenomena, such as temperature and precipitation increases and sea level rises. All countries must prepare for these risks, although the long horizon and relevant uncertainties regarding their evolution makes the planning for such risks particularly difficult. Acute risks include floods, heatwaves, periods of intense cold, tornados, drought and wildfires. These developments are already happening and preparations how to manage the impacts need to be ongoing. However, most countries are more focused on devising realistic plans to achieve carbon mitigation goals and, generally, are underestimating the prospects of acute physical risks.

In the case of acute risks there are two broad types of adaptation spending which could be effective. *Ex ante* spending to increase the resilience of public infrastructures (e.g. electricity grids, transportation networks) and *ex post* spending to mobilise relief operations following natural disasters. Based on their fiscal space, fiscal priorities and cost-benefit analyses of such investment, governments will have to trade off higher early (*ex ante*) adaptation spending against lower levels of adaptation spending later (or *ex post*). These cost-benefit analyses are highly uncertain, but possible: they depend on the probability that the physical climate hazard will take place and, therefore, will be region specific (United Nations, 2011[21]). The literature on how to assess the need for adaptation spending is growing rapidly and is moving from the concept of “exposure” or the degree to which a system is exposed to significant climate variations and their nature, to “vulnerability” or the propensity for or predisposition to be affected adversely by climate change. The expected damage can be estimated as the probability of occurrence of the physical hazard (exposure) multiplied by the estimated economic damage in the case that it occurs (vulnerability).

Fiscal constraints and competing priorities increase the tendency for countries to underinvest in adaptation and build in insufficient fiscal buffers to prepare for extreme events, with the result that remedial action often prevails over preventive action. However, the literature suggests that early preventive actions to address climate change are generally superior to later remedial action (United Nations, 2017[22]). Increasing early spending on adaptation, before the gradual erosion of the capital stock and before its further damage due to extreme events, would increase fiscal and economic resilience and reduce future spending (Catalano and Pezzolla, 2020[23]). This applies particularly to the case of Finland, even though climate events are still contained. As already discussed, Finland could invest in high-yielding and more resilient crop varieties to cope with rising temperatures.

However, overall, all countries will tolerate some “residual risk” related to physical hazards. A reasonable strategy might involve allocating a given envelope to *ex ante* adaptation spending and considering the residual risk as a contingent liability. However, since it would be difficult and would require particular expertise to estimate the economic damage, the impact of the residual risk on the budget could be estimated using already existing approaches to estimate contingent liabilities (Bova et al., 2016[24]).

Models

To calibrate the fiscal tools and assess their impact on emissions, the economy and the budget: and to assess the budget costs of possible physical hazards, governments will need to develop macroclimate models. To make the necessary assessments will require a suite of models:

- able to integrate economic and climate elements to allow emissions to depend on economic activity and, in turn, to model their effect on temperatures and natural hazards
- global and able to incorporate global emissions
- able to provide a fairly detailed description of the economy to allow assessment of the impact of the policies on economic activity
- able to provide a sectoral decomposition in order to account for inevitable sectoral reallocations associated with mitigation policies, especially in the energy producing sectors
- that are long-term, since scenarios extend to 2050 and often to the end of the century
- that account for uncertainty and change in context variables
- able to accommodate a fiscal module, including a detailed description of the fiscal variables, to estimate the evolution of the budget aggregates and public debt.

Climate modellers use a wide range of Integrated Assessment Models (IAM) – see overview of models used by IPCC in Box 10.3 below. For all countries, an IAM model of the national and global economy seems to be a "must-have". It allows for the: 1) design of national mitigation policies to achieve national emission goals; 2) building of scenarios for global emissions and national climate physical risks in order to plan for *ex ante* and *ex post* adaptation policies; 3) assessment of the impact of these policies on the economy and on the budget. Indeed, this type of model is useful but only for analyses related to mitigation policies also to estimate the distribution – over time and space of climate physical hazards. Climate physical events depend on global temperatures and, therefore, are dependent on global mitigation scenarios. In these scenarios, it is possible to estimate the probability distributions of the physical risks for given horizons and locations, which then can be used to assess possible physical risks and the associated economic costs.

Box 10.3. Climate models used by the IPCC

Climate modellers use a wide range of Integrated Assessment Models (IAM). Some focus on the evolution of the climate variables, assuming some exogenous trends for economic activity; others integrate macroeconomic variables with climate scenarios, but provide more or less detailed descriptions of the economy and the feedback from increases in temperature to the economic variables.

There are several groups around the world currently developing global-scale complex IAMs. Six of these groups participated in the recent Shared Socioeconomic Pathways (SSP) modelling project, which will serve as the basis for the no-policy baseline and mitigation scenarios featured in the IPCC Sixth Assessment Report. These are:

- The Model for Energy Supply Strategy Alternatives and their General Environmental Impact (MESSAGE), developed by the International Institute for Applied Systems Analysis (IIASA) in Vienna, Austria. This model has a detailed energy system that aims to meet demand at lowest cost. MESSAGE is usually also coupled with IIASA's detailed Global Biosphere Management Model (GLOBIOM) to account for land-use and ecosystem changes.
- The Integrated Model to Assess the Global Environment (IMAGE), developed by the Netherlands Environmental Assessment Agency (PBL). This is oriented towards environmental problems – with a detailed, grid-scale land-use module – and does not directly model the

economy. It can be linked to numerous other modules to assess air pollution, flood risk and biodiversity loss, among others.

- The Asia-Pacific Integrated Model (AIM), a collaborative programme of research institutes in several Asian countries. It has one of the more fully-featured economy models, covering individual sectors from food products to iron and steel and construction. AIM is also sometimes referred to as AIM/CGE, reflecting the Computable General Equilibrium utilised in that version of the model.
- The Global Change Assessment Model (GCAM), developed by the Pacific Northwest National Laboratory in Washington State, along with a large group of contributors across the academic community. GCAM is known for its open-source code and for its focus on exploring uncertainty.
- The Regional Model of Investments and Development (REMIND), developed by the Potsdam Institute for Climate Research (PIK) in Germany. REMIND has been coupled with the Model of Agricultural Production and its Impact on the Environment (MAgPIE) to incorporate land-use characteristics. It has a detailed energy system model and a simple economy. Using "perfect foresight" and technology "learning by doing" it can identify optimal pathways although they have high upfront costs.
- The World Induced Technical Change Hybrid (WITCH) model, developed by a number of Italian organisations including Fondazione Eni Enrico Mattei and the Centro Euro-Mediterraneo sui Cambiamenti Climatici. WITCH is often coupled with IIASA's GLOBIOM for land-use. It has a particular focus on use of game theory to explore co-operative versus non-cooperative climate action. WITCH also models technology cost reductions through "learning by doing" and "learning by researching".

These IAMs all use the "Model for the Assessment of Greenhouse Gas Induced Climate Change" (MAGICC), a simple climate model developed by Prof Tom Wigley at the US National Center for Atmospheric Research (NCAR) and colleagues. MAGICC translates emissions into atmospheric concentrations, radiative forcing and global average temperature change. It can be run much more quickly than more complex General Circulation Models (GCMs) or Earth System Models (ESMs). MAGICC allows IAMs to easily determine what emission trajectories are required to meet mitigation targets, such as maintaining warming "well below" 2C above pre-industrial levels.

Source: (Carbon Brief, 2018[25])

Data and monitoring

Finland is part of the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement. Under these international agreements, Finland provides information on its national greenhouse gas emissions by source for all greenhouse gases not controlled by the Montreal Protocol on Substances that Deplete the Ozone Layer (United Nations, 2022[26]). As a member of the EU, Finland has reporting obligations under Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

In Finland, Statistics Finland is responsible for compiling and monitoring data on greenhouse gases and the Energy Market Authority is the registry administrator for the EU-ETS scheme (Government of Finland, 2020[27]). The evidence suggest that emissions are falling more rapidly in those sectors covered by the EU-ETS compared to effort-sharing sectors. It is important that these data are made available to the research community in order to enable assessment of government policies. Many countries lack detailed data on greenhouse gas emissions; in this context, Finland could have a comparative advantage. These data can be used to assess differences in carbon tax levels across time/sectors/regions, for instance, to estimate its impact on emissions (Parry and Wingender, 2021[28]). Also, a system to monitor natural hazards should be put in place to anticipate risks and enable planning to minimise fatalities and economic costs (United

Nations, 2017[22]). At the EU level, the European Flood Awareness System plays this role. Similar systems should be put in place for all relevant natural physical risks.

The Ministry of the Environment draws up an Annual Climate Change Report that describes the trends of emission reductions in Finland and implementation of emission reduction measures and their adequacy relative to the targets. The report is submitted to Parliament, and it serves as the basis for public discussion on climate change mitigation and adaptation.

Budgeting and planning

It is essential that mitigation and adaption policies are properly incorporated in the macroeconomic projections underpinning the budget process. The macro-climate models used to assess the impact of mitigation and adaptation policies on climate targets and budget outcomes should be used to create the macroeconomic projections at the basis of the budget figures. This would ensure consistency between climate targets and budget figures, ensuring that mitigation and adaptation policies are reflected in fiscal plans.

The formulation and implementation of the different adaptation and mitigation policies could be managed by different ministries, but the Ministry of Finance should be in overall charge of assessing their economic and budgetary impacts. A few countries have developed “tagging” schemes to keep track of the environmental content of different spending and revenue items (OECD, 2021[2]). While tagging serves the purpose of monitoring green spending and revenues, it does not ensure consistency with government green targets. To make the budget process consistent with government green targets, it should start by defining the mitigation and adaptation policies able to deliver on these targets. The Ministry of Finance should co-ordinate this process, setting the guidelines and collecting the relevant information from line ministers.

Fiscal planning and budgeting are key elements of governments’ strategies to deal with climate change and work towards achieving carbon neutrality. Nationally Determined Contributions (NDCs), climate dimensions of Sustainable Development Goals as well as other national environmental objectives need to be translated into granular government policies. This means incorporating them into policy planning and budget allocation decisions. Many governments use medium-term policy planning allows to align short-term and long-term priorities to ensure that present-day actions are informed by future environmental developments. At the same time, the medium time horizon of 5-10 years is sometimes overlooked in environmental efforts as governments can be consumed by focusing on long-term targets or immediate action.

The large majority of OECD countries has already taken steps to incorporate climate commitments into domestic expenditure and tax policies. This can be done through various measures regarding both climate change mitigation and adaptation. Nonetheless, the overall reality of government spending still falls short of the systemic change needed. Often times, spending on environmental programmes occurs in parallel to spending on programmes with an overall negative environmental impact. For instance, the OECD Green Recovery Database examined the environmental impact of COVID-19 recovery spending and found that “while USD 336 billion has been allocated towards environmentally positive measures, this is currently evenly matched by spending on measures categorised as having mixed or negative environmental impacts” (OECD, 2021[29]). This points to the need for a more integrated prioritisation of carbon neutrality objectives in fiscal planning and budgeting, for example by a better integration into sound public financial management processes and frameworks. These include the laws, organisations, systems, and procedures available to governments to secure and use public resources effectively, efficiently, and transparently (International Monetary Fund, 2021[1]). The concept of ‘green budgeting’ refers to all tools at the disposal of governments to include environmental goals into their budgetary policy making.

Green budgeting

The emergence of 'green budgeting' refers to budget processes to support the achievement of climate goals. According to the OECD, 'green budgeting' consists of four building blocks: 1) a strong strategic framework; 2) tools for evidence generation and policy coherence (see Box 10.4); 3) reporting to facilitate accountability and transparency; and 4) an enabling budgetary governance framework. Means of implementation include green budget tagging, the use of green budget statements, and a budget framework linking strategic planning and budgeting (OECD, 2021[30]).

In 2020, 14 out of 35 OECD countries reported practicing green budgeting in one way or another, with most of them using various tools and approaches. Half of the countries underpin their strategic framework with high-level political commitment or a budget law (7 out of 14 countries in both cases), and slightly fewer through administrative practice (6 out of 14). The four most commonly reported tools include ex ante or ex post environmental impact assessments (12 out of the 14 countries), environmental cost-benefit analysis (10 out of 14), carbon assessments (10 out of 14) and carbon pricing instruments (9 out of 14) (OECD, 2021[30]). In terms of creating an enabling budgetary governance environment, 7 countries report to have detailed instruction in the annual budget circular, 6 countries invest in training and skills development, and 5 have co-ordination mechanisms across government agencies (see detailed overview in Figure 10.2).

Box 10.4. Green Budgeting Tools for Evidence Generation and Policy Coherence

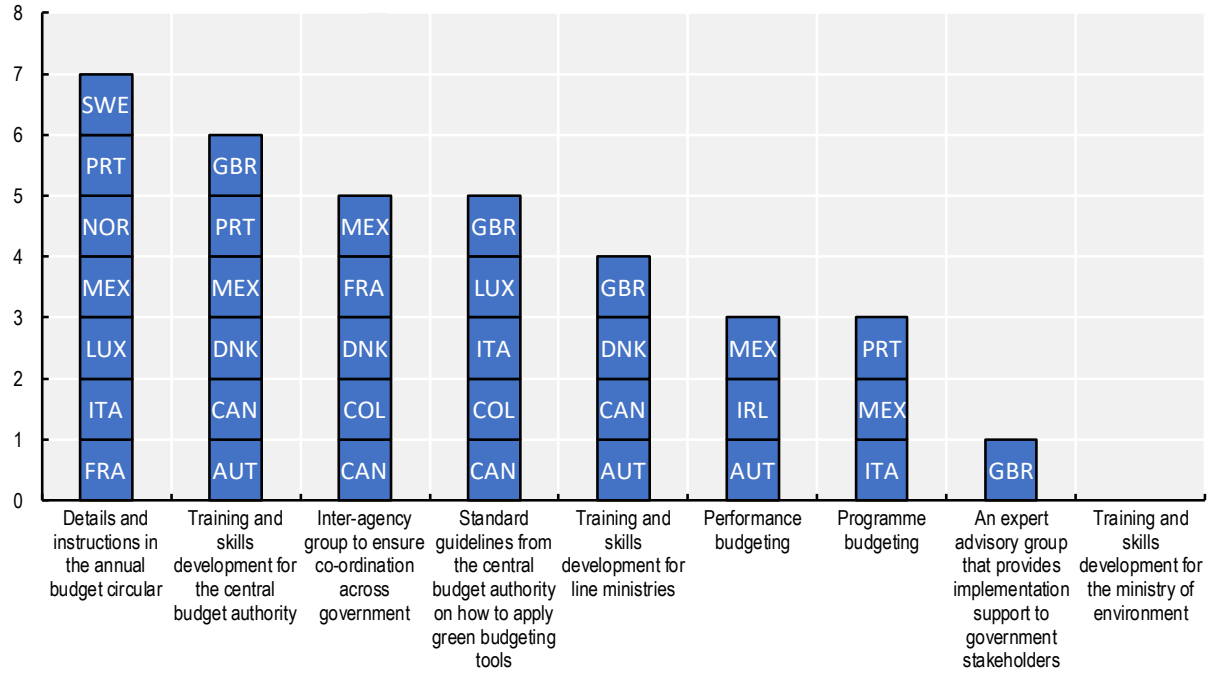
The OECD Green Budgeting Framework refers to green budgeting tools to help gather evidence on how budget measures impact environmental and climate objectives.

These include:

- Green budget tagging – Classifying budget measures according to their environmental and/or climate impact.
- Environmental impact assessments – Requiring environmental impact assessments to accompany new budget measures.
- Ecosystem services, including carbon, pricing – Putting a price on environmental externalities, such as greenhouse gas emissions, often through taxes and emissions trading systems, to facilitate achievement of national environmental and climate goals.
- Green perspective to spending review – Incorporating consideration of the impact of measures on national environmental and climate goals alongside considerations of efficiency.
- Green perspective in performance setting – Integrating performance objectives related to national environmental and climate goals.

Source: (OECD, 2021[31])

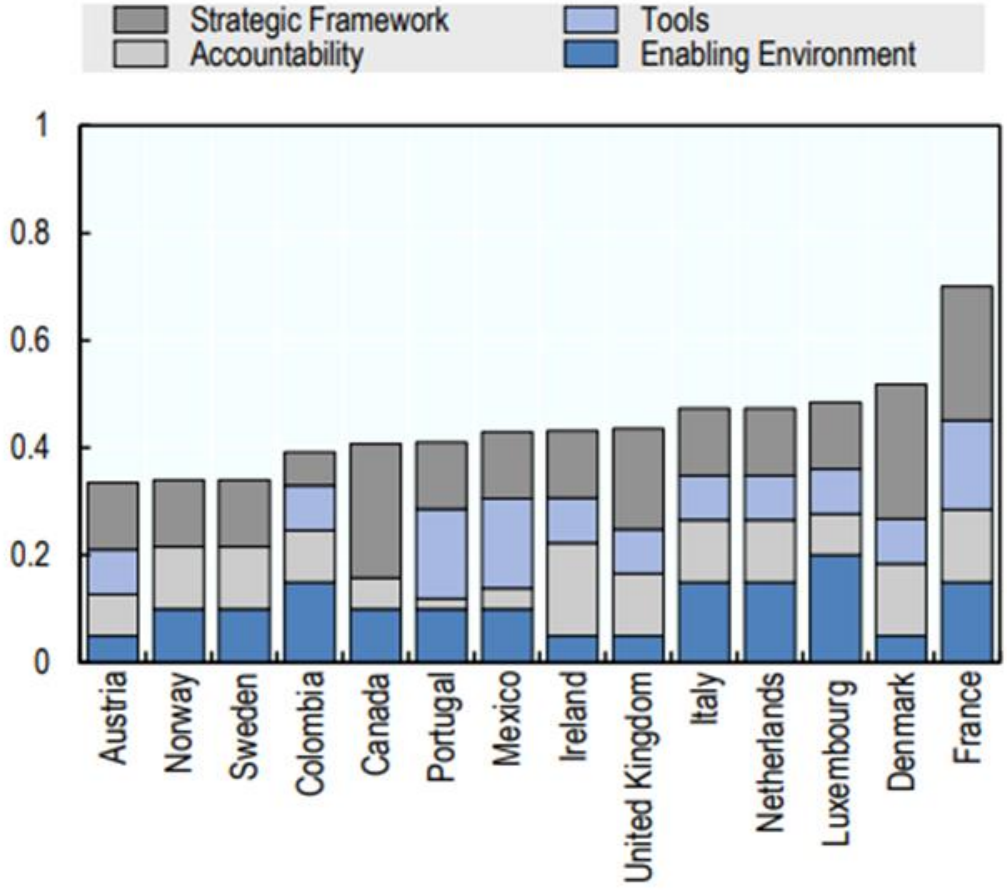
Figure 10.2. Elements supporting the implementation of green budgeting



Source: (OECD, 2021[30])

Notably, Finland is one of the 21 of 35 OECD countries surveyed in 2020 that is "not practicing green budgeting." See overview of countries in Figure 10.3. While some green budget tagging approaches do take place in Finland, they comprise a non-comprehensive form of tagging where only specific budgetary programmes contributing to green objectives are reviewed and identified (OECD, 2021[2]).

Figure 10.3. OECD Countries Practicing Green Budgeting, 2021



Source: (OECD, 2021[32])

Anticipatory approaches in global peer cases

As described in section 3, Finance ministries play a key role in facilitating the green transition through public investment and spending, taxation policies, as well as implementing fiscal management to mitigate risks and ensure the long-term sustainability of public finances. This chapter describes how peer governments are starting to integrate climate-related uncertainty and future contextual change into fiscal modelling, fiscal policy, and budgeting practices. The examples focus on opportunities for anticipatory approaches in fiscal modelling, fiscal policy, and budgeting. Where possible, reference is made to anticipatory governance mechanisms outlined in the OPSI model of anticipatory innovation governance (Tõnurist, 2021[33]).

Including climate-related uncertainty in fiscal modelling and administrative structures

Including physical and transition risks in modelling practices

Several governments have started including (physical and/or transition) climate risks in their fiscal modelling and forecasting practices, although the way they have done so varies. Some countries include the potential impact of climate risks in special reports that inform fiscal forecasting practices (e.g. Switzerland, United States, and European Union). Others include climate risks in their long-term fiscal risk

or sustainability reports (e.g. the United Kingdom and New Zealand). Still other countries include fiscal impacts of climate change in their future report (the Australian region of New South Wales) or assess the fiscal impacts of measures included in a national climate agreement (the Netherlands). While some of these examples involve primarily qualitative assessments (e.g. Switzerland, the European Union – Box 10.5), others involve quantitative estimates based on different climate scenarios (e.g. the United States, United Kingdom, New Zealand, the Australian region of New South Wales) (Tamminen et al., 2022[34]; European Commission, 2020[35]). However, it is unclear to what extent these analyses or physical and transition risks are factored into decision-making about policy options.

Box 10.5. Qualitative assessment of climate change uncertainty

European Commission

In the Debt Sustainability Monitor of 2019, the European Commission discusses how the climate change dimension could be considered in the debt sustainability analysis (DSA) framework through stress test analysis, alternative policy scenarios and considering mitigation/aggravating risks. It highlights the various challenges involved, including the numerous transmission channels, limitations of existing economic modelling tools, and data gaps.

Understanding long term climate impacts in Switzerland

A report on long term fiscal sustainability is published in Switzerland every four years. The initial reports focused on ageing populations, demographics and health care, which touched upon technical progress. Gradually, the inclusion of climate change became inevitable. The 2016 and 2021 Reports presented the budgetary impact of climate change in a qualitative assessment of possible impacts. The reports describe channels of impact, including national and international public expenditure on mitigation and adaptation, and the possible reduction of revenues (taxes) as both a sign and a result of changing consumption patterns. The process to introduce the fiscal impacts of climate change was led by the Ministry of Finance and followed from a widening of the perspective of the Ministry. The methods used to assess the impact of climate change and how mitigation policy could affect the budget were qualitative and the reports to do not include numbers. The reports brought the topic of fiscal sustainability and climate change to the attention of the Swiss public. The reports were discussed in the Swiss parliament and led to the demand for more quantitative analysis in the next iteration.

Source: (European Commission, 2020[35])

An example of a quantitative exercise is found in the 2016 special report of the United States Office of Management and Budget that provides preliminary quantitative estimates of the increase in expenditures on coastal disaster relief, air quality, health care, crop insurance, and wildland fire suppression. Flood risks to federal property are also highlighted, but without estimated costs. The report also analyses potential impacts to federal revenues in different climate change scenarios. For instance, it estimates a loss of 4% of global GDP in a four degrees warming scenario. The report clearly describes that the assessment only includes a small part of the total fiscal risks. The estimates do not include elements that are difficult to quantify, such as biodiversity loss and ocean acidification. Therefore the actual fiscal risks are likely to be much greater. (Executive Office of the President of The United States, 2016[36])

The 2021 Fiscal Risks Report of the United Kingdom's (UK) Office for Budget Responsibility (Government of the United Kingdom, 2020[37]) also includes a quantitative assessment of climate transition risks. It is based on long-term scenarios of the UK Climate Change Committee, including economic costs and savings analyses and work of the Bank of England on the price of carbon necessary to achieve net-zero and its economic implications. The report concludes that meeting net-zero will leave GDP 1.4% lower than

the hypothetical counterfactual path in 2050 and public debt 21% of GDP higher. The report focuses solely on transition costs and efforts to adapt to a changing climate and does not include the possible positive impact of prevented climate damage and risk, given the minor role the UK plays in terms of global emissions (Agarwala et al., 2021[38]; Tamminen et al., 2022[34]).

The government of New South Wales (Australia) conducted a physical climate risks assessment in preparation of the Intergenerational Report 2021-22. The report presents a snapshot of the future 40 years ahead to inform policy-making and looks at how the population, economy, and finances of NSW may change based on global and local trends and current policies (Wood, Beauman and Adams, 2021, p. 60[39]). The report includes the modelling of fiscal economic impact of physical climate risks in a separate textbox. It includes the overall economic impact of four key climate risks: natural disasters, sea-level rise, heatwaves, and the impact of changes in the climate on agricultural production. Computerised General Equilibrium (CGE) modelling has been used in combination with the Treasury's Long-Term Fiscal Pressures Model to estimate the fiscal impacts of physical risks under three climate scenarios: a lower, intermediate, and higher warming scenario. The inclusion of physical climate risks in the NWS report presents a break from the past where 'a no climate change' scenario was the reference point. The climate risks are presented as indicative economic and fiscal impacts aimed at "demonstrating the potential scope and scale of the challenge." (Wood, Beauman and Adams, 2021, p. 60[39]).

Organisational capacity for climate risk modelling

Climate risk modelling seems to occur either within existing governance structures for fiscal modelling or in newly created governance arrangements. For instance, in the UK and US, the Treasury is in the lead, while in the Netherlands, the independent fiscal institution CPB is responsible for fiscal modelling. Other countries have established new governance structures or networks, like New Zealand and Denmark (Tamminen et al., 2022[34]). These latter two examples illustrate how networks and partnerships can be instrumental in building anticipatory governance capacity in this area.

The United Kingdom's Treasury has a broad mandate as both economic and finance ministry, and therefore, climate issues are integrated in the Treasury's role (Box 10.6). The UK Climate Change Act of 2008 established a Committee on Climate Change that advises the government. The Committee's advice to review how the transition costs will fall led to establishing the Net Zero Review team within the Treasury. In addition, the preparation for the COP26 Presidency boosted resources and capacity for climate-related work in the UK Treasury (The Coalition of Finance Ministers for Climate Action, 2022[16]).

Box 10.6. Capacity and institutional setup for the net zero transition in the United Kingdom

The first Net Zero Review was commissioned by the United Kingdom's Treasury in 2006, and explored the costs and challenges of getting to net zero as well as the levers to fund the transition. In 2008, the UK established the Climate Act, which envisions a net zero economy by 2050. Following the Climate Act, new governance structures were established to set and monitor the interim targets of carbon budgets every four years and the continued delivery against the targets. These structures include the Climate Change Committee (CCC), an independent body, which presents annual progress report to government; the Climate Action Committee, a committee chaired by the Prime Ministers which meets quarterly to monitor and co-ordinate delivery; and the Climate Action Strategy Committee, chaired by the Secretary of State for Business, Energy and Industrial Strategy and focusses on operational delivery. In additional, committees of senior leaders and civil servants are responsible for delivery in specialist areas.

The primary responsibility for delivery on the net zero strategy lies with the Department for Business, Energy, Industry Strategy (BEIS). The Treasury considers it its role to support the transition and ensure it is capable of providing a critical challenge to spending bids. The Treasury has gradually increased its institutional capacity to participate in the transition to a total of two dozen core staff currently working on climate matters. Responsibilities of this team include shadowing colleagues in BEIS, analysing the fiscal impact of transitions and policy levers for delivery on the transition (e.g. employment), as well as making sense of the budgetary information needed at ministerial level to monitor progress.

The delivery of the Net Zero Strategy is funded through the Treasury's spending review process, which sets the budget for government departments every three years, and interim budgets every year. In these regular spending allocations, the Treasury requests that departments include climate impact information when they put forward bids for spending. In addition, the Treasury introduced new budgeting processes through the Green Book, a set of guidelines for government departments to conduct cost-benefit-analyses in line with climate targets. The Green Book, developed with input from academics and subject matter experts, mandates that all new government projects must assess emissions impacts (e.g. through standardised carbon metrics).

These approaches aim to address fragmentation that results from spending responsibility historically devolved to individual units in the Treasury. Some challenges remain with ensuring that government departments have the capability and capacity to conduct the climate impact analyses outlined in the Green Book, and that there are incentives for transparency. The Treasury must ensure that it can track delivery of such a wide portfolio across many departments and translate the guidelines to local government level, where delivery mechanisms are devolved to local authorities. In addition, balancing climate matters with other priorities such as security and allowing space for public debate about the UK's progress are challenging.

Source: (Government of the United Kingdom, 2021[40]; Government of the United Kingdom, 2021[41])

New Zealand provides an interesting example of building research and modelling capacity and strengthening the climate policy advice for various ministries, including the Treasury. New Zealand formed a special Climate Change Commission in 2019 with the Climate Change Response (Zero Carbon) Amendment Act. The Commission provides independent, expert advice to the government on mitigation and adaptation measures and monitors and reviews the government's progress. It has strengthened modelling capacities and transparency (e.g. energy and emissions bottom-up model, a CGE model, and a microsimulation model) and works closely with various ministries. For instance, a cross-agency meeting

on climate change-related modelling is held every four weeks with senior analysts (Tamminen et al., 2022[34]).

In Denmark, researchers and public officials from the Finance ministry collaborate on the so-called 'Greenreform model' and modelling capacities. The GreenREFORM project aims to develop a climate-economic model for the Danish economy that can be used as a tool to assess the environmental and climate effects of economic policies, as well as economic effects of environmental and climate policies. Before new policies are proposed in Denmark, an analysis is undertaken to estimate and weigh possible effects. The ambition of the GreenREFORM project is to make it possible to estimate climate and environmental impacts of economic policies along with traditional budgetary and fiscal objectives. While the Greenreform model is developed and maintained mainly by the Danish Research Institute for Economic Analysis and Modelling (DREAM), the Ministry of Finance has been closely involved in the process (see Box 10.7) and people in the ministry can also run the model. Other actors are involved as well. The Statistical Office, for instance, provides data and input development together with the Danish Energy Agency and Technical University of Denmark. The Danish Ministry of Finance has emphasised the importance of political buy-in to build this kind of modelling capacity building (Tamminen et al., 2022[34]; OECD, n.d.[42]).

Box 10.7. Funding the carbon neutrality transition in Denmark

Denmark introduced a legally binding framework to deliver climate policy, with a target of a 70% reduction in carbon emission by 2030. The structures that support the co-ordination and implementation of the target is overseen by an independent panel, the Council on Climate Change. It provides recommendations for action to government in February each year. By April, government publishes the statistics on the baseline and by September, the Minister of Environment announces the climate programme for the year, which must detail the government's plan for meeting the 2030 target (for example, a list of technologies and what policies they require). Implementation decisions are made based on cost estimates for the proposed roadmap. The Minister of Environment has accountability for demonstrating progress against the targets and can be dismissed for lack of progress.

The Ministry of Finance is involved in the funding decision for the transition and has the role of monitoring excessive spending. The transition is funded from several sources. Some funding comes from the yearly budget allocations for individual ministries managed by the Ministry of Finance. In addition, the Ministry of Finance and the Ministry of Environment hold weekly cross-government ministerial meetings on finances to reach joint decisions on financing green activities proposed by the Green Council, which co-ordinates climate-related initiatives. The guiding principle for funding the transition is that the proposed initiatives must not have a contrary effect on Denmark's public finances (for instance, closing down sectors that are high in carbon emissions). Another source of input and funding for the transition roadmap is the Green Business Forum, a partnership of 13 sectors (e.g. finance, food, agriculture, aviation, energy and industry) which creates a space to discuss the climate targets with CEOs from industry. Through the Forum, sectors present recommendations to the government on how they will contribute to reaching the goals.

Source: (Government of Denmark, 2020[43]; 2021[44]; 2022[45])

In the Netherlands, anticipatory data and sense making has informed updates to Dutch climate measures, taking into account quantitative and qualitative data from across different sectors. This depends on strong collaboration mechanisms between different parties – Box 10.8. The cabinet and House of Representatives asked the CPB Bureau for Economic Policy Analysis and PBL Environmental Assessment Agency to analyse the costs and climate effects of 122 measures in five sectors included in the Climate

Agreement of 2019. While CPB analysed the budgetary effects, the financial burden, income effects, and the burden sharing of the various measures (including regulations, spending, and taxes), PBL assessed the climate effects of the measures. After the PBL concluded that the cabinet's climate goals would not be within reach with the measures in the initial agreement, the cabinet introduced extra measures. The CPB analysis of the second Climate Agreement concluded that it was still not enough to reach the cabinet's climate goals but also pointed out that not all proposed policies could be included in the analysis, accounting for uncertainty in evaluating future-oriented policies. PBL also published about cost-effective options for climate policy in the past and plays an important role in monitoring Dutch climate policy, assessing yearly whether future climate goals are still within reach, which is included in the Climate Act. As such, PBL is an important institutional structure in the Dutch policy-making environment with a high degree of autonomy and organisational capacity to explore and evaluate policy options. The inclusion of the role of PBL in the Climate Act builds trust and legitimacy in future-oriented government policies.

Box 10.8. Collaboration mechanisms in the Netherlands

The Netherlands' climate target is to reach a 60% reduction of CO2 emissions by 2030 and was written into law through the 2019 Climate Act. The law requires yearly independent reviews to assess the government's progress in reaching the target. Policy recommendations made by the independent committee are taken on by government for implementation. The Ministry of Economic Affairs and Climate Policy is responsible for centralised co-ordination of climate measures in government across areas such as housing, infrastructure, or agriculture. The main forum for discussions and decisions on climate policies is a ministerial committee with all ministers present. While in previous government periods, there was a strong focus on engagement with societal actors to set targets and discussion with actors to get there, the current approach prioritises central government co-ordination.

The Ministry of Finance has a role in determining the effectiveness of individual measures.

Source: (Government of the Netherlands, 2022[46])

The independence of PBL – and its partner agencies CPB Netherlands Bureau for Economic Policy Analysis (see Box 10.9) and the Netherlands Institute for Social Research (SCP) – is safeguarded in the Protocol for the Policy Assessment Agencies : (Government of the Netherlands, 2022[46]). These institutions stabilise the political process as both public officials and politicians rely on the independent knowledge generated by them. Although these institutions are technically part of the executive branch (as agencies), they enjoy considerable independence. They are widely trusted and respected for creating a level playing field between political parties, and have relatively easy access to information held by ministries.

Box 10.9. The role of CPB in the Netherlands

CPB publishes projections of national and global economic developments that are the official basis for the government budget. In addition to quarterly forecasting, the CPB conducts medium-term baseline projects every four years before parliamentary elections, offering a starting point for political parties and input for coalition negotiations after elections. The results are also discussed in a meeting of the Budgeting Framework Commission: a body chaired by the Ministry of Finance and composed of top civil servants and the CPB Director and Central Bank director. This Commission traditionally advises the future new coalition government on sound fiscal policy. The CPB also assesses budgetary and economic consequences of measures presented in election manifestos, including not only short-term effects on economic growth and public finance but also long-term effects, equity issues, and the environment. Finally, following elections, CPB is usually asked to analyse the measures included in the Coalition Agreement.

Source: (Government of the Netherlands, 2022[47])

Including climate-related uncertainty in fiscal policy

Towards a new EU fiscal policy?

EU fiscal policy aims to ensure that the underlying fiscal position of Member States is conducive to fiscal sustainability while allowing for the operation of the automatic stabilisers over the economic cycle. In addition, EU fiscal policy aims to avoid the impact of unsustainable debt of one country to affect others. Two so-called 'anchors' have guided EU fiscal policy over the medium term: the budget deficit (3% of GDP) and the debt ratio (60% of GDP). (Ilzetzki, 2021[48])EU fiscal policy has been reformed several times in the face of new challenges (see Box 10.10) and is likely to change again to deal with carbon neutrality challenges.

Box 10.10. Innovations in EU fiscal policy over time

In the mid-2000s, the Stability and Growth Pact (SGP) was reformed, following infringements by Germany and France, which made the rules more countercyclical by setting targets for the (unobserved) structural fiscal balance. The objective was to ensure that the underlying fiscal position of Member States is conducive to fiscal sustainability while allowing for automatic stabilisers to do their work. However, the reform was deemed unenforceable because of uncertain estimates of potential output. The global financial and euro area crises resulted in further innovations, including the establishment of the European Stability Mechanism, which can lend to euro countries facing funding difficulties and the introduction of independent national fiscal councils. The recent COVID-19 crisis triggered the SGP's escape clause and led to EUR 672.5 billion in assistance through the NextGenerationEU Recovery and Resilience Facility (NGEU), including loan and grant assistance, financed partly by borrowing at the EU level.

Source: (European Commission, n.d.[49]; n.d.[50])

Significant public investments are needed to deliver on the European Green Deal. At the same time there is a need to consolidate deficits to create buffers for a new crisis and comply with existing EU fiscal policy rules (Barbero, 2021[51]). There is a risk that politicians prefer cutting long-term green investment instead of current spending, because future generations have less electoral support and fiscal rules disadvantage investments by treating them as 'current expenses', even though the benefits of investments accrue over long periods. Proposals for a so-called 'green golden rule' - excluding net green investment from the fiscal indicators used to measure fiscal rule compliance – is one possible option to address this issue (Darvas and Wolff, 2021, p. 22[52]). Other proposals to reform EU fiscal policy include the replacement of rules with norms or increasing the fiscal capacity at the EU level (Ilzetzki, 2021[48]). The EU already issued NextGenerationEU green bonds to finance part of the recovery facility to finance green and sustainable investments across the EU. Several countries have also issued green bonds, including the US, France, Germany, and the Netherlands.

There are signals that a more long-term approach to EU fiscal policy is underway (European Commission, 2021[53]). The European Fiscal Board and others have proposed a simplified two-tier framework that consists of an expenditure rule linked to a debt anchor that would reduce the complexity of the fiscal rules and better align fiscal stabilisation with fiscal sustainability challenges (European Fiscal Board, 2021[54]). Within this proposal, adjustment requirements could be calibrated to ensure compliance with the debt adjustment path over a ten-year forward-looking horizon (European Central Bank, 2021[55]). Although this approach is more long-term and thereby creates some incentives for anticipation, it will most likely still be based on relatively predictable measures in the short and medium-term, to be able to measure compliance of member states.

Anticipatory fiscal policy in New Zealand

New Zealand's Public Finance Act requires governments in New Zealand to consider the likely impact of their fiscal strategy on present and future generations, thereby including the notion that fiscal strategy decisions today have long-term consequences. It is an example of how legislation can create an authorizing environment to take future generations explicitly into account in today's decision-making. The act does not prescribe how governments must incorporate intergenerational considerations in their decision-making, thereby accepting uncertainty around how fiscal strategy will affect different generations and implying the need for value judgments to weigh living standards of different generations (Hughes, 2021[56]).

Moreover, there is an understanding that challenges like climate change and an aging population jeopardise the governments' ability to meet the needs of future New Zealanders and that there is a need to make forward-looking decisions now to anticipate and adapt to changing trends. "New Zealand's capacity to deal with future fiscal pressures depends on governments and individuals' ability to make forward-looking decisions that anticipate and adapt to changing trends" (Hughes, 2021[56]). It is emphasised that this is not "a prediction of what will happen, but a signal of what should be avoided." (Hughes, 2021[56]). To support intergenerational well-being, fiscal strategy choices must be both sustainable and equitable. While fiscal sustainability requires the government to meet its inter-temporal budget constraint, intergenerational equity requires a value judgment about how to weigh the living standards of current and future generations. As such, New Zealand's fiscal framework explicitly addresses interests and biases in thinking about the future (vested interests and cognitive biases).

Whereas the Fiscal Framework legislates overarching principles and requirements for governments' fiscal strategies, the Fiscal Management Approach sets out a flexible set of non-legislated operational 'rules' to assist governments in achieving their fiscal strategies in day-to-day practice. The so-called Living Standards Framework, for instance, aims to help the Treasury provide economic advice that considers the well-being effects of policy choices across people, places, and time (Hughes, 2021[56]). The Living

Standards Framework can be seen as an example of a tool that creates new knowledge to inform fiscal policy decisions and make sense of intergenerational well-being.

New Zealand's fiscal policy is accompanied by a well-being budget, an example of outcome-based budgeting. The well-being budget is based on the notion that any new spending must advance one of the government priorities (which includes the priority of the transition to a low-emission sustainable economy). It provides incentives for Ministers to collaborate on funding proposals that fit these criteria and thereby challenges silos. In addition, by design, it has a future-oriented approach (see Box 10.11), as it focuses on outcomes that meet the needs of present generations while also thinking about the long-term impacts for future generations. Finally, the design of this budget includes tracking well-being progress with broader measures of success that include the health of the country's finances, natural resources, people, and communities. New Zealand's well-being budget is an example of how budgeting can be a powerful tool for anticipatory decision-making (Well-being Economy Alliance, no date)

Box 10.11. How New Zealand incorporates a future-oriented approach to fiscal climate measures

New Zealand is taking several anticipatory and bold actions in the area of fiscal and economic policy to address their climate change ambitions while ensuring fiscal responsibility and sustainability. As an overarching example of a future-oriented approach, New Zealand's Public Finance Act requires governments to consider the likely impact of their fiscal strategy on present and future generations, thereby including the notion that fiscal strategy decisions today have long-term consequences. The following are additional examples of anticipatory innovation in the area of fiscal and economic policy as well as administrative steering structures.

1. The Government has announced the establishment of the Climate Emergency Response Fund (CERF), to take effect from Budget 2022 onwards to "make progress in addressing climate change from a Government perspective, a new approach to the Budget process is required as we make significant investments across multiple budgets. To drive this, the Government is establishing a Climate Emergency Response Fund (CERF) which will be allocated towards initiatives that help us meet our climate change objectives. For Budget 2022, the CERF will focus on initiatives and programmes aimed at delivering the emissions reductions outlined in the Government's first Emissions Reduction Plan." (2021 Budget Policy Statement). The fund attempts to address the problem of long-term issues getting crowded out by shorter year-to-year budget pressures but can also be adjusted in future budgets to account for new information and evidence.

The size of the CERF is based on the proceeds of New Zealand's Emissions Trading Scheme (ETS). It has been established with USD 4.5 billion, based on the Treasury's forecasts of ETS proceeds over the period from 2022/23 to 2025/26. Future fiscal costs relating to climate change are not easy to predict but the CERF is an enduring multi-year fund; the size of which will be reviewed annually. The CERF's criteria will also be reviewed regularly, including an intention to consider criteria for the inclusion of adaptation from Budget 2023 onwards.

2. The Treasury's Living Standards Framework (LSF) is a flexible framework designed to prompt thinking about policy impacts across the different dimensions of well-being, as well as the long-term and distributional implications of policy. It frames the Treasury's wider thinking as well as design of processes including the annual budgets. It is designed to complement rather than replace other tools such as He Ara Waiora (a framework for the worldview of Maori), or cost benefit analysis. Core to the LSF is the concept of four capitals (natural, social, human and financial/physical). With its long-term view, the LSF helps New Zealand acknowledge and manage long term uncertainties (The New Zealand Treasury, 2021[57]).

3. Scenario-based long term economic and fiscal modelling is an important part of framing long-term uncertainty. The most recent published example is the Treasury's Long Term Fiscal Statement which looks out to 2061 including scenarios on the fiscal and economic impacts of a changing climate (The New Zealand Treasury, 2021[57]).

4. To the extent possible New Zealand also attempts to observe and learn from networks engaged in innovative work in other nations to understand long term impacts, such as bilateral discussions with the UK Office of Budget Responsibility on the framework they used to quantify the long-term fiscal impact of mitigation policy in the UK (Government of the United Kingdom, 2020[37]).

5. Having a 'portfolio' of policy responses has been an important principle in the development of New Zealand's Emissions Reduction Plan and the National Adaptation Plan. A portfolio of different approaches can balance the need for quick actions, where the evidence for intervention is stronger, versus the need to start work on harder issues with uncertain outcomes to reduce emissions (or increase resilience) over the longer-term. It can also balance risk across the different levers of climate policy e.g. emissions pricing, regulation, direct government investment or tools to crowd-in private sector investment. This and other fundamental fiscal settings have been important for New Zealand in the past, for example in absorbing the impacts of major earthquake events over the 2010 – 2018 period.

Finally, New Zealand recognises that climate is an existential issue but also 'not the only transition in town'. They view climate policy alongside other difficult or uncertain transitions in realms such as technology, productivity, demographic change, health (e.g. recent COVID-19 pandemic), housing and so on, recognising that policies that can deliver positive outcomes on multiple transitions will often tend to be more efficient and enduring.

Source: (OECD, 2012[58])

Tracking climate-related expenditure and treatment of uncertainty

EU perspective on tracking climate-related expenditure

Recent initiatives developed at the EU level are also relevant in this regard, like the methodology for tracking climate-related expenditure across the EU funds and within the EU 2021-27 Multiannual Financial Framework (MFF) and the Commission's taxonomy on environmentally sustainable activities. (European Commission, 2021[53]) While for the MFF the EC developed objective-based 'EU Climate Markers', the EU Taxonomy is green activity-based and considers multiple environmental objectives. The lack of internationally agreed-upon methodologies to identify climate change-related expenditures in public sector budgets limits international comparison and can also result in 'undertagging' or 'greenwashing' (OECD, 2021[59]). In addition, most countries do not tag expenditures that have an adverse impact on the environment. An exception is France, that ranks activities in five categories, the last being 'unfavourable', including subsidies for fossil fuels, tax expenditures for airlines and shipping, and energy-intensive manufacturing, construction, and agroindustry (World Bank, 2021[60]).

Green budgeting

While green budgeting can be a powerful tool to help governments integrate climate change considerations into the planning and budget process, further case research is needed to understand the respective roles of Finance and line ministries and to explore how 'green budgeting' practices can inform anticipatory decision-making and create anticipatory learning loops. A recent review of climate budget tagging used in developing countries reports evidence of improvements in awareness-raising and accountability, but also

states that "it is difficult to determine tagging's impact on budget allocations and decision-making" (World Bank, 2021[60]).

While green budgeting practices may bring additional attention to carbon neutrality within public financial institutions, it is unclear whether they can address the uncertainty and interconnectedness of the topic. The practices are inherently quantitative and may not sufficiently consider the intentional and unintentional knock-on effects of policy measures, social and behavioural impacts, and measures that may have an impact over a longer period of time than the green budgeting cycle. Reforming the budget process with anticipation in mind is likely to be much harder than that of planning processes because of the vested interests and entrenched actors who understand that the budget process is the ultimate mechanism through which resources are appropriated and distributed. Green budgeting is a promising practice that can raise awareness and attention on carbon neutrality as part of budget decision-making processes and can increase legitimacy for investments, but should only be considered as part of an anticipatory approach.

From cost-benefit analysis to risk-opportunity assessments and robust decision-making?

This section describes existing and new tools & methods to assess policy options, including supporting the exploration of alternatives. Cost-benefit analysis is an important and well-established budget tool used in many OECD countries to assess an investments' *ex ante* desirability and compare policy alternatives, especially when large public investments are at stake. The tool is designed to demonstrate whether or not the long-term benefits of a project are greater than its costs (OECD, 2015[61]). The method was initially developed for infrastructure investments but has increasingly been used in other policy areas, such as health care and environmental policy.

Environmental impacts have been increasingly included in cost-benefit assessments. At the same time, there are discussions on how to value costs and benefits that occur far into the future, like climate change, and how the social discount rate – used to weigh and compare impacts across time and based on the assumption that societies attach more value to something now than in the future - becomes problematic in an intergenerational context. Recent literature suggests applying risk-free, public, and long-term interest rates when evaluating climate change, which gives more weight to future impacts. More problematic in the CBA approach is the assumption that costs and benefits are reasonably predictable and quantifiable and that economic structures stay largely the same, while uncertainty is a given in the case of a transition and decarbonisation policies are precisely aimed at transforming energy systems and economic structures. (Grubb et al., 2021[62])

Some have argued that in the context of transformational change and an uncertain future, the assessment of policies should be more aimed at finding points of leverage, rather than precisely predicting outcomes. Instead of trying to forecast the future and optimise an outcome in a world of certainty, governments increasingly have to get involved in steering change in a largely uncertain future. The UK government has recognised this and revised the UK governments' guidance on policy appraisals (the Green book) after a review carried out in 2020 (HM Treasury, 2020[63]). The new guidance emphasises the need to consider dynamics, including feedbacks and tipping points, as well as uncertainty and risk (Government of the United Kingdom, 2020[37]).

In the literature, the use of risk-opportunity assessments for policy selection is being advocated in the context of transformational change instead of cost-benefit analyses (Sharpe et al., 2021[64]). In this approach, the direction and magnitude of change should be analysed, and policy options should be chosen based on a qualitative judgment of the scale of the opportunities and risks, compared to the cost of the intervention (Geels, Pinkse and Zenghelis, 2021[65]).The Economics of Energy Innovation and System Transition (EEIST) project has, for instance, developed a framework to support decision-making through Risk-Opportunity Analysis. (Grubb et al., 2021[62]) Instead of counting identified costs and benefits, ROA

involves mapping both risks and opportunities and considers all potential effects of a policy, even if a number cannot be put on them. Moreover, in addition to expected outcomes of policies at a moment in time, ROA also considers processes of change in the economy.

Another approach found in the literature is so-called Robust Decision Making (RDM), which does not use models and data as a predictive tool but runs models numerous times to "stress test proposed decisions against a wide range of plausible futures" (Tamminen et al., 2022[34]). The resulting large database of 'model runs' can help decision-makers identify the key features that distinguish futures in which their plans meet and miss their goals. This in turn can help them "identify, frame, evaluate, modify, and choose robust strategies—ones that meet multiple objectives over many scenarios" (Tamminen et al., 2022[34]). An example is an analysis by Molina-Perez of the question under what conditions the Green Climate Fund's investments can enable the diffusion of technology to meet the Paris objectives (Molina-Perez, 2016[66]).

Future-oriented decision-making related to carbon neutrality

As climate-related uncertainty is often not yet (entirely) integrated into fiscal policies and budgeting processes, in practice, decision-making related to carbon neutrality also takes place despite existing fiscal policies and budgeting processes. In the Netherlands, for instance, the government has taken some bold decisions in recent years to anticipate the future, thereby partly side-lining existing fiscal rules and budgeting processes and/or establishing creative structures that allow for anticipation alongside existing budgeting structures and processes.

In 2015 the Dutch cabinet decided, for instance, to establish a Dutch Deltaprogram that is financed by a separate Delta fund, backed up by a Delta Act, and managed by a Delta Commissioner, a politically neutral process co-ordinator positioned in-between the responsible Minister and Cabinet and above administrative parties. This governance arrangement aims to move climate adaptation policy away from everyday battles over short-term interests and financial resources. Instead, delegated decision-making occurs among ministries, provinces, local authorities, and water boards co-operating on regional strategies, adaptive delta management, and long-term options. The establishment of a separate governance structure and fund enables alternates exploration, governance through networks & partnerships, and public participation. Citizens are involved through so-called 'Living Labs', a research environment in which research and innovation are based on co-creation and participation.

Another example is the decision of the Dutch cabinet in 2019 to diverge from its own fiscal rules after a Climate Agreement and Pension Agreement was reached with multiple stakeholders. As these agreements were negotiated with important societal stakeholders, they enjoy political legitimacy. It resulted in the cabinet breaking with the multi-annual revenue and expenditure ceilings established at the start of the government term and with the rule of having one integrated moment of budgetary decision-making a year. The cabinet's decision to diverge from these well-established fiscal rules was justified by the societal importance of both agreements and the expected long-term positive impact.

Yet another example is the National Growth Fund established in 2020, an investment fund for which the Dutch state lends money. It was prepared by the Ministry of Finance and the Ministry of Economic Affairs and has been created to prepare the Dutch economy for the future. The Growth Fund invests in earning capacity to safeguard Dutch prosperity in the future and is placed at a distance from politics. An independent commission led by Jeroen Dijsselbloem (former Finance Minister and Chairman of the Board of Governors of the European Stability Mechanism) was established to review investment proposals. In the first tranche, EUR 1.35 billion was allocated to projects relating to artificial intelligence, regenerative medicine, health data infrastructure, quantum technology, and hydrogen/green chemistry. In addition, the most recent Coalition Agreement of the new Dutch government published at the end of 2021 includes EUR 35 billion for a Climate and Transition fund for the next 10 years to prepare the country for a future carbon-neutral economy. These examples illustrate how establishing separate Funds and accompanying

institutional structures can secure long-term commitments and create an enabling environment for anticipatory innovation alongside more 'traditional' fiscal and budget structures and processes.

Conclusions from peer cases

Carbon neutrality goals and climate-related uncertainty are spurring innovations in fiscal modelling, fiscal policy, and budgeting practices in various countries. There are opportunities to integrate climate scenarios and risks into fiscal modelling practices through both quantitative and qualitative approaches. The examples illustrate that including climate change uncertainty into fiscal modelling practices requires skills and capacities that can be either built-in existing governance structures or created within newly established governance structures. Given the challenges to quantify climate-related risks and uncertainty, combining fiscal forecasting based on quantitative modelling with qualitative foresight could be interesting to explore further. Similarly, it is interesting to further explore alternative approaches to cost-benefit analysis, such as risk-opportunity assessments and/or robust decision-making.

Although fiscal policy measures for carbon neutrality (like a carbon tax) are widely discussed and implemented, fiscal policy frameworks and accompanying budget processes often do not (yet) facilitate anticipatory decision-making. An exception is New Zealand's, whose fiscal policy and accompanying well-being budget demonstrate that a more anticipatory fiscal policy and budgeting approach requires both a proper assessment of the impact of fiscal policy on different generations, and explicit value judgments of those impacts. It underlines the importance of public officials and politicians' shared responsibility for building anticipatory innovation capacity.

The emergence of 'green budgeting' also provides opportunities to integrate climate change considerations into budget policies and processes. However, only 'tagging' climate-related budgets and assessing green spending and revenues *ex ante* and *ex post* does not guarantee a systemic whole-of-government approach to steering carbon neutral targets. Moreover, further research is needed to understand if and how the described developments in fiscal modelling, fiscal policy, and budgeting can enable future-oriented decision-making related to carbon neutrality. In practice, anticipatory decision-making related to carbon neutrality is challenging existing 'traditional' fiscal and budgetary policies and resulting in new governance structures. Therefore, mechanisms of anticipatory innovation governance seem to be emerging both within and parallel to existing more 'traditional' government structures.

The Finnish context of green budgeting and fiscal planning and opportunities for incorporating anticipation

Analysis of academic and policy literature on the international and Finnish context, international case studies, and consultations with the stakeholders highlighted four major areas for improvement to support anticipatory fiscal and economic policy and budgeting for carbon neutrality. These areas fall into five broad categories:

1. Responsibility and urgency to act: Clear accountability, roles, functional mandates, and resources.
2. Collaboration and coherence: Overcoming silos between ministries, expert and political coherence around policy measures and information gaps, and whole-of-government sense-making and decision forums.
3. Capacity: expertise, capabilities and tools at an individual and institutional level.
4. Integration of green fiscal practices into the mainstream: alternatives exploration, dynamic monitoring and evaluation, alignment of decision-making cycles (budget, strategy, planning).
5. Holistic medium-term strategic planning: system approaches, engagement with uncertainty, bridging short term cycles and long term ambitions.

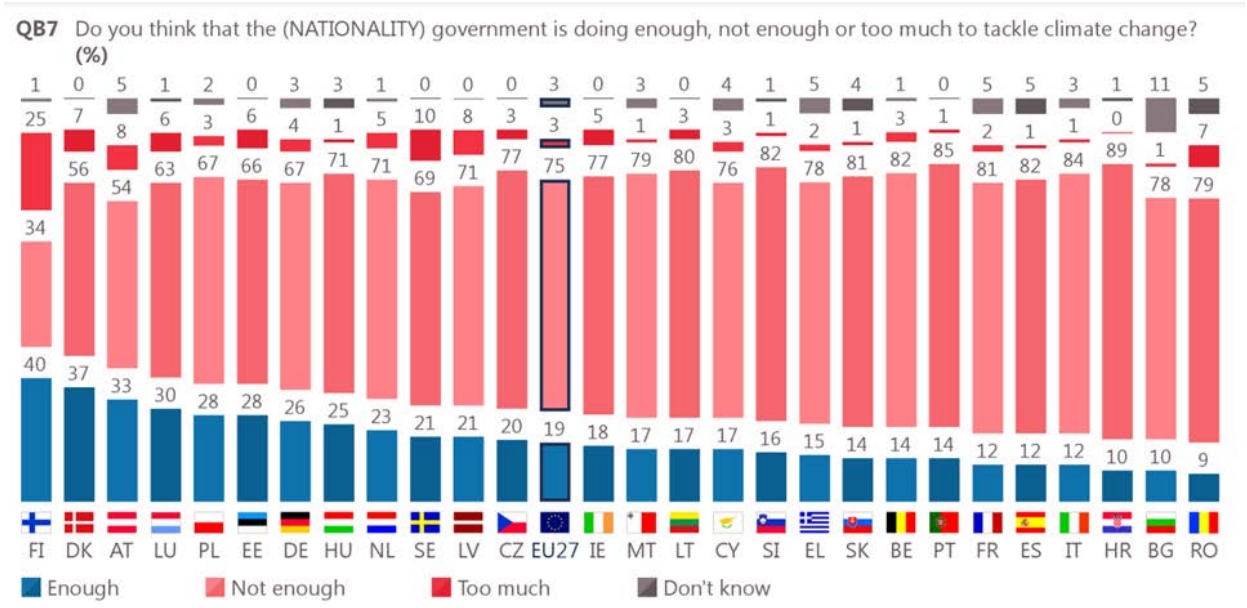
Anticipatory innovation governance mechanisms are not intended nor able to respond to all of the gaps identified without complementary action. But introducing some anticipatory innovation governance mechanisms can support the development of more future-oriented fiscal and economic policy and steering for carbon neutrality in Finland. Some analysis-informed options are presented here.

Clear responsibility and urgency to act

Uncertainty and a lack of perception of tangible effects of future climate impacts

In interviews, lack of severity and urgency around climate change was repeated, both among officials and the public at large. This is reflected in a 2021 survey (Figure 10.4) comparing EU citizen perceptions of climate change, in which it was revealed that Finland is the only country where the largest group of respondents think that their national government is doing enough to tackle climate change (40% versus 34% 'not enough' and 25% 'too much') (European Commission, 2021[53]).

Figure 10.4. National government's efforts to tackle climate change



Source: (European Commission, 2021[67])

It is unclear whether Finnish respondents believed attributed the sufficiency of the national government's actions to the unimportance of the topic, the already-ambitious targets, or some other reason. In any case, in this environment of public perception, the legitimacy for additional action seems to be the lowest among all national governments the European Union. This is despite dire forecasts and the advice from external researchers that Finland's actions are not sufficient to reach its 2035 carbon neutrality goal. Nevertheless, it is the responsibility of Finland and any government to anticipate such possible long-term impacts and take adaptive and anticipatory action in countering possible physical risks. Indeed, much of Finland's response to climate change has come in the form of mitigation measures toward carbon neutrality goals while the physical risks and possible impacts through adaptation policies are less prominent. In effect, Finland is being a good global citizen and responding and measuring up to its international commitments to mitigate carbon, but it seems that the urgency to act to counter climate change could be based more on an extrinsic versus intrinsic motivations. In such a context, mobilising support for more anticipatory and ambitious measures could be more difficult to sell.

From a political economy perspective, it is worth noting that special attention and extra communication effort may be needed in advancing more ambitious carbon neutrality policy options, especially those that are already likely due to be unpopular due to impacts in other areas of everyday life, such as fuel taxes.

It is worth further investigation by Finnish authorities to develop a more nuanced understanding of citizens' perceptions of the government's actions and create "experiential futures" in which abstract notions of possible futures may be felt, experienced, and embodied in the present. Finland could also enlist the help of foresight experts and use qualitative methods such as Causal Layered Analysis to understand and then develop alternative narratives that can be communicated through targeted and mass media.

> "There is an issue of awareness-raising, when the consequences of climate change are not yet felt in Finland as in a crisis, in comparison to other countries who feel the impacts already"- Finnish stakeholder

Through initial trailing of TimeOut dialogues with citizens, civil servants, and politicians, an emerging practice has emerged for engaging in complex policy issues collectively. The passage of the new Climate Act, as well as forthcoming elections, when the programme is not yet defined, opens an opportunity to build new trusted relationships and align perspectives on carbon neutrality as well as the government's role in taking action. Further, the qualitative data and narratives summaries that could be harvested (anonymously) from participants could be an important source of anticipatory data and can aid in signal detection, shifts in public attitudes and values and can inform discussions and decisions about policy options and prioritisation. Finland should continue the Timeout dialogues as a part of regular practice in forthcoming discussions about the uncertainties around climate change and the government's efforts towards carbon neutrality.

If extrinsic motivators and the maintenance of Finland's global leadership image are effective motivators, Finland could "put itself on the hook" by submitting a bid to host an international climate event, such as COP29 or COP30. Finland will be put in a position to show progress against its own deadline in 2035. The UK's hosting of COP26 was motivating for building capacity and functional mandates inside of HM Treasury and has positioned the UK better in terms of overall capacity (fiscal modelling, etc) for action toward net-zero targets (HM Treasury, 2020[68]).

Finland could consider building Carbon Twins, peer relationships with other countries with similar governance structures and similar climate forecasts or with countries who are already experiencing physical impacts from climate change. Involving peers from counterpart ministries into budgeting and policy measure development processes for climate adaptation, for instance, can be away for Finland to embody their future and learn from adaptation policies and governance structures to better plan for anticipated impacts in Finland.

Accountability for inaction

The responsibility for assessment of climate policy in Finland could be supplemented by additional accountability for inaction. For instance, in early 2022 the research community through the Roundtable on Climate Policy indicated that current policies and actions were insufficient for Finland to remain on target for its 2035 goal, but the findings are non-binding. There is some evidence that long-term climate legislation can lead to more ambitious objectives when they include internal review processes (Ecologic Institute, 2017[69]).

Legal action has been used in other countries; lawsuits allege that governments have failed to meet their legal obligations. For example, in the Netherlands, environmental NGOs and citizens went to court (Urgenda et al. v. Government of Netherlands) to demand more climate action now to safeguard future

generations' human security, which could be seen as an example of citizens and civil society demanding the government to be more anticipatory. While the legal context differs in Finland, it is still possible that other legal tools could be used by interested parties to draw attention to the state's obligations, even if it might not have the force to compel it. The number of such cases has grown significantly in recent years, with most cases against states relying on states' substantive human rights obligations, either to take climate action or to avoid harmful activities (Savaresi and Setzer, 2022[70]). With more emphasis in recent Finnish discourse on climate policy involving the topic of "just transitions," this line of argumentation could gain momentum in Finland, especially once climate impacts are more tangibly felt by the public.

Functional mandates outside of the Ministry of Environment

Locked-in path dependencies, vested interests, and short-term thinking cannot be addressed through fragmented, standalone measures. The institutional environment must commit officials and decision-makers to consider the long-term and explore alternatives. The Prime Ministers Office and the Ministry of Finance, given their centre of government position and existing functional mandates and capabilities, could play more of a leading role in climate policy. This could be bolstered by implementing institutional and legal adjustments for integrating climate into the Ministry of Finance's mandate, for instance. This would of course require high-level support within the Ministry to take on such a role as well as the dedicated time and resources to sufficiently focus on future needs in addition to supporting resource-intensive existing processes, such as the annual budget cycle.

> "There is a need to build capacity and functional mandate. There is a lack of ownership and urgency of the topic. Only one senior minister considers carbon neutrality a priority topic."- Finnish stakeholder

Finland's Ministry of Finance could develop its own climate strategy to make a substantive stance and contribution to the topic, as many Ministries of Finance have done over the last two years (The Coalition of Finance Ministers For Climate Action, 2022[15]).

Formal central governance for climate co-ordination could be informed by the examples in the UK or Denmark and include a formal structure built around sense-making and consensus-building from different sources of input (e.g. ministerial strategies) and serve an important co-ordination, signalling and monitoring function, including building trusted relationships with Parliament.

> "Things can advance at the civil servant level but then they hit a political wall. If the strategic steer cannot get through to the political level, the quality of models does not matter. There is a gaping hole between capability and the ability to mainstream the thinking."- Finnish stakeholder

Collaboration and coherence

The implementation of activities and climate action across stakeholders and agencies requires great levels of co-ordination. Climate and economic knowledge, data and models change quickly and while interviews revealed an abundance of high-quality research available in Finland, it is "scattered across Finland" and not quickly and easily accessible to policy makers. This impairs the government's ability to detect trends and signals that could help inform better policy decisions or evaluate existing ones. Beyond the availability

of knowledge, data and modelling, it was noted in several interviews that Finland lacks the ability to integrate and make sense of the data, both in government ministries and by Parliament. Analysis and sense-making capabilities should also be complemented by qualitative foresight knowledge and methods that can represent a range of future scenarios in which uncertainties can be engaged.

Deciding on carbon neutrality measures necessarily involves difficulty in considering the many trade-offs even when their concrete financial impacts are not tangible or able to be reliably forecast, nor are investments across government based on societal challenges (described as "budgeting through spreadsheets"). Collaboration is needed for not only knowledge sharing but also to serve as platforms for discussion of trade-offs and uncertainties as well as coherence between policies.

Central co-ordination role within the government

Central co-ordination of climate policy can create some neutrality, largely devoid of purely sectoral interests unlike in line ministries, and its situation in a centre of government unit lends authority to orient agencies financial and technical resources as well as co-ordinating capability (OECD, 2015[71]). A stronger central co-ordination role regarding economic and fiscal policy could advance action on carbon neutrality and create coherence between policies, measures, and budgets.

> "Ministries are competing for the same funds, and trying to optimise and maximise their own share of the funds. so you don't necessarily discuss and negotiate which of the carbon measures would be the most cost efficient funds, because you are just trying to maximise the strength of your own ministry". – Finnish stakeholder

There is precedent for such co-ordination that could be instructive for the development of anticipatory steering structures. For instance, the Prime Ministers Office previously convened ministerial-level meetings, supported by a secretariat, to discuss and explore topics of strategic importance for which cross-ministerial solutions did not yet exist. While this group no longer convenes, it was noted by interviewees that this forum would be an ideal one to host discussions about innovative cross-Ministerial solutions and alternatives exploration toward carbon neutrality targets. A similar co-ordination body could be established again to address complex and uncertain policy topics requiring cross-ministerial co-ordination and anticipatory innovation.

The Ministry of Finance could play a stronger co-ordination role between ministries involved in advancing against carbon neutrality targets. However, the "great eminence and watchdog" role of the Ministry of Finance, as described by an interviewee, could create barriers to building active participation and more constructive discussions. Currently the Ministry of Finance negotiates separately with each sectoral ministry but could also play a more active and facilitating role in exploring carbon measures, especially those that would necessarily involve more than one ministry.

> "Each administrative branch or ministry comes up with its own separate expenditure proposals within the given expenditure ceilings, and then each ministry separately negotiates their proposals with the Ministry of Finance…[without an] overall view of financial needs to solve the issue or achieve set carbon targets." - Finnish stakeholder

The government could development incentives for cross-disciplinary formal involvement in the budget process, especially between Ministries of Environment and Finance but also line ministries and provide support, training, and knowledge to increase awareness and knowledge of each's needs, constraints, drivers, as well as sectoral future scenarios and uncertainties.

Shared knowledge base and better links with the research community

Several interviewees noted that the research community working on climate change is strong but fragmented, with not enough links with policy-makers. The research community can expand the government's access to anticipatory knowledge, rapid assessments to inform feedback loops with policy-makers, and lead users with the capabilities to detect and process signals of change across many sectors, all of which can affect carbon neutrality. Linkages can also inform the multidisciplinary development of models to take into account the perspectives from across policy areas.

There are good linkages between scientists and decision-makers in the form of the Finnish Climate Change Panel, which produce reports on climate mitigation, adaptation, and other topics, as mandated by the Climate Act, mostly by external researchers. The Panel has liaison officers from relevant ministries, who attend Panel meetings but are not present when issues are decided on. This Panel could not only take up more anticipatory topics but also build stronger linkages with ministries to take best advantage of the latest knowledge produced. At the moment, the secretariat for the Panel is small but could be expanded to match similar institutions in other countries.

In addition, special high-level scientific and foresight advisors could be appointed to advise ministries involved in the development of climate actions and measures. Ideally, these appointees would have backgrounds not only in climate policy but also anticipation and strategic foresight and be given the license in their roles to bring edge ideas, novel concepts, and new thinking into internal discussions.

Collaboration with industry

The Finish government sought support from domestic economic sectors, as it understood that in order to achieve an ambitious government programme for carbon neutrality it was necessary to work closely with these sectors e.g. energy sector. Led by the Ministry of Economics and Employment 13 economic sectors were given the flexibility and mandate to identify needs and solutions and engaged in road-mapping. In interviews, it was evident that the government believes that they need companies to buy in to the carbon neutrality programme to be able to achieve their goals and that willingness exists.

What may be lacking is clear direction and signalling of the government's commitment to support ambitious alternatives as well as the industrial sectors' readiness to propose alternatives for an ambitious carbon neutrality agenda as well as a collaboration mechanism to support continued work with industries to implement roadmaps.

Expansion of collective road-mapping with additional actors

The low-carbon road-mapping activity seemed to serve as useful stress tests and raised issues and sparked dialogues on the need to achieve, guarantee, and ensure carbon neutrality. They can serve as a basis for revealing the gaps between carbon neutrality ambitions and proposed measures. The road-mapping activities could be expanded upon based on existing networks but could also involve other actors, such as municipalities. Further iterations could focus on implementation and rapid assessment.

Capacity at individual and institutional level

The initial assessment report indicated that an engineering mind-set and preference for forecasting is standing in the way of systems innovation and anticipation in Finland. The government could bolster its capacity to support new expertise in qualitative foresight and related anticipation skills.

Capacity in the Ministry of Finance

A deficiency of modelling and interpreting modelling results was frequently noted by interviewees. This presents an opportunity to build up expertise in modelling methods sensitive to uncertainties as well as those with the ability to situate the modelling results with more qualitative foresight methods. Such integrative profiles could also better position the Ministry of Finance in a central carbon neutrality co-ordination role.

Within the Ministry of Finance, interviewees noted a lack of expertise on carbon and climate related issues since staff mostly have backgrounds in economics and law. This also is a reference to the need to incorporate a transversal structure of competencies across the ministries e.g. economists in the Ministry of Environment and environmental experts in the Ministry of Finance. A stocktaking of skills and the availability of knowledge and research capacity in the Ministry of Finance has been assessed along with the positioning of different actors and research around economic policy preparation to support climate mainstreaming. However, given a lack of functional mandate for the Ministry of Finance, this assessment has not been able to proceed (The Coalition of Finance Ministers for Climate Action, 2022[16]).

At the moment most research on climate and carbon is done via external experts. It is important for advancement on carbon neutrality to have much more internal research capacity and modelling literacy in the Finnish government. In addition to leading to better linkages and engagement with academic researchers, it can also prepare officials to judge the relevance of assumptions, the degree of uncertainty regarding the results obtained, as well as the key sources of uncertainty, which can improve policy advice (Tamminen et al., 2022[34]) in order to make use of the results and interpret them with other ministries as policy is developed.

> "While models are developed academically, ministries have people to run them."

The Coalition of Finance Minister for Climate Action (2022) suggest enhancement of capacities in five key areas. These have been adapted below to also incorporate foresight and anticipation and include:

1. increasing the use of new tools on the macrocritical risks of climate change relating to fiscal and trade imbalances, financial sector instability, and low and inequitable growth
2. increasing use of scenario development and analysis and horizon scanning methods as well as qualitative methods for identifying and engaging with uncertainties and non-linear transitions in the fiscal, global trade, social, and natural environments
3. developing specific skills regarding economic climate modelling, including familiarity with approaches such as Knowledge of DMDU (Decision Making Under Deep Uncertainty), Robust Decision Making (RDM), and risk-opportunity analyses (ROA) and those allowing assumption testing, factoring behaviour changes, or testing decisions against a wide range of alternate plausible futures and considering myriad external factors
4. operationalizing green budgeting and expenditure tagging manuals, especially when combined with scenario analysis
5. stress-testing carbon measures through foresight methods such as wind-tunnelling

6. analysing carbon measures and the policy environment with systems approaches to identify linkages, interdependencies, feedback loops, and interactions
7. assessment of political and institutional context, including an understanding of entrenched positions, vested interests, and perceptions of the importance and role of carbon neutrality in the present, in relation to other political priorities, as well as in the future
8. communication to multi-stakeholder and cross-disciplinary audiences.

> "In order to use modelling results, you need to be relatively familiar with it. Otherwise, it will be very difficult to interpret what they mean and tell it to your Minister of Finance"

Interviewees identified a lack of experts for calculations and are concerned that models which are run by individuals spread across different institutions will be confined to their expertise and their chosen methods. Further, while some scarce capacities do exist inside of the government, they seem to be confined to the individual level.

> "Due to organisational changes and replacement of individuals, if there is no upskilling within the institutions and capacity building of professionals there is a risk that all of the knowledge related to specific models, and all the modelling capacities would just disappear."

In anticipating the need for rather rare modelling and analysis skills, Finland could also invest directly in the types of capacities it needs to build through direct grants to research organisations and academia or other means. This funding could support the development and refinement of institutions and models that incorporate uncertainty and are also dynamic and flexible as new information becomes available. The development of such a practice should be considered a long-term investment to be sustained and built up over time.

Capacity for green budgeting practices that support anticipation

Finland's green budgeting practices are nascent and could be bolstered. Capacity development of green budget processes is a long-term investment, to be developed over several budget cycles through a long-term programme. There are no known examples of green budgeting practices that incorporate anticipation, but Finland could be a leader in this area.

Organisational capacity for knowledge exchange with research institutions

In interviews, the value of research from local and international institutions has proven valuable for informing how different economic policies were useful to keep policy makers informed on the latest research, modelling, and cases. This can be valuable for anticipation as it can enable the government to pick up on weak signals and trends as science advances and policy options are evaluated and tested elsewhere. However, such research and knowledge sharing activities lack sustained collaborative structures and investments. Organisational capacity in this area should emphasise horizontal, integrative systems approaches to research agendas versus supporting only individual projects.

Integration of anticipatory practices into the mainstream practices

A 'whole-of-government' approach is needed to address climate change. Innovative practices must not be isolated boutique initiatives or one-time investments or projects. Units at the centre of government can play a strong role in mainstreaming anticipatory practices as they set the pace, align resources, and co-ordinate strategies and implementation plans for climate action. They have the legitimacy to make bold bets and introduce alternative approaches based on foresight and anticipation methods. They also have some degree of control over how budget, strategy, and planning processes proceed.

Lack of time for alternatives exploration due to misalignment of the Government Programme and budget development

As noted in the assessment report, the overlap between the election calendar and the budget cycle leaves a tight schedule for negotiations to reach an agreement on the program, leaving little time for systematic inclusion of systemic or foresight analysis as part of strategic planning discussions and budgetary steering processes. This was also identified as an issue hindering alignment carbon neutrality measures.

> "The budget processes, strategy processes, and implementation processes are separate. Final decisions are made at different points." – Finnish stakeholder

Finland's predominantly coalition governments and lack of single party programmes add complexity and necessary time to the already condensed negotiation and discussion process. In parallel, the new government must form a budget, which means that usually the strategic elements tend to become overshadowed by budget negotiations and time is minimised for alternatives exploration and systemic analysis of carbon policy options, among others.

> *"It has been difficult to reach decisions about carbon options, especially across ministries. Political tensions affect the work, and therefore decision-making is rushed" – Finnish stakeholder*

Medium-term strategic planning with a system thinking approach

The magnitude and urgency of the climate change challenge requires a more systemic approach to medium-term planning. Incorporating ex ante climate impact assessments in strategic planning initiatives, or sustainability and resilience considerations in infrastructures planning and delivery, enables governments to better take into account climate change and exposure to shocks (OECD, 2021[32]).

May interviewees noted a deficiency in Finland of mid-term (10-15 year) budget planning, indicating that long-term planning (50 years) is too long to lead to action and the 1 year and 4 year budget planning cycles are too short to consider new strategic directions or systemic investments in carbon measures.

Identifying and addressing emergent issues

Long-term fiscal sustainability depends on stress-testing for unforeseen events that may have long-term impacts beyond the more immediate trends connected to climate change. Anticipation involves iteration and experimentation which are often constrained by budgetary processes or the expectation of reviews and evaluations which to not account for uncertainty involved in innovative approaches.

The National Audit Office has called the government to develop tools for phenomenon-based budgeting (Varis, 2020[72]) and although there is widespread use of phenomenon-based budgeting practices, their implementation has yet to be fully realised in Finland. Carbon neutrality as a policy topic lends itself well to a phenomenon-based budgeting approach and additional flexibility in the budget process would need to be created. A strong interest in budgetary transparency and parliamentary oversight currently translates into a rather rigid budget, with only few small transfers between different budget items and around two-thirds of the budget being law-based transfers (Tõnurist, 2021[33]). Additional flexibility in transfers between different organisations within the state administration could allow for more anticipation and strategic alignment between budget cycles. Budget tagging and monitoring tools could enable this flexibility without sacrificing transparency.

Cross-sectoral tools for dynamic monitoring and evaluating

Better online planning and monitoring tools and new instruments are needed for cross-sectoral budget analysis and assessment of how resources are used across policy problems connected to carbon neutrality.

Future climate law and the climate change strategy should integrate useful tools to support fiscal monitoring and planning. Finland could develop more and better tools and electronic systems to determine the total sum of how much funds are used for climate mitigation purposes. For nonspecific measures, ministries interpret and determine what they consider to be appropriate for climate spending. A more comprehensive and dynamic view could enable interim evaluation of measures and allow for quicker redirection.

While evaluation is mainly associated with looking back, it nonetheless has an essential role to play in futures thinking. Audits inherently contribute to future decisions, by ensuring accountability and enabling learning within government. To account for this responsibility, anticipatory approaches are increasingly feeding into the work of auditors and accountability offices. For instance, the European Court of Auditors and the U.S. Accountability Offices have taken steps to integrate a foresight approach to their work. This includes scenario planning at early stages of an audit to scope potential risks and engage stakeholders in strategic discussions about the broader context of a policy program. It also includes continuous trend mapping, scanning, goal setting and the selection of specific topics to be audited. Foresight in the evaluation field allows to set audit criteria in an anticipatory way, ensuring that the questions asked remain relevant in the medium- and longer-term. It also allows to check whether the policies examined are the ones likely to stay relevant going forward.

In the field of carbon neutrality, this anticipatory approach to monitoring and evaluation is particular crucial to account for the volatile and evolving nature of the environmental contexts. It is important to leverage evaluation as a tool informing future decisions, not just by learning from the past, but also critically re-examining priorities going forward. Finland needs to integrate an anticipatory perspective into auditing the climate law and the climate change strategy. This could take the form of examining the long-term relevance of policies by stress-testing them against a range of scenarios. It could also include a score on the adaptability of any given programme against future shocks. This could equally include continuous collection of relevant data on the evolution of policy contexts to ensure monitoring takes on an anticipatory perspective.

Spending reviews for dynamic evaluation

Finland performs spending reviews only periodically with the objectives of aligning expenditure with government priorities and improving effectiveness within programmes and policies. Finland is the minority of OECD countries who do not conduct comprehensive spending reviews as an annual exercise. The exercise could provide reassessment of whether politically favourable or popular measures achieve the desired carbon impact or are suitable sustainably in plausible futures. More frequent spending reviews and especially spending reviews focused on carbon neutrality could provide more dynamic data to inform the

impact of measures on climate goals as well as inform anticipatory innovation and policy decisions on a more frequent basis.

Rapid cross-sector analysis

Institutions such as the National Audit Office could play a greater role in providing rapid cross-sector analysis to evaluate the interim impacts towards climate goals. An assessment conducted in the context of the COVID-19 crisis revealed that Finland lacks economic and fiscal scenario analysis and real-time forecasting as part of its toolbox to provide rapid analysis. Greater support for scenario and forecasting analysis tools may not only support acute crisis response but also more rapid feedback loops for evaluating climate measures.

Pilot case findings and key considerations

Main Findings	Key considerations
Carbon neutrality and evidence	
Carbon neutrality policy measure development is dominated by quantitative modelling and forecasting and lacks integration of qualitative foresight methods for a more systemic and anticipatory approach	• Ensure that more advanced tools and relevant expertise are available to incorporate uncertainty into decision-making and fiscal planning supporting carbon neutrality • Ensure that uncertain and qualitative data is legitimated for consideration as part of fiscal policy decision-making in addition to traditional projection-based and cost-benefit based analysis
Clear functional mandates for whole of government approaches are needed as is the urgency to act	• Introduce accountability measures for inaction and establish functional mandates for whole-of-government climate action outside of the Ministry of Environment • Design and support formal sustained governance for horizontal climate co-ordination among all relevant ministries • Develop a shared knowledge base and better links with the research community • Stipulate the consideration of more systemic carbon measures and approaches in medium-term fiscal planning • Engage in dialogues with external stakeholders and politicians using foresight practices to build legitimacy to act in the present
Capacity at individual and institutional level are insufficient to dynamically make sense of the latest information and data in order to guide alternatives exploration and policy decisions	• Augment capacity for green budgeting practices that support anticipation • Develop emergent issue analysis, signal detection, sense-making and alternatives exploration processes that can accommodate inputs from a wide range of sources • Develop and mainstream dynamic monitoring and evaluation processes that provide timely feedback to inform medium-term fiscal planning

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Notes

[1] This section draws on interactions with Finnish counterparts and the information published by various Finnish Ministries online.

[2] The Climate Policy Roundtable, which meets between 5 and 7 times a year, is hosted by the Ministry of the Environment, chaired by the prime minister and includes government and private sector members. It is a discussion forum; it does not take decisions. It supports the national climate policy making and policy implementation processes.

[3] Note that in a modelling context, regulation can be modelled simply as a tax wedge.

11 Child well-being in Finland's welfare service counties

Anticipation is part of a holistic picture for child well-being. Finland published its first National Child Strategy in February 2022 with the aim to create a consistent foundation and better co-operation for all policies and practices concerning children in Finland, embed consideration for children's rights in the mainstream, and better secure the status of vulnerable children. In this reform, co-ordination for child well-being is to shift from national-local to a three-level approach, namely national-county-local. The pilot case study looks at how anticipatory innovation can be fostered across different government levels and what tools, methods and structures are needed to make it impactful.

Introduction

The pilot case study on Child Well-Being in Finland's Welfare Service Counties seeks to create new possibilities for anticipatory innovation on children's well-being, with coherence and synergies across multiple actors at various levels of government.

At the core of this case is an issue of **collaboration and coherence**. A new challenge and need for close co-operation in policy affecting children's well-being has arisen from the health and social services (SOTE) reform, in which health and social services will be transferred from municipalities to new well-being counties, thus creating a new layer of governance which must be taken into account. Additionally, child well-being concerns multiple domains such as education, healthcare, and family services—which often span multiple institutional domains such as different ministries, thus creating a multiplicity of actors contributing to the issue.

Also at the core of this case is **anticipatory governance**, since children's well-being is (like many policy fields) in a context of uncertainty, complexity, and novelty. This is because it is subject to evolutions and transformations in the future involving society, technology, environment, and the economy. No governance model—even with the most successful of reforms—can deliver support to children's well-being over meaningful periods of time, unless it has the ability to constantly perceive, understand, and act upon the changes of the future as they emerge.

To identify ways forward, the OECD undertook multiple activities to support the analysis in this document:

- **Child well-being task force**: a dozen experts in child well-being, senior policy makers, and public officials met monthly to provide information on the Finnish context, reflect on critical questions, and provide feedback on the ongoing study.
- **Workshops and expert consultations**: experts and peers from welfare service counties in Finland participated in interactions on elements of the analysis, and responded to information and updates on the study.
- **International case study analysis**: in consultation with Finnish partners, a set of case studies from six other countries was chosen to highlight successful practices in anticipation, child well-being, and national-local co-ordination; results include a set of most pertinent findings for Finland, provided in this report.
- **International learning sessions**: policy analysts and experts with international experience, including a project on a future scenario for child well-being in municipalities in the Netherlands, participated in a learning session with the Finnish task force.
- **OECD consultation**: experts from several OECD directorates in the fields of child well-being, child protection, education, skills, and several other domains brought multidisciplinary knowledge to bear, including topics such as capacity-building and evidence management for child well-being policies.

Findings in this chapter are supported at several instances with anonymised quotes from task force members, as well as participants in dialogues between civil servants and policy makers, hosted internally by the Finnish Government.

The chapter opens with an analysis of child well-being as a domain with multiple and uniquely pertinent connections with the discipline of anticipation. Following sections explore the context of child well-being in Finland through a number of institutions, initiatives, and other work. The case presents international practices in anticipation and child well-being help to identify successful practices in anticipation and child well-being. Drawing on this analysis and consultations with a task force of Finnish experts and senior decision-makers, a gap analysis identifies four key areas where the Finnish system could be made more conducive to the practice of anticipatory innovation. Finally, the chapter outlines opportunities for action are elaborated based on a set of objectives and mechanisms of anticipatory innovation governance (AIG).

These opportunities lead to three concrete options for Finland to consider implementing in order to further the quality and quantity of anticipatory innovation undertaken in its child well-being governance system. These options are:

1. Child well-being missions to generate concerted and collective impact
2. Ecosystem building to strengthen quality of collaboration between various actors
3. Signal exchanges to promote the generation and use of futures knowledge

The final reflections consider the implications for the model of AIG more generally for Finland and beyond. The analysis finds that it is not just the existence of static components such as a task force or a report that create systematic anticipatory innovation. Attention must be given to the system's behaviour too. How things fit together and interact is primordial to identifying the activities needed to **initiate, motivate, and sustain a dynamic AIG system** that exceeds institutions, and delivers true collaboration and concrete benefits. Hence, a system dynamics analysis would be a valuable next step in developing the AIG blueprint for governments.

Child well-being: A uniquely anticipatory domain

As a policy domain, child well-being has several characteristics that make anticipation particularly valuable. Some international policy work recognises this and seeks to address current and emerging needs.

Anticipatory governance (and hence anticipatory innovation governance) has particular relevance and value in the field of child well-being for a number of reasons. These include:

- The changing nature of childhood, whereby the world in which children grow up tomorrow is different from the world in which previous generations grew up
- Changing policy and measurement considerations for childhood, with new concepts emerging and an incomplete evidence base
- The sense of uncertainty and complexity inherent in policies affecting people early in their lives, whereby the impacts could be unpredictable, profound, and long-lasting for the future of society, economy, and the environment

The changing nature of childhood

To design, implement and monitor effective child well-being policies, policy-makers need data that better capture children's lives, measure what is important to them and detect emerging problems and vulnerabilities early on. Despite improvements in recent decades, there are still important gaps in both national and cross-national child data (OECD, 2021[1]). Children are growing up irrespective of this research, and decisions must be made in the absence of perfect knowledge about what will best support their well-being. In this sense, anticipation is all the more essential since waiting for sufficient evidence means waiting until it is too late to have a positive impact on children's lives. For example, it is not sufficient to refer to previous technological advances to understand how artificial intelligence may enable transformations not just in delivering child well-being services in today's frameworks, but in the entire concept of children's well-being (Polchar, 2020[2]).

Children in the 21st century are better off than their predecessors in many measurable ways: better public safety and support for physical and mental health, as well as greater access to education and improvements in gender equality are all good news (OECD, 2016[3]; 2019[4]). Yet children today report more stress and anxiety, and many developments such as digital technologies are presenting new hazards such as cyberbullying (Burns and Gottschalk, 2019[5]).

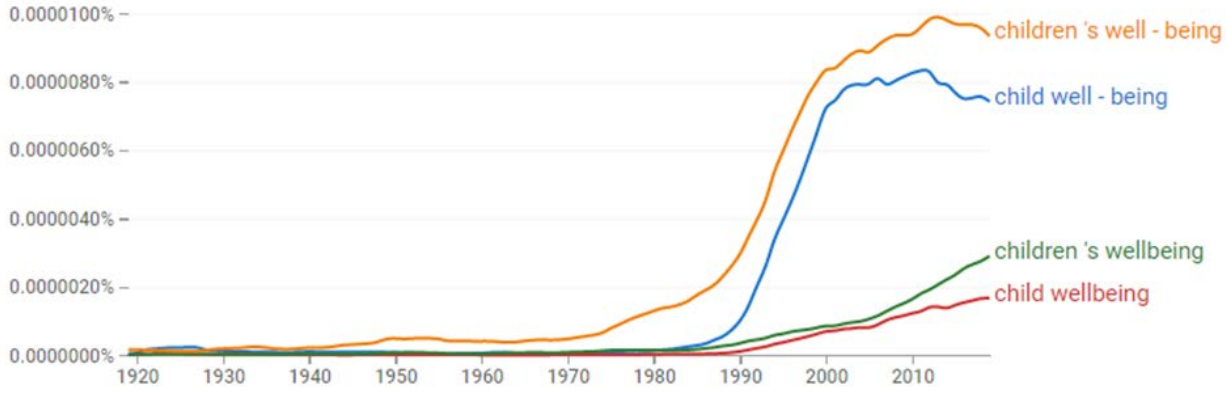
While many of the needs of children (such as good nutrition, emotional support, and opportunities to learn and play) will never change, the world around them is very different. Some examples of developments affecting the future well-being of children include the effects of urbanisation and increasing education pressure on time for play (OECD, 2019[6]); and the emergence of technology-related phenomena such as cyberbullying and harmful online content. There is at least some indication of a link between digital technologies and child well-being: a majority of children in OECD countries report feeling bad when they lack internet access (Hooft Graafland, 2018[7]).

Aside from these tentative indications, the overall picture is that much is still unknown about recent and future developments and their implications for child well-being, so more research is needed (Burns and Gottschalk, 2019[5]). Not least among these uncertain developments are the latent and long-term effects of the coronavirus pandemic and related measures on the well-being of children. Lockdowns, school closures, and remote learning "have resulted in an erosion of many protective factors that attending school offers, including daily routines, social contact, social and emotional support from teachers, sense of belonging to a community, and access to physical exercise. While many young people have been able to maintain connection with peers through digital means, the loss of in-person interaction resulting from school closures could have long-term negative consequences for mental health." (OECD, 2021[8]).

Changing policy and measurement considerations for childhood

In addition to the evolving nature of the issues, the very concept of child well-being is relatively new in public policy and potentially still subject to further evolution. An analysis Google Books over the last century, shown in Figure 11.1, shows a dramatic increase in use of "children's well-being" and related terms starting in the late 1980s and continuing to the present.

Figure 11.1. Frequency of terms related to child well-being in Google Books over time



Source: Google Books

In spite of this increased interest, there is no widespread and systematic use of any set of concepts and evidence covering all three of the main areas of interest of this study: well-being, children, and anticipation.

Regarding **well-being**, substantial progress has been made to codify and quantify concepts of better living (OECD, 2011[9]; 2015[10]; 2020[11]). None of the Sustainable Development Goals is exclusively aimed at children, although all of them are of some relevance, particularly SDG 4 on quality education (United Nations Department of Economic and Social Affairs, 2021[12]), and many of the indicators are child-related.

Regarding **children**, OECD analysis has identified more than 50 indicators, covering 43 of the 169 targets and 11 of the 17 Goals to evaluate the distance that OECD countries need to travel in order to reach the SDG targets for child well-being (Marguerit, Cohen and Exton, 2018[13]). Another example is an assessment of countries' performance in delivering what children need to survive and thrive, with an accompanying "child flourishing index": this analysis takes into account current situations as well as the detrimental contribution of current actions to children's well-being in the future through climate change (Clark et al., 2020[14]).

Regarding **anticipation**, prospective research in the field of child well-being can be found in the literature on intergenerational fairness and justice. The OECD (2020[15]) has published a Public Governance Review on the relevance of an array of public policies and actions for young people, including national youth strategies, engagement of youth in democratic processes, and incorporating intergenerational analysis into policy impact assessments. Another example is the assessment framework for intergenerational fairness (School of International Futures, 2021, p. 8[16]), which uses situation and impact assessment along with scenarios to whether a decision is fair to different generations, now and in the future.

A case of policy innovation which deals with intergenerational effects is The Well-being of Future Generations Act in Wales, which requires public bodies to consider long-term and sustainability effects of decisions taken in multiple policy domains; it also establishes the role of a Future Generations Commissioner, tasked with promoting intergenerational justice (Government of Wales, 2015[17]). More examples of national public-sector work on anticipation and innovation in child well-being are explored in the section on international cases.

Uncertainty and complexity in child well-being policy

It cannot be assumed that policy objectives of child well-being in 2022 will remain the same indefinitely. It is recognised that child well-being is a set of problems characterised by numerous interconnected factors, incomplete and contradictory information, and no clear idea of what the solution would be if it existed. Such situations are called wicked problems (Camillus, 2008[18]; Devaney and Spratt, 2009[19]). It is not possible to conceive of child well-being as the exclusive domain of only one institution such as education; instead it is increasingly necessary to foster partnerships between educators, parents and families, health professionals, psychologists, and law enforcement among others (Burns and Gottschalk, 2019[5]).

Numerous initiatives and studies have been created in response to the above needs for anticipatory work. These include a vast number of visions and strategies specific to child well-being, some of which will be explored in greater detail below. But this work is also complicated by numerous factors. One of these is the fact that the most important relationships and preoccupations of children change as they grow (for example, the role of parents is much greater for young children than for teenagers) (Burns and Gottschalk, 2019[5]). Hence, the policy levers which are most appropriate and effective to each individual will vary over time. There are also issues of agency and ethics: children develop their own reason and conscience over time, and therefore need differing levels of protection, guidance, and autonomy accordingly. For example, children have a sense of privacy from as early as five years old, but gain the ability to use it in decision-making some years later (Livingstone, Stoilova and Nandagiri, 2018[20]).

Existing anticipation for child well-being in Finland

To develop options for action for an AIG model for child well-being in Finland, it is important to determine the main trends and developments that are likely to affect the governance of future of child well-being in Finland, as well as preferences of stakeholders about what this future should look like. This section considers the capabilities of Finland to develop anticipatory innovation governance in child well-being through the lens of a number of structures, processes, and developments:

- **National Child Strategy**, adopted in 2020, which outlines the strategic policies, governance, services and measures necessary to lay a sustainable, consistent and lasting foundation for national child and family policies, in line with children's and human rights.
- **SOTE Reform***,* which will restructure how social and healthcare as well as rescue services will be organised in Finland, by transferring the responsibility to organise these services from municipality-level to 21 self-governing "well-being service counties". In addition the city of Helsinki will be responsible for organising health, social and rescue services within its own area (Government of Finland, 2021[21]).
- **Child-oriented budgeting pilot**, a forthcoming initiative for the 2022 budget.
- **Itla**, the children's foundation.
- **Finland's national foresight system**, a collection of activities, networks, and processes underpinning anticipatory innovation activity in the country.
- **Report to Parliament by the Ombudsman for Children 2022**, a quadrennial assessment of the situation of children and their rights.
- **National Social and Healthcare Innovation and Strategy Network**, a forum for sharing practices and innovations in the welfare county of North Ostrobothnia.
- **Perhekeskus** (family centres) and **Ohjaamo** *(*one-stop guidance centres).

Out of scope in this analysis is an inventory or dissection of the overall system of governance for child well-being in Finland, as well as the day-to-day workings of organisations such as ministries, welfare counties, and municipalities. While these elements are key for considering how and where to implement AIG, such an analysis would be excessively time-consuming and produce a good deal of knowledge superfluous to this report. Instead, these elements are considered where most relevant in light of where there are gaps and areas for improvement, in the sections on gap analysis and opportunities for action.

National Child Strategy

Groundwork for a national child strategy in Finland was laid by previous governments (Ministry of Education and Culture Finland and Ministry of Social Affaires and Health Finland, 2019[22]) before Finland published its first national Child Strategy in February 2021. Due to the fragmented nature of decisions and policies concerning children in Finland, the rights of the child were not fully and equally realised in all areas of society. The goal is a society that respects the rights of children. The National Child Strategy is based on the UN Convention on the Rights of the Child. (The UN Convention is founded on the principles of non-discrimination; the child's best interests as the primary consideration; a child's right to life, survival and development; and the child's participation.) The aim of the Strategy was to create a consistent foundation and better co-operation for all policies and practices concerning children in Finland, embed consideration for children's rights in the mainstream, and better secure the status of vulnerable children. The task is to formulate a vision for a child and family-friendly Finland that spans government terms and crosses administrative boundaries. The Child Strategy will be based on information and research evidence, and it will promote the implementation of the Convention on the Rights of the Child.

According to the parliamentary Committee on National Child Strategy, “The committee considers that the National Child Strategy should create a child- and family-friendly Finland that respects the rights of the child. The Child Strategy is closely linked to broader strategic forecasts and choices concerning the future of society.” (The parliamentary National Child Strategy Committee, 2022[23]). The anticipatory dimension is therefore explicit with respect to the context within which children’s rights are to be implemented.

Another dimension of anticipation is evident in the articulation of a vision for children’s well-being, which includes securing adequate income for families, work-life balance for caregivers, good public services, and good education. It further expresses a desire to listen to children's views and include multiple generations in societal questions. Children are also seen as full and future democratic agents, with a right to intergenerational justice.

Reform of healthcare, social welfare and rescue services (SOTE reform)

The introduction of the social and welfare (SOTE) reform completely re-envisages how child well-being services are governed and organised (Government of Finland, 2021[21]). Co-ordination for child well-being is to shift from national-local to a three-level approach, namely national-county-local. While services are co-ordinated on the county level, the actual provision of services is likely to continue taking place on the local level (e.g. doctors, social services).

The introduction of 21 regional welfare service counties (hereafter simply “welfare counties”) is unprecedented in Finland and is therefore subject to some level of uncertainty about its implementation. The groundwork for the present report coincided with the moment at which the welfare counties assumed their responsibilities with respect to child well-being. The associated workload was cited as a reason for low engagement and uptake of the opportunity to contribute to the project on anticipatory innovation among welfare counties. Given their key role in the system, the ability and willingness of welfare counties to participate in anticipatory innovation in the future is of critical importance to the potential success of building anticipatory innovation governance.

The SOTE reform in principle presents an opportunity for new organisational habits to be tried, refined, and embedded while the institutional setup is still relatively young. The options for action presented in this report take this novel situation into consideration. The roadmap for the reform’s implementation includes some reference to anticipation of potentially changing service needs (Government of Finland, 2022[24]), however it is not explicit about how this anticipation should be conducted.

The SOTE reform has already been in development for many years, and the individuals responsible for its implementation and the subsequent administration of welfare counties have prior experience and practices that they will carry forward. Hence, while the attention and novelty of the reform present opportunities, there is still a risk that path dependencies and competing priorities could overshadow efforts to try new approaches.

> [One challenge is] how to reach a systemic, bird eye view and train/educate the decision makers and future leaders of welfare counties so that they have courage and knowledge to reform with human-centred, purpose-driven and cost-effective goals. We should avoid the risk that the welfare counties just adopt the old, current structures and working cultures and continue with the same problems.

Child-oriented budgeting pilot

Work on “child-oriented budgeting” has sought to address issues of fragmented budgeting in Finland (Government of Finland, 2021[25]). Child-oriented budgeting means that the central government budget is examined from the perspective of the rights of the child. It involves monitoring budget expenditure and revenue allocated to children and assessing the impact of budgetary decisions on children. At the end of 2020, the Prime Minister's Office appointed a working group as part of the national strategy for children to examine how child-oriented budgeting and related expertise should be developed across government terms. According to the Committee on the Implementation of the UN Convention on the Rights of the Child, children's rights should be taken into account at all stages of the budgetary process. However, child-oriented budgeting has so far been modest in Finland. The work being carried out by the working group on child-oriented budgeting is part of the implementation phase of the National Child Strategy. The working group has made proposals on how child-oriented budgeting could support the implementation of the National Child Strategy. The committee proposes that:

1. Child-oriented budgeting be piloted in the 2022 budget proposal and that a standardised version be introduced for the 2023 budget proposal
2. Child impact analysis be carried out covering each government term
3. Monitoring and reporting of local government (and later also of well-being services counties) budget outturn data be developed as a separate project
4. Child-oriented budgeting of municipalities and well-being services counties be carried out making use of networking once the health and social services reform has entered into force

The preparation of the pilot is currently under way as part of the formulation of the 2022 budget proposal. The Ministry of Finance has submitted guidelines on the preparation of the budget to the ministries. The guidelines include a description of child-oriented budgeting.

Child budgeting has the potential to demonstrate anticipatory governance if futures knowledge can be incorporated into allocations and appropriations, as well as the impact analysis. Currently it is not clear whether such anticipatory activities are envisaged in any of the processes.

Itla

The Itla Children’s Foundation is a Finnish parliamentary foundation created in 1987 to guarantee children a socially, economically, and ecologically sustainable future and an equal starting point in life, regardless of background. Embedded in this mandate around children is a multi-stakeholder and future-oriented approach. This institutional investment in the future of Finnish society aims to create legitimacy around exploration of uncertainty and alternatives exploration. The topic also forces cross-sector collaboration among traditionally siloed and expert-driven domains, such as education and healthcare. Crucially, beyond a focus on evidence and knowledge creation, Itla prioritises anticipatory innovation as the means to explore and learn from regional innovations in order to advance reforms. Each year, Itla holds a challenge-oriented innovation competition to fund innovative projects.

The cities of Oulu and Vantaa received awards in 2019. Oulu, a city in the far north of Finland, is testing and redesigning alternative service models for families and children with a focus not only on early-intervention but also on anticipation through the detection of weak signals around at-risk youth. Vantaa, a suburb of Helsinki, has experienced large waves of immigration, especially since 2014, and consequently is the most multicultural municipality in Finland. This also poses integration challenges for children and families. Vantaa is exploring alternatives for promoting integration via experimental and unconventional services.

The lessons learned through Itla’s work in exploring creates a pool of knowledge about alternatives, which can be drawn from future national reforms and policy, such as the National Child Strategy.

Finland's national foresight system

Under the co-ordination of the Prime Minister's Office and Sitra (the Finnish Innovation Fund), Finland's National Foresight Network acts as a forum for discussion and co-ordination among the country's key strategic foresight players. By bringing together ministries, government agencies, regional councils, private sector actors, academia, and NGOs, the Network aims to promote the use of future perspectives and foresight data in the country's decision-making process at various governance levels. It is an open network holding monthly "Foresight Fridays" meetings that involve participants in trainings, presentations and networking events.

In the lead up to parliamentary elections, the Network produced future scenarios envisioning Finland's future up to 2025, focusing on digitisation, the needs of an ageing population, and the labour market reform. The scenarios were made widely available online and were successful at bringing discussions of the future into the electoral debate.

Already as far back as 2013, public sector foresight work in Finland had identified sustainable well-being in general and child well-being in particular as a key issue of future relevance, including in the flagship Government Report on the Future (Vapaavuori, Lindroos and Hjelt, 2013, p. 86[26]). That report further made a suggestion that foreshadows the findings of the present report by almost a decade: "services for families with children must be formed into a whole, each element of which seamlessly supports the others" (Vapaavuori, Lindroos and Hjelt, 2013, p. 48[26]).

Report to Parliament by the Ombudsman for Children 2022

The Finnish Ombudsman for Children presents the Finnish Parliament with a report on the position of children and the realisation of their rights every four years. The 2022 Report assessed how social policy reforms and education policy affected child policy, compared national legislation against the UN Convention on the Rights of the Child, and commented on the development of the Finnish National Child Strategy. It pointed out emerging issues related to children's rights and gathered insights received from conversations with young people. The report made three key observations. It noted that children's rights suffered because of the coronavirus pandemic and considerations of children's rights were not consistently taken into account in launching education and social reforms. In addition, options for young people to participate in decisions impacting their lives were limited. Recommendations to Parliament included a reform of Finland's Child Welfare Act, and higher levels of funding for the Finnish education system (Ombudsman for Children in Finland, 2022[27]).

The Report offers a holistic look at child well-being, but the anticipatory dimension is not clear. The Report takes stock of the "position of children and the realisation of their rights" in Finland, taking into consideration broad perspectives (from education, to social reforms, to the impact of coronavirus). The report also includes assessments about future developments in child well-being, however these are founded on traditional expert opinion (academic subject matter expert), and lack explicit processes such as scanning, trends analysis, or scenario-building that would be characteristic of a more deliberately anticipatory approach. Similarly, the report seems to take stock of past changes (e.g. past social reforms), and does not look ahead at upcoming developments.

Nevertheless, there is scope and potential for the Ombudsman to play a role in anticipatory innovation. The systemic assessment of children's rights enables the assessment of impacts across policy programmes, across agencies and multi-level service provision. This means it can spot gaps or blindspots that may not be visible from the point of view of any single actor in the fragmented system. Furthermore, the report indicates areas where anticipation can be of importance: "from the perspective of children and young people, anticipatory legal protection – preventing rights violation from happening in the first place – is of utmost importance" (Ombudsman for Children in Finland, 2022, p. 120[27]). The importance of

anticipation is understood at a personal level (e.g. within a child's development), but not explicitly at a systems level (e.g. piloting legislation against the impact of the metaverse on children's well-being).

The report also considers participation of children in discussions about their own future, but is unclear with respect to long-term visions or impact on decision-making. An example is the Young Advisers model. Young advisers are seen as "producers of information", but these inputs do not always have a long-term focus: "Young Advisers meetings are typically meetings with a group of children built around a specific theme, where children have the opportunity to discuss important topics and have their views made known to decision-makers. […] The topics of the meetings are primarily related to the annual strategic focus area of the Ombudsman for Children. For example, the focus of 2020 was the future of our planet, in 2021 the focus is equality and in 2022 it will be safety and security." (Ombudsman for Children in Finland, 2022, p. 133[27]). Another example is the Child Barometer for young children (aged 6). "The Child Barometer is a study on the everyday lives of 6-year old children carried out by the Office of the Ombudsman for Children every other year […] The Child Barometer is a pioneer in investigating the views and experiential knowledge of young children […] not previously collected anywhere in the world." (Ombudsman for Children in Finland, 2022, p. 137[27]). Hence, the data collected was extensive, but the impact on policy priorities is unclear.

National Social and Healthcare Innovation and Strategy Network

The North Ostrobothnia well-being services county and Innokylä service (provided by the Finnish institute for health and welfare) have designed and launched in 2021 The National Social and Healthcare Innovation and Strategy Network. The aim of the network is to share good practices and solve common development challenges through interregional co-operation, improve social and health care capacity for innovation and prevent duplication of development. In addition, it provides networking, developing new practices, and getting to know new development methods, while events organised by Innokylä provide information on health and social care practices developed throughout Finland. Innokylä helps municipalities and welfare counties to strengthen well-being by reforming welfare services—its main goal is to improve the quality and availability of services.

One of the network's goals is to identify changes in the operating environment at an early stage. They continually collect signals and development needs from customers and professionals as well as from stakeholders. This information is collected on a common electronic co-creation platform within North Ostrobothnia. This platform supports activities such as facilitating development processes and assessing the impact of solutions under developments. Work is underway to make it possible to use the information gathered to identify broader themes and topics for development, and to manage operational risks.

Since its launch, the network has generated widespread interest: hundreds of experts have signed up to its activities. In the future, the main goal of the network is to create a common co-creation model for regions through national co-operation.

Family Centres and One-Stop Guidance Centres

An important part of the national infrastructure for child well-being are the Family Centres (Perhekeskus) and One-Stop Guidance Centres (Ohjaamo). In many cases these are still under development and the integrated concept is not yet deployed in all welfare counties.

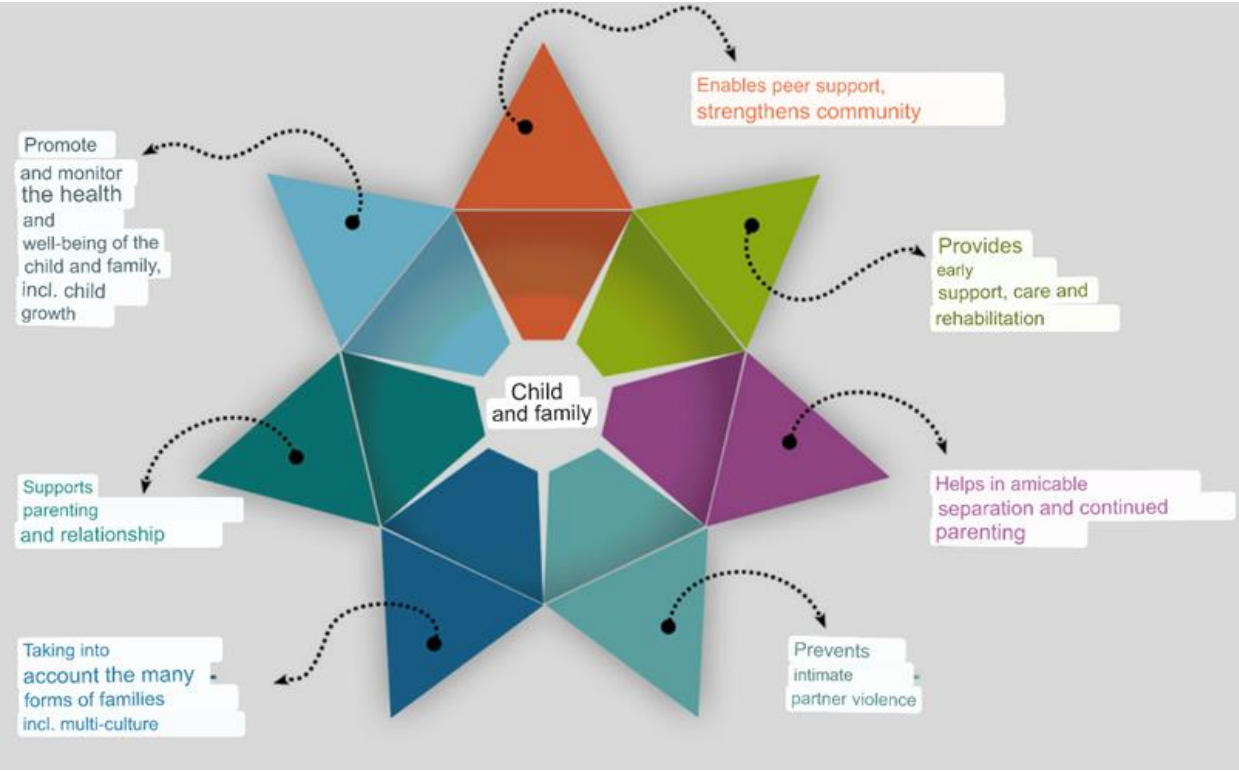
The concept of **Family Centres** (see Figure 11.2) is to offer basic services for families with children, as well as early support and special support services. Extended services are planned include maternity and child health clinics, home services, speech therapy, the Family Counselling Office, physiotherapy and Child Welfare Services.

The concept of **One-Stop Guidance Centres** is to bring together information and services from multiple agencies for young people under 30. This requires collaboration between the local agencies, state and non-state actors who provide the services, as well as the national and regional layers necessary for their delivery. The Centres cover areas such as young people's well-being, transition to work or training, skills development, and housing. The provision of multi-agency youth services addresses an important challenge in the fragmented landscape of child services in Finland, which often results in ineffective and slow processes. All activities of the One-Stop-Guidance Centres are monitored at local, regional, and national level.

Both kinds of centres are a model for collaboration and cover all aspects of children and young people's lives that are crucial for their future. Well-executed services and efficient use of the networks of actors is essential to the development of new functions. The aim is to build effective networks that genuinely cross sector boundaries and share internal knowledge, and thereby support children and young people's well-being (Määttä, 2018[28]).

However, there are currently no discernible mechanisms for anticipatory innovation built into the Family Centre or One-Stop Guidance Centre Models. It is not clear how they would respond to rapid changes in their ability to provide services due to external factors (for example a pandemic), or services changing (such as new forms of childcare), or unexpected disruptions affecting partners such as NGOs. Furthermore, the Centres are designed to "integrate existing networks and structures" (Määttä, 2018[28]) rather than challenge or overcome their shortcomings.

Figure 11.2. Perhekeskus (family centre) services



Source: (Eura Municipality, Finland, 2022[29])

International cases

Comparative research for the purpose of peer learning and exploring best practices is a common tool for policy design. To the extent that a successful model or approach transcends context-specific factors and challenges, it can be analysed to determine whether its positive results can be replicated in another country in its entirety or an adapted form. Peer learning enables countries to adopt practices that are proven successful in a similar context, thereby enhancing internal policies, and contributing to common goals. For example, the European Union (EU) introduced a Mutual Learning Programme (MLP) in the context of the EU Employment Strategy, which supports exchange between countries to identify transferable aspects, learn from good practice examples, and/or support the implementation of emerging policies or practices.

Given that the AIG model is a new approach to policy making and planning, in general and in the field of child well-being, peer learning and exchange of practices offers both a challenge and an opportunity. While it enables countries to exchange about their experiences with the AIG model and work together towards its implementation, there are no examples available of how the AIG model was successfully implemented to improve policy making and planning for child well-being.

This study aims to bypass this challenge, by looking into the core elements of the AIG model in the context of child well-being and identifying countries or regions that already implemented one or multiple elements successfully (or addressed challenges successfully). The chapter subsequently draws lessons from each practice to provide recommendations towards the AIG approach for child well-being.

The following sections present international examples of AIG-elements in the context of child well-being. The examples can be divided roughly into three groups, along with the reason for their inclusion, namely:

- *Foresight and anticipatory structures*: reflecting on the main purpose of this analysis to contribute to the development of a model of anticipatory innovation governance.
- *Whole government approaches*: reflecting on the emphasis on coherent and collaborative anticipatory work identified in the intermediate report.
- *Multilevel governance (local – regional – national)*: reflecting on the actors in the governance architecture and the prominence of the SOTE reform as part of the context in which anticipatory innovation is to be deployed.

Each example includes a factual description of the practice and an analysis of its relevance for Finland and of any challenges that were (not yet) overcome to the implementation of the practice.

Foresight and anticipatory approaches to well-being

This section presents examples from the Netherlands and the United Kingdom on how foresight studies are used for policy making in the domain of child well-being.

The Netherlands

The Dutch Ministries of Justice and of Health, together with the Dutch Association of Municipalities (VNG) published in 2021 their joint Future Scenario for child and family protection. The “scenario” is intentionally normative and therefore not comparable to scenarios produced in OPSI projects. It is the result of widescale consultations on the current gaps and challenges in child protection and describes what the ideal future of child and family protection should look like (Helmich, 2021[30]).

The scenario did not aim to set the detailed structures of how the ideal future should be achieved. In fact, there are many hurdles to overcome in heading towards this future. Instead, the scenario provides the setting for key stakeholders to come together and design such structures collaboratively (e.g. joint governance, joint financing). This requires the main child protection stakeholders to continue exchanging on a regular basis to fill in the details of the scenario.1

In fact, the multi-stakeholder approach was a crucial element of the scenario design. Dutch child protection is characterised by a large number of organisations that play a role in protection procedures and case management and enhance the complexity of child protection. However, each actor (ministry, municipality, NGO, social worker, family) perceives the challenges and possible solutions differently. The Ministries and VNG, supported by an independent consultant, worked extensively on ensuring that all perceptions were analysed before designing a possible scenario that brings all stakeholders together on one line. To build a foundation for the scenario, the team identified four common principles that all stakeholders committed to, namely: family-oriented, simple, transparent, and learning. Box 11.1 describes these principles in greater detail.

Box 11.1. Main principles underlining the Future Scenario of child and family protection in the Netherlands

Family-oriented: Prior child protection frameworks focused on the immediate short-term protection of the child, for example by intervening and removing the child from the harmful situation. However, long-term situations require interventions and breaking of patterns within the family as a whole. Family-oriented means in this regard that social services need to intervene on every person in family to change these situations. Each family-member needs to be involved and targeted.

Simple: The consultations demonstrated that the current child protection system involves a large number of organisations that become involved at different stages of case management (e.g. social workers, municipalities, national authorities, judges, external reviewers). As a result, a family may have to tell their story to four or five different institutions. This system has to become simpler for the family.

Transparent: Similar to the principle “simple”, transparency was also brought forth mainly by consulted families. They often felt unsure about which organisations possessed which information about them and who has access to that information. While the Netherlands has procedures for data protection and requesting information, this had to become more transparent and simpler for the families.

Learning: In the past, the aspect of learning from each other and from experience was not always sufficiently integrated in child protection. A system was designed and implemented, a conclusion was made that it did not work, and subsequently a new system was designed. The current scenario foresees continuous learning and exchange about what works, and improving the system along the way.

Source: (The Association of Netherlands Municipalities, 2022[31])

Having established the principles, the team and the stakeholders started building the scenario by identifying what each of the principles means to each of the main involved child protection actors. The family is always placed at the centre, ensuring that support networks and communities of child and family protection actors are built around the needs of the family.

> “Involving diverse stakeholders in scenario-building also creates challenges. The principles served as our “common framework” that everyone committed to. Only then, we started building the scenario, always referring back to the principles.”

Upon completion of the scenario in 2021, the next stage commenced, namely the translation of the scenario to concrete programmes and actions. As mentioned above, many questions regarding

management and governance have arisen from the scenario for which stakeholders need to design common solutions. At this stage, the diversity of stakeholders can also create tensions, since the approach of each stakeholder to change management is different. Additionally, conflicting paradigms at the political level also hinder a uniform approach. For this reason, the scenario also includes models for learning and developing together.

An element of the scenario with particular parallels to Finland is the introduction of the "regional security teams", introduced through new public-law regional organisation. These regional teams will take over most of the tasks currently held by national-level institutions. While the scenario is focused on building communities and networks of support around the family (on the municipal level), regional security teams will provide specific expertise in the field of developmental threats and security, and execute child protection measures. Local child protection teams can request the support of the regional team. However, as the scenario describes, the set-up of the regional teams will require suitable governance and financing models and clear delineation of the relationship between regional teams and other child protection organisations (Helmich, 2021[30]).

An important lesson learned from the Netherlands is the explicit identification of common goals and principles of child well-being that unified all stakeholders. The inclusion of a wide range of organisations can create friction in terms of objectives and perspectives. However, interviewees stated that the foundational principles ensured that debates can always be redirected towards the universally agreed goals. Given the new multi-level approach to child well-being in Finland, it is of crucial importance that there are universal principles and concepts that all actors and stakeholders align their work with.

Whole government approach

Examples here focus on how different government entities can collaborate on AIG in the field of well-being, focusing on general co-operation structures (e.g. task forces, committees) as well as on joint strategies, indicators, and budgeting.

Scotland

One of the main challenges towards a whole government approach to child well-being, also highlighted by the Dutch stakeholders, is the development of a holistic governance and financing model that ensures that the right professional can do their work at the right time and the highest quality. For this reason, Scotland has developed a National Performance Framework (launched in 2007, put into law in 2015), which provides a set of objectives, and accompanying indicators, around which all departments and agencies, at central government and the local level, aim to align (Scottish National Performance Unit, 2022b). ox 11.2outlines the government's responsibility towards the NPF.

The introduction of the NPF is required in the Community Engagement Act, and designed to bring together national and local governments, businesses, voluntary organisations, and the population in general. NPF staff confirm that the NPF was designed to break through governmental "silos" and ensure that various ministries and departments collaborate more effectively.[2] However, interviewed NPF staff underlined that this is a lengthy process that takes multiple years, with lessons learned and adjustments, to implement:

> "You cannot rush the implementation of an outcomes-based policy framework. Sometimes it is expected that when you introduce a framework and tell people about it, things will happen. In reality, it takes many years, and even after more than 15 years, our system is not perfect".[3]

Box 11.2. Responsibilities towards the NPF

Within the government, the responsibility for the implementation of the NPF lies with the Cabinet Secretary's office. A new directorate was established that focuses on government performance and the NPF, but also includes other topics such as constitutional issues and government resilience. The NPF team comprises about 10 staff members whose responsibilities can be grouped in three categories :

1. Stewardship of the NPF, namely the review and realisation of the NPF outcomes and creation of resources for its implementation.
2. Leadership of the NPF, which involves encouraging all government actors to contribute to its implementation.
3. Delivery of the NPF, ensuring that outcomes are being achieved.

The implementation of the NPF is the responsibility of the cabinet and ministers, who adopt decisions towards the NPF outcomes. However, there is no requirement or set schedule how often and in what format the NPF outcomes should be discusses. Therefore, the inclusion of the NPF in government discussions depends on the ministers themselves and their interests.

The Community Engagement Act states that all public authorities have a role in the delivery of the NPF outcomes, including also local authorities. The Convention of Local Authorities is in fact a signatory to the NPF. However, NPF staff note budgetary constraints to the full and effective participation of local authorities in realizing NPF outcomes.

Source: (Scottish National Performance Unit, 2022[32])

While the NPF comprises well-being across all ages, one of the outcomes revolves around children and young people: "*We grow up loved, safe and respected so that we realise our full potential*" (Scottish National Performance Unit, 2022[33]). Progress towards this outcome is measured through seven specific indicators (Scottish National Performance Unit, 2022[34]).

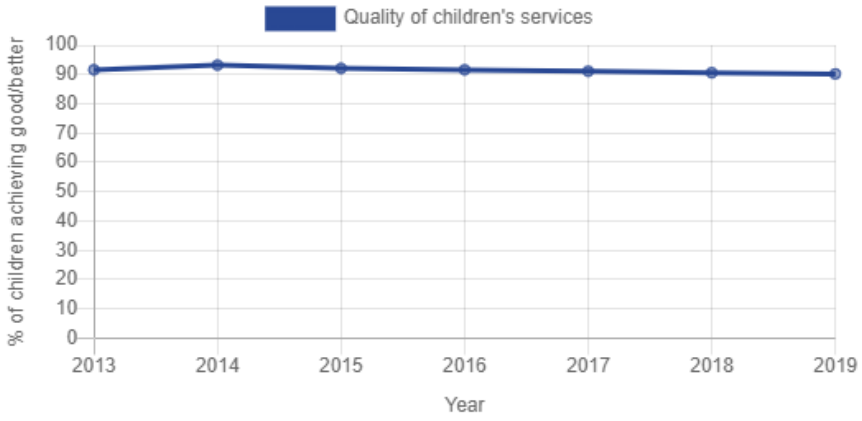
- Child social and physical development
- Child well-being and happiness
- Children's voices
- Healthy start
- Quality of children's services
- Children have positive relationships
- Child material deprivation

The website of the National Performance Framework allows monitoring of the progress made against each indicator, and provides detailed information what the indicator is based on and where data was collected. For example, Figure 11.3 shows progress against the indicator on quality of children's services.

Figure 11.3. Example of progress against the indicator on quality of children's services

Quality of children's services

Year	Figure
2019	90.2
2018	90.6
2017	91.1
2016	91.6
2015	92.1
2014	93.2



Source: Scottish National Performance Unit

According to the Scottish Government in 2014, "Each government portfolio is required to set out how its spending plans support the delivery of the national outcome and this is set out in the form of a strategic overview in each portfolio chapter of the budget document. The budget also gives financial effect to the layers of policy development, consultation, and decision making with delivery partners about the direction of the Government's policies and programmes." (Scottish Government, 2014[35])

In this regard, the Budget Process Review Group strongly recommended in 2017 that "the shift towards a much more outcomes-based approach to the scrutiny of public expenditure should be accelerated. Such an approach will provide the means for evaluating the environmental, economic, and social outcomes that are achieved by public spending" (Scottish Parliament, 2017[36]). The NPF stakeholders indicate that the introduction of outcomes-based budgeting in line with the NPF is an important priority for them, and a "manifesto" describing Scotland's commitment to introduce such a budget was adopted. However, so far this has not been implemented (Scottish Parliament, 2017[36]).

The example of Scotland teaches that a key element bringing together all governmental actors is the introduction of an outcomes-based performance framework. It sets common goals and principles across the government and requires government actors to describe how they plan to achieve these goals. However, an important lesson is that such an outcomes-based framework alone does not guarantee its implementation. Sufficient resources need to be allocated to specific departments who carry the responsibility for monitoring achievements towards the outcomes and constantly push government actors to consider these outcomes in their planning. Similarly, Finland should ensure that there is a department or working group that has clear mandate to monitor achievements towards the Child Strategy and to bring together all departments and agencies involved.

Ireland

From 2014-2020, Irish policies regarding child well-being were guided by the *Better Outcomes, Brighter Futures: the national policy framework for children and young people 2014 – 2020*. It is the first national framework in Ireland that adopts an overarching, whole-of-government approach to well-being of children and young people between the ages of 0 and 24. As such, 163 commitments to the framework have been drawn from across 11 government departments and agencies. For each commitment, specific annual actions were prepared (Ireland Department of Children, Equality, Disability, Integration and Youth, 2018[37])

Similar to the Scottish framework, the Irish framework is underpinned by the principle of outcome-focused working. The Better Outcomes, Brighter Futures Indicator Set helps stakeholders to track achievements made towards the main outcomes foreseen in the framework. 70 indicator areas were identified with between one to four indicators per area (established through a "Delphi" consultation among experts). Data against the indicators is collected through administrative surveys and census data (Ireland Department of Children, Equality, Disability, Integration and Youth, 2022[38]); see Figure 11.4.

Figure 11.4. Example of the structure of indicators for one of the five Framework outcomes, and presented achievements as of 2022

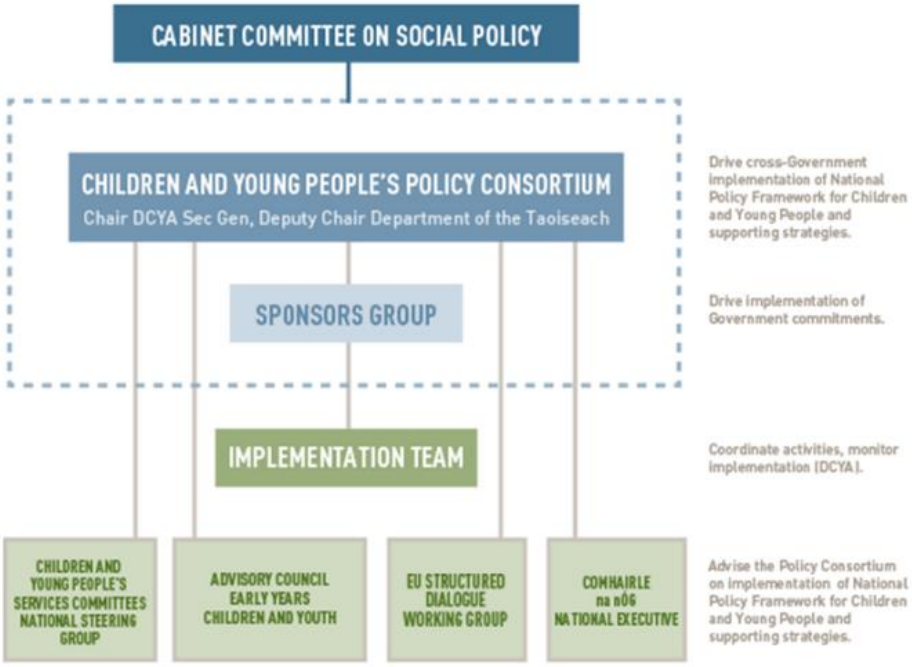
Outcome	Aim	Indicator areas	
1. Active and healthy	Aim 1.1: Physically healthy and make positive health choices	1. Breastfeeding 2. Healthy weight 3. Immunisation uptake	4. Physical activity levels 5. Risky health behaviours 6. Mortality rate by cause and age
	Aim 1.2: Good mental health	7. Positive perceived mental health and well-being 8. Self-harm	9. Parental mental health 10. Access to child and adolescent mental health services
	Aim 1.3: Positive and respectful approach to relationships and sexual health	11. Early sexual activity 12.Teenage pregnancy 13. Knowledge about sexual health	
	Aim 1.4: Enjoying play, recreation, sport, arts, culture and nature	14. Participation in sport, leisure and recreational activities 15. Play	16. Screen time

Indicator area	Indicator	Age range	Baseline	Most recent as of 2017	Most recent as of 2021	Change[35]
Aim 1.1: Physically healthy and make positive health choices						
1. Breastfeeding	(i) Breastfeeding (exclusively) on discharge (ii) Breastfeeding at three months	Infants	(i) 46.3% 2014 (ii) 35.5% 2015	(i) 47.7% 2015 (ii) 38.8% 2016	(i) 45.9% 2019 (ii) 42.3% 2019	≈ ↑
2. Healthy weight	Low birthweight	Infants	5.6% 2014	5.7% 2015	5.6% 2019	≈
	Overweight and obesity (children)	First class (7 years)	16.8% 2012	16.9% 2015	15.8% 2020	↓
	Overweight and obesity (young people)	15–24 years	29.0% 2015	29.0% 2015	28.0% 2019	↓

Source: (Ireland Department of Children, Equality, Disability, Integration and Youth, 2022[38])

While the Framework targets all government and non-governmental stakeholders involved in child well-being, specific committees and teams were established to oversee its implementation. The WGA and stakeholder approach in the framework's implementation was built on ensuring both horizontal and vertical co-ordination: horizontally across people, infrastructure, evidence and data analysis, and funding and finance, and vertically from national to local level. In this regard, it is important to mention that the framework, shown in Figure 11.5, did not intent to spark significant new workflows, but rather to better co-ordinate across ministries and agencies existing efforts (Ireland Department of Children, Equality, Disability, Integration and Youth, 2018[37]).

Figure 11.5. Implementation structure of the Better Outcomes Better Futures framework



Source: (Ireland Department of Children, Equality, Disability, Integration and Youth, 2022[38])

The main responsible actor is the Children and Young People's Policy Consortium, which comprises high-level representation from Government Departments and Agencies, and key experts and representatives from a range of sectors and settings working with children and young people. The consortium ensures that the different elements of the Framework are implemented and co-ordinated across all responsible government departments and agencies (Ireland Department of Children, Equality, Disability, Integration and Youth, 2018[37])

In the annual implementation report of 2020, several good practices and lessons learned were identified. Those with relevance for Finland are included below:

- *Council structure*, to ensure greater coherence in unifying the policy domains of early years, children and youth and reflecting a lifecycle approach to addressing issues facing children and young people.
- Ensuring that the *constituent groups in the BOBF infrastructure had the opportunity to inform the identification of annual priorities* and the development of the outcome indicators, and to comment on progress via the Annual Report.
- Introducing the concept of *annual cross-sectoral priorities* such as child poverty, prevention, and early intervention, etc. to ensure *responsiveness to emerging themes*.
- *Government departments have co-operated with and embraced the Framework to varying degrees*. Some have used the framework successfully to advance policy goals that chime with the frameworks. Therefore the 'the bar' for engagement is higher. In any event, addressing this issue in the next framework is essential.
- The framework as an instrument of policy delivery has been challenged by *lack of focus and, in particular, the mixing of a long and undifferentiated list of micro and more macro actions*. This can weaken the overall focus on effective implementation.

A message from the Irish experience (Ireland Department of Children, Equality, Disability, Integration and Youth, 2018[37]) includes that:

> The work of co-ordination and influencing needs full time resourcing. This is different to the work needed to drive implementation of specific more micro actions, and relies on skillful influencing allied to a strongly supported mandate from the top.

And additionally:

> Government departments and agencies need to be held equally accountable for their own commitments and their level of engagement particularly at the consortium meetings.

Many lessons learned from Ireland are similar to those of Scotland, namely that outcomes-based planning has the potential to unite government actors towards common objectives for child well-being, but that this requires sufficient resources for appointed departments to monitor and encourage implementation of well-being policies. The adoption of an outcomes framework alone is not sufficient to achieve the goals, but requires constant follow-up, communication, and improvements.

New Zealand

New Zealand has a unique approach to long-term planning and strategic thinking. Namely, it relies not only on contemporary forecasting techniques, but combines such approaches with practices of indigenous cultures. This includes the integration of indigenous philosophies into social norms. For example, the countries aim to learn lessons from the Maori on how to bring together various views and manage complexity (School of International Futures, 2021[39]).

In their 2018 report, supporting the reform of the 1988 State Sector Act, the Minister of State Services and the State Services Commission identified several concerns regarding the work of the New Zealand government, in particular "the narrowing of each department's focus to its own particular outputs and a short-term horizon (silo-effect)". It furthermore concluded that "It is hard for government to address complex social issues that span agency boundaries such as climate change, mental health and family violence. These require agencies to work together in a co-ordinated manner" (New Zealand State Services Commission, 2018[40]).

Since 2019, New Zealand has introduced an annual well-being budget, aligned with the two well-being Frameworks which dominate New Zealand's approach to well-being; see Table 11.1.

Table 11.1. New Zealand's approach to well-being

Living Standards Framework	He Ara Waiora Framework
The Living Standards Framework requires analysis of policy impacts across the different dimensions of well-being. It includes four capitals: human, natural, social, and financial and physical capital, and 12 domains of well-being, such as housing and social connections, which reflect current understanding of the things that contribute to how New Zealanders experience well-being.	This framework was newly included in the well-being Budget in 2021 to ensure that the well-being approach reflects the national and cultural context unique to Aotearoa New Zealand. The He Ara Waiora consideration was not just for the initiatives that are focused on Maori but across the whole 2021 Budget package.

Source: (The New Zealand Treasury, 2021[41])

The Living Standards Framework is a "living" framework informing the Treasury on the main developments impacting well-being. Research on the Living Standards framework, together with data from the Treasury's Living Standards Indicators dashboard are used to identify the main well-being areas where improvement or policy making is needed (Government of New Zealand, 2019[42]).

The well-being budget was praised for shifting the government priority and gravity of thinking away from traditional economic indicators, and for allowing the measurement of not only financial achievements, but also achievements towards well-being (McClure, 2021[43]). Importantly, the well-being Budget approach encourages different government departments and agencies to co-ordinate efforts towards the well-being frameworks (McKinlay, 2022[44]).

> The purpose of government spending is to ensure citizens' health and life satisfaction, and that — not wealth or economic growth — is the metric by which a country's progress should be measured. GDP alone does not guarantee improvement to our living standards and does not take into account who benefits and who is left out. – Jacinda Ardern, Prime Minister of New Zealand

The well-being budget was designed in accordance with three key principles:

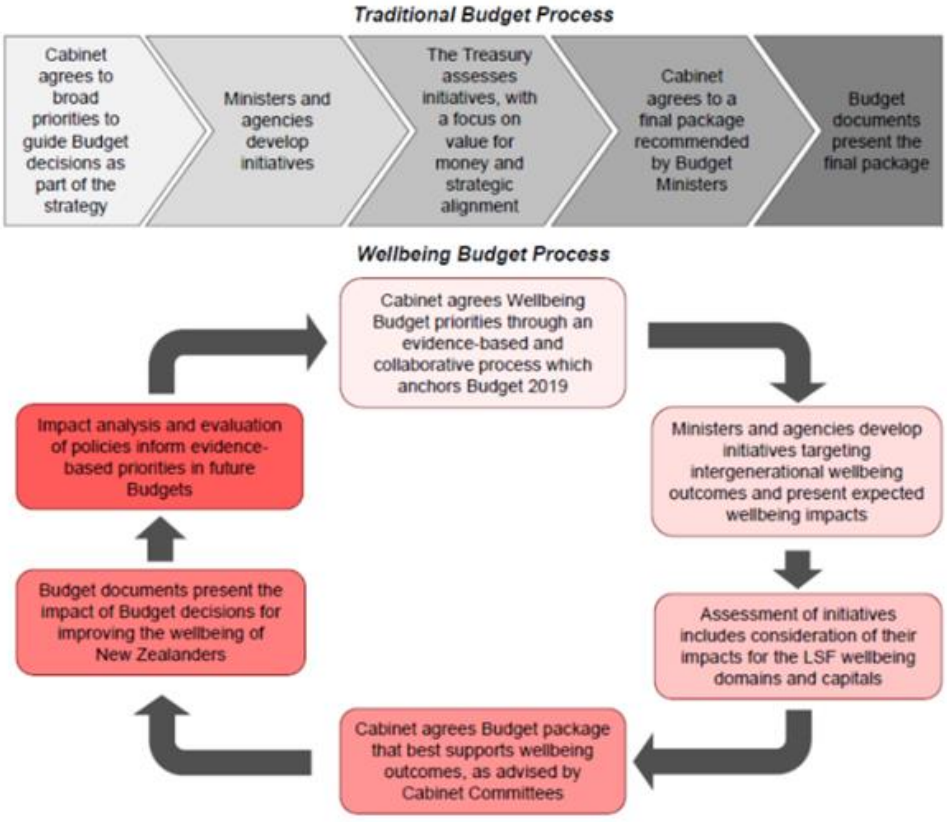
1. Focusing on outcomes that meet the needs of present generations at the same time as thinking about the long-term impacts for future generations.
2. Breaking down agency silos and working across government to assess, develop, and implement policies that improve well-being.
3. Tracking progress with broader measures of success, including the health of people, communities, the environment, and public finances.

However, it is important to note that the effectiveness of the new well-being budget towards the intended outcomes is still a topic of discussion.

One of the five priority areas of the well-being Budget is "Improving Child well-being", and each well-being Budget is required to include a section on the country's process towards achieving its child poverty-related targets. The revision of the Living Standards Framework in 2021 also included enhanced attention to children's well-being and culture, in alignment with the *Children's Commissioner's well-being Wheel for a perspective on children's well-being.* It is important to note that the Living Standards Framework facilitates interaction and co-ordination between its own priorities and additional frameworks like the well-being Wheel, to avoid overcomplicating the Living Standards Framework (The New Zealand Treasury, 2021[41]).

The introduction of a well-being budget that accompanies an outcomes-based framework is an important facilitator for government departments to ensure their spending aligns with the common objectives (see Figure 11.6). In New Zealand, the well-being budget brought government departments out of their "silos" and collaborate for the achievement of more than just traditional economic goals. Introducing a well-being budget in Finland can support co-ordination and collaboration between departments and agencies as a well-being budget obliges all actors to contribute to well-being. However, combined with the examples of Ireland and Scotland, it is important to realise that the creation of such a budget scheme takes time and the first attempt may not create a perfect solution immediately.

Figure 11.6. Traditional budget process in New Zealand



Source: (The New Zealand Treasury, 2019[45])

National-local co-ordination

This section will provide insights into good practices of countries who implement multi-level co-ordination for child well-being policies.

Australia

The country of Australia is governed through a three-level government system, which includes the *national/federal* level in Canberra, the *6 state and 2 territory parliaments*, and the 500 *local councils or shires* (Parliamentary Education Office, n.d.[46]); see Figure 11.7.

Figure 11.7. Government structure of Australia



Source: (Parliamentary Education Office, n.d.[46])

Recently, in 2021, Australia adopted the "*Safe and Supported: The National Framework for Protecting Australia's Children 2021-2031*", developed by the Australian Government, state and territory governments, with Aboriginal and Torres Strait Islander representatives and the non-government sector. Contributions were also made by Families Australia, and members of the National Coalition on Child Safety and well-being, a group comprised of non-government organisations and researchers (Australia Department of Social Services, 2021[47]). The Framework was adopted through a unanimous decision of all governments.

The framework is meant to be implemented through two 5-year Action Plans. It is an innovative step in inclusive policy making by Australia, since for the first time Aboriginal and Torres Strait Islander peoples will have their own Action Plan developed in partnership with Aboriginal and Torres Strait Islander representatives. The Aboriginal and Torres Strait Islander Action Plan will be developed in partnership with Aboriginal and Torres Strait Islander leaders and communities (Australia Department of Social Services, 2021[47]).

The three-level structure, shown in Table 11.2, means that each government level has different responsibilities in relation to child well-being and protection, as outlined in the Framework:

Table 11.2. Three-level governance for child well-being in Australia

The *Australian Government* delivers universal support and services to families, assisting them to raise their children, along with targeted early intervention services. The national government is responsible for overall country strategies.	*State and territory governments* are responsible for child protection systems, including support for children and young people in out-of-home care. They deliver a range of universal services and early intervention initiatives to prevent child abuse and neglect. They fund and co-ordinate many services provided by NGOs and Aboriginal and Torres Strait Islander community-controlled organisations.	*Local governments* deliver a range of services to vulnerable families, including youth and family centres and local infrastructure. They play a pivotal role in engaging vulnerable children and their families in those services.

Source: (Australia Department of Social Services, 2021[47])

In preparation of the Framework, the Australian Human Rights and Equal Opportunities Commission acknowledged the "need identified in the Discussion Paper for better collaboration between Federal and State/ Territory Government services" (Australian Human Rights and Equal Opportunity Commission, 2008[48]). The Child and Family Welfare Association of Australia (CAFWAA) similarly warned during the consultation stage of the Framework that:

> The Commonwealth Government invests in children and young people across multiple federal portfolio's including health, education, childcare, housing, domestic and family violence and families and communities. All of these areas correlate to state portfolios. There is significant need to ensure connection between interdepartmental policy positions such that there are coordinated to ensure the best use of resources. This should incorporate breaking down competition between departments to provide a system that benefits children and their families. (CAFWAA, 2008[49])

The National Coalition on Child Safety and well-being warmly welcomed the Framework and applauded in particular the following elements (The National Coalition on Child Safety and Wellbeing, 2021[50]):

- The stated *commitments of all governments* to continue to work in close partnership with the non-government and research sectors, to ensure that the expert advice of those working on the ground in the communities shapes policy and the design of services.
- The *governance arrangements* that reflect the responsibilities of all parties in supporting children to thrive – the Aboriginal and Torres Strait Islander Leadership Group, the National Coalition, State and Territory Governments and the Commonwealth.

While Australian governments enjoy significant autonomy, the introduction of the national framework set common goals and objectives for the five governments to adhere to. The approach ensures that governments and local authorities can adapt to the needs and circumstances in their areas while working towards the achievements of the framework (i.e. a combination of universal goals and principles, with flexibility to reality and needs on the ground). While a universal strategy and common principles and goals are important to unify the welfare counties in Finland, it is important that a certain flexibility and autonomy is granted to each region to deal with most pressing issues.

Norway

Similar to Australia, the child protection and well-being system is divided into a three-level governance system (see Table 11.3) with different agencies acting out their responsibilities at national, regional, and local level.

Table 11.3. Three-level child protection in Norway

National-level governance	Regional governance	Local governance
At the national level, the main child well-being body is the **Norwegian Directorate for Children, Youth and Family Affairs (Bufdir)** under the Ministry of Children, Equality, and Social Inclusion. Bufdir is responsible for: interpreting the law ordering and administrating research and development international co-operation in child welfare cases across national borders **The Norwegian Office for Children, Youth and Family Affairs (Bufetat)** is the administrative agency Bufetat is responsible for establishing and running the regional agencies; assisting Municipal Child Welfare Services in out-of-home placements; assisting local authorities in recruiting and administering foster homes; ensure foster homes receive relevant training and guidance.	Bufetat consists of **five regional child protection agencies**, which are responsible for state-funded child welfare and family counselling services. Their main task is to provide children, young people, and families in need of help and support with appropriate, high-quality assistance on a nationwide basis. The regions are, furthermore, responsible for handling adoption cases within their individual region, as well as certain other initiatives in conjunction with the local authorities. Some regions are also responsible for operating care centres for unaccompanied minor asylum-seekers and refugees. Additionally, there are 12 County Social Welfare Boards responsible for hearing cases involving child protection in Norway's 19 counties.	The **Child Welfare Services (CWS)** in each municipality provides help and support to children, adolescents, and parents who are experiencing challenges or difficulties within the family. The CWS may also get involved if a child needs help for other reasons, such as behavioural issues connected to drugs or alcohol. Most children receiving assistance from the CWS remain with their family while the family receive home-based assistance. In more serious cases the CWS will consider more intrusive measures. The County Governor is responsible for supervision of the Child Welfare Services.

Source: Bufdir

The introduction of another level of governance between municipalities and the government relieves pressure on the national government while maintaining close oversight over municipal practices and ensuring allocation of sufficient resources.

Overall findings from international cases

The examples of the countries included in the report show that there are diverse approaches to governing child well-being, although there are certain lessons learned and good practices that are visible across the group.

The introduction of an **outcomes-based strategic framework** can be of great use to introduce government actors to the multiple dimensions affecting child well-being and the importance of involvement of a wide range of actors. It can also facilitate the co-ordination of multiple actors to avoid overlaps and duplication.

However, introducing a common framework across the government is not a solution by itself. It requires **significant resources** to ensure departments do not continue working in silos, attribute budgetary lines to achieving specific outcomes, and introduce co-ordination structures, such as a steering group. In particular, outcome-based policy making can benefit from outcome-based budgeting, ensuring that each government actor plans their budget lines in relation to the outcomes.

The topic of child well-being can be approached from multiple perspectives, using diverse terminology and priorities. Additionally, different stakeholders advocate for different approaches. The creation of a whole government approach and effective involvement of stakeholders requires the identification of common ground and common priorities that can function as foundation for dialogue and joint interventions.

Gap analysis

Through analysis of the international cases as well as desk research and consultation with stakeholders on the current characteristics of the Finnish system, a number of areas were identified as gaps in the ability to develop and carry out anticipatory innovation in the governance of child well-being. These areas fall into four broad categories:

1. Lack of concerted ways of working, or unified core concept of the child
2. Implementation difficulties, in particular of the National Child Strategy due to a legalistic focus and lack of well-being analysis
3. Silos, fragmented knowledge and "institutional amnesia"
4. Insufficient connection with actors on the ground and inability to detect where problems are coming from now and in the future

Lack of systematic ways of working

A characteristic feature of Finland's national anticipatory system is that complex issues are mainly tackled through network approaches (e.g. via ministerial working groups); yet, when dealing with new, unique challenges the process of assigning responsibility and a response is often based on had hoc methodology. Foresight often happens in narrow circles and problems have been identified with transparency and timely sharing of results. R&D (and to an extent, experimentation) is often outsourced through waterfall processes with little iterative learning (Tõnurist, 2021[51]).

This state of affairs is reflected to an extent in the articulation of the National Child Strategy. Participants in workshops noted that different actors within the system (welfare counties, municipalities, service providers, etc.) often set and pursuing objectives without adequate co-ordination and coherence among each other—sometimes to the point of undermining each other's work. Compulsory annual meetings between municipalities and national government take place as required, but task force members agreed that these meetings are not generally considered consequential. These problems mean that Finland falls short of the outcomes-based strategic framework common to many of the international cases analysed above.

Another lacking element identified through the international case studies was a unified core concept of the child. As noted above, there is no universally agreed upon definition of child well-being, and no evidence that the various relevant stakeholders in Finland share any particular definition. Previous initiatives that have sought to unify actors to work in concert have included visioning processes, including during the development of the National Child Strategy. Task force members in this project noted that is unclear whether these processes achieved such coherence, and may have even been counterproductive as they failed to achieve the buy-in of necessary actors, leaving them dissatisfied with the outcome. This past experience presents challenges for the legitimacy of anticipatory processes of a similar nature, especially if such an initiative would be considered a retrograde step.

> If we say that we want to increase continuity in the field, we should not take a step backwards and have another vision project—this has been done and is a huge job in itself—more important is to turn this into shared action; a shared mission where the different broad areas are brought together, using for example collective impact framework.

As a result of these difficulties, the idea of child well-being may not be addressed in an adequately proactive way to be considered anticipatory. Indeed, participants in workshops and dialogues between civil servants and policy makers expressed concern that public services primarily react to problems rather than promoting virtues.

This is of concern in the development of an anticipatory innovation governance model because futures dialogue and action invariably transcend domains of study and administration, therefore **learning loops** and anticipatory action are hard to achieve if concerned parties are not co-ordinated. The lack of clear definitions and concepts related to child well-being is also an impediment to being able to anticipate emerging issues affecting child well-being, since their existence or relevance may be missed until it is too late. For example, an emerging health crisis might not be identified as a potential issue for children's mental well-being until long after primary measures have been taken and the damage is already done.

Implementation difficulties

The National Child Strategy elaborates a vision for the overall well-being of children in Finland, touching on multiple dimensions of what it means to create a child- and family-friendly Finland where the rights of the child are respected. These dimensions include combating discrimination and inequality, education, and democratic participation (Government of Finland, 2022[52]). However task force members and welfare county representatives highlighted an implementation process that could be characterised as overly legalistic and focused on the rights aspect.

> The rights-of-the-child approach should be a strong purpose, but as a matter of fact it has developed towards such a legalistic approach that the purpose—well-being of children—has been thrown out and instead we are having all kinds of processes where we talk about rights of the child.

Indeed, in the original strategy document, as well as the implementation plan and the report of the parliamentary Committee on the National Child Strategy, references to rights of children lead most sections and gain a good deal of the focus (Government of Finland, 2021[53]; 2022[52]; The parliamentary National Child Strategy Committee, 2022[23]).

Furthermore, representatives of welfare counties reported being familiar with the National Child Strategy but having difficulty transposing its provisions into the planning and day-to-day running of services at the local level. They also perceived inadequate communication in the other direction, with findings of local activities not readily reflected in the work and policy at national level.

An additional doubt was raised with respect to the vertical collaboration, with at least one workshop participant questioning the extent to which national government is aware of or taking into consideration the developments and insights generated at the level of municipalities and welfare counties.

> The State administration is far from children and young people. Municipalities have the best track [record]

This situation needs to be addressed in the context of developing an AIG system because collective **sense making** and good judgement require a disciplined understanding of how situational awareness, organisational capacity, and policy objectives (needs) relate at various levels (Ramírez and Wilkinson, 2016[54]).

Silos and fragmented knowledge

Another key challenge towards the implementation of the Child Strategy is the current **siloed nature of Finnish child well-being governance and service provision**. This problem also applies to the availability and use of knowledge such as statistical indicators. In dialogue between civil service and policy makers, participants noted that disciplinary specialisation within ministries can impede awareness and connections with knowledge outside experts' own field. A similar issue exists with the creation and use of statistical data.

> We have good data collection in Finland, and information is available. But there is no consensus on what the indicators measure

To provide holistic support to children with diverse needs for support, service provision needs to be co-ordinated. Such co-ordination implies exchange between service providers, but also policies, laws, budgets, and infrastructures at the national level that facilitate holistic support (a "whole government approach", WGA). This is in contrast to a "whole school approach" outlined in Box 11.3

Box 11.3. The whole school approach as example of the need for co-ordinated services

The "whole school approach" considers that the role of the school is not only to enhance knowledge, but also to improve children's learning, behaviour, and well-being. As schools do not possess all necessary services and competences, collaboration is required with a wide range of stakeholders (social services, youth services, outreach care workers, psychologists, nurses, speech and language therapists, guidance specialists, local authorities, NGOs, business, unions, volunteers, etc.) and the community at large.

The school is at the centre of this stakeholder network. Based on their daily interactions with a child and observations of their needs, they can connect the child and their family to suitable support services. However, to facilitate this, schools need to receive sufficient resources (staff, budgets, knowledge) to facilitate such networks. This requires similar co-ordination between the Ministry of Education and the other ministries. For example, in Wales, the Ministers for Education and Health jointly established a Task and Finish Group on a Whole School Approach to Emotional and Mental Health. Additional national stakeholders can include Ministries of Labour, Social Security, poverty, and especially finance.

Source: OECD

The current Finnish system hinders such a WGA as each actor has its own targets and budget lines that do not facilitate co-operation across actors and sectors. This means that the outcome-based budgeting indicated in the previous chapter is largely absent. International cases that can provide insights towards the AIG model for child well-being, considering these challenges, include examples of:

- **WGA** for child well-being, for example by using task forces or cross-sectoral committees.
- **Monitoring and assessment** (e.g. through targets and indicators) that apply to, and involve, all involved ministries, departments, and agencies, as well as local authorities.

- **Holistic budgeting tools** for child well-being that align around a variety of ministries, departments, and agencies, as well as local authorities.

In dialogue between civil servants and policy makers, participants noted that child budgeting alone is a useful tool, but not transformative for anticipatory purposes if co-operation and appropriate processes are not established. Funds may be allocated to various projects, but these are often not integrated into ongoing activities, instead standing as isolated activities. Participants called into question the effectiveness of this mode of working.

Another issue of silos exists in the form of fragmented timelines. Workshop participants raised an issue of perceived "institutional amnesia" whereby incoming administrations tend to develop policies and programmes with little reference to the initiatives or achievements of prior administrations. An example given was the implementation of the National Child Strategy, whose implementation became more "legalistic" at the expense of a focus on well-being from one cabinet to the next.

Likewise, budgeting windows may mean that performance on objectives is monitored and measured on timescales that do not correspond to the problems addressed. For example, workshop participants noted that young people with problems of substance abuse or mental health difficulties require long-term support, but this support may not extend past the institutional cycle of the service providers.

> "How to measure achievements in a long-term perspective and not only consider annual costs?"— participant at a dialogue between civil service and policy makers

This set of issues at the national level, combined with the potentially entrenched ways of working at the local level in spite of the SOTE reform, would appear as a paradox: discontinuity and path dependency at the same time. In fact they may be interrelated: reform takes sustained effort to diffuse throughout a public service, which may be interpreted by national government as a need for further reform, but each new initiative adds to the backlog of implementation. Thus a cycle ensues where reforms deliver suboptimal results. One workshop participant noted that the SOTE reform has been a long process, proposed by at least three different governments in different forms with different purposes. They asserted that the time and co-ordination, along with several failed initiatives, have meant that "Finland has lost about 10 years of systematic improvement work".

This difficulty of time silos surrounding reforms is a hindrance to AIG because new institutional setups may lack futures knowledge to anticipate emerging needs for child well-being; and reforms underway may encounter challenges which they are unable to report back. Furthermore, innovations developed in the process are often intended to be trialled quickly and results and feedback reported in time to be iterated upon. The current silos and related inertia run counter to the **organisational capacity** needed for such an approach.

Connection with actors and users

A further set of communication challenges with respect to anticipation is the connection between policy makers (on the one hand) and service users and other individuals targeted by policy (on the other hand). The National Child Strategy makes extensive reference to the importance of including children's views in decisions that affect their lives, declaring that "children's participation, right to be heard and access to information will be addressed systematically in decision-making and activities that affect them directly or indirectly. The content and significance of children's views will be detailed in the justifications of decisions." (Government of Finland, 2022, p. 76[52]). However it is not clear how children will be able to participate in

dialogue to challenge or propose alternatives to the envisioned models for the welfare and education systems and what values are made priorities in the new systems.

This communication difficulty is further reflected in the Ombudsman's report, whose analysis found that children felt that they could advise but not influence decision makers: "A strong message conveyed to decision-makers from the meetings is that children and young people must be provided with functional channels for influencing matters, and their strive to make an impact must be taken seriously while simultaneously making sustainable decisions and taking responsibility now instead of pushing problems into the future." (Ombudsman for Children in Finland, 2022, p. 134[27]). The report goes on to propose changes to legal processes, but these are not clearly linked to changes on the ground.

Regarding anticipation, it is unclear how sources of futures knowledge are used in child-oriented policy making and service delivery, if at all. One workshop participant noted "child well-being does not interact very well with the strategic foresight system", referring to the network of actors and activities involved in perceiving, sense-making, and innovating based on emerging future developments in Finland. Organisations such as the National Strategic Foresight Network, the parliamentary Committee of the Future, Sitra the National Innovation Fund, and the Public Sector Innovation Network are not known to have a systematic or sustained contribution to work on child well-being in Finland. Indeed, the suggestion of the Government Report on the Future (Vapaavuori, Lindroos and Hjelt, 2013, p. 86[26]) to create a holistic and integrated system of child well-being will seem strikingly familiar to the reader of the present report almost a decade later.

These disconnections in communication cast doubt on how far Finland is taking the opportunities available to detect issues arising of significance for child well-being in the future. Doing so would be an important aspect of an AIG system, since the capacity to detect signals of emerging change is fundamental to alternatives exploration and experimentation: being able to envisage innovations that take them into account sufficiently far in advance to be considered anticipatory—and not just reactive.

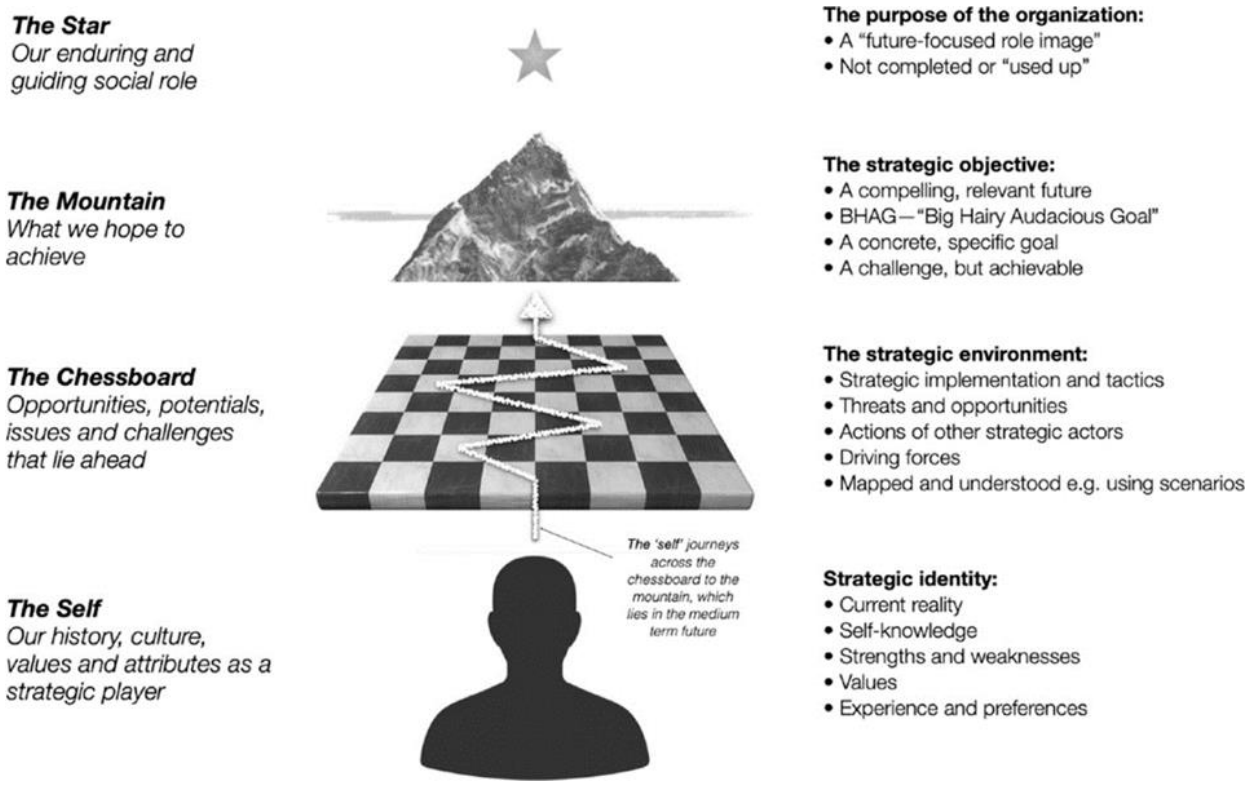
Opportunities for action

Building on the gap analysis, the difficulties identified can be met with corresponding objectives to improve the capacity of Finland to develop AIG in child well-being. With those objectives in mind, the mechanisms of the AIG model provide the foundations for identifying options for action. At the end of this chapter, three options are identified, and elaborated with activities and actors to carry them out.

AIG is not intended to address all of these problems and cannot on its own solve any of them. Rather, by implementing some of the mechanisms of AIG, it is possible for Finland to make progress on improving the situation, while also better preparing to better meet the needs to future generations. Constraints on budget, time, and focus make it necessary to make a selection from the mechanisms of AIG on which to work—although there is always room for improvement in them all.

The "strategic landscape" analogy illustrated in Figure 11.8 (Tibbs, 2021[55]) served as inspiration for this model. With the "star" representing the enduring and guiding social role of better well-being for children now and the future, it is possible to work backwards to the "mountain"—a set of objectives to support anticipatory efforts. Further down is a consideration of the "chessboard" in terms of the institutional setup and challenges which must be dealt with, and the "self" as the individuals and organisations in a position to take action and contribute to the overall ambition.

Figure 11.8. The strategic landscapes



Source: (Tibbs, 2021[55])

This chapter begins by setting out four objectives identified to respond to the gap analysis:

1. Stronger sense of common purpose
2. Systematic and concerted action
3. Purpose-driven anticipation with a well-being focus
4. Better situation awareness and context

It then makes a selection of two main mechanisms and two complementary mechanisms of AIG which seemed to correspond most closely with those objectives; and offer the greatest potential for progress on them:

- Public interest and participation
- Sense-making
- Networks and partnerships
- Tools and methods

From those mechanisms, the following three options from action are identified:

1. Child well-being missions
2. Ecosystem building
3. Signal exchanges

Throughout the analysis, three main principles occur repeatedly: **companionship**, **purpose**, and simplicity. The concept of companionship refers to the nature of collaboration among peers, various levels of government, and different sectors, which seeks common ground and non-hierarchical pursuit of high

standards. Purpose points to the central importance of children's well-being at the heart of the system. Simplicity means embedding anticipatory innovation into existing structures, organisations, and processes of governance—since building parallel or competing structures would be impractical and counterproductive.

> We have a tendency to be quite complex. Simple and bare essential ways are sorely needed in the complex reform—also to encourage people to get involved, not make them afraid!

The model elaborated in the chapter is summarised in Table 11.4 below.

Table 11.4. Model elaboration for child-wellbeing

Gap analysis	Concerted ways of working and unified core concept of the child	Overcoming silos, amnesia, and fragmented action	Well-being implemented in National Child Strategy	Connection with problems on the ground
Objectives	Stronger sense of companionship	Coherent and concerted action	Anticipatory habits	Better situation awareness and context
AIG mechanisms	Networks and partnerships	Tools and methods	Networks and partnerships	Tools and methods
Options	Child well-being missions	Ecosystem-building	Signal exchanges	
Description	• Inspired by the Netherlands 'future we want' scenario but with the limited definition of missions • Unified core concept of the child • Inclusive process designed around consensus-building • Lightweight deliverables focused on implementation	• Study of current actors and stakeholders as well as their relationships • Identification of new processes, meetings, and interactions • Opportunities for collaboration between those who do not normally interact	• Developing organisational habits in anticipatory practice • Connecting public consultation with service-delivery partners and policy makers	
Activities	• Consult organisations on most important potential missions for child well-being • Set one or two missions related to child well-being to span government terms	• System mapping process (not just actors but actions and relationships) • Identify potential low-threshold collaborations of mutual value and benefit	• Futures Fridays • Futures exchanges during meetings between welfare counties and national government	
Main actors	• Ministries • Welfare counties • Service providers • Research organisations and foundations • Parliamentary committee	• Ministries • Foresight and innovation networks • AIG task force • Research organisations and foundations	• Welfare counties • Service providers • AIG ask force • Foresight and innovation networks • Parliamentary committee	

Source: OECD

Objectives

The four objectives articulated below respond in turn to each of the areas identified in the gap analysis.

Stronger sense of companionship

Fostering a stronger sense of common purpose is important for creating systematic anticipation and co-ordinated action, making the work more than a series of ad hoc efforts. Initiatives in this area would also reflect the requirement (legally binding in the case of municipalities and welfare counties) to collaborate with each other. There is an opportunity to bring together individuals and organisations who do not normally collaborate with each other.

It is also important to situate child well-being in its broader context by recruiting the attention of actors throughout the system to see it as their concern too. It may not be possible to completely overcome the complexity of different budgets using AIG alone, but this work could be used to facilitate work on child-oriented budget that may be planned alongside.

Coherent and concerted action

Overcoming silos, amnesia, and fragmented action is necessary to address the implementation difficulties in anticipatory action. Creating new groups, organisations, or networks may generate momentum but it also risks adding to the complexity and fragmentation. Therefore a more pragmatic focus would be to focus on consolidating and building purpose in the area of child well-being for the groups and networks that already exist, such as the National Foresight Network and Innokylä—or at least by emulating their model.

Purpose-driven anticipation with a well-being focus

An AIG model for child well-being should also attempt to overcome the perception of a narrow legalistic focus on rights in the National Child Strategy. It should be seen as purpose-driven and justify sustained interest and investment by delivering visible outcomes early on. In this sense, identifying clearly defined and achievable well-being goals that can only be reached through collaboration will be important to set up the AIG model for success.

Better situation awareness and context

A further objective concerns better connecting the system with those it serves, identifying problems and emerging issues on the ground. Those actors and organisations closest to emerging issues are in a strong position to identify and report them for use as anticipatory knowledge. Such knowledge can be used to future-proof policies and the system more generally through stress-testing and early-warning practices; as well as by inspiring innovative alternative approaches to address issues.

Mechanisms

The objectives above resonate with several of the mechanisms of AIG, and particularly strongly with those elaborated below.

Figure 11.9 shows how the gap analysis (top), mechanisms (centre), and objectives (bottom) roughly align.

Figure 11.9. Gap analysis, mechanisms, objectives



Source: OECD

Public interest and participation with sense-making

Participation and dialogue are essential mechanisms for anticipatory innovation in that they are a starting point for the exploration, contextual understanding, and creation of narratives about the future that help to define areas where governments need to invest more and test out different possibilities for innovation (Tõnurist and Hanson, 2020[56]). In the prior phases of OPSI research in Finland, experts noted a dearth of citizen participation methods for considering policy alternatives, as well as underdeveloped use of deliberative processes (Tõnurist, 2021[51]).

Yet there are also positive indications of public participation as a form of anticipatory awareness-gathering. For example, the Tax Administration used to be a very process-driven organisation, but now has changed the whole structure to be user-oriented with a customer unit, operational and process units and dedicated signal-reading activities to be sure that the organisation picks up quickly what is going on with their users. The change was associated with the change of leadership in the organisation, influx of digital skill-sets and resulting organisational changes (Tõnurist, 2021[51]).

> It would be good to define how children can be part of the whole consultation process in a balanced way

Connected to the mode of public interest and participation are the ways in which their feedback and contributions are analysed and translated into an effective anticipatory system that leads to action. An inherently complex and wicked set of problems such as child well-being is not appropriately treated as a bounded task, solvable given enough time, resources, and expert advice—an approach sometimes referred to as ‘predict, plan, pray’. Instead, an approach of ‘navigate and adapt’ can be effective: through the mechanism of sense-making, organisations can identify emerging patterns while they are still forming and even shape them before they stabilise (Tõnurist and Hanson, 2020[56]).

In this sense, there is a potential opportunity for One-Stop Guidance Centres and Family Centres to share experience and knowledge of the issues emerging on the ground (in an aggregated and anonymised way to protect privacy) to inform initiatives at the county and national level, and give feedback on processes underway. This form of public participation would work within the existing structures to add anticipatory capacity.

Another opportunity could be to include actors at multiple levels and of different kinds to support a common goal that does not constitute a heavy reform but which invites collaboration in a way that is compatible with actors' existing roles.

Networks and partnerships with tools and methods

Networked or collaborative governance models are relevant to anticipatory innovation, especially those involving engagement with those with access to weak signals and early insights about forthcoming transformative changes (Tõnurist and Hanson, 2020[56]).

Both formal and formal networks and mechanisms of governance can build capacity for anticipation. Formal mechanisms of governance are organisational and legal features such as corporate ownership, structural design, and legally binding contracts (e.g. strategic alliances and joint ventures) while relational mechanisms are forms of governance that rely upon the social ties created by actions and trust from prior experiences between partners, constituting de facto governance practices (Croxatto, Hogendoorn and Petersen, 2020[57]). The latter is of particular importance for anticipatory innovation. These informal alliances over time allow actors to target strategic directions designed to maintain and sustain frequent interactions, generating governance effects on the way in which expert knowledge is built and gains authority. This trusted relationship, while still subject to the same normative biases of any group, can open up situations for exploring uncertainty (Tõnurist and Hanson, 2020[56]).

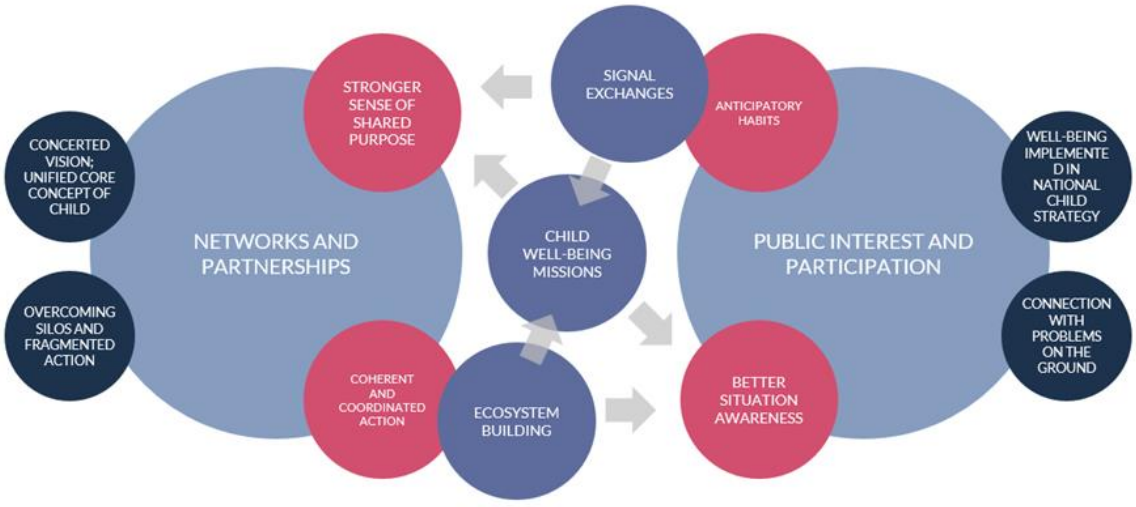
Developing anticipatory capacity is dependent on the skills and organisation habits that sustain their effective and impactful use. Using moments within processes such as the annual meetings between welfare counties and national government may provide another opportunity to build the use of anticipatory tools into existing processes, using a networking approach.

Another opportunity could be to develop the hitherto fragmented network of actors in child well-being using tools such as system mapping and concepts such as collective impact (Kania and Kramer, 2011[58]) whereby efforts to act in concert are make consciously and explicitly. "Successful examples of collective impact are addressing social issues that, like education, require many different players to change their behaviour in order to solve a complex problem." Collective impact is in its essence about changing incentives and governance systems in order to set aside objectives for individual organisations and instead promote behavioural change to address a complex problem. research shows that successful collective impact initiatives typically have five conditions that together produce true alignment and lead to powerful results: a common agenda, shared measurement systems, mutually reinforcing activities, continuous communication, and backbone support organisations (Kania and Kramer, 2011[58]). Some initiatives based on collective impact have previously been attempted in specific areas such as preventive approaches to referrals to child protection services, with promising results (Niemelä et al., 2019[59]).

Options for action

Concrete initiatives that can take steps towards developing an AIG model in Finland involve actions for numerous partners within the system. Three main options for action arise from the objectives above; see Figure 11.10.

Figure 11.10. Options for action in context



Source: OECD

Child well-being missions

Mission-oriented innovation provides a policy framework for tackling the grand challenges facing governments today. Mission-oriented innovation involves setting measurable, ambitious and time-bound goals, and is often supported by three interlinked policy structures: institutional entrepreneurship and mission governance that enable collaboration and experimentation, available funding for a portfolio of missions, and the adoption of outcome-based procurement. Mission-oriented innovation thereby supports inclusive governance, progressive politics, generative environments and systemic impact (OECD, 2021[60]).

A child well-being mission would avoid the perceived issues with visioning approaches in Finland (that they have already been tried and lack immediate and concrete actionability). Workshop participants suggested that the legislative process could be leveraged to provide strong incentives for actors to collaborate, although others preferred a more voluntary approach. In any event, a child well-being mission would likely be an initiative emanating from national government, but like all missions, its success would depend on successful buy-in and legitimacy (networks and partnerships) from actors at multiple levels, most notably the welfare counties. Ensuring a balance of autonomy and accountability could be used to support a cycle of experimentation towards achieving the mission through diverse forms of implementation (Sabel and Zeitlin, 2010[61]). Welfare counties could use their existing reporting processes as an opportunity to report on mission progress, while the child well-being task force could provide oversight.

A mission-oriented approach is also a clear expression of the collective impact framework cited above. Main actions to take would be:

- Defining a **common agenda**: it would not be necessary for every participant to agree with every other participant on all dimensions of child well-being, but selecting the primary goals of the collective impact as a whole would be settled in advance.
- Identifying and agreeing on **common measurement systems** for all actors would ensure comparability of progress and ease of communication.
- Identifying **mutually reinforcing activities** would also be a necessary point of agreement upfront.

- Sustaining the momentum through **continuous communication** could take place through the existing meetings of welfare counties with national government, with additional lighter check-in points throughout the year with the AIG task force.
- Appointing a **backbone support organisation**. The backbone support organisation would have to be clearly identified—most likely a unit within the national government—to ensure the overall effort would be co-ordinated and monitored.

Ecosystem building

An innovation ecosystem is "the evolving set of actors, activities, and artefacts, and the institutions and relations, including complementary and substitute relations, that are important for the innovative performance of an actor or a population of actors." (Granstrand and Holgersson, 2020[62]). The concept arose from discussions with the task force about mapping the actors and actions involved in child well-being in Finland now and in the future.

Building, consolidating, and leveraging an ecosystem around child well-being involves multiple actions for various participants in the system. One first step could involve a system-mapping exercise in which a think tank or other member of the child well-being community is commissioned to produce an inventory of all stakeholders and their contribution to child well-being. This could then be used to review and develop the interactions between different elements of the system and identify points for strengthening collaboration or initiating it where it does not yet exist. It would also help actors to navigate the complex space of child well-being in Finland in order to facilitate ad hoc collaborations. A system map could also serve as the basis for developing a collective impact framework as a channel for anticipatory innovations to be envisaged and implemented.

Another potential way forward in ecosystem building could be to emulate or extend the model of North Ostrobothnia's innovation and co-creation network and the OuluHealth ecosystem on a broader scale. This model brings together the know-how of multiple stakeholders to develop new solutions. Through the National Innovation and Strategy Network, actors supporting child well-being could be invited to exchange and build communities of practice. This could have the advantage of propagating existing effective solutions, while also using a model that has proven its legitimacy in the areas in which it has already worked.

With an ecosystem in place, there is greater scope to envisage and undertake multi-actor policy prototyping as the effects of experiments could be simulated in advance. Prototyping is of particular currency in AIG: emanating from the increasing interest in design thinking and practice in policy is the possibility to link anticipation to innovation through processes of prototyping (Bason, 2016[63]). In public policy, a prototype is a small-scale concept of how to advance a particular objective in a way that can be quickly implemented, tested, and learned from. Prototypes enable a policy to be viewed and experienced as material reality (Howard, Senova and Melles, 2015[64]; Ollenburg, 2019[65]). Within anticipatory innovation, prototypes have a particular advantage since they can be implemented well in advance of when they might be needed (Buchanan, 2018[66]).

Concretely this means the following actions:

- Commissioning a **research organisation** to undertake the ecosystem-mapping exercise.
- Convening **scoping meetings** with (potential) ecosystem partners to identify current activities, contribution to the system, and potential synergies, trade-offs, reinforcing and counteracting activities, stocks, flows, and feedback loops.
- Conducting **analysis using the resulting system map** to identify where positive processes can be promoted and negative ones disincentivised.
- Carrying out **anticipatory prototyping sessions** with ecosystem partners to identify potential experiments.

- Simulating or even provisionally **implementing prototypes** with ecosystem partners.
- Measuring and documenting **outcomes.**
- Feeding back findings into the analytical process to **improve and renew the experimentation** where necessary; or extend the experiments into wider policy initiatives.

Signal exchanges

Numerous actors within the current Finnish system are gathering and producing knowledge, some of which has anticipatory value, and could therefore be described as "futures signals". As this knowledge is not systematically shared or leveraged for anticipatory innovation purposes, it is not serving its full potential in the Finnish child well-being system. Some of the data available, such as that produced by the Finnish Institute for Health and Welfare, is necessarily retrospective but could be used for trend analysis. Other work such as the Child Barometer could be updated to include questions of a more anticipatory nature.

One way to address this could be to promote exchanges of futures knowledge through periodic exchange sessions between actors that do not usually share information. These exchanges could draw inspiration from the Future Friday's sessions organised with the National Foresight Network or the numerous communities of foresight practitioners in national and international organisations, such as the OECD Government Foresight Community. The exchange of futures signals could also leverage existing engagements such as the annual meetings between the national government and welfare counties.

Signal exchanges should also seek to gather information directly from the public in the interest of greater participation and legitimacy, as well as early warning on issues emerging on the ground. In this sense, the opportunity mentioned above to include Itla, One-Stop Guidance Centres, and Family Centres as a source of anticipatory knowledge is of potential value.

Steps to take to set up signal exchanges include:

- Studying **existing examples of signal exchanges** in Finland and elsewhere, such as sessions of the National Foresight Network and the horizon scanning work of Policy Horizons Canada (Policy Horizons Canada, 2021[67]) and the UK Horizon Scanning Programme (Government of the UK, 2017[68]).
- Setting up a co-ordination team and process to define objectives.
- Consulting potential participants in the signal exchanges to understand their connection with emerging issues, as well as their incentives and motivations to potentially participate and contribute.
- Convening **regular meetings** to gather signals.
- Facilitating **dialogue** and policy-relevant analysis.
- Documenting **results** of meetings and disseminating among participants.
- Reviewing progress, gathering **feedback**, and adjusting the approach as necessary to pursue the predefined objectives.

Next steps and roadmap

Echoing the findings of the Government Report on the Future (2013[69]) and the theme of collaboration and co-ordination that runs through the analysis of this report, each of the options for action requires the buy-in, participation, and resources of multiple actors. Given the importance of budget and time in collective impact (Kania and Kramer, 2011[58]) but also buy-in and legitimacy (Wolff, 2016[70]), the Finnish government should expect to devote reasonable resources to achieve the objectives it seeks—and to do so over a sufficient period for the efforts to bear fruit. In Table 11.5 below, each of the actors identified in the analysis is listed, along with suggested roles they could play in each of the three options for action. The shade of

grey corresponds with the intensity of their involvement, with darker shades indicating a more prominent role and/or greater responsibilities.

Table 11.5. Possible roles in a child well-being anticipatory innovation governance model in Finland

ACTOR	ROLE		
	EXCHANGES	MISSIONS	ECOSYSTEM
MINISTRIES	REVIEW	REQUEST	SUPERVISE
WELFARE COUNTIES	PARTICIPATE	DEVELOP	CONTRIBUTE
MUNICIPALITIES	CONSULT	DEVELOP	CONTRIBUTE
SERVICE PROVIDERS	GATHER	IMPLEMENT	RESPOND
FORESIGHT EXPERTS	FACILITATE	REVIEW	TEST
INNOVATION NETWORKS	REVIEW	FACILITATE	TEST
RESEARCH ORGANISATIONS	SENSE-MAKE	CONDUCT	ANALYSE
CHILDREN AND GENERAL PUBLIC	CONTRIBUTE	CONSULT	ACCESS
AIG TASK FORCE AND CO-ORDINATORS	OVERSEE	OVERSEE	OVERSEE
CIVIL SOCIETY	PARTICIPATE	CONTRIBUTE	RESPOND

Note: Darker shades indicate more extensive or comprehensive work and commitment.
Source: OECD.

Regarding timelines, a number of key upcoming dates provide opportunities to connect activities with times when they would be most impactful, as well as challenges in terms of competition for attention and resources. In addition, a comprehensive roadmap for the SOTE reform is already in use and undergoing further development (Government of Finland, 2022[24]). This roadmap contains five main categories with accompanying task sets, missions, and subtasks for implementation by national government and welfare counties by January 2023. Structuring the options for action around these dates and tasks will be an important factor in their potential success. Table 11.6 below outlines some of the ways in which this might be achieved.

Table 11.6. Key dates and tasks in setting up AIG for child well-being

KEY DATE/TASK		ACTIVITIES		
		EXCHANGES	MISSIONS	ECOSYSTEM
SOTE ROADMAP 2022-2023	ADMINISTRATION, FINANCE, AND SUPPORT SERVICES	Identification of administrative procedures for organising processes, communities, events		
	LEADERSHIP AND COMPETENCE	Creation of futures knowledge base	Consultations for communication, inclusion, democracy	Participation of management to inventory of key processes and tools
	ORGANISATION OF SERVICES	Creation of anonymous and safe channels for service users' contributions to be taken into account	To be determined	Anticipation in changes of services needs
	INTERFACES	Leadership and networking to create buy-in	Resourcing for mission-critical activities	Information management and information systems
	ICT	Potential use of an online knowledge-management platform	To be determined	Interoperability of systems
TRANSFER OF RESPONSIBILITIES TO WELFARE COUNTIES **JANUARY 2023**		First meetings of exchange community	First identification of missions to be considered	Mapping exercise underway and first drafts shared with welfare counties for review
NEXT PARLIAMENTARY ELECTION **IN OR BEFORE APRIL 2023**		Futures knowledge to be shared with National Foresight Network as input into pre-election briefing materials	Missions to be considered in implementation of the government programme	Draft ecosystem map available to inform implementation of the government programme

Source: OECD.

Risks

Risks implied in these activities are many of the same gaps they attempt to address. There is a possibility that the time and attention required to complete the SOTE reform (and potentially correct unexpected difficulties that arise) will be so substantial that the additional resources necessary for the above options will be unavailable. This risk can be mitigated by setting realistic expectations early on about the resources required, and obtaining authorisation for their use at a suitable point in the timeline.

Related to this is the potential for collaborative and holistic initiatives to lose momentum and interest as silos, individual objectives of organisations, and future reforms refocus minds. Setting up regular engagements and appointing individuals and teams as backbone support can help to reduce this risk.

It is also important for the initiatives, and indeed the whole governance system, not to become so focused on the meta-governance of anticipation that it becomes introspective and loses sight of the connection with actors and individuals it is intended to serve. This risk is specifically guarded against by the explicit involvement of service providers such as Perhekeskus and Ohjaamo in the signal exchanges; and by civil society organisations in the missions and ecosystem exercises.

Reflections for AIG as a model

The child well-being case study took place against the backdrop of a planned child budgeting pilot and a substantial public sector reform in Finland. These institutional mechanisms live and die by the **actions** undertaken to implement them; and the consequences of those actions—this is clear from the activities envisaged for child budgeting and the roadmap in place for the SOTE reform. Likewise, the gaps identified in Finland's capacity for AIG in child well-being all relate to processes, relationships, knowledge, skills, and resources pertaining to authorising environment and agency.

The lesson to draw from this is that a system of AIG cannot simply be made of static components such as a task force or a report in isolation. Authorising environment and agency are **emergent** properties, resulting from the causal relationships, stocks (like futures knowledge), flows (like information), feedback, and time delays that make up a system (Forrester, 1971[71]). These system dynamics are reflected in the options for action presented above (well-being missions, ecosystem building, and signal exchanges). Table 11.7 provides some examples of what they could mean in practice.

Table 11.7. System dynamics of an AIG child well-being model

ACTOR	ROLE		
	EXCHANGES	MISSIONS	ECOSYSTEM
RELATIONSHIPS	Actors throughout the system contribute to dialogue	Participants create a dynamic based on contribution to shared objectives	Actors are mapped according to their relationships
STOCKS	Knowledge base	Social capital and well-being	Understanding of the system
FLOWS	Futures information such as signals and trend data	Progress attaining mission objectives	Participation of actors in consultations
FEEDBACK	Deliverables and outputs of exchanges	Positive outcomes of collaborations between participants	Use of ecosystem communication channels to foster collaboration
TIME DELAYS	Use of regular meetings to establish a habit of futures thinking	Possibility to observe progress over time	Reflecting the evolving nature of the ecosystem in a context of reform

Source: OECD.

How these things fit together and interact is primordial to identifying the activities needed to **initiate, motivate, and sustain a dynamic AIG system** that exceeds institutions, and delivers true collaboration and concrete benefits. Hence, a system dynamics analysis would be a valuable next step in developing the AIG blueprint for governments.

Pilot case findings and key considerations

Main Findings	Key considerations
Child well-being in Finland	
Overcoming the limitations of a system with fragmented and unconnected ways of working requires principles of collective impact	• Create common goals and objectives for organisations to orient their motivation to achieving • Appoint a backbone co-ordination team or unit with a mandate to ensure collective impact
Effective and relevant anticipation requires gathering knowledge of issues emerging on the ground before they become too large to handle	• Develop mechanisms to gather knowledge at the local level and discuss and act upon it at all levels • Pilot using annual meetings between welfare counties and national government for such signal exchanges
An anticipatory system does not exist in isolation of the actions and relationships that form it: this set of system dynamics deserves attention for upgrading the system	• Develop a dynamic representation of the anticipatory system, taking into account main actors, sources of knowledge, enablers, barriers, and feedback loops • Test interventions to improve the system's functioning using the actions and relationships identified as a starting point

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Notes

[1] Interviews with VNG and independent consultants for the scenario.

[2] NPF interview.

[3] NPF interview.

12 Collaboration between politicians and public officials in the field of anticipatory innovation

Both civil servants and politicians, appointed officials and members of parliament, play an essential role in anticipatory innovation governance. The two communities need to have a clear idea of their respective roles and responsibilities within the anticipatory system and collaborate on a basis of trust. Finland needs to create more moments for the two communities to collectively make sense of futures knowledge and develop functional, trust-based and robust relationships. This is particularly crucial when transitioning to a new government to ensure effective collaboration and continuity. The pilot case study showed that only if politicians and public officials develop a mutual understanding of the present, potential disruptions and desired future directions, they can become pillars of Finland's anticipatory innovation governance system.

Introduction

The OECD Observatory of Public Sector Innovation (OPSI) is working with the government of Finland and the European Commission to examine how Finland's governance processes and mechanisms can be refined to deal with complex and future challenges in an even more systemic manner. As part of this work, four policy domains have been identified as case studies to gain greater understanding and pilot initiatives to build further Finland's anticipatory capacity: **carbon neutrality, continuous learning, child-well-being, and collaboration between politicians and public officials**.

Finland aims to better incorporate the anticipatory innovation function within its governance structure. The Government Programme adopted in 2019 pledges "to make systematic foresight and future thinking a key part of management and also of policy preparation and decision-making processes." (Government of Finland, 2020[1]). To date, future-oriented policy making in Finland is conducted mainly by a 'coalition of the willing' and co-exists alongside traditional policy-making processes and mechanisms (Tõnurist, 2021[2]). An important question is how different actors within the Finnish government can work together on future-oriented policy making and what forms of collaboration between public officials and politicians could be instrumental.

In this context, *collaboration between politicians & public officials* is about a well-functioning interface of politicians and leading civil servants in anticipating the future, which requires acknowledging mutual roles, functions, processes, and challenges connected to policy development and decision-making under uncertainty (Tõnurist, 2021[2]). Politicians can be government officials in the executive branch, for example as ministers or state secretaries or in the legislative branch as members of parliament. Public officials can be from all levels of the public service, in the context of this paper the focus will be mostly on public servants in national ministries and agencies.

This paper will contribute to this work by reviewing **existing knowledge and international practices of collaboration between politicians and public officials in the context of anticipatory innovation governance**. The OECD assessment of Finland outlines "this topic has come out across the anticipatory innovation governance themes, from complex and long-term policy issues to knowledge creation and advice by civil servants" and "the role of public administration and politicians in complex and long-term policy issues is unclear and subject to (hidden) power relations." (Tõnurist, 2021[2])

The purpose of the research is to:

- Contribute to further build Finland's anticipatory capacity by identifying insights about collaboration between politicians and public officials in the field of anticipation through literature, international case studies and peer-learning sessions
- Contribute to the development of the AIG model by assessing how politico-administrative collaboration could be integrated into the model

Background to this work

To steer the pilot case on collaboration between politicians and public officials in the field of anticipatory innovation a taskforce was set up. It consists of members of the overall project secretariat in Finland from the Ministry of Finance and the Prime Minister's Office. Through various online scoping sessions, discussions and ongoing exchange, the OECD and Finnish taskforce assessed the status quo and outlined objectives and the scope for the pilot case.

It was agreed to focus on the following topics:

- Gap analysis of the current state of collaboration between politicians and public officials in Finland to date using insights discussed during the leadership dialogues organised by Finland
- Insights about the role of collaboration between politicians and public officials in anticipatory innovation and elements of fruitful collaboration such as trust-building in general
- Draw inspiration from a variety of cases that facilitate collaboration between both communities
- Scope ideas for initiatives that could strengthen collaboration in Finland

A project plan was created, and regular meetings were set up for the OECD and the Taskforce to share information relating to the pilot case.

Methods and limitations

A literature review and personal research was undertaken by an external researcher to identify cases which incorporated mechanisms of anticipatory innovation governance (Tõnurist and Hanson, 2020[3]) to provide illustrations of how collaboration between politicians and public officials in future-related fields can look like in practice. The researcher has extensive experience in the Dutch government and leveraged insights about the internal functioning of the system for the case analysis. The international cases are meant to contribute to the further understanding of collaboration between politicians and public officials in anticipating and preparing for an uncertain future. They were selected based on both relevance to anticipatory innovation governance and variety based on the following criteria:

1. Share characteristics of the anticipatory innovation governance model
2. Include mechanisms that address challenges for anticipatory innovation governance in Finland
3. Include different types of collaboration

An overall necessary criterion was the availability of sufficient granular details about the inner functioning of the cases. This turned to be an important challenge when identifying suitable international examples. During the course of the research it became clear that personal insights into the system were particularly helpful for identifying and analysing case studies. Therefore, the cases identified through literary research have a focus on the Netherlands due to the personal experience of the researcher.[1] To balance out this focus, the peer-learning sessions were organised with countries from other regions.

The criteria are ranked in importance, and because this work is exploratory, not all cases perfectly match the anticipatory innovation governance model or address all relevant challenges to Finland. They were selected based on their potential to provide relevant insights into forms of collaboration in the context of AIG in general and in Finland more specifically. For the latter, examples from countries with a similar political system and culture were chosen. To identify cases that fit these criteria, the research has drawn on available literature, examples listed in international governance databases, and personal knowledge of the Dutch public administration.[2]

In addition to the literature review, regular exchange about the ongoing initiatives in Finland took place between the OECD team and the Finnish project secretariat. The Timeout dialogues (see further information below) organised by Finland generated essential insights about the current challenges and opportunities that members of parliament, key party actors and senior officials of the Ministries currently face when collaborating with each other.

To complement the research from literature and international cases, three cases from Scotland, the province of Gipuzkoa and Ireland were selected for peer-exchange sessions with relevant representatives. These 90-120 minute online meetings provided Finnish representatives with an opportunity to ask direct questions about the governance of collaboration between politicians and public officials, and for both parties to identify areas of similar opportunities and challenges in which they could provide mutual support.

Understanding the context of politico-administrative collaboration in Finland

Need for Dialogue

The importance of effective dialogue between different communities regained particular attention in Finland throughout the course of the COVID-19 pandemic. As a rapid and creative response to the unfolding crisis, Finland set up the Finnish National Dialogues or so-called "lockdown dialogues" using a new facilitation format, the Timeout method[3] (Heikka, 2018[4]).These dialogues brought together various communities to share their experiences, learn from one another, and build trust in the nation's ability to steer through the crisis. The lockdown dialogues lasted from April 2020 to December 2022 and had 13 rounds of dialogue days, 296 discussions with 111 different organisations with 2130 individuals participating altogether in 47 different geographic locations (see also Box 3.3 in Part II).[4] The National Dialogues offered an opportunity to test the Timeout methodology on a larger scale (see Box 12.1 below) and see the value of this facilitated dialogue format in making stakeholders engage with an issue in an open-minded and constructive way. The Finnish National Dialogues were warmly received overall by people who participated in them. The civil servants involved perceived them as a meaningful part of their work, providing them with new methods to use in enhancing trust and developing open government. Finland has used the approach in various projects, for example as part of the open government work.

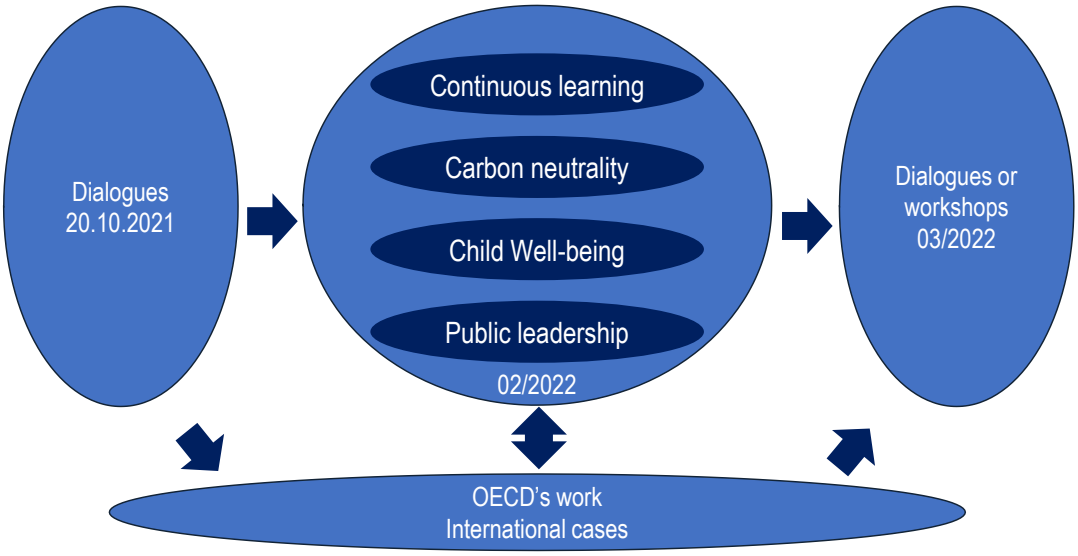
During the assessment of Finland's anticipatory innovation governance system, various conversations pointed to the need for better dialogue between politicians and public officials. Both the AIG support group and participants of the Public Sector Leadership group, work initiated by Finland going on in parallel, discussed organising Timeout dialogues as a suitable way to bring both communities together. It was decided that inviting members of parliament, key party members and senior public officials to this facilitated format could allow to better understand and improve the relationships between politicians and public officials. So-called AIG dialogues, designed to discuss anticipatory and future issues based on the Timeout method, were put in place to better understand the perspectives of both communities and enhance their collaboration.

Identifying the gaps

In parallel to the AIG project, Finland undertook work in the field of public sector leadership. A steering group created in this context discussed elements of the AIG analysis, including the need for better collaboration between politicians and public officials. Members of the group also participated in the dialogues discussing anticipatory innovation governance and the politico-administrative interface.

Various AIG dialogues were organised by the Finnish taskforce over the course of several months as can be seen in Figure 12.1 below. In October 2021 a dialogue about the entire topic of anticipatory innovation governance based on the executive summary of the OECD's intermediate report took place. Following this high-level discussion, four dialogues were organised in February and March 2022 to discuss each theme of the pilot cases. Instead of focusing only on collaboration between public officials and politicians, the fourth dialogue focused on the topic of public sector leadership. It was based on a draft paper that was drawn up by the public sector development group.

Figure 12.1. Anticipatory innovation governance dialogues in Finland



Source: Ministry of Finance, meeting handouts.

Participants in the dialogues[5] identified a range of gaps that currently exist in the Finnish system.[6] They discussed that there is a need for more informal opportunities to meet and build relationships between politicians and public officials. Currently, most communication between Ministries and Parliament takes place in parliamentary committees and indirectly through the media. It would be beneficial to expand these modes of collaboration in an effort to strengthen relationships and trust. This could take place in the form of continuous discussions between public officials and parliamentary groups to allow preparing policy issues with a more long-term perspective. For example, hearings of civil servants at the parliamentary groups could be established. Currently, lobbyists and other organisations are consulted by parliamentary groups, but there is no established process for ministries to provide information for decision-making besides the official hearings at parliamentary committees. This lack of exchange can create or reinforce silos across the political system. It can also make it challenging to ensure continuity when government or public opinion changes.

Another gap participants identified was the difference in timing between the two groups as well as the overall pace. While members of parliament focus their efforts on delivering results during the period of their elected term, four years, public officials have a more long-term and continuous approach to their work. Participants discussed that it would be beneficial if members of parliament could have a more long-term involvement in policy issues, ensuring better continuity. In addition, both sides notice an acceleration of the overall policy environment, partly driven by social media and modern communication technologies that react immediately to breaking news. Overall, the media has a tendency to speed up the policy-making process and deprioritise complex, long-term policy issues. Both politicians and public officials are affected by this change of pace, civil servants may be required to prepare analysis in a matter of hours and members of parliament might be asked to comment on evolving matters in real time. This leaves less space for thorough assessments and long-term thinking and can cause friction between the actors. Participants also noted that the media can also play a role in focusing attention on the moments that politicians and civil servants may face challenges. Mistakes and scandals tend to take up more space in media headlines than when both sides work seamlessly in a tandem.

Regarding the importance of a well-functioning politico-administrative interface across government cycles, participants identified that the beginning of any government term as a crucial moment. Before negotiations between coalition partners or with stakeholders are finalised and the government programme is put

together, it is a suitable time to establish ground rules and communication as a basis for how the two branches can work together throughout a government term. At the same time, time pressure is high at this particular moment as the public is waiting for the coalition to quickly get to work. There is a need for structures that ensure the learning curve of the new government does not start from zero, but that there is continuity in the issues discussed. Currently, Finland does not have an established approach to facilitate collaboration between politicians and public officials when a new government is incoming. While there are a lot of formal and informal interactions, no dedicated effort has been made to establish trust and functional working relationships between politicians and public officials.

Finally, participants identified a gap regarding how well members of parliament are able to draw on existing knowledge in the public service. They would often benefit from substantive support by public officials, but it currently takes knowledge of the system and people in order to identify the right channels to get the right inputs. This can be especially challenging for new staff working for members of parliament that are hesitant to reach out. Members of parliament and their staff can lack the necessary time to get acquainted with the various departments within ministries. Without pre-established relationships due to the lack of occasions to meet, interactions can lead to misunderstandings between the two sides.

Overall, politicians and public officials in Finland currently do not work together in a systematic, well established and ongoing way. A lot of the interactions take place in formal settings, mostly in parliamentary committees, or on an ad hoc basis. The collaboration of the two sides is made even more challenging through the fast pace of policy development and decision-making, responding to the public's demand to see solutions and statements as events unfold in real time. Even though complexity and uncertainty have become the norm in policy making (Cook and Tõnurist, 2020[5]), long periods of assessment and debate are often rare. While both sides are challenged by this pace, timing nonetheless differs between the two communities. Politicians need to respond to the expectation to deliver results within their elected term so they often lack the time to dive into deep analysis and long-term thinking around a given topic. Public officials on the other hand often work on issues in a more continuous manner, and need to fulfil their responsibility to ensure continuity within the government.

In Finland, there is an underlying assumption that parliament and administration need to keep their distance in order for democracy to function well. Independence of civil servants is seen critical to provide counterbalance to short-term policy development. At the same time, a strict separation can lead to a lack of opportunities for the two sides to interact and build relationships which in turn undermines trust and hinders fruitful collaboration. As a result, there is an opportunity to rethink how the politico-administrative interface can be transformed to allow building functional relationships while upholding democratic principles.[7]

Box 12.1. "Timeout" Dialogues Method

The Finnish Innovation Fund Sitra together with a number of other large foundations developed the dialogue model "Timeout". It brings different actors and groups together to engage in a constructive dialogue, question preconceptions and seek understanding and ideas based on trust. Timeout fosters a feeling of inclusion between the participants and of social inclusion in general. The approach can help to establish a deeper understanding of the topic in question and of diverging perspectives towards it.

At best, the dialogues generate unpredictable insights and new thinking. They do not aim for unanimity, but for new ways to embrace and leverage diversity of thought. The dialogues are meant to be a joint search for meaning and understanding. By thinking together, participants can collectively find new pathways that no member alone would have been able to identify. The Timeout method was not designed to produce concrete solutions, but rather as an environment to experiment, build trust and look beyond existing preconceptions. It is based on the following main principles or ground rules:

1. **Listen.** Participants are encouraged to listen to what others are saying before thinking about what they want to say next.
2. **Relate.** This means relating to what others have said by using simple, everyday language.
3. **Tell.** Talking about personal experience and feelings is part of the dialogue. Tapping into the personal stories behind each person is just as important as tapping into rational reasoning.
4. **Talk to others directly** and ask about their views.
5. **Be present and respect** others and the confidentiality of the discussion.

The method was co-created by various organisations and experts by trying out various approaches all around Finland (Heikka, 2018[4]). More information about the approach, how it can be used and resources to make a Timeout dialogue happen can be found on the Website of the Timeout foundation that was created by the organisations involved: https://www.timeoutdialogue.fi.

> Being on the same level is crucial. Instead of aiming at a consensus, it is important to highlight the different starting points, so that diversity can be considered and accepted.

Olli-Pekka Heinonen, Former Director General for Finnish National Agency for Education

Source: (Heikka, 2018[4]; Timeout Finland, 2022[6])

Building and maintaining trust

Trust is defined as a psychological state comprising "the intention to accept vulnerability based upon positive expectations of the intention or behaviour of the other" (Rousseau et al., 1998[7]). Trust has been identified as a necessary component of any collaborative arrangement (Getha-Taylor et al., 2018[8]) and described as the "essence of collaboration" or the "lubricant and the glue" that "facilitate the work of collaboration" (Bryson, Crosby and Stone, 2006[9]). When the identity of public management is built, trust is at the core. This foundation of trust is also a crucial factor when politicians and public officials work together. Their foundation of trust can be enhanced or undermined by various circumstances and practices. Understanding those mechanisms better can help to create a suitable environment for

constructive engagements between the two communities. Continuous dialogue, constructive forms of engagement and an atmosphere of mutual appreciation can help to maintain an environment of trust.

Overall, Finland has been observing declining levels of trust between the elites across the system. During the AIG "Timeout" dialogues,[8] participants discussed various factors that can enhance or challenge the trust base. Participants identified a critical moment at the very beginning of a government term.. This is when election promises and ambitions that politicians set out need to be transformed into a concrete government programme underpinned with quantifiable outputs and feasible mechanisms. There can be a mismatch between promises and what can realistically be achieved, bringing about a need to find compromise. This can lead to frustrations by both sides and create distrust between the two communities. On the one side, politicians perceive the pressure of their electorate to accomplish what they set out to do and rely on the support of public officials to make things happen. On the other side, public officials see their role in guiding a negotiation process towards constructive compromise between different objectives, advising on the most feasible approaches. The two perspectives do not always integrate seamlessly, even less so without relying on a deliberate dialogue to reconcile them. In order for this process not to undermine the trust base between the two communities at the very beginning of a government term, these two perspectives need to be better reconciled. Participants suggested that politicians need to better convey to the public that there are limits to what can be accomplished and transparently show that politics are a joint effort by actors with diverging objectives.

Participants also discussed the new reality of policy making that is increasingly confronted with volatile, uncertain, complex and ambiguous information (Cook and Tõnurist, 2020[5]). The COVID-19 pandemic revealed to what extend information can evolve and existing data can even be contradictory, needing continuous interpretation and reassessment when used for decision-making. Especially when it comes to anticipation, it is important to acknowledge that evidence is always incomplete and evolving. While data can only be collected in the past, decisions need to be made using prospective judgement about the future (Wilkinson, 2017[10]). This inherent uncertainty and need for sense-making of incomplete information can be a challenge when it comes to maintaining trusted relationships. Both politicians and public officials alike are looking for the best answers, but may not look at the available information in the same way. There is a need to raise awareness that information and knowledge are subject to change, making it easier to communicate adapted interpretations of an evolving situation. Participants discussed that efforts need to be made for the public to better accept and understand that information can evolve and change.

Furthermore, participants discussed how job security of public officials can have an impact on trust levels that they build up with politicians. In general, feeling uncertain about the future of one's employment is associated with a variety of negative consequences, both in the short and long term (Richter and Näswall, 2018[11]). Participants discussed that one of these can be a fear of public officials to speak their mind and share critical opinions when advising politicians. They agreed that there could be risks associated with fixed term appointment of public servants in managerial roles. Particularly towards the end of a contract length, the relationship might be undermined by the uncertain job prospects. For example, public officials may refrain from disagreeing with a high-ranking politician or avoid pointing out existing gaps or contradictions in the information available. Overall, the independence of public officials is an important factor in strengthening their collaboration with politicians. This also plays a factor when they interact with politicians from different parties, potentially needing to bridge disagreements or divergence of priorities. There currently lacks a transparent and effective conflict management approach to resolve issues between ministries run by different parties. This often incentivises people to avoid problematic or overlapping topics for which there is no clear guideline to follow.

A factor that can help build trust between the two communities is ensuring a clear definition of their respective roles and responsibilities. Participants discussed the need for a common understanding of the management system between politicians and senior civil servants when dealing with long-term policy challenges. This includes knowledge of the steering system for decision-making, who has what level of authority and what are the formal and informal rules of that process. This also includes ensuring flexibility

of the system, giving public servants space to adjust when new political leadership structures are established with a change of government.

Another trust building factor lies in transparency about the means available to bring policy ambitions to life. Politicians often get confronted with the reality of limitations in the implementation or funding of policy initiatives when they come into office. It would be beneficial to ensure they know which means, approaches and resources the government has its disposal before entering into concrete discussions about the government programme.

Overall, building and maintaining trust between politicians and public officials is a continuous effort without any definite end point. It is necessary for both sides to know each other and benefit from regular interactions before collectively facing the pressures of policy making in a fast-paced environment. Establishing and maintaining reliable processes that generate clarity of roles and expectations can help the two sides to work well together. Trust is an essential component of their functional collaboration and it needs to be constantly built, enhanced and preserved.

Existing knowledge on anticipatory collaboration

Actors and institutions

In times of rapid change, growing complexity, and critical uncertainty, responsible governance requires preparing for the unexpected. One essential element for governments to do so is by building anticipatory innovation governance. Several countries have demonstrated their future receptivity by investing in anticipatory capacity, mainstreaming foresight practices and creating dedicated bodies within government (or at arms-length) and in parliament for future-oriented policy making. Finland is internationally recognised for having one of the most highly developed strategic foresight systems consisting of various institutions with formal and informal roles related to fostering anticipatory governance (see Box 12.2 below). The different actors in Finland “co-operate and sometimes challenge one another over the implementation of foresight and feedback processes ultimately sustaining [anticipatory governance].” (Heo and Seo, 2021[12]).

Other countries, like South Korea and Singapore, have established similar foresight institutions and systems. South Korea has a National Assembly Futures Institute (NAFI) that implements national foresight and manages and controls the countries research output. Singapore has an institutionalised and decentralised network of (mainly security-focused) foresight practitioners across the public service. The Centre for Strategic Foresight within the Prime Minister’s office manages national scenario development and engages senior (political) leaders (Roth and Husar, 2021[13]). Politicians in Singapore are chiefly engaged with foresight through the regular National Scenarios exercises, while senior public officials are engaged through multiple other channels such as quarterly Strategic Futures Network meetings (OECD, 2019[14]). In European countries, some countries like the Netherlands and UK established foresight practices that did not get institutionalised long-term (Heo and Seo, 2021[12]). Others such as Germany, Spain or France have established foresight capacity in various governmental departments or functions (Boettger and Tekin, 2022[15]).

Box 12.2. Finland's foresight actors

Finland has anticipatory capacity spread across the political system as well as a lively foresight community outside of government.

A key actor in the Finnish foresight system is the innovation organisation and fund Sitra that has been conducting foresight studies for decades and promotes foresight and future tools within the Finnish public administration. It reports directly to Parliament and has both financial and political independence. Foresight is integrated within the central government through the Prime Minister Office's Strategy Department that co-ordinates national strategic foresight within the government through a Government Foresight Group that brings together strategic foresight experts. It also has a high-level steering group with five State Secretaries from ministries representing the coalition parties. An important vehicle in Finland is the Report on the future that is prepared every four years and feeds into elections and the Government Program that follows after a coalition is formed. The Finnish Parliament has a Parliamentary Committee for the Future (PCF) that discusses long-term challenges, science and technology policies, and prepares the Parliament's response to the Government Report on the future every four years. It works on a consensus basis to develop a common view of future possibilities. The parliament also has its own foresight capacity independent of party-political interests.

Source: OECD.

In recent years there has been a lot of interest in futures work, but in many countries the follow-through and connection to policy measures has not always been accomplished. Foresight informs decision making in a variety of settings; however, it is often not sufficiently integrated into the activities of public sector organisations or done in pockets and disconnected from policy making (Tõnurist and Hanson, 2020[3]).

Collaboration between politicians and public officials in anticipation

Both politicians and public officials have an important role to play in anticipation. Politicians have a role in identifying future challenges, delivering visions for the future, and signalling a road ahead. Public officials assist elected politicians and also have a role to play in safeguarding professionalism and continuity over time.[9] In practice, however, governments are less well equipped to act preventively or embrace risk and often start acting only when hazards materialise. "Avoiding risks is often justified for political and reputational reasons." (Tõnurist, 2021[2]). In addition, urgent matters are often prioritised over important matters, and policy making therefore focuses mainly on the short-term rather than long-term (Tõnurist, 2021[2]).[10]

Although the AIG literature hardly addresses collaboration between politicians and public officials specifically, literature on foresight, innovation governance and collaborative governance does provide some relevant insights.

Existing evidence on foresight practices highlights for instance the importance of both politicians and public servants participating in foresight activities to ensure the use of foresight insights in the policy-making process. This helps to create trust, and generate political buy-in for possible solutions. Otherwise, there is a risk of foresight becoming a too specialist area of researchers with little relevance to policy makers and politicians involved in daily governance. In addition, the ability of foresight outcomes to survive the current political environment is also deemed important, which points to the need for embedding foresight well into policy and political processes (Dreyer and Stang, 2013, p. 26[16]; OECD, 2019[14]).

The foresight literature further points out that there is no one recipe for sustainable foresight in governments. Rather, an ecosystem approach is promoted that fits into countries' socio-cultural and

political context. According to the School of International Futures, “A healthy foresight ecosystem creates demand for futures work, ensures quality supply, and nurtures itself.” (School of International Futures, 2021[17]). In addition, sustained political leadership, champions, and co-ordination between different actors are deemed important. In Finland, for instance, the Parliamentary Committee helps create visibility and can ensure that line ministries focus on shared opportunities and risks (School of International Futures, 2021[17]).

Literature on innovation governance points out that a trusted environment is needed in which innovators, regulators, and other stakeholders are motivated to understand each other's concerns and develop solutions together to anticipate and address future challenges. One approach is the so-called ‘Safe Innovation Approach’, where trusted environments support agile regulatory practices and anticipatory regulation. Trust drivers mentioned in this literature to facilitate trusted environments include focusing on the public interest, competence, respect, integrity, inclusion, fairness, and openness (Soeteman-Hernández et al., 2021[18]). The same factors equally hold true for collaboration between politicians and public officials.

Box 12.3. Politico-administrative collaboration in Finland

While Finland is an international leader when it comes to mainstreaming futures across government and beyond and taking a thoroughly embedded model to anticipation, this approach has not yet arrived in the collaboration between politicians and public officials. So far, their interactions mainly take place alongside mainstream policy-making processes and in parliamentary committees. Anticipatory knowledge can be part of this process, but often stems from external research institutions, separate units within government, and commissions in parliament. There is a committee of the future in parliament, but that remains a separate forum and does not contribute to building anticipatory innovation governance at large. Currently, no deliberate process exists to embed futures thinking and anticipation into the interactions of the two communities.

Source: OECD.

Literature on collaborative governance provides insights into what public officials and politicians can do to link the anticipatory innovation function to traditional governance structures. Collaborative governance is often positioned alongside traditional governance. It refers to processes and structures of public policy decision-making and management that engage people constructively across the boundaries of public agencies, levels of government, and the public, private and civic spheres. Productive interfaces between both forms of governance depend on so-called ‘boundary spanning’ by both public officials and politicians within representative democracy. Boundary spanning involves the effort of actors to accommodate and guide cross-institutional conflict resolution, communication, and co-ordination (van Meerkerk and Edelenbos, 2018[19]).

The literature distinguishes between boundary spanning by public officials (so-called managerial boundary spanning) and politicians (so-called political boundary spanning). Managerial boundary spanning is deemed important for aligning cross-sectoral efforts to solve wicked policy problems and can enhance effectiveness and innovation in policy making and implementation. This can include tasks such as developing cross-sectoral relationships, aligning activities, promoting information exchange and pursuing windows of opportunity towards political alignment. Political boundary spanning, on the other hand, can lead to innovative political strategizing, and fairer and more legitimate policy processes and outputs. Political boundary spanning can be more hands-off, where politicians activate others (for instance public managers) to perform on the ground managerial boundary spanning or more hands-on, where politicians broker activities between governance arenas and institutions of representative democracy. The literature

suggests that a combination of hands-off and hands-on political boundary spanning leads to best policy alignment. That way it can be ensured the designs, structures and arrangements for interfacing collaborative governance and governmental policy making "stay active and get energised each time by specific on the ground boundary-spanning activities". All these activities are not performed by politicians alone but typically in interaction with other public and political officials (Sørensen et al., 2020[20]).

An example is a community enterprise that was undertaken in De Meevart, in the Netherlands. Volunteers decided to take over their community centre and turn it into an accessible space for all stakeholders in the neighbourhood. The project was initiated in a partnership between politicians and stakeholders, and politicians participated on an entirely informal basis in the collaboration in all its phases as well as in the leadership of the collaboration. They promoted dialogue and information exchange between stakeholders. The intense hands-on political boundary spanning was supported by hands-off political boundary spanning by way of funding and administrative support (Sørensen et al., 2020[20]).

Practices of collaboration relevant to anticipatory governance

Collectively preparing for an uncertain future

The following cases show how collaboration between politicians, public officials and often a range of other stakeholders has been possible in fields with substantive uncertainty.

Dutch Deltaprogram - Governing climate change adaptation

The Dutch Deltaprogram is a policy programme to prepare the Netherlands for the highly uncertain future effects of climate change. The programme started in 2015 and runs until 2050 while keeping possible futures in 2100 in mind. Unlike the former Deltaworks that were created after the flooding in 1953, the programme was created in the absence of a direct crisis. It was nonetheless influenced by the flooding of New Orleans that raised awareness of the possibility that the Netherlands could be similarly affected in the future. The programme aims to prepare the country for an uncertain future with a variety of resilient solutions (rather than only waterworks) to safeguard intergenerational water security. It includes present-day interventions that shape the future while also enabling anticipation and adaptation to new and emerging developments over time. For example, this includes creating 'room for the river' now well before climate change would require it. It also has ensured that space for potential future interventions is reserved in spatial planning initiatives. (Twist, M. van et al., 2013[21])

The programme is financed by a Delta fund, backed up by a Delta Act, and managed by a Delta Commissioner, a politically neutral process co-ordinator positioned in-between the responsible Minister and Cabinet and above administrative parties (Bloemen, Van Der Steen and Van Der Wal, 2018[22]). When the coalition parties had to renegotiate the budget in 2009 in response to the economic crisis, an 'additional policy agreement' on top of the existing coalition agreement was presented which included the decision to establish a Delta fund that would receive at least EUR 1 billion per year from 2020 onwards. (Ministerie van Algemene Zaken, 2021[23]) The Fund is financed by yearly contributions from the Ministry of Infrastructure and Water and from contributions from water boards. (Ministerie van Algemene Zaken, 2021[23])

The chosen governance arrangement aims to move adaptation policy away from everyday battles over short-term interests and financial resources. Delegated decision-making occurs among relevant ministries, provinces, local authorities, and water boards co-operating on regional strategies, adaptive delta management, and long-term options (Bloemen, Van Der Steen and Van Der Wal, 2018[22]). A national steering group ensures administrative embedding and includes representatives of the union of water boards, provinces and municipalities, the chairs of regional co-operation structures and DGs of the ministries of Infrastructure and Water, Interior, Agriculture, Nature and Food, Economic Affairs and

Climate. Citizens are involved through so-called 'Living Labs', a research environment in which research and innovation take place based on co-creation and participation (Buijs et al., 2021[24]).

This particular governance structure was designed after several commissions and reports had underlined the importance of a long-term approach for climate adaptation and after several other governance arrangements had been considered. The model of having a special commissioner has been used in the Netherlands before for exceptional topics of national interest, like food security and distribution after the first and second world wars. When the governance structure for the Deltaprogram was adopted, it did not get much political attention, which can be seen as a testimony of the broad political support for having a special governance arrangement for anticipatory governance in this area (Twist, M. van et al., 2013[21]).

Insights for Finland

The governance of the Dutch Deltaprogram can be seen as an example of a fit-for-purpose AIG model that is located somewhere in-between the space of politicians and public officials. It exists alongside traditional governance structures and processes to secure a long-term approach, sufficient funding, and a permanent political advocate. Key to its establishment was political consensus on the need for a long-term anticipatory approach to climate adaptation on the one hand and experience with this specific governance arrangement to deal with topics of national interest on the other hand. For Finland, this approach could be of inspiration for policy areas of particular national importance that depend on collaboration between all stakeholders independent of the current political climate.

Future-oriented coalition government programmes

After a year of negotiations, the most recent coalition programme crafted in the Netherlands was published in December 2021 and has the title *Looking out for each other, looking ahead to the future.* (Ministerie van Algemene Zaken, 2021[23]). It includes several objectives that leave considerable room to design policies along the way together with members of parliament and societal actors. The programme can be seen as a response to long-term uncertain challenges like the green transition and strong demands for a new 'governance culture' that have emerged as a consequence of a trust crisis due to different scandals in the last years.[11]

The 'business-as-usual' model in the Netherlands has been to draft detailed coalition agreements that the coalition partners can implement in 3 to 4 years' time without any major changes. However, the last cabinet largely broke with this tradition when in response to several agreements (primarily, on climate and pensions), COVID-19 and other challenges (including a Climate Case court case, earthquakes as a result of gas drilling, a crisis over childcare benefits etc.) there was a lot of ad-hoc additional spending and decision-making during the term, thereby side-lining established budget processes and rules in practice.

The newest coalition agreement is not only very expansionist in terms of spending, but also includes a number of features that could be labelled anticipatory. It includes, for instance, EUR 35 billion for a climate and transition fund for the next 10 years, a statement to prepare for the building of 2 nuclear plants by 2030 to diversify the energy mix, and to prepare for the introduction of mobility taxation. All are examples of measures taken now to prepare for a future carbon-neutral economy, but which largely have to be designed and implemented after this coalition government's term. The agreement also includes a special paragraph 'looking towards the future' stating that the government will strive towards a 'sustainable welfare country for current and future generations where everyone can participate', which includes introducing a so-called 'generation-test'.

As coalition agreements are drafted behind closed doors, there is little information on how politicians and public officials collaborate in practice and what roles both actors have had in drafting more future-oriented agreements. While political party leaders are in the driver seat in this process, public officials (especially from the Prime Minister's Office, the Finance Ministry and independent knowledge centres at arms-length)

have an important role to play as well in providing non-partisan information on policy options, costs, implementation etc. Moreover, they can also play a role in agenda setting by publishing reports on future challenges and policy options.

Insights for Finland

Given the importance of 'coalition government programs' in steering governance practices in Finland, it can be relevant to follow closely how coalition programs are becoming more future-oriented in practice and what roles politicians and public officials play in this process. While it is challenging to gain direct insights into the internal process, the resulting agreements can be a reference point for what outputs successful collaboration can produce. Overall, future-oriented coalition programmes are an important boost for the authorising environment for anticipatory innovation governance. They can set a vision for what politicians and public officials will work towards during the government term. A common framing of the overall direction that both communities are working towards can be a source of trust for the ongoing collaboration.

Negotiating climate change mitigation policies

While the first signals of climate change and its potential impact on human security date back to the Club of Rome's 1972 publication "Limits to Growth", it took a while for the topic to dominate political agendas in many countries. With less time to prevent devastating consequences of climate change, governments have to make decisions now under conditions of scientific uncertainty and normative conflict. Consequently, anticipatory innovation governance is emerging - whether governments are aware of it or not - and that will require some form of co-operation between public officials and politicians.

In the Netherlands, a 'national climate agreement' was reached in 2019 (Ministerie van Economische Zaken en Klimaat, 2019[25]) after deploying the 'polder model' that has been part of the Dutch political culture for centuries (see Box 12.4 below). The Coalition Agreement of 2017 includes the goal of lowering greenhouse gas (GHG) emissions in 2030 by at least 49% and announced the need for a national climate and energy agreement to realise this goal (Bureau Woordvoering Kabinetsformatie, 2017[26]). Such a 'societal accord' was deemed necessary to provide stakeholders certainty about long-term goals and would create a platform for continuous engagement and anticipation. To broker an accord, the cabinet installed a Climate Council as national platform and appointed a widely trusted former politician and expert, Ed Nijpels, as chair. The Climate Council was tasked with negotiating an agreement based on sub-agreements on how to reach the GHG reduction target in five sectors (industry, energy, build environment, mobility, and agriculture and land use). (Traub, 2019[27])

Box 12.4. The Dutch Polder model

The 'polder model' is a deliberative structure that has emerged from the collective action that was needed in the past to keep the Netherlands from flooding and brings together all stakeholders on a given issue (whether it is social security, pensions, or in this case climate change) to reach a conclusion acceptable to all, which is then presented to parliament, that usually converts this societal consensus into legislation. Even though these so-called Polder accords have no legal force of their own, they enjoy a moral authority and political legitimacy that policy makers cannot ignore even if they do not ask for the advice.

Source: OECD.

The cabinet asked a wide range of actors including public authorities, companies and environmental groups (in the Netherlands referred to as the 'polder') to negotiate how to meet GHG reduction targets in

different sectors. Former politicians from the right and left were asked to chair the different 'tables' to negotiate measures to reach GHG reductions in different sectors. The chairs of these tables then took part in the Climate Council. After two rounds of bargaining, first between the stakeholders, and then between the technocrats and the political order, the exercise resulted in a national climate agreement in June 2019 that, to a large degree, was turned into national climate policy (Traub, 2019[27]).

Parallel to these negotiations, parliament members had proposed a Climate Act, which was passed in July 2019, requiring the government to present a Climate Plan. The Climate Act also includes the long-term GHG reduction targets and a system of anticipatory monitoring. The Netherlands Environmental Assessment Agency (PBL) yearly publishes a Climate and Energy explorative study that presents the effects of energy and climate policies in the past, moment, and future and is based on 'current' knowledge of climate policies. It is an important instrument for anticipation in the Netherlands, as it assesses whether the reduction targets for 2050 are in sight (Traub, 2019[27]).

An interesting detail in pushing the Dutch government to accelerate climate action has been a successful lawsuit of citizens and an environmental NGO against the Dutch state. The case was upheld in the Supreme Court at the end of 2019, forcing the government - in addition to implementing the Climate Agreement - to step up its climate efforts now in order to safeguard future generations' human security, which could be seen as an example of citizens/civil society demanding the government to be more anticipatory (Spier, 2020[28]).

Insights for Finland

The governance of climate mitigation policy in the Netherlands can be seen as example of anticipatory innovation governance emerging out of necessity to act now under conditions of high uncertainty. The example illustrates that traditional governance mechanisms rooted in political culture can be used for anticipation when there is broad-based (political and public) support for anticipating an uncertain future. The negotiation process can be of inspiration for Finland in the way it prepared the debate and brought politicians and public officials together around the table. By leaving the first round of bargaining to external stakeholders, the discussion has the potential to break free of traditional party lines and potential disagreements of the past. Bringing former politicians or other neutral actors such as SITRA in as chairs can help bridge the more technocratic perspective of public officials and the more political one of members of parliament. It's important that they can both interact with a mutually respected moderator who does not have a direct stake in what is being discussed.

Embracing opportunities for fruitful collaboration

The following cases have in common that they show process designs that allow for politicians and public officials to work together without high pressures from the outside or expectations to produce immediate results. They show that collective anticipation can be possible when the conditions allow for a constructive discussion between both sides, potentially even experimentation. Nonetheless, the cases also exemplify the importance that such processes are tied in with follow-up action, ensuring they are not disconnected from the "standard" functioning of the government.

Future-oriented interdepartmental policy research

Research with a focus on possible futures is one of the characteristics identified in the anticipatory innovation governance model. The Dutch tradition of civil servants conducting so-called 'interdepartmental policy research' (*interdepartementaal beleidsonderzoek)* independent of the politics of the day could be an interesting vehicle for AIG.[12]

In the Netherlands, interdepartmental policy research is conducted yearly by senior civil servants and aims to identify possible future policy alternatives for political decision-makers. The research consists of joint

fact-finding and exploration of policy options by an assembled commission of high-level civil servants and external experts, headed by an independent chair, usually a Director General of a different policy area or recognised expert. The process is initiated yearly by the Director General of budget under the political responsibility of the Minister of Finance and overseen by an interdepartmental commission. While the selection of topics used to be part of the yearly budget negotiations, recent efforts have tried to move the process of topic selection away from that process.[13] Topics can include broad policy themes such as part time work, specific topics such as innovation in health care, interdepartmental topics such as pensions or allowances or horizontal policy themes such as subsidies or agencies. There is a clear distinction between the role of civil servants who prepare possible policy options for the future and politicians who legitimise the process, appreciate policy options presented and make political decisions. This allow to stimulate out-of-the-box thinking and make it possible to analyse topics that are considered political taboos or lack political consensus. The process is closely linked to central budget processes and the reports are used as input for yearly budget decision-making, election programs and coalition negotiations.

The instrument has no legal base and is therefore flexible. Although the basic rules of the game or governance has not changed, the topics and focus of the research have changed overtime. The instrument started in the 80s as 'comprehensive reconsideration' (*brede heroverweging*) to identify options for budget cuts across the state budget (see Box 12.5). In the 90s, the focus switched to research advancing new public management. In the last few years, topics are increasingly selected to anticipate options for future spending/policy developments and the reports sometimes also include an 'investment option' in addition to the regular budget neutral and saving options. Examples of recent topics that are future-oriented include 'air quality', 'towards a circular economy', 'future proof mobility', 'ready for climate change', 'financing the energy transition'.

Box 12.5. 'Interdepartmental policy research' versus 'comprehensive reconsiderations'

A distinction is made in the Netherlands between yearly 'interdepartmental policy research' and so-called 'comprehensive reconsiderations'. While the former is connected to yearly budget processes, the latter is a more extensive exercise covering the majority of policies/budgets and has been conducted three times, two times after a major financial crisis (in 1980 and 2009) and one time (in 2019) after a request from parliament to prepare future policy options to stabilise the economy and budget in case of a recession. Novel to the 2019 round was the introduction of 'budget plus variants' (or 'investment options'), in addition to the usual 'budget neutral' policy variants and a 'saving' variant. While the yearly rounds have become a standard practice for which the Ministry of Finance takes political responsibility, comprehensive-spending reviews usually need some form of political legitimation from either the whole cabinet (like in 2010) or parliament (in 2019).

Source: OECD.

Insights for Finland

The longstanding practice of 'interdepartmental policy research' in the Netherlands has not been designed deliberately as an approach of anticipatory innovation but can be a potential vehicle for mainstreaming futures work, because the instrument is flexible, well connected to central budget and policy-making processes, and has proven successful in overcoming silo-thinking. This case also shows that anticipatory elements are emerging within existing governance mechanisms. Through a deliberate process with clear roles and responsibilities for both communities, collaboration between politicians and public officials can be enhanced, allowing them to work together towards concrete decision-making. What the case exemplifies is the importance of linking a more exploratory dialogue designed to identify topics of future relevance to concrete actions that follow afterwards, in this case budgetary process.

Regulatory sandboxes and outcome regulations

So-called regulatory sandboxes provide a structured context for experimentation and enable a real-world environment for testing innovative technologies by adopting a flexible regulatory framework and process (Attrey, Lesher and Lomax, 2020[29]). A regulatory sandbox facilitates dialogue between innovators and regulators to develop safe and sustainable innovation. Experimentation clauses are often the basis for these sandboxes that enables authorities to exercise a degree of flexibility to testing innovative technologies on a case-by-case basis (Soeteman-Hernández et al., 2021[18]).

The UK was the first to create a digital sandbox for anticipatory regulation of financial technology. Other examples of regular sandboxes can be found in Austria, Canada, Denmark, Germany, Japan, Italy, Singapore, South Korea, Taiwan, and the UAE. The idea has also been embraced in the EU, as the Council of the European Commission adopted a set of conclusions in 2020 on the role of regulatory sandboxes and experimentation clauses in an innovation-friendly, future-proof, sustainable, and resilient EU regulatory framework, which are considered tools for better regulation (European Council, 2020[30]).

In addition to regulatory sandboxes as specific tools, there have been calls for a more systemic change to embrace an "adapt and learn" mind-set to the practice of regulating to simultaneously seize opportunities of technological change and minimise risks. Some governments are investing in regulatory foresight (e.g. Canada, Singapore, Sweden, the UAE, and UK), and others have introduced the assumption that regulation should focus on outcomes rather than prescribe the use of specific inputs or processes (Denmark, Japan, UK). The regulatory co-operation partnership, *Agile Nations*, established by the governments of Canada, Denmark, Italy, Japan, Singapore, the UAE, and the UK in 2020 is a testimony of increasing international collaboration in this area (Signé and Almond, 2021[31]; Tõnurist and Hanson, 2020[3]).

Insights for Finland

Regulation is not yet included in the anticipatory innovation governance model, but is a key to effective governance of emerging technologies. As public officials and politicians play an important role in drafting legislative proposals, regulatory sandboxes could be a deliberate approach to make the two communities work together in an anticipatory way. Finland could consider building its capacity in the field of anticipatory regulation in the form of sandboxes in order to create room for politicians and public officials to experiment together.

Collaborating on continuous evaluation

A continuous evaluation approach is another characteristic of the AIG model. Although evaluation systems and processes in many countries are still largely focused on ex-post evaluations, countries are increasingly embracing the need to continuously monitor, evaluate and learn to integrate the evaluation function better into policy-making processes (OECD, 2020[32]). Just like foresight, evaluation is often a separate function within governments that is interlinked with a broader policy research and advice ecosystem, where commissions, academies, and science advisors provide independent advice to governments and so-called trusted 'knowledge brokers' play a key role in enhancing evidence-informed policy making (EIP) (Gluckman, Bardsley and Kaiser, 2021[33]).

The Netherlands recently reformed its evaluation system in the context of a government programme called 'Insight into quality' (2019-2021) aimed at increasing evidence-informed policy making and continuous learning throughout the policy cycle. The Finance minister led the reform within the public administration and was backed up in the House of Representatives by two *rapporteurs* from both a coalition and an opposition party.

During the 'Insight into quality' program, public officials of the central evaluation unit stimulated experimentation within line ministries, developed capacity for better evaluations, and co-operated with

policy makers, evaluation officers, research bodies, political advisors, and parliament support staff to create an enabling environment for EIP. While public officials worked on new evaluation approaches, instruments, and processes (strategic evaluation agendas, public value scans, spending appraisals, etc.) within the public administration, the *rapporteurs* promoted the use of evaluations in the House of Representatives and introduced new processes and instruments as well. For instance, the Dutch parliament has experimented with so-called 'scientific tests' prepared by academics to inform parliamentarians on the evidence of legislative proposals. (Matthew, 2020[34])In addition, the *rapporteurs* and other parliament members debated the progress of the government reform programme with the Finance minister in yearly commission debates, which helped to sustain progress and identify bottlenecks and possible solutions.[14]

At the end of the program, the Finance minister and the *rapporteurs* published a joint statement with reflections and lessons for the future. (Ministerie van Financiën, 2021[35])In this statement, the importance of non-political collaboration between parliament members and ministers is emphasised to counter the accountability paradox, where fear for the political repercussions of a negative evaluation can create adverse incentives for evaluations and a lack of mutual trust between government and parliament. The joint statement also underlines the need for a broader acceptance of uncertainty and 'advancing insight'. The increasing use of 'monitors' rather than 'evaluations' is an interesting development in this regard, like the monitor of Dutch Climate policy mentioned before and the 'Monitor of well-being' (see Box 12.6 below). (Statistics Netherlands, 2021[36])

Box 12.6. Monitoring well-being here and now, later and elsewhere

A Monitor of Well-being has been developed in the Netherlands in response to a request by the House of Representatives. The Statistics Bureau reports yearly to the House on well-being 'here and now', but also on the effects of our current well-being on future generations ('well-being later') and the rest of the world ('well-being elsewhere'). The monitor describes trends in well-being in terms of the economy, the environment and society, Dutch progress towards achieving the United Nations' SDGs, as well as the distribution of well-being over certain groups in the population. In the 2021 edition, for the first time Dutch well-being is analysed also in terms of how resilient it is in the face of unexpected events. While initially mainly developed as accountability instrument, the House of Representatives has requested the monitor to be better integrated in the policy and budget cycle, to make it an instrument of steering as well.

Source: OECD.

Insights for Finland

The evaluation function faces similar challenges as the foresight function and could play a supportive role in advancing AIG, especially when monitoring and continuous evaluation and learning are promoted. The collaboration between public officials and politicians to reform the Dutch evaluation system provide some insights into how non-political collaboration can create an enabling environment for more continuous evaluation and learning. It can be an opportunity to build relationships and trust between the two communities, allowing for both sides to better understanding each other before having to collaborate in a high-pressure context. In addition, the accountability frame that often poses challenges to transparency and learning might also impact foresight practices, as there is a risk that scenarios are treated as forecasts for which ministers are held accountable.

Another important aspect of leveraging collaboration between politicians and public officials for systematic learning is effective handover as described in Box 12.7 below:

Box 12.7. The importance of handover: The neighbourhood renewal programme in Stockholm

In an effort to respond to spatial, ethnic, and socio-economic segregation, a number of policy initiatives were launched in Stockholm. One of them, the neighbourhood renewal programme, was carried out in nine administrative districts in Stockholm that were characterised by poverty, low election turnout, and—for most districts—a high proportion of residents with a non-Swedish background.

The programme was carried out with an ambition to fuel the development of new methods and processes for inclusive and holistic modes of neighbourhood governance. It brought together politicians, citizens and civil servants to work in neighbourhood level "collaboration groups" and issue-specific "working groups" in order to deliberate, share knowledge, define problems, develop, and to and to some extant prioritise between, policy solutions. The objective of the programme was to collectively formulate, discuss, and prioritise local development agendas and to have an influence on local decisions concerning the use of public resources, as opposed to participation on a purely advisory or consultative basis.

A major issue the initiative revealed regarding collaboration between civil servants and politicians was the lack of preparation for a smooth handover. While politicians actively promoted the organisation of neighbourhood-level collaborative governance, they did not take enough initiative to ensure that ideas could be brought to implementation. Their contribution rhetorically and financially was substantive, but they did not consider how the outcome of the programme would be linked to policy making within the political institutions.

A learning from the programme is how important it is to think through the more operative implications of collaboration and participation and how to switch between different governance logics within a system. Preparing the handover of ideas to public officials who can operationalise them is essential to ensure a smooth collaboration (Hertting and Klijn, 2017[37]).

Source: OECD.

Further ideas for a future-ready civil service

One of the mechanisms of the anticipatory innovation governance model is organisational capacity, structures that provide autonomy and resources to explore transformative ideas. The European Commission's Joint Research Centre (JRC) future of government project (2017-19) could be a good starting point to reflect on how to build a future-ready civil service. The JRC project explored possible changes in the landscape facing governments, focusing on the potential and implications of citizen participation in government and digital transformations. It describes different scenarios (‘do it yourself democracy’, ‘private algocracy’, ‘super collaborative government’ and ‘over-regulatocracy’) and includes a range of policy implications that stress the importance of collaboration across different policy fields (Vesnić Alujević and Scapolo, 2019[38]).

The Public Service for the 21st Century (PS21) project in Singapore is an interesting example at the country level. Singapore re-structured its working culture into a more entrepreneurial style to be ready for future challenges. In 2015 the programme *Public Service for the 21st Century* was launched that invited civil servants to suggest ideas for public service improvement and collaborate on innovative projects. PS21 committees were set up at every level of the public service, and each ministry had its PS21 committee chaired by the ministry's permanent secretary. (Centre for Public Impact, 2018[39])The establishment in 2017 of the Smart Nation and Digital Government Office (SNDGO) under the Prime Minister’s Office charged with key Smart Nation projects and building long-term capabilities for the public sector is another

interesting example in Singapore to further explore collaboration between public officials and politicians (Prime Minister's Office Singapore, 2018[40]; Omidyar Network India, 2018[41]).

Very different examples of anticipatory organisational capacity can be found in Wales, Gibraltar, and Hungary, where special commissioners or an ombudsman have been appointed to speak on behalf of future generations and who can act in legal procedures. The appointment of a legal representative in the name of future generations can be seen as an example of a futures checks and balances. While in New Zealand and Hungary their role is primarily focused on the protection of the environment and cultural heritage, the Welsh Commissioner has a broader mandate to protect the living conditions of future generations. It promotes the Sustainable Development Principle and acts as a guardian for the interests of future generations in Wales by providing advice, encouraging best practices, carrying out research, reviewing how public bodies take long-term impact into account, and preparing a Future Generations Report every five years (World Future Council, 2018[42]).

Insights for Finland

Building a future-ready civil service is an important mechanism for building AIG. The mentioned international examples can be of inspiration for future initiatives that would support an even more future-oriented civil service, ranging from the establishment of separate units within the centre of government that requires close co-operation between politicians and public officials to the establishment of legal representatives in the name of future generations as check and balance within the system.

Learning from peers

Successful collaboration between politicians and public officials is a topic that does not only concern Finland, but all political systems. Various administrations have taken steps to facilitate exchange between the two communities and support their working relationship, often in the context of larger initiatives or as a side effect of another project. In an effort to learn from these experiences and allow for an opportunity to exchange on the challenges associated with the politico-administrative interface, the OECD organised various peer-learning sessions. These allowed for even more applied learning from a different context, from individual examples of collaboration to systematic reflections about the system. They were organised in a small format and in a confidential manner under Chatham House Rules so the findings are only excerpts of what was discussed and will be presented in a generalised way.

Ireland – Different modes of collaboration

The peer-learning session took part between the Finnish secretariat and an Irish policy maker with extensive experience in both the political branch as well as the public service. As somebody who worked as an advisor for high-ranking politicians for many years and then became a public official with management responsibilities, they can benefit from drawing on both perspectives. During the discussion, they gave insights into various concrete contexts of collaboration in Ireland that they were involved in as well as overall reflections about the system.

Effective collaboration in face of uncertainty

After the 2011 elections, the two elected parties needed to work together effectively under immense pressure and deep uncertainty, drawing on knowledge of the public sector. They needed to draw up a coalition agreement in the course of days and deal with the immediate challenges of the financial crisis and implications of the IMF programme for Ireland.

They drew in civil servants for advice who provided the existing evidence about the problems in question, often pointing to existing gaps and the uncertainty associated with the contextual environment as well as

the outcomes of alternative options. Despite these challenges, the relationship between both communities and between the two parties did not decline. Rather, the need for taking action allowed those involved to develop a shared understanding of the main issues at stake and build trust. They focused on what could realistically be achieved and worked out a compromise.

Urgency and the need to take action in deep uncertainty can allow for better collaboration. Similar effects were observed during the COVID-19 pandemic when governments were forced to work together across departments and party lines. In many cases, governments successfully implemented policy and operational responses of unprecedented scale, speed and scope[15] (OECD, 2021[43]). These examples show that overcoming the challenge of incomplete information that can lead to distrust between the two communities can be overcome. Regarding upcoming challenges that need to be resolved by successful collaboration, the principles of anticipatory innovation governance can help create room for taking transformative action, even in the absence of the catalyst of an immediate crisis.

Risk taking

In Ireland, a challenge for the collaboration between politicians and public officials lies in their diverging approach to risks. Politicians are held more directly responsible for policy outcomes so they tend to be very risk averse and try to avoid uncertainty. This can stand in contrast to public officials who are only indirectly associated with the decisions taken. Allowing for effective collaboration means acknowledging this dichotomy and facilitating dialogue that allows for better understanding of each standpoint.

Governments are generally known to be risk-averse, rule-driven, based on stable structures and predictable decision-making (Brown and Osborne, 2013[44]). This hinders taking proactive rather than reactive action, shaping long-term transformation in strategic ways. Recent OECD work laid out a principled framework on how governments can start addressing these challenges by integrating anticipatory capacities into public governance. Research shows that simplifying these issues into discrete models does allow to take decisive action, but often creates blind spots. Adequate action starts with the willingness to embrace radical uncertainty and complexity, and to put forward the right tools to make sense of new developments as they emerge (Tõnurist and Hanson, 2020[3]). It is important to note that this challenge also comes to play during the collaboration between politicians and public officials. It is necessary to include both sides in sense-making exercises, acknowledging the consequences of risk taking for politicians as well as the risks associated with a lack of anticipatory decision-making.

Distant vs. close collaboration

In Ireland there can be a disconnect between politicians and the advisors working for them and public officials. There seems to be an assumption that the highest quality knowledge for policy making lies within the public service which can lead to a feeling of superiority towards politicians. This can create challenges for the collaboration of the two communities in very concrete ways and needs to be addressed when facilitating collaboration.

This potential friction needs to be addressed. Both sides need to communicate more with each other, taking on each other's perspective and understanding both the strengths and shortcomings of the respective roles. For example, this can be achieved by including public officials more directly in the process of decision-making. That often reveals that while policy knowledge, data and insights are essential, they cannot facilitate a decision on their own. Acknowledging that informational gaps are inherent and that data can never be completely unbiased could help.

Difference in timing

Similar to the observations made by Finnish participants of the AIG Timeout dialogues, timing has also shown to be an important factor in Ireland. Politicians are often forced to react to evolving issues on an ad

hoc basis and lack the time to engage into longer-term analysis of complex issues. They tend to work with a more short-term time horizon. As a result, they rely on the insights produced by public officials who tend to have an opportunity to engage in policy issues in a more continuous basis. For the system to work well, it is important that the learnings produced in the public service get passed on to political decision-makers. It is important to acknowledge the difference in time horizon when designing collaborative processes.

Furthermore, Ireland has made the experience that timing can also play a role in relation to the government term. At the moment that a new government is elected and the Government Programme is not yet defined, working relationships are not yet manifested. This is an opportunity to support trust- and relationship-building between the two communities as it can set the basis for how politicians and the administration will work together during the entire government term. Currently, neither Finland nor Ireland make deliberate efforts to support this process. It could be useful to explore further how a framework for facilitating collaboration with an incoming government could look in Finland.

Gipuzkoa, Basque Country – Creating room for dialogue and reflections

The peer-learning session was organised between the Finnish secretariat and members of the Gipuzkoa Provincial Council that is responsible for governing and administering the province of Gipuzkoa. They presented the "Gipuzkoa Moadel" used for governing the province and their various initiatives in the field of anticipation, collaboration and trust building.

Etorkizuna Eraikiz (Building the Future)

Gipuzkoa runs an innovative programme called "Etorkizuna Eraikiz" (Building the Future) that strives for more open and collaborative governance. It was implemented by the previous government about 6-7 years ago. Etorkizuna Eraikiz incorporates public deliberation with the citizenship for the design of public policies, ensuring the effectiveness, efficiency and plurality of this participation (OPSI, 2016[45]).

The programme consists of an active experimentation exercise to develop the future of the territory. The aim is to address the crisis of democracy by giving citizens their own voice and encouraging them to collaborate. The programme constitutes of the Gipuzkoa Taldean, a space for active listening and deliberation including a Think Tank and the Gipuzkoa Lab, an experimentation and learning space. Under Gipuzkoa Taldean there is a committee of Political Parties that brings together all parties of the territorial parliament to discuss the political agenda of the future and take shared decisions.

Dialogue to create enthusiasm

Over the past 4-5 years Gipuzkoa set up a process of dialogue between political teams and civil servants to boost a new form of governance and open spaces for dialogue with other stakeholders. The initiative was first viewed as a marketing exercise trying to make things look better on the outside rather than really engaging. However, after conversations took place (5 hours per day on 6 different days) the results were very positive. Using the action learning methodology, a new level of trust was established and various issues could be resolved.

The dialogues did not only work on a substance level, but also on a relationship one. Bringing people together created trust and even enthusiasm. Enthusiasm to continue collaborating with each other. They realised that politicians were pleased to be involved in the thinking about procedures and that the roles of public officials needed to be broadened in deliberation and decision-making.

Framework for reflection

The Gipuzkoa team elaborated that in their view, transforming individual initiatives to a system of collaboration needs two components: institutional structures and a political decision for collaborative

governance that is accepted by the technical civil service side; and structural process for co-creation and a collaborative process to generate knowledge. In order for this co-creation to work, there needs to be a framework for reflection and transforming those into action.

Finland picked up on the idea of a "framework for reflection" between politicians and public officials. It could be designed as a tool to facilitate collaboration between the two communities and allow space for them to co-create, reflect on what works well and what needs to be improved and generate common understanding of the policy issues they work on and the narrative of their respective roles and responsibilities.

Scotland – Keeping humans at the centre

This peer-learning session took place between the Finnish secretariat and various representatives from the Scottish government working in open government, the national performance framework, public service reform, spending review and others.

National Performance Framework

The Scottish Government introduced the National Performance Framework (NPF) in 2007. It sets out the government's ambitions for society and the values that guide its approach. The framework aims to get everyone in Scotland to work together and break up existing silos. This includes national and local government, politicians, businesses, voluntary organisations and citizens. Unfortunately, politicians see the framework as a project of the public service that they do not feel connected to. Scotland will need to take steps in order to make it more accessible for members of parliament and use it as a futures tool that connects the two communities. There is an opportunity to take this on as new politicians coming in tend to be more open to working with the public service. The framework is more frequently discussed in parliamentary committees and there would be room to take this work forward.

Finland does not have a similarly well-established performance framework in place yet. The Scottish model could be an inspiration. By examining the framework further in more detail and the opportunities to implement it in Finland it could potentially be leveraged as a tool to facilitate future-oriented discussions and anticipation. This would need to explicitly include conversations between politicians and public officials in order to help building collaboration between the two communities. Agreeing on common high-level objectives could be used as a way to strengthen ties between politicians and public officials, establishing a common direction that they commonly work towards.

Human centricity

Scotland is still working on its service reform agenda, it was a process started by the Christie Commission on the future delivery of public services in 2011. (Government of Scotland, 2011[46])The analysis shows that public services in Scotland are unsustainable due to the pressures of demographic shifts, continuous new challenges and the decline of resources available in the public service. There is a need to acknowledge that the risk of not changing the system is far greater than the risk of trying something new and unestablished. The key principle is prevention and thinking about future generations when making decisions today. Scotland wants to take a human centric approach to this work, aiming to create the conditions for public services to work for anyone and anywhere – locally, regionally, and nationally. Public services need to be designed with the objective at heart that people can thrive.

Finnish participants were inspired by the human centricity of this approach. It could be helpful to use the Scottish experience to help bring this more concretely into the development work when redesigning public services in Finland, but also as a standard to frame dialogue between politicians and public officials. At the end of the day, both communities are there to serve the people of Finland, design policies and public services that can help the Finnish people to thrive. A stronger emphasis of the human aspect of policy making and the need to engage with the perspective of the ultimate end-user of any decisions could be a

useful tool to align perspectives of politicians and public officials. If both sides agree on their common goal to support citizens, this can have a substantive effect on trust levels and the openness to collaborate.

Opportunities for action

Although both politicians and public officials have an important role to play in anticipatory innovation governance, it is a relatively new field, and the existing literature hardly addresses how the two communities can collaborate effectively to better prepare for the future. Furthermore, politico-administrative interactions and their inner functioning tend to be rather hidden and are often considered a sensitive topic, so it is a challenging topic to explore based on desk research.

Existing knowledge points out that collaboration between politicians and public officials within existing foresight ecosystems is largely non-political and takes place mainly alongside mainstream policy-making processes. This is not surprising, given that the literature on innovation governance points towards the importance of a trusted environment, and literature on collaborative democracy suggests the importance of 'boundary spanning' by both public officials and politicians to integrate or connect new forms of governance, like AIG, to more traditional governance processes.

The cases that have been identified in this paper for further exploration suggest that futures are becoming a more prominent topic in political debates which might be a powerful vehicle for building anticipatory innovation governance. Also, initiatives in anticipatory innovation are emerging not only alongside but also within more traditional governance processes and structures.

Despite the mentioned limitations of this research, with the combined analysis of the current situation in Finland, conceptual insights into collaboration and trust-building and exploration of international examples, relevant insights for Finland could be identified. These are intended as a starting point for Finland to give the topic of politico-administrative collaboration a greater focus in refining its futures work. Further reflections will be necessary to identify concrete actions going forward.

The nature of collaboration in anticipatory innovation governance

Key learning: When politicians and public officials work together in anticipation, they need to rely on pre-existing trust and openness. Anticipatory innovation tends to be exploratory and engage with uncertainty which requires a safe space so that all ideas and concerns can be heard before working towards a solution.

To integrate collaboration into Finland's approach to anticipatory innovation governance, it is useful to identify what kind of collaboration between public officials and politicians is needed in contrast to 'traditional' policy making. Based on the observation discussed in the AIG Timeout dialogues, one important aspect for collective futures work is creating a foundation of trust. In Finland, it was observed that both communities would benefit from more opportunities to interact with each other, not just in the formal contexts of committee work, but also in more informal environments. Currently, politicians and their staff often lack insights into the administrative system, where responsibilities for a particular policy issue lie and what kind of knowledge is available. Creating greater transparency and support in particular for new members of parliament and their staff would be helpful. Also, there can be lines of tension between ministries led by different parties that affect the trust-levels of both the politicians and public officials involved. The development of a transparent and effective conflict management system would allow for more engagement with problematic and overlapping policy issues, which often is the case with futures topics.

Furthermore, collaboration on futures issues requires an environment of openness to new ideas. It can be useful to design deliberate engagement processes that allow for both communities to feel heard and comfortable enough to co-create and look at policy issues from a new perspective. Bringing in external facilitators that are trusted by both sides, for example former politicians or SITRA, might help to create an

atmosphere of trust. Another element can be the involvement of external stakeholders to prepare inputs and explore ideas amongst themselves before bringing in politicians and public officials. This can help break up traditional lines of disagreement or conflict. Also, it can be a useful approach to anchor human centricity as a central element of the policy debate, focusing all efforts back on the individuals that will get to benefit from a policy. Mainstreaming the idea that policies and public services are there for the people of Finland to thrive can help to rally both communities behind this overarching objective.

Finally, it is important to acknowledge that work in anticipatory fields tends to come with a lot of uncertainty. Politicians in particular are often looked at to reduce risks and provide "easy answers", this can lead to a big risk adversity on their part. They work in an environment that has low acceptance of errors while public servants tend to be more shielded from the impact of negative outcomes. One aspect of this is the lack of effective communication about policy change to the public that leads to limited acceptance for emerging standpoints and analysis as exemplified by the COVID-19 pandemic. Nonetheless, in the political system in general, there is a tendency to reduce uncertainty so making it a focus point can make politicians and public officials alike uncomfortable. It is therefore important to guide that exploratory process, offering opportunities to raise concerns and engaging with the emotional reactions anticipatory conversations can trigger. It can also be useful to guide the conversation to look at both challenges of future change as well as opportunities. This can counterbalance the tendency that future discussions engage more with potential negative outcomes.

Adjusting timeframes and enabling collaboration at suitable moments

Key learning: The timing of politicians and public officials tends to differ which can lead to misunderstandings and lack of opportunities to collaborate. For effective collaboration, it is important to integrate their perspectives, acknowledge the difference in their roles and create opportunities for both sides to dedicate time to policy issues.

The research showed that politicians and public officials often work in their own cycles, not necessarily aligning in their timing and opportunities to focus on an individual policy issue. Politicians are often forced to take a short-term perspective as they need to respond to the public and media's expectation to have answers to evolving challenges. Even though the pace in administrations can also be fast, there still tends to be more room for deep analysis.

In principles, this reality could be a reason for the two sides to collaborate – so that politicians can benefit from the available knowledge and public officials get acquainted with the pressures of present-day decision-making. In practice, this does not always work as the difference in perspective can create tension and misunderstanding. It is essential to identify suitable moments that can help adjusting timeframes of both sides, creating even small windows of opportunity for them to engage in a policy issue collectively. The continuation of the AIG Timeout dialogues is a good way to do so and should ideally become a regular practice going forward.

Adjusting to the difference in timeframes can also be supported by choosing suitable moments across the government term to facilitate collaboration. A moment that opens opportunities for trust-building is the beginning of a new government term when the programme is not yet defined and there tends to be a general receptiveness to establishing new relationships. For the upcoming elections, Finland can identify initiatives that will enhance trust-building between politicians and public officials, for example through informal opportunities to meet, Timeout dialogues to align perspectives and a negotiation process facilitated by neutral partners. Institutionalising these and other elements as dedicated transition structures would help to ensure that trust-building and enhancing collaboration becomes a continuous effort that is independent of individual initiatives.

Existing governance structures as vehicles for collaborative anticipation

Key learning: Existing governance mechanisms can be effective vehicles for anticipatory approaches

Some of the examples described in this paper highlight that existing governance processes and mechanisms increasingly include anticipatory elements in the face of uncertain future challenges. Coalition programs, for instance, seem to evolve from static work programmes to more future-oriented documents, acknowledging the existing uncertainty of the contextual environment in which policy decisions are taking place. The negotiation of climate agreements is another area that by design brings about collaboration between politicians and public officials in an anticipatory field. Both examples indicate that when future uncertainty is acknowledged in political decision-making, it can be an important driver for building anticipatory innovation in mainstream governance processes and instruments. The examples also highlight the importance of political culture for effective collaboration between politicians and public officials in practice.

The examples of 'interdepartmental policy research' and 'collaboration on continuous evaluation' demonstrate that existing governance mechanisms that are less politicised can be potential vehicles for anticipatory approaches. In the case of 'interdepartmental policy research', public officials and politicians take on clearly defined roles in order to facilitate the development of future policy options independent of the politics of the day. In the case of 'collaboration on continuous evaluation', public officials and public officials engaged in non-political collaboration to create an enabling environment for continuous evaluation and learning.

For Finland these examples can be of inspiration to examine existing governance structures that currently do not include anticipatory elements and assess whether and potentially how those could be integrated. For example, both policy research and evaluation could be potential fields to include even more long-term thinking that engages with uncertainty and alternative future changes. When taking the initiative to include elements of anticipation, it is important to consider the roles that politicians and public officials will play in this work. This research has shown that the clearer roles and responsibilities are defined and acknowledged by the two communities, the better the basis for a trust-based collaboration can be.

Collaboration within 'fit-for-purpose' anticipatory governance structures

Key learning: Governance structures for anticipation that are separate from traditional governance structures can provide a less politicised space for policy making. It is nonetheless essential to create links back to the system in order for the results developed to be adopted and implemented.

Some examples described in this paper are anticipatory governance arrangements or mechanisms by design or fit-for purpose, like the case of the Dutch Deltaprogram, regulatory sandboxes, and the introduction of special Commissioners representing future generations. They tend to be located alongside traditional governance structures and have been designed after political consensus is reached on the need for anticipatory innovation governance. By creating separate governance structures or mechanisms, anticipatory innovation governance is depoliticised to overcome major barriers in more traditional policy-making processes. The actual practice of anticipatory innovation is left to a large extent to special designated actors, with built-in loops to politicians and public officials.

For Finland, there might be an opportunity to identify policy areas that would benefit from a separate governance structure similar to the ones described. This could be the case in the field of carbon neutrality and the mitigation of climate change effects where political debates can be a barrier to take decisive action. This is especially useful in areas where there already exists a broad consensus that action is necessary. The Dutch example of the Deltaprogram showed that it can be possible to take action without creating much political attention. This can help to create room for anticipatory innovation. What is nonetheless important to keep in mind is the need to connect any type of separate governance structure back to the system when it comes to bringing ideas to implementation. The neighbourhood renewal programme in

Stockholm showed that “only” discussing ideas is not enough, there needs to be a handover to budget or implementation processes or sufficient capabilities included in the project to bring these ideas to life.

Overall, this pilot case has shown a light on how and in what context politicians and public officials work together. While it is an essential relationship for most policy processes, there is limited attention played to the factors that enable fruitful collaboration and allow both communities to benefit from one another. In Finland, there is room to explore this collaboration further in general, understanding even better when both communities meet, what their needs are and how they can develop and maintain a basis of trust in their relationships.

Collaboration in the field of anticipatory governance brings an even greater focus on the need for a functional collaborative system as engaging with futures and uncertainty tends to be an uncomfortable space to be (see Box 12.8 below). The cases and insights presented in this paper can be of inspiration to Finland to try new vehicles for enhancing anticipatory work that brings both communities together. None of the concepts presented are one-size-fits-all, but need to be adapted to the concrete contexts that they will be implemented in, responding to the needs to Finnish policy makers.

Box 12.8. Collaboration between public officials and politicians in ‘traditional’ versus ‘anticipatory’ policy making

Collaboration between public officials and politicians in ‘traditional’ versus ‘anticipatory’ policy making

In traditional policy making, public officials and politicians have a shared responsibility for the policies and budgets for which ministers are held accountable during their term of office. Public officials typically assist their minister in developing and implementing policies during their term while also safeguarding professionalism and continuity over time.

In anticipatory innovation policy making, by contrast, public officials and politicians have a shared responsibility for exploring and anticipating the future, for which the cabinet as a whole can be held accountable, and which includes the responsibility to prepare for the future and develop the capacity to anticipate, learn and adapt. Public officials assist the cabinet in developing and implementing future-resilient policies and safeguarding future preparedness (exploratory foresight). While public officials provide a counterbalance to the short-termism of politicians, politicians steer public officials’ work with political visions for the future (strategic foresight).

Source: OECD.

Pilot case findings and key considerations

Main Findings	Key considerations
Collaboration between politicians and public officials in Finland	
Working on long-term issues often means that policy programmes need to span across one government term, but there currently lacks a dedicated transition structure to ensure continuity.	• Establish robust transition structures between two governments that dedicate resources to building trust between politicians and public officials, including both members of parliament and appointment officials.
New politicians taking office in government or arriving in parliament often have limited to no relationships with public officials which hinders effective collaboration.	• Ensure politicians and their staff have sufficient knowledge about the existing capacity in government through dedicated information sharing as well as regular informal opportunities to meet. • Leverage the advantage of the Finnish administration that most leading public officials stay in their position throughout a government change and can take a lead in ensuring transition structure and relationship-building.
Anticipatory innovation needs to be a continued practice, but politicians and public officials lack opportunities to collectively engage in future-seeking and sense-making activities. Both communities need to have opportunities to question and test alternatives under or next to dominant strategic directions.	• Test additional engagement formats bringing politicians and public officials together that allows them to collectively work on complex, cross-cutting and long-term issues, at times bringing in external stakeholders, for example citizen representatives • Further explore ways to bring user centricity to bear on anticipatory discussions, both in traditional fora such as committee meetings as well as in additionally created future seeking moments.
The declining level of trust among Finnish elites hinder effective collaboration between politicians and public officials	• Regularly examine trust levels between the Finnish elites in general and politicians and public officials in particular and invest in bringing the two communities together through AIG dialogues and other formats. • Create regular opportunities for both communities to engage in future seeking, for example through the continuation of AIG dialogues using the Timeout method, both at the beginning of a new government term and throughout.

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Notes

[1] The centricity on cases from the Netherlands came about due to the personal insights of the researcher, Nynke de Witte, who worked as a Dutch public official for over 10 years. During the initial research, the project team identified that granular insights into collaboration mechanisms and functionality between politicians and public officials tend to be sensitive information that is rarely shared widely. Whether the two communities work well together or not can be a revealing insight into any political system. Also, governance literature tends to assess this relationship as part of a larger context, for example regarding stakeholder consultation or citizen involvement. Literature about collaboration between the two communities and their way to collectively work in anticipatory fields is very scarce.

[2] This research paper is written on a personal title, and the findings do not represent the views of the Dutch government.

[3] See the box below for further information about the Timeout methodology.

[4] See further (Henttonen, 2022[47])

[5] The dialogues take place in a confidential setting under Chatham House rules. This paper will refer to the ideas and suggestions discussed in a generalised way to ensure that individual opinions remain anonymous.

[6] The following opinions and observations were discussed in the dialogue on the development of the Government's anticipatory governance and policy-making in October 2021 and in the Public service leadership dialogue in February 2022.

[7] The described gaps were put together based on a range of conversations with the Finnish project secretariat and the insights produced by the dialogues that were organised by Finland.7 This overview intends to give a better understanding of the context in Finland to help identify suitable ideas and recommendations. It does not aim to be an exhaustive assessment of the situation.

[8] The concepts and suggestions in this section were mainly developed during the public service leadership dialogue in February 2022, some ideas also stem from conversations between the OECD and the Finnish project secretariat or were part of a broader exchange with counterparts in Ireland, Gipuzkoa and Scotland during the peer-learning sessions.

[9] Regarding Norway see for instance (Royal Norwegian Ministry of Local Government and Regional Development, 2019[49]).

[10] Find an overview of Finland's current approach to collaboration between politicians and public officials in Box 12.3 below.

[11] This new governance culture should increase transparency (by for instance publishing weekly ministerial council agenda's), give parliament a bigger role in decision-making (by for instance abolishing weekly meetings between coalition party leaders and by drafting more 'open' coalition agreements) and create safeguards to make the civil service less 'political sensitive'.

[12] Internationally the instrument is often called 'Spending Reviews'. Spending reviews are used in several OECD countries but means quite different things in different country contexts. For this research the literal translation from Dutch (*interdepartementaal beleidsonderzoek*) is used.

[13] Find further details about the difference between 'Interdepartmental policy research' and 'comprehensive reconsiderations' in the Dutch system in Box 12.5.

[14] This case is largely based on the personal experiences of the researcher, who was co-leading this Government Programme between 2019 and 2021.

[15] Even though the overall outcomes of what governments were able to accomplish are remarkable, it is important to note that during the COVID-19 pandemic, institutional accountability by parliaments has at times been bypassed (OECD, 2020[48]).

13 Conclusions

The chapter concludes the report and outlines the relevance of the anticipatory innovation governance model globally.

The current report has put forward a new model for anticipatory innovation governance based on the theoretical work done by the OECD and the experience of the Finnish governance system (its assessment and pilot cases studies). The model outlined in Part I of the report builds on the assumption that public officials need the ability to act – agency – and a feedback system – authorising environment – that gives licence to anticipation and involves critical stakeholders to the work. The aim of the model is not to build additional burden on top of existing governance structures, but to integrate the principles of anticipation into existing governance functions or create new ones when they are found lacking. Thus, for example the model proposes clear roles and responsibilities among others for the legislative, strategic planning, human resource, budgeting, futures and foresights functions of government. In addition to the aforementioned, a need to create more specific government planning and government transition functions was established. The first sets out to describe how governments tackle new and emerging issues: how they are analysed, how responsibilities and ownership over them are assigned, how new organisational configurations and needs to tackle the aforementioned are discussed etc. The second new function – transition function – tries to address the continuity of reforms and sustainability of complex issues and learnings connected to them in the government agenda across different government terms. Connected to the latter there is a need for more collective sense making around complex issues and systematisation of anticipatory knowledge. The outlined functions were analysed in Finland and concrete actions to develop the Finnish governance system were proposed.

The anticipatory innovation governance model – its mechanisms, functions, roles and responsibilities – can be used as a blueprint for building anticipatory innovation capacity not only in Finland, but other countries worldwide. The model does not aim to add an extra layer to existing governance structures, but to integrate anticipatory innovation into how policy making and innovation processes happen in the public sector. As was used in Finland, the model and the connected frameworks can be used to assess other countries and their anticipatory innovation capacity and also use it as a diagnostic in specific reform and transformation processes. The conducted four pilot case studies showed that it is effective in identifying gaps in existing processes, capacities and organisational structures and can be used to co-design actionable solutions to make change management more effective and sustainable.

Finland, on the whole, is one of the most advance countries in the world and while the current report is at times critical of its ability to anticipate and innovate, it is expected that in other country context these gaps will be much wider. The OECD hopes to test the developed model in other country contexts and facilitate the learnings from Finland in the future.

Glossary of terms

Agency denotes the tools, methods and information resources that enable public servants and organisations to anticipate and innovate in practice.

Alternatives exploration is the ability to consider different policies, service models or modes of intervention that may be in conflict with current strategic intent.

Anticipation is the act of creating actionable knowledge about the future drawing on the existing contextual factors, values and worldviews, assumptions, and range of emerging developments.

Anticipatory innovation is acting on the knowledge about the future by creating something novel that has impact to public values.

Anticipatory innovation governance (AIG) relates to the structures and mechanisms in place that allow and promote anticipatory innovation to occur alongside other types of innovation.

Authorising environment is the system within the public sector that validates anticipatory innovations – provides feedback that there is demand, value, and use for the work.

Complexity in policy making outlines the dependence of systems of people, institutions and dynamic environmental factors that all tend to influence each other making it difficult to ascertain the nature of policy problems and therefore also how to manage them.

Experimentation means creating new knowledge by putting the approach in place with the necessary structures to find out if it works. There are a wide range of experimental methods suited to different purposes from randomised control trials (RCTs) to A/B tests.

Futures literacy is capacity to explore the potential of the present to give rise to the future.

Impact gap lack of use of high-quality futures knowledge in policy making, innovation and strategy due to individual, collective, and institutional limitations.

Policy cycle includes 1) identifying policy priorities 2) drafting the actual policy document, 3) policy implementation; and 4) monitoring implementation and evaluation of the policy's impacts.

Public sector innovation is a novel approach that is implemented and aimed to achieve impact (such as change in public values).

Phenomenon-based policy making means addressing phenomena (e.g. climate change, social disintegration, urbanisation, and immigration) for which no single part of the system holds full responsibility for and which require the collaborative interaction of different parts of a system.

'Right to Challenge' is a function by which public organisations, local governments and public officials could apply for an exemption from an existing rule, regulation or strategic direction. To be granted this right, applicants have to show how they would be better able to innovate or explore an alternative to deliver improved public outcomes with this 'Right to Challenge'

Sense making is the act of uncovering underlying assumptions about the future and making sense of signals and trends.

Strategic foresight is an established practice of an organisation to constantly perceive, make sense of, and act upon the future as it emerges in the present.

Systems thinking denotes a broad range of methods that help to demonstrate how systems are structured and how they operate. Systems approaches help to reflect on how best to use this knowledge to take action (i.e. design and design thinking) by devising proposals to be tested and implemented as system interventions.

Uncertainty denotes a situation where risks connected to policy problems cannot be calculated (whereas with risk the probability distribution is known or predictable).

OECD Public Governance Reviews

Anticipatory Innovation Governance Model in Finland

TOWARDS A NEW WAY OF GOVERNING

This report examined how Finland has been incorporating anticipatory functions within its governance system to deal with complex and future challenges in a systemic way. The report applies a new model of anticipatory innovation governance (AIG), developed by the OECD, addressing a considerable gap in prior knowledge and guidance on how governments prepare for unknowable futures. It consists of three parts: an overview of the anticipatory innovation governance model; the assessment of the anticipatory innovation capacity of the Finnish Government; and the pilot case studies, where the principles and functions of the model are explored in practice.

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