

Towards a strategic foresight system in Ireland

OECD POLICY BRIEF - 14 MAY 2021

Strategic foresight is the ability of an organisation to constantly perceive, make sense of, and act upon different ideas of the future emerging in the present. Governments worldwide are using strategic foresight to get early warnings of oncoming disruptions, to build resilience and future-proof their plans, to reframe and enhance the effectiveness of their strategies, and to generate shared language and visions of success. Times of rapid change, unpredictable uncertainty, novelty, and ambiguity highlight the limitations of traditional forecast-based planning. Foresight helps policy makers to challenge and overcome current assumptions about the future and prepare for a broader set of possibilities.

This paper supports the government of Ireland in developing its capacity for strategic foresight in the context of Anticipatory Innovation Governance, needed to prepare for and respond to futures that demand radically new approaches in the public service.

EXECUTIVE SUMMARY

Strategic foresight is the ability of an organisation to constantly perceive, make sense of, and act upon different ideas of the future emerging in the present. Governments worldwide are using strategic foresight to get early warnings of oncoming disruptions, to build resilience and future-proof their plans, to reframe and enhance the effectiveness of their strategies, and to generate shared language and visions of success. Times of rapid change, unpredictable uncertainty, novelty, and ambiguity highlight the limitations of traditional forecast-based planning. Foresight helps policy makers to challenge and overcome current assumptions about the future and prepare for a broader set of possibilities.

This brief analyses the practice of foresight as a purposeful intervention, whose value can only be realised when built into decision-making processes where it is used. Ideas about the future have no intrinsic value. Anticipatory Innovation Governance is the way in which governments build strategic foresight into its uses. Strategic foresight is an indispensable capacity within anticipatory innovation, with a particular aim of spurring products, services, and process that are novel to the context, implemented, and value-shifting.

In the context of Our Public Service 2030, Ireland recognises the need to ensure that Ireland's public service is future-fit to 2030 and beyond. Strategic foresight as defined in this brief is indispensable to this. OPS2030 will aim to reflect on what the world might look like in 2030, the challenges and opportunities the country may face, and the capabilities that are needed as a public service to effectively navigate this new world.

WHAT DOES AN ANTICIPATORY SYSTEM LOOK LIKE?

Strategic foresight is used to strengthen policy-making in numerous key ways. These include:

- Identifying the early signs of oncoming disruptive change
- Reframing and broadening the scope of what is considered relevant in policy making
- Stress-testing plans and strategies against potential disruptions
- Generating shared language and perspectives for action and success

Governments and international organisations around the world have brought scanning and foresight into policy-making in different ways, ranging from ad hoc exercises within particular government departments to broader institutionalised efforts to strengthen foresight across the public service and inform policy dialogue at the political level. Some prominent examples include the Centre for Strategic Futures at the Prime Minister's office in Singapore, the Foresight Centre of the Finnish Parliament, Policy Horizons Canada, the USA National Intelligence Council, and the European Political Strategy Centre, among many others. These activities fall into five main categories:

- National orientations
- Organisational strategy
- Policy planning
- Thematic exploration
- Whole-of-government anticipation

Governments face barriers to the effective development and use of strategic foresight in the context of a still-dominant culture of forecast-based policy planning. As a result, high-quality policy-driven foresight is underused. We call this challenge the ‘impact gap’. To overcome these barriers, it is essential to implement strategic foresight within a context of Anticipatory Innovation Governance, building an authorising environment and the agency needed to legitimise and sustain the effort, and give effect to the knowledge generated.

Strategic foresight has limitations. Strategic foresight on its own does not solve problems, produce strategies, or guarantee success. It enlarges but does not complete the picture of potentially relevant considerations for decision-makers; and cannot force them to take notice. Strategic foresight requires a long, sustained effort to bear fruit and rarely generates breakthroughs in a single exercise. The benefits of strategic foresight are indirect, difficult to measure, rarely solely attributable to foresight interventions, and sometimes in the form of an absence of something negative rather than the presence of something positive.

CURRENT CONDITIONS IN IRELAND

Foresight practices exist in pockets of excellence in the Government of Ireland with a couple of notable historical examples including the Technology Foresight Ireland exercise from the 1990s and the work of the National Economic and Social Council’s in the 2000s. Currently, the coronavirus pandemic has been a major factor in highlighting the need for strategic foresight and has been for many the first experience with scenario planning. There are foresight exercises ongoing in certain parts of government, but few avenues for shared learning.

Participants in focus groups of senior public officials identified past experiences and present organisational culture and processes which pose some particular barriers to the use of foresight in Ireland. These include a relative lack of expertise in futures studies, preconceptions and mis-

matched expectations about what foresight entails, a focus on immediate and operational concerns at the expense of those considered more ‘long term’ or strategic, and difficulties identifying decision points in the policy cycle where foresight could add value.

Officials identified numerous current and planned government strategies which could benefit from the reframing and reshaping that strategic foresight offers. These initiatives included the enterprise transformation strategy, the national research and innovation strategy, and the national development plan (infrastructure) among several others. Numerous existing processes and networks, as well as the OPS2030 process itself, offer fertile ground for effective foresight practice to take root.

ACTION POINTS

The OPS2030 process provides an opportunity to implement a number of initiatives that could lay the foundations for ongoing strategic-foresight capacity building in the Irish public service. There are further opportunities in relation to OPS2030 and Civil Service Renewal, as well as work in connection with a Framework for Developing Well-being and Progress, since these are inherently future-facing undertakings.

An important first step is to **choose a topic or theme for a project with a high chance of impact and demonstrating success.** An additional consideration is the **need for demand to come from multiple departments in order to justify strategic foresight as a means of promoting interdisciplinary and whole-of-government exchange. Assigning ownership of the undertaking is another consideration to address at the outset.** This has implications for participants’ level of commitment, but also for the nature of the content and insights generated since foresight is a highly purpose-driven practice. There should be consideration of a dedicated resource that is connected to the development of OPS2030 to coordinate this work.

As Ireland develops its foresight capacity it will become possible to distinguish multiple groups of producers, users, and beneficiaries of the work; and develop and assign curricula appropriate to their needs and involvement. Ireland should consider at the outset the **potential users of the foresight work envisaged, and prepare them in advance through adequate familiarisation with the concepts and process.** Strategic foresight sets out to create ‘uncomfortable knowledge’ that intentionally challenges existing expectations and agendas. Identified users of foresight should be prepared to revisit their plans and priorities as a result of engaging in the exercise.

Every strategic foresight process must follow the identification of entities and processes where foresight is a direct or relevant contributor. The intention is not to “enslave” foresight but to recognise that it has no value unless the training, methods, frame of analysis, and eventual results are aligned and constantly adjusted in response to the purpose they are intended to serve. **Embedding the foresight process within a broader set of formal and informal processes and structures may also help to provide support and legitimacy, as well as sustaining the effort and creating expectations.**

Another avenue of consideration for Ireland was the **creation of one or more dedicated teams, within or spanning public-service institutions.** Furthermore, attention should be given to the processes and touchpoints for influence in the Irish policy cycle, as well as the individuals tasked with facilitating these—they can serve as intermediaries between foresight producers and users at crucial moments.

A final indispensable consideration in building a national foresight system is the likelihood that not all desired outcomes will be achieved in the first moments or processes. Impactful and effective foresight systems often have long histories of experimentation and refinement. Ireland stands to learn from the expertise and effective practice

of many of these success cases, including through OECD support, however some of the specific characteristics of the Irish approach will only become apparent in the process of implementing a foresight system.

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Importance of strategic foresight

THE FUTURE IS HERE, AND IT MATTERS MORE THAN EVER

To make policy is to think about the future. 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 about what the world will look like and how it will work.

Expectations, forecasts, predictions, and assumptions allow us to make decisions. But they can also contain biases and blind spots. 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. 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.

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. We then use those ideas to make better decisions and act now.

ANTICIPATORY INNOVATION GOVERNANCE MAKES USERS USE USEFUL FORESIGHT

Strategic foresight as analysed in this brief is a purposeful intervention, whose value can only be realised when built

into decision-making processes where it is used. Ideas about the future have no intrinsic value. Strategic foresight is about treating the future as a set of ideas to be used for particular purposes by particular organisations in particular contexts.¹ This emphasis on purpose and use demands substantial consideration of the users (in this case the government) and how they will use the insights generated—in particular the decision-making processes that take the future into consideration.

Anticipatory Innovation Governance² is the way in which governments build strategic foresight into its uses. It helps to embed the practice of strategic foresight into their way of working, make it relevant, and implement initiatives that make a difference. It is a broad-based capacity to actively explore options as part of anticipatory governance, with a particular aim of spurring products, services, and processes that are novel to the context, implemented, and value-shifting.

WHAT IS STRATEGIC FORESIGHT?

Strategic foresight is the ability of an organisation to constantly perceive, make sense of, and act upon ideas about future change emerging in the present.

Strategic foresight involves identifying signals of change, making them instructive, and considering strategic implications. The purpose is to challenge assumptions about what the future might look like, and provoke reflection on new ways to achieve success.

Strategic Foresight is not a method, tool, or decision support system. It is distinct from forecasting, risk assessment, and strategic planning.

EVIDENCE IS ALWAYS INCOMPLETE

The use of evidence in policy making is undoubtedly fundamental to better public governance. However this does not mean that evidence can or should be the only thing taken into consideration. Past ideas of what is desirable may be revisited in the future; circumstances may change such that what worked in the past may stop working in the future; and evidence is always incomplete because the future is still emerging and often does not simply repeat the past. Decisions are never based on evidence alone, but also on mental models which explain the world. Strategic foresight seeks to reveal and challenge those mental models to make them more adaptable and successful in unexpected future circumstances.³

“It is a real challenge at the moment when you’re in a public service delivery organisation like we are, because technology is moving so fast, that we couldn’t say what we’re going to do in 10 years’ time, this is what the organisation is going to look like. Because we know that in three or four years’ time, technology will have changed so much, that maybe there’ll be options available there that weren’t available aren’t available today.”

(Focus group participant, September 2020)

IRELAND RECOGNISES THE NEED

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.

An agreed approach for assessing the steps to take under OPS2030 to ensure Ireland’s public service is fit-for-purpose to 2030 includes undertaking a foresight upgrade. In so doing, OPS2030 will aim to reflect on what the world might look like in 2030, the challenges and opportunities the country may face, and the capabilities that are needed as a public service to effectively navigate this new world. The government and its institutions wish to better anticipate changes that will emerge in the future, to future-proof policies, and embrace innovation as the expectation rather than the exception. As part of this, OPS2030 will develop foresight capacity systematically in the civil and public service.

TIME DOES NOT HAVE SILOS—GOVERNMENTS DO

The urgent issues of today have roots far back into the past, and will continue to have effects long into the future. The urgent issues of the future are already emerging today, and our actions now will affect them greatly. Whether something is considered a short-term or long-term issue is a subjective matter, and is often decided on implicit assumptions and processes like electoral cycles, social values, and political priorities. Strategic foresight creates the

space for reflection on the overall picture of priorities in order for so-called long-term issues to be better considered. But the usefulness of strategic foresight is not limited to any particular issue or time horizon. By recognising that issues and timescales are interconnected, strategic foresight helps organisations to overcome short-termism, not by taking their eyes off the present, but by increasing their awareness in the present.⁴

Furthermore, many issues evolve very rapidly, even exponentially, and some reach tipping and turning points after which it is too late to act. Governments do not have the luxury of being able to choose when they act on an issue, and may face serious consequences if they wait too long for all the evidence or misread an issue as 'long-term' when urgent action is needed.

PRINCIPLES OF STRATEGIC FORESIGHT

Strategic foresight is different from traditional approaches to policy making in a number of important respects. The following points summarise the fundamentals of the discipline:

- The future is not a fully formed, knowable entity which exists objectively somewhere else.⁵ It is an emergent, socially constructed entity which already exists, partially and subjectively, in the here-and-now. There is no absolute future, but there are many relative futures.
- The futures in the present can take many different forms: **predicted, projected, preferred, path-dependent, probable, plausible, and possible.** Together, these make up our anticipation.⁶ They are mental models and stories we believe about the future.⁷
- Strategic foresight seeks to challenge and enrich our mental models and stories about the future in order to give us greater knowledge on which to act in the present.

- Strategic foresight thereby helps us to envisage new solutions, to stress-test our plans to make them more robust, to develop early-warning systems for threats and opportunities, and to share and clarify our visions of success.

- Strategic foresight is a form of collective intelligence which can only be generated and accessed through dialogue. It is not possible to passively "study the future" and hope to learn anything worthwhile.

- Likewise, futures and foresight are always used for someone (a user or users) to serve some purpose (a use or uses). Defining users and uses is the foundation of effective foresight practice.

FORESIGHT VERSUS FORECASTING

Strategic foresight is not the same as forecasting. Forecasting uses models to project a 'best guess' for future trends based on available data, observed relationships between variables, and often probability. In contrast, foresight uses multiple alternative plausible futures simultaneously based on their usefulness in developing robust, future-ready policy. Foresight does not produce predictions, but may consider them alongside other ideas about emerging future developments.

BENEFITS OF STRATEGIC FORESIGHT

Strategic foresight originated in policy. During the Cold War, scenario planning was developed as a way to make the most of imperfect knowledge and preserve peace in spite of uncertainty.⁸ Today, governments are using strategic foresight in various contexts and purposes. These include creating national development strategies, informing agendas and identifying new solutions, enhancing the relevance and effectiveness of consultations, and creating multidisciplinary connections between policy silos.

The use of foresight has a long history in both government and the private sector, and interest is growing as organisations seek to upgrade their foresight capacity in the face of rapid change. Foresight is used to strengthen policy-making in numerous key ways. These include:

- Identifying the early signs of oncoming disruptive change
- Reframing and broadening the scope of what is considered relevant in policy making
- Stress-testing plans and strategies against potential disruptions
- Generating shared language and perspectives for action and success

Where it has been used in a sustained and systematic manner, scenario planning has given organisations such as Royal Dutch Shell the ability to prepare for disruptions such as the 1973 energy crisis, the oil price shock of 1979, the collapse of the Soviet Union, and the increasing pressure on companies to address environmental and social problems.⁹ It is not the prescience of these strategic foresight undertakings that made them valuable, but their ability to challenge and change leaders' mental models before it was too late.

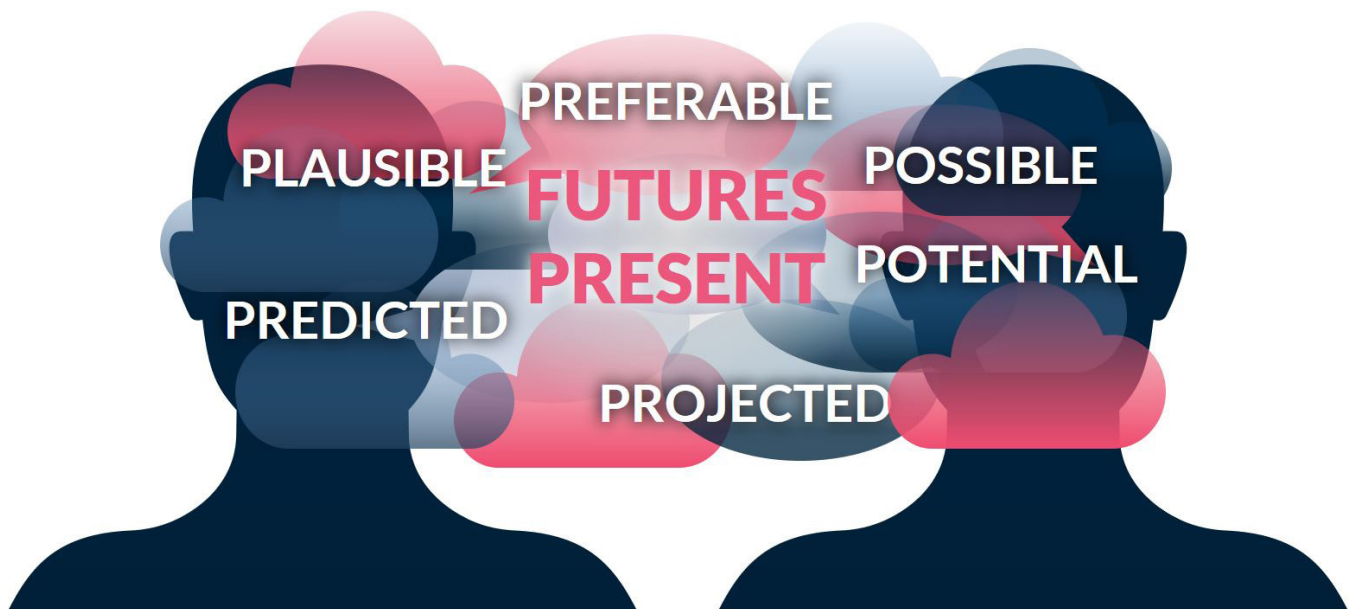


Figure 1 The future is shaped in the present through dialogue

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**What does an
anticipatory
system look like?**

FUTURES-LITERATE PRINCIPLES AND EFFECTIVE PRACTICE

A system of anticipatory governance implies a strong and consistent deployment and use of strategic foresight, systematically embedded into policy processes, and with consistent benefits in terms of the impacts mentioned in the previous chapter. This chapter outlines the use cases of strategic foresight in government and some of the barriers preventing its effective use, before turning to the ways in which it is implemented through Anticipatory Innovation Governance.

USE CASES

NATIONAL ORIENTATIONS

Numerous governments have national visions and national development strategies aligned with the UN Sustainable Development Goals. Strategic foresight supports the creation of robust visions on new common ground and based on succeeding in the future rather than simply solving the problems of today. It allows visions to be stress-tested against alternative contexts which might demand a rethink. It allows strategies to be developed in a coherent and inclusive way that derives legitimacy from

multiple stakeholders and institutions. Applying and executing a strategic vision requires a measurement framework and implementation plan. These are also part of the design process from the start. Developing and rehearsing a vision and strategic plan are processes involving multiple methods of strategic foresight, including scenarios, megatrends, and aspirational futures. Examples of countries which have undertaken strategic foresight activities in the context of national orientations include Malta, Slovakia, Slovenia, Singapore, and the UAE.

ORGANISATIONAL STRATEGY

In a fast-changing world, an organisation's role in the future may well not be the same as its role today. The ways in which it delivers on its mandates could radically change too. For example the declaration and payment of taxes in today's globalised, online world is very different compared to a few decades ago. Remaining relevant, trusted, and effective is not simply a matter of refining existing processes; it may require reinvention and renewal. Strategic foresight helps organisations to picture themselves in disruptive and unexpected future contexts in order to reveal new ways to perform and succeed in the present. The process can involve horizon scanning, speculative exercises such as futures wheel¹⁰ and developing scenarios. The

SLOVAKIA'S FUTURE-FIT NATIONAL INVESTMENT PLAN

As part of Slovakia's commitment to the UN SDGs and Agenda 2030, the National Investment Plan (NIP) ensures stability in investment planning and contributes to the country's economic development. In 2017, the OECD collaborated closely with the Slovak Deputy Prime Minister's Office in enhancing the NIP with strategic foresight so as to improve anticipation, set priorities, and ensure robust planning. In the context of this collaboration, the OECD provided advice documentation and organised two rounds of workshops on strategic foresight. After the first workshops, aimed at identifying national priority areas and developing a more ambitious and achievable agenda, the second workshop sought to use alternative futures to challenge the agenda and identify ways of making it more resilient and flexible.

After learning about the OECD's Going Digital Scenarios and discussing their implications for the future of Slovakia, participants applied their insights to the six priority areas and main challenges for their country. This was then followed by a discussion on metrics and indicators, led by a team from the OECD Statistics and Data Directorate, to develop an adequate evaluation framework and effectively track the country's progress.

Participants' main insight was that government and policy innovation had to keep pace with technological innovation in order to make the most of new opportunities and ensure that technology could be successfully channelled to promote well-being and development. In-depth discussions produced further critical reflections for each of the national priorities identified.

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: Netherlands Ministry of Defense¹¹

strategic part can include reviewing a strategic inventory—looking at things like partnerships, practices, research areas, human resources, and so on—to see where changes could be made. This type of strategic foresight use is very common in the private sector, but is also used by organisations such as the European Court of Auditors, the IMF, the World Organisation for Animal Health, and a number of governments including the Norwegian public service and the UK’s revenue and customs agency.

POLICY PLANNING

Strategic foresight offers the possibility to expand the frame of what is relevant for developing policies that promote future-fitness, and for rehearsing those policies in alternative contexts before radical changes become really disruptive. Techniques used to these ends include horizon scanning, expert surveys such as the Delphi method,¹² technology assess-

LATVIA’S NATIONAL MEDIUM-TERM EDUCATION AND SKILLS STRATEGY

As part of the country’s national medium-term education and skills strategy, the Latvian ministry of education and science led a whole-of-government and whole-of-society initiative to build shared understanding of policy actions and indicators for a set of education development guidelines. Under the guidance of the OECD Skills Centre, the project used a strategic foresight intervention to explore some alternative contexts and pathways in which the guidelines might have to perform. Participants in the intervention included diverse experts in education and skills from a range of government, academic, private-sector, and non-profit stakeholders.

Participants reported that the strategic foresight component provided an opportunity for interdisciplinary and interdepartmental exchange that rarely takes place in typical policy processes. The opportunity to explicitly combine insights from multiple systems and policy domains revealed implications for the future of education and skills that might have otherwise been missed. Examples of insights generated included the following:

- Latvia’s global diaspora is potentially of great importance in developing opportunities and skills back home
- The supposed trade-off between science and technology skills and creative and emotional skills is in fact a false dilemma
- The intersection and interaction between different skills matters just as much as the skills themselves.

Source: Latvia Ministry of Education ¹³

ment, megatrends analysis, scenarios, and wind-tunneling. Countless government policies have been influenced by foresight processes of this nature; some recent examples include the Latvia national education and skills strategy and the Netherlands defence and security strategies.

THEMATIC EXPLORATION

A large number of general-purpose studies exist which explore a particular policy domain and its potential developments and connections with other domains in the future. Whilst these studies are not directly designed for strategy, they can serve as a valuable starting point for a strategic intervention. Examples include OECD reports such as *Back to the Future of Education*¹⁴ (a scenario report), *Making Migration and Integration Policies Future Ready*¹⁵ (also scenarios), *Analysing Megatrends to Better Shape the Future of Tourism*¹⁶ (megatrends and scenarios), and the *Science and Technology Outlook*¹⁷ (megatrends).

WHOLE-OF-GOVERNMENT ANTICIPATION

A small number of governments have developed extensive systems of anticipation that coordinate foresight processes in multiple institutions, agencies, and ministries. The purpose of these systems is to facilitate shared perspectives and preparation for uncertain, complex, and ambiguous developments to enable effective, coherent priority-setting and action in the present. Examples include the Finnish national foresight system, which includes a Government Report on the Future coordinated by the Prime Minister's Office, a futures committee in the parliament, a national network of foresight practitioners, coordinated futures work within line ministries, and inputs from the national innovation fund Sitra. Other governments with nationally coordinated anticipatory governance include Singapore and the UAE.

AUSTRALIA'S "THE FUTURE OF WORK"

Launched in 2016, this project set out to imagine the evolution of Australian jobs and labour markets by the year 2035. The focus was on digital technology disruption and on a variety of key drivers including: globalisation, demographic and cultural changes, health, and public wellbeing. The project resulted in the "Tomorrow's Digitally Enabled Workforce" report and in a set of six megatrends and four scenarios that have become a point of reference for both public and private organisations in planning their future workforce.¹⁸

Although the project did not provide specific policy recommendations, various ministries have integrated the megatrends and the findings of the report in their policy making processes, with the Australian Government also using them as key inputs into the International Labour Organisation's 'Future of Work Centenary Initiative'. Furthermore, the study greatly influenced government agencies' narrative about how Australia's labour market would evolve in the upcoming decades. This ultimately highlighted the strength and importance of strategic foresight for public policy and led the Australian Government to take actions to increase its capacity in the field.

Source: Hajkowicz et al. (2016)

SOUTH AFRICA'S MONT FLEUR SCENARIOS

The Mont Fleur scenarios project was a part of South Africa's post-apartheid development and futures discussion between 1991 and 1992. Bringing together 22 prominent South African politicians, business leaders, activists, and academics, the scenarios exercise set out to imagine the country's evolution over the following decade and to stimulate debate on how to shape its future. Four main scenarios were constructed, each with their own narrative:

- Ostrich: where parties were unable to resolve the crisis and the government continued to be unrepresentative
- Lame Duck: in which a settlement was reached but the transition was "slow and indecisive"
- Icarus: with a new representative government that, however, pursued "unsustainable, populist economic policies"
- Flight of the Flamingos: in which the new government implemented sustainable policies that would take the country on a "path of inclusive growth and democracy"

The scenarios produced key messages for South Africans, underlining the complexity and historical importance of the period they were going through. Moreover, the discussions that took place as part of the exercise brought participants to adopt new terms and to reflect on issues and phenomena that were still widely unknown at the time. Crucially, the influence of a scenario participant led one of the political parties to reconsider their approach to the constitutional negotiations that were taking place at the time.

Source: le Roux et al ¹⁹

FURTHER CASE STUDIES

An overview of recent and planned foresight activities in a variety of governments is presented in Appendix A of this report.

BARRIERS TO EFFECTIVE FORESIGHT

The successful deployment of an anticipatory system should generate useful and relevant foresight, as well as effective implementation of the findings. But governments face barriers to the effective development and use of strategic foresight in the context of a still-dominant culture of forecast-based policy planning. As a result, high-quality policy-driven foresight is underused. There

are numerous foresight publications from before 2008 about a financial crisis; from before 2016 about rising populism; and from before 2019 about a pandemic starting in animals which brings the whole world to a standstill. There are many more foresight works that imagine events that never come to pass, but which can be used to help organisations better prepare anyway. The issue in all these cases is not a lack of useful foresight but a lack of use of foresight.²⁰

We call this challenge the 'impact gap'. Some of the most common barriers to the effective use of foresight in the public sector include those relating to the authorising environment and those relating to individual agency.²¹ To overcome these barriers, it is essential to implement strategic foresight within a context of Anticipatory Innovation

Governance, building an authorising environment and the agency needed to legitimise and sustain the effort, and give effect to the knowledge generated. This chapter considers how these barriers can be lowered in order to close the impact gap. Some of the main barriers that have been observed by foresight practitioners in OECD countries include:

- **Competency** barriers: limited futures literacy
- **Cultural** barriers: unreasonable expectations that experts will ‘reveal the future’
- **Cognitive** barriers and biases: time silos, difficulty recognising complexity, avoidance of uncertainty, groupthink, recency and availability bias, lack or ‘poverty’ of imagination for the future²²
- **Corporate** barriers: official ‘zombie’ futures, insufficient support from leadership, insufficient learning loops
- **Communication** barriers: experts of different disciplines lacking common language.

Anticipatory Innovation Governance offers ways to overcome many of these barriers in a sustained way. These will be considered below.

LIMITATIONS OF STRATEGIC FORESIGHT

The value of strategic foresight does not make it a panacea, nor are its benefits guaranteed. Strategic foresight on its own does not solve problems, produce strategies, or guarantee success. It enlarges but does not complete the picture of potentially relevant considerations for decision-makers; and cannot force them to take notice. Strategic foresight requires a long, sustained effort to bear fruit and rarely generates breakthroughs in a single exercise. The benefits of strategic foresight are indirect, difficult to measure, rarely solely attributable to foresight interventions, and sometimes in the form of an absence of something negative rather than the presence of something positive. Futures studies can be implemented in unhelpful

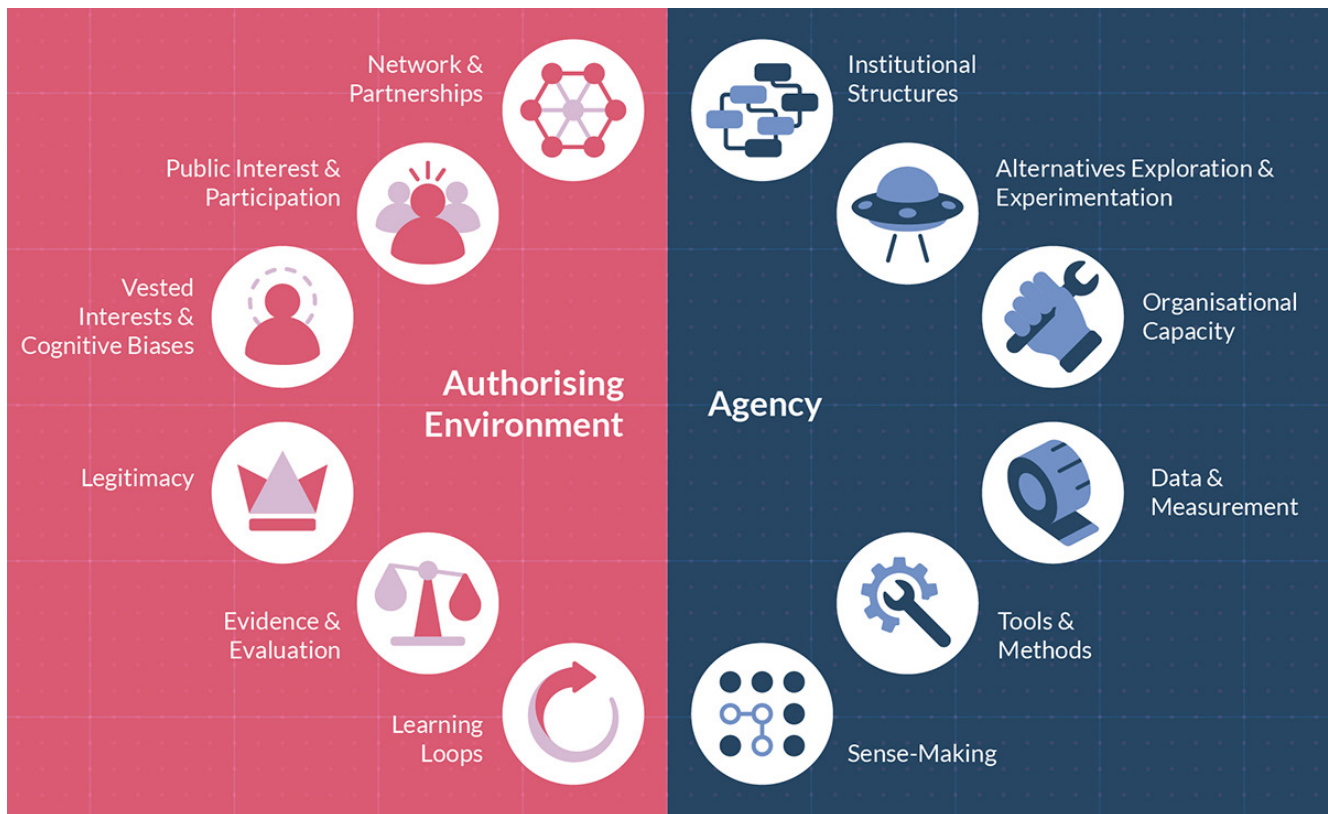


Figure 2 Dimensions of agency and authorising environment needed to ensure effective, sustained strategic foresight through Anticipatory Innovation Governance²³

ways. For example, some foresight processes undertake excessive gathering and pondering over signals of future change, which comes at the expense of relevant selection, purpose-driven sense-making, strategic reframing, and generation of ideas for concrete innovation and experimentation. Such work does not fit the definition of successful strategic foresight used in this brief.

AUTHORISING ENVIRONMENT

Authorising environment relates to the institutional, collective, and cultural configurations and practices which justify and sustain anticipatory innovation. It has multiple components; their relationship to strategic foresight is outlined below.

LEGITIMACY, VESTED INTERESTS, AND COGNITIVE BIASES

Support from senior decision-makers is indispensable to setting up and sustaining impactful foresight processes. But their 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. For example, future generations may be greatly affected by a decision relating to carbon emissions but lack a voice to advocate their position.

Cognitive biases may also create unhelpful incentives. For example, there may be rewards for spending a large sum of money mitigating a crisis after it has occurred, yet penalties for spending a smaller sum preventing a crisis that never occurs—the money being seen to have been wasted. Other cognitive biases about the future include aversion to uncertainty; a tendency towards groupthink or pressure to agree on a single ‘official’ version of the future; recency, availability, and status quo bias; loss aversion (denial or failure to act on the future when it involves letting

go of something); technological determinism; and the misconception that an issue deemed ‘long-term’ does not require immediate attention. It is important to use processes and methods which identify and overcome these cognitive biases in futures thinking.

NATIONAL AND INTERNATIONAL NETWORKS OF EFFECTIVE PRACTICE IN GOVERNMENT FORESIGHT

FINLAND'S NATIONAL FORESIGHT NETWORK

Under the coordination of the Prime Minister's Office and Sitra (the Finnish Innovation Fund), Finland's National Foresight Network acts as a forum for discussion and coordination 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 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: Finland Prime Minister's Office²⁴ and Sitra²⁵



Figure 3 Outline of main components and activities in Finland's national foresight system

FORESIGHT NETWORKS IN THE EU

Numerous departments within the EU institutions conduct strategic foresight activities, including the Commission, the Parliament, and the Joint Research Centre. Vice-President Šefcovic chairs the Commissioners' Project Group on Better Regulation and Foresight, which provides political steer to the implementation of the strategic foresight mandate in the European Commission. The Secretariat-General and the Joint Research Centre lead the implementation of the mandate (the latter drawing on its internal foresight capacities). The Commission's Strategic Foresight Network ensures long-term policy coordination between all Directorates-General. The Commission seeks to build close foresight cooperation and alliances with other EU institutions, notably in the context of the European Strategy and Policy Analysis System (ESPAS), reaching out to international partners and launching an EU-wide foresight network to develop partnerships that draw on Member States' public foresight capabilities, think tanks, academia and civil society.

Source: European Commission ²⁶

THE OECD FORESIGHT COMMUNITY

The OECD Government Foresight Community (GFC) brings together experienced strategic foresight practitioners in the public sector from countries and international organisations around the world. It aims to strengthen foresight capacity by drawing on collective experience and bringing combined future insights to bear on key issues of our times.

The GFC meets at least annually to discuss developments in government foresight, exchange case studies on effective practices, and network to identify potential collaborations. The most recent meeting was held in October 2020 in virtual format. A summary of the meeting can be found at <http://www.oecd.org/strategic-foresight/ourwork/>.

PUBLIC INTEREST AND PARTICIPATION

Participation and dialogue are essential to the effective use of foresight. Foresight processes do not seek to create information or objective facts about the future, so cannot be studied as if they did. Instead they are a starting point for the exploration, contextual understanding, and creation of narratives. Shaping the future is a collective effort. In order for strategic actions to make sense to those responsible for or affected by them, those same people must have experienced or at least appreciated the futures perspective in which those actions make sense.

LEARNING LOOPS, EVIDENCE, AND EVALUATION

The benefits of strategic foresight processes are notoriously intangible and difficult to measure. A tendency in many organisations to do activities as one-offs can also contribute to an outcome where the results do not deliver the full potential benefit in decision-making. To meet this challenge, it can be helpful to set out in advance what is expected of a process, how its success will be judged, and what follow-up work will be generated.

In addition, recursive learning processes characterise some of the best examples of effective practice in govern-

ment foresight. The Finnish national foresight system can be traced back to the 1990s; the Singaporean system has also undergone decades of refinement; and one of the most impactful government foresight projects, the Japanese National Institute of Science and Technology Policy Delphi survey, is also the world's longest-running, having been reviewed and adjusted every few years since the 1970s.

AGENCY

PURPOSE

A fundamental yet often overlooked stage of foresight involves establishing why the process is useful. Part of good judgement is an awareness of the organisation's mandate and ability to act, its values, the nature of the problems faced, and the decision-making process targeted. This awareness is necessary to ensure that outputs of a foresight process are relevant, legitimate, and actionable.

SENSE-MAKING

In many cases, strategic foresight processes are delivered by people with different knowledge and institutional situations to the decision-makers expected to use the results. These differences between producers and users of strategic foresight can result in lack of understanding and miscommunications which render the efforts unusable or unused. To overcome this challenge, it is necessary to foster effective dialogue between producers and users of foresight, either by involving the users in the process or by using intermediaries who are able to understand and communicate the messages effectively.

TOOLS AND METHODS

Strategic foresight uses many different methods such as scanning the horizon for signals for future change; building visions of desirable futures and working out what steps would be needed to realise them; and roadmapping

the development of technologies. A brief overview of four of the main methodologies follows.

Horizon scanning

Horizon scanning means seeking and researching signals of change in the present and their potential future impacts. Horizon scanning is the foundation of any strategic foresight process. It can involve desk research, expert surveys, and review of existing futures literature.

Megatrends

Megatrends are broad, deeply rooted shifts at the intersection of multiple more specific trends in different domains. They show multiple ways in which the past and the present give rise to the future by allowing discussion of what might happen if a trend were to continue or change course. Trends help us to tell the difference between what is constant, what is changing, and what is constantly changing. They also often challenge our assumptions and biases about what is really happening.

Typically megatrends analyses have a 10–20 year time horizon. However, the aim is not to study the future but use the megatrend analysis to inform medium- and long-term strategic planning over the next 5–50 years. A megatrends analysis is a powerful way for proactively setting and justifying a new strategic direction. In the absence of such analyses communicating the need for change is challenging because everything might be going smoothly—for the time being. When conditions change it may be too late to adjust policy to respond.

Megatrends are often explored within categories or 'lenses' such as society, technology, economy, environment, government, and so on.

THE EU MEGATRENDS HUB AND IDENTIFIED MEGATRENDS

The Megatrends Hub is a public website created by the Competence Centre on Foresight of the European Commission's Joint Research Centre (JRC). The website presents 14 selected megatrends in a structured way, supporting the dynamic collective intelligence system underlying the JRC's foresight initiative. To select megatrends and provide advanced quantitative and qualitative data on them, the JRC continuously involves experts from across its research team, striving to support reflection and stimulate debate on the future. The 14 megatrends identified are:

- 1) Accelerating technological change and hyperconnectivity: advancements in genetics, nanotechnology, robotics and artificial intelligence, photonics, quantum and other emerging technologies are causing a deep shift in the speed and nature of scientific discoveries, challenging our very understanding of what is possible.
- 2) Aggravating resource scarcity: with demand for food, water, energy, land and minerals bound to continue to grow and possible supply shortages aggravated by climate change.
- 3) Changing nature of work: automation, digitalisation and hyperconnectivity—coupled with new generations entering the workforce and older ones working longer—will radically reshape employment, career models, and organisational structures.
- 4) Changing security paradigm: characterised by new asymmetrical warfare, growing availability of increasingly powerful weapons, and violent extremism, leading to new, complex geopolitical challenges.
- 5) Climate change and environmental degradation: characterised by increasing greenhouse gas emissions and pollution, and persistent declining trends in biodiversity and ecosystem stability.
- 6) Continuing urbanisation: with rates of urbanisation that have surpassed all predictions and will continue to grow in the decades to come.
- 7) Diversification of education and learning: new generations and hyperconnectivity, coupled with advancements in cognitive sciences and increased availability of information, are bringing about new ways of learning while profoundly reshaping the concept of education.
- 8) Diversifying inequalities: within-country economic inequalities are rising globally and will have to be addressed alongside, gender inequalities and education, healthcare and education access inequalities.
- 9) Expanding influence of east and south: the shift in economic power away from established Western economies and Japan will continue in the coming years, shaping new global geopolitical balances.
- 10) Growing consumption: the growing purchasing power of billions of people around the world in the coming years will have crucial implications for economic development, climate change, and food, water and energy demand.
- 11) Increasing demographic imbalances: world population is set to reach 9.7 billion in 2050 with an increase in average age and urbanisation, and an exacerbation of regional imbalances.
- 12) Increasing influence of new governing systems: traditional decision-making structures are being replaced by new multi-layered systems which are shaped by ever more important non-state actors, social media, and the emergence of a global conscientiousness.
- 13) Increasing significance of migration: with more complex and mixed migration flows and growing sociopolitical implications.
- 14) Shifting health challenges: beyond the pandemic, unhealthy lifestyles, pollution, and other anthropogenic causes are turning into significant burdens for national health systems.

Source: https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub_en

Scenarios

Scenarios are sets of alternative futures in the form of snapshots or stories giving an image of a future context. They are intentionally fictional,²⁷ and do not try to make predictions or recommendations. Scenarios do not say what will happen, or what should happen; only what might happen, and leave us to discuss what we can learn from it. They are constructed for the purpose of learning and taking action in the present. This is achieved by generating, testing, and reframing ideas about what might happen. Scenarios are more than just an extrapolation of a given trend, but they can take trends into account by describing how the future might look if one or more trends were to continue (or change course!). Scenarios themselves have no intrinsic value; it is the process of creating and using them in strategic dialogue that makes them worthwhile. The moment where scenario dialogue bears fruit is where discussion moves away from the futures themselves and reframes the present-day actions of the user organisation.

Visioning

Visioning involves creating a normative picture of the future which an organisation would like to see, or which the organisation would like to avoid. This can then be used to support shared dialogue on how to achieve objectives in the nearer term. One way to do this is through 'backcasting', where the vision is used as an end point from which to work backwards and find the intermediate steps needed on the way.

INSTITUTIONAL STRUCTURES

The institutional arrangements of foresight capacity in government can be classified along two axes: centralised versus distributed; and internal versus external. There is no one right choice in any of these respects, and what works for one government may not work for another. Many governments have instances of all four to combine

their benefits. Some of the main considerations include:

Centralised foresight units can direct and coordinate foresight work throughout government, ensure consistency, and promote purpose and impact. It is important however to avoid 'institutional capture': foresight is supposed to deal with developments and implications which run counter to established practices and orthodoxies, so the process must have the intellectual freedom to criticise, and not be expected to simply service and justify existing agendas.

Decentralised foresight allows the work to be carried out closer to where it will be used, and tailored to the subject matter and purpose of the intervention.

Informal and formal networks have also been identified as a valuable means through which foresight insights can be channelled into existing lines of work. Communities, focal points, intermediaries, and meetings among futurists have been cited by experts in Finland and Singapore among others as useful resources.

A final, contrasting consideration is that foresight needs to be able to deal with developments and implications which run counter to established practices and orthodoxies. Therefore while it is important to institutionalise strategic foresight to ensure that it is not isolated from decision making, it is also important to provide strategic foresight the space and autonomy to discuss disruptive and challenging ideas and ensure that it is insulated from bias by present-day concerns, agendas, and interests.

ORGANISATIONAL CAPACITY

Lastly, organisations need to be able to implement the findings of a strategic foresight process, recognising what actions they are in a position to take and what systems or policy domains they are in a position to influence. It is very easy to talk about what needs to change in the world, but much harder to make changes to one's own organisation and way of working! Organisations need an awareness of

their strategic inventory: their working practices, relationships with other actors, human resources, budget priorities, among other things that they are in a position to change in response to what is learned from a foresight process.

An effective foresight system requires adequate skills and capacities to undertake the practice and recognise how to implement its outputs. The types of skills and capacities needed can be divided into:

- Those involved in producing foresight (anticipatory) knowledge, such as horizon scanning, scenario building, and workshop facilitation.
- Those involved in using foresight to make strategy (innovation), such as identifying a strategic inventory, and developing options for policy.

3

Current conditions in Ireland

FEEDBACK FROM FOCUS GROUPS

The analysis below is based on a series of key-stakeholder focus groups held during the third week of September 2020. Over 50 participants were selected on the basis of their involvement with OPS2020 and the role of strategic foresight, with consideration for balanced sectoral representation (list of participants in Appendix C). Participants were largely Assistant Secretaries and senior Irish public servants involved in OPS2020 governance structures. During the focus groups three core questions were asked:

- What kind of foresight and futures activities have you undertaken? What has worked well and what has not?
- What are the challenges in developing foresight knowledge and putting it into practice in your specific policy field?
- What would a system of foresight look like in practice? What activities would you take place on a weekly, monthly or yearly basis in your organisation?

Furthermore, a strategic foresight group was established with senior Irish public servants to reflect on different international strategic foresight practices and their suitability in Ireland (list of participants in Appendix D). The strategic foresight group met five times over September 2020 to January 2021 and examined international cases from the European Commission, Finland, the Netherlands, and others in addition to looking at several key megatrends affecting Ireland (demographic changes, climate change, etc). The group reflected on the core components of an 'ideal' anticipatory innovation system and the role of strategic foresight.

Consultations with experts in the Irish administration revealed a number of specific areas of opportunity, as well as areas for improvement with respect to integrating strate-

gic foresight into policy making. This chapter outlines those opportunities and challenges as identified by workshop participants, before turning to lessons learned from analogous exercises that highlight further options for making a success of building foresight capacity in Ireland.

SOME STRATEGIC FORESIGHT PRACTICE IS PRESENT IN IRELAND, BUT SPECIFIC BARRIERS REMAIN

Foresight practices exist in pockets of excellence in the Government of Ireland with a couple of notable historical examples including the Technology Foresight Ireland exercise from the 1990s and the work of the National Economic and Social Council's in the 2000s. Currently, the coronavirus pandemic has been a major factor in highlighting the need for strategic foresight and has been for many the first experience with scenario planning. There are foresight exercises ongoing in certain parts of government (for example, aspects of foresight in the Irish Government Economic and Evaluation Service (IGEES) mid-term strategy; scenario planning in context of National Risks Assessment; horizon scanning in terms of food fraud in Food Safety and Food Authenticity programme in the Department of Agriculture, Food, and the Marine (DAFM), etc.), but few avenues for shared learning.

Foresight is, hence, part of the policymaking process, but it is not systematically tied to the strategic planning process with clear demand and supply existing in the system or established learning loops. Often it is a one-time exercise that fails to impact or affect organisations and policymaking more widely.

“Our Policy Committee held a dedicated away day to consider scenario planning and forecasting, looking at mega trends, longer-term planning and building adaptable policies. This was facilitated by colleagues from the European Commission and the UK. While it was thought-provoking for the group involved, it is challenging to disseminate more widely”

“It is very hard to get data [...] on strategic foresight. And you don’t know what you don’t know. So if we find out where to go to access some of the pieces of data then that would be a big step forward.”

Experts in the focus groups did not see direct links from foresight exercises (if carried out) into direct decision making, immediate action or innovation. Hence, strategic foresight tends to be a “side of the desk activity” which makes it difficult to translate the challenges and opportunities into strategic plans or actions. The same issues were also outlined for risk management in the public sector.

This is not an exclusive finding for Ireland, but a challenge present in many countries. As in all governments, there are gaps and barriers in foresight practice in the Irish public service. Some of these gaps and barriers received particular attention from focus group and strategic foresight group participants. These included; **limited foresight experience (competency barriers)**, **negative perceptions or misconceptions about what foresight is (cultural barriers)**, **misattribution of the timescale of issues (cognitive barriers)**, and **a bias towards tactical instead of strategic thinking (corporate barriers)**.

COMPETENCY: LACK OF FORESIGHT EXPERIENCE

“The only time I was involved in a ‘futures’ exercise [...] was during the Health Strategy 2001 [...] many of the things being discussed then, have only in the context of covid become reality now.”

“I think risk is misunderstood. I actually think people think that they can hide behind putting on a register or something like that, and raising a risk for an actual fact. But unfortunately, risk as well as strategic foresight does not get used.”

As indicated in previous chapters, the relative absence of explicit strategic foresight expertise in Ireland does not imply an absence of futures thinking or futures literacy, but it does draw attention to the opportunity to integrate disciplined approaches to thinking about the future that are currently missing. While there is interest in foresight in certain quarters, and some cases of expertise inside and outside of government—notably in the National Economic and Social Council—knowledge of foresight principles and effective practices is not widespread. Furthermore, there was debate around the format in which these skills could be introduced into the public service within the generalist-specialist mix.

Those uninitiated in strategic foresight commonly conflate the discipline with forecasting and risk assessment. All of these are worthwhile but distinct practices; please refer to the box clarifying the differences.

“The big challenge for me is that the day-to-day is very demanding. I plead as guilty as anybody else on this. We fall into a bit of risk management in this field. It’s a bit formulaic, and a bit of a tick-box exercise.”

In some cases, inside organisations dedicated resources for futures and foresight are emerging and this might become one of the most empowering work streams in government.

FORESIGHT VERSUS RISK ASSESSMENT

Strategic foresight is not the same as risk assessment. Strategic foresight can contribute to risk assessment, but the latter concentrates on listing individual potential events and considers them in isolation, attempting to quantify their probability and impact. The difficulties here are: the fact that events never occur in isolation of their **context**—and nor do government actions; the fact that complexity and uncertainty may make it impossible to quantify probability and impact; and that policy must consider multiple factors not accounted for in risk assessment.

CULTURAL/COMMUNICATION: PERCEPTIONS THAT FORESIGHT IS 'WOOLLY', FAILS TO PREDICT, LACKS EVIDENCE

This report has addressed the limitations of an assumption that policy can be made on evidence alone. There are further misconceptions in some quarters that foresight aims to make correct future predictions (rather than challenge present assumptions), or that the practice can become vague or messy and fail to produce concrete recommendations. Several cases of the “curse of Cassandra” were also highlighted in connection to the 2008 financial crisis and the coronavirus crisis, where minority voices speculated about possible negative outcomes, but were largely disregarded.

These issues are not necessarily attributable to the practice of strategic foresight when done rigorously and effectively. Rather, in a world where reality (especially the future) is messy and uncertain, it is unreasonable to expect any intellectual effort to be impervious to such messiness and uncertainty while still being useful. Likewise, there may be an assumption that policy’s job is to “prepare to act” by gathering knowledge about the future, rather than “act to prepare” by adopting concrete initiatives and innovations in the present that allow government to succeed in the future. These are matters of culture and perception, to be addressed through better communication of the discipline and its value. Furthermore, when a strategic foresight system is working well its outputs get integrated into the decision-making and strategic planning processes; at its best, it is seamless and to a degree invisible.

“There’s a particular problem with attribution. If you look at a particular outcome, do you see that arose because of strategic foresight? Or is this attributable to some other thing that happened? And would we have got the same outcome even without foresight planning? It is very hard to say.”

COGNITIVE: IDENTIFICATION OF CERTAIN ISSUES AS ‘URGENT’ AT THE EXPENSE OF ‘LONG-TERM’ ONES

Throughout workshops and consultation with officials, repeated reference was made to so-called urgent or short-term issues, often using metaphors of firefighting and medical emergencies. This may be an issue of individual cognitive barriers to long-term thinking, but could also be more systematic if the system favours a collective labelling of certain work as “less urgent”. Furthermore, many civil servants found that they lacked time to think about the future, nor was it taken into account in how their performance was evaluated.

“I suppose we really would be looking at the long-term impacts of short-term decision-making. So it’s not only foresight in terms of looking at potential external challenges impacting us, but the longer-term challenges that might arise from short-term decisions. And as you can imagine, in relation to covid, there’s been a number of decisions taken to address short-term problems, which will have long-term implications. We have pointed out these problems, but they don’t seem to get traction. I suppose having [strategic foresight] as a separate process will help us not to get caught up in this short-term decision making.”

There was also a consensus that more senior leadership buy-in and sponsorship for strategic foresight was needed. This was also supported by the prior experience from the OPS2020 agenda, where more transformative innovation activities did not get off the ground, because leadership on the ground did not support the initiatives.

“[Foresight] isn’t something that is part of [people’s] performance management goals, or isn’t something that is allowed or called for by the senior leadership to actually allocate time for this. [...] Some of these innovation activities on the ground and fizzled away because the local leadership didn’t actually support that kind of deeper work or doing action-oriented projects on the ground with the innovation work itself.”

“Strategic foresight is a difficult one to get buy-in for, because it’s easy to get buy-in only when you have a burning platform. But it’s a burning platform when something has already happened. It is not about creating scenarios during a crisis, but doing it before.”

“I suppose in nearly every change programme the key challenge is senior management. How to keep future-oriented items on the agenda, and keep it on the week-to-week management meetings, making sure that metrics are introduced. That challenges and issues are discussed and supported at the top level, to make sure we get the change in the volume that is needed to be successful.”

CORPORATE: BIAS TOWARD TACTICAL APPROACHES AND LACK OF STRATEGIC TOUCHPOINTS IN THE POLICY CYCLE

Participants in consultations with the Irish government noted a tendency towards “tactical approaches” as opposed to strategic ones in addressing issues. This would be a significant corporate barrier to effective foresight, since the purpose of the practice is to reshape strategy. A critical awareness of and ability to make and remake strategy is therefore indispensable to the successful implementation of strategic foresight. The need to go beyond linear, single-scenario approaches was outlined especially with respect complex challenges (such as climate change).

The problem was further explained by the assertion that there were relatively few “touchpoints” in policy cycles—moments where decisions or their implementation could be critically reviewed or stress-tested using strategic foresight to assess their logic in terms of alternative futures.

“People agree with what they want to agree with, you know, when they hear what they want to hear. And it’s not necessarily just confined to the financial crisis, I think it’s essentially human nature, which obviously impacts on the policy development space”.

This also highlights the need to make sure that strategic foresight and anticipatory innovation processes are diverse and inclusive to counteract groupthink and organisational lock-in. It is not possible for a process to explore radically different developments and nevertheless justify a continuation with ‘business as usual’.

IRELAND POSSESSES FUTURES KNOWLEDGE

Developing strategic foresight capacity in the Irish government would not mean starting from scratch. As argued above, the absence of disciplined strategic foresight does not mean an organisation is ignorant of the future. Numerous studies and exercises have been delivered in recent years which can be used in Ireland as a basis for building collective intelligence about the future. These studies include population projections from the Central Statistics Office and implications of climate change for public policy by the Department of the Environment, Climate and Communications.

OVERCOMING BARRIERS: EFFECTIVE PRACTICES IN THE NETHERLANDS ENVIRONMENTAL ASSESSMENT AGENCY

One focus group heard from the experiences of Ed Dammers, foresight expert at PBL Netherlands. The PBL is an independent research institute, funded by two government departments. It is one of three national ‘planbureaus,’ and enjoys a high degree of autonomy in terms of defining research questions, selecting methods, and presenting results. Dammers drew attention to a number of effective practices developed in the Netherlands, which could also serve to overcome some of the barriers identified in the Irish context:

- The use of strategic foresight can be organised and orchestrated with the same level of attention as the production of the original analysis; this can include workshops, serious games, and exercises or studies on ‘rehearsing the future’
- Informal dialogues before or alongside formal procedures help to create shared understanding, buy-in, and support
- Follow-up work is needed to identify relevant aspects of a policy issue, potential future challenges, and ways to achieve ambitions under different circumstances

FUTURES KNOWLEDGE PRODUCED IN IRELAND

Climate change and public policy implications

Work on futures of climate change from the Department of the Environment, Climate and Communications has generated important futures knowledge including the growing impacts on Ireland, such as higher temperatures, rising sea levels, wetter winters, drier summers, and more intense storms. A National Adaptation Framework with 12 Sectoral Adaptation Plans and 31 Local Authority Adaptation Strategies have been produced in order to prepare Ireland's response. A Climate Action Plan sets out how Ireland will achieve its 2030 targets for greenhouse gas emissions reductions and set itself on a pathway to net-zero by 2050. The future direction envisaged in the plan uses elements of backcasting such as identifying the need for at least a 7% annual reduction in emissions over the next decade needed to reach carbon neutrality by 2050. The forthcoming 2021 Plan will set out measures to achieve this reduction.

Population projections 2015–2051

While projections are not in themselves a form of strategic foresight, it is possible to use foresight methods to inform projections in order to take into account a wider range of relevant factors and produce more nuanced and varied useful outcomes. The work of the Central Statistics Office on population projections for Ireland demonstrates this. The approach involved an expert group comprised of a broad mix of academics, statisticians, economists, and subject matter experts to develop multiple sets of assumptions about fertility, mortality, and migration. Multiple factors were considered such as the impacts of climate change on migration or trends in fertility rates to produce a set of six alternative projections for the future population of Ireland.

Technology Foresight Ireland

The Technology Foresight Ireland process was launched in March 1998 by the Irish Council for Science, Technology & Innovation (ICSTI), which had succeeded the Science, Technology & Innovation Advisory Council (STIAC), after the publication of the Government's only ever White Paper on this key policy area. Eight expert panels were established, each chaired by a member of ICSTI, to consider the future technological needs of eight different sectors. Each of the panel areas was structured to cover a number of related activities so as to include as comprehensive a cross-section of the economy as possible. The panel membership came from industry, the HE sector, Government Departments and research institutes.

Further futures work

- In 2005, the Border, Midland and Western Regional Assembly published a foresight report that identified 10 critical areas as strategic objectives to be achieved.
- In 2005, the Futures Academy, Dublin Institute of Technology, produced a document *Imagineering Ireland: Future Scenarios for 2030* to demonstrate how scenario development can be used in Ireland to explore the opportunities and threats facing the nation over the next few decades.
- In 2005, Teagasc, NUI Maynooth and UCD published *Rural Ireland 2025: Foresight Perspectives*. Teagasc subsequently published its own Foresight report, *Teagasc's Role in Transforming Ireland's Agri-Food Sector and the Wider Bioeconomy - Towards 2030* in 2008 and another report, *Teagasc Technology Foresight 2035* in 2016.
- Eirgrid's *Tomorrow's Energy Scenarios 2019 Consultation Ireland: Planning our Energy Future*
- The ongoing *Imagining Ireland 2050* being undertaken by the Environmental Research Institute, UCC, and Queen's University, Belfast.
- The NESG's recent work includes *Approaches to Transition* and *Just Transition*, both published in 2020, on how technological and climate transitions can be addressed, including experiences and approaches to governance elsewhere, particularly in relation to protecting vulnerable groups and sectors.

NUMEROUS POLICIES AND STRATEGIES COULD STAND TO BENEFIT

In spite of the earlier point on the perceived lack of touch-points for foresight to have impact, officials identified numerous current and planned government strategies which could stand to benefit from the reframing and reshaping that strategic foresight offers. These initiatives included the following:

- Enterprise transformation strategy
- National research and innovation strategy
- National development plan (infrastructure)
- Innovation strategies for local authorities
- Statement of strategy for the Department of Health
- Long-term climate strategy
- Internal innovation strategy
- Women's health strategy

SKILLS AND CAPACITIES IN THE PUBLIC SERVICE FOR PRODUCING AND USING EFFECTIVE FORESIGHT

As indicated, skills and capacities within a foresight system vary according to whether an individual or organisation is primarily a producer and/or user of anticipatory knowledge. In Ireland, there is known expertise in foresight production within institutions such as the National Economic and Social Council, as well as in academia, but focus groups did not identify any individuals or teams devoted to foresight within the public service. With respect to users, it is reasonable to expect few policy makers to be familiar with the nature of foresight work and confident in making use of it to reframe their decisions and reshape strategy.

“I think senior leadership are looking at what politicians want. Some of this long-term thinking may not be a priority at first and get their attention, it's hard to highlight it. The lack of knowledge base around this

area is really contributing to this: I don't think there's an extensive skill set.”

Those familiar with the National Risk Assessment will have developed futures literacy appropriate in such a context, however as indicated earlier, crucial differences between the disciplines of risk assessment and strategic foresight mean that it cannot be assumed that practitioners and users of one will be able to take on the other without additional training.

MEETINGS, PROCESSES, NETWORKS WITH HIGH POTENTIAL TO SUPPORT AND GUIDE FORESIGHT PRACTICES

“In some instances the experience is that individual departments/sectors produce national strategies that gather actions from across different departments/sectors but the buy-in to the vision is missing. I liked the line “taking time saves time”. Unfortunately it's often the planning phase that gets cut as the urgent drives out the strategic. If there isn't buy-in to the vision it's very hard to see how/why the different sectors will support activity that requires them to commit time, people, and funding to an area.”

As part of an effort to build on existing networks and structures to embed foresight practices, a number of opportunities were identified which do not necessarily constitute foresight communities but which could be participants in a so-called coalition of the willing—both in terms of production and use of foresight work. These included the strategic foresight group who met regularly throughout the later months of 2020 and into 2021; those teams closely involved in OPS2030; and a number of individuals from places such as the Department of the Taoiseach, the Department of Education and Skills, the Department of the Environment, the Department of Public Expenditure and Reform, and the Irish Defence Forces.

OECD REFLECTIONS ON OPS2020 OFFER SOME POINTERS FOR THE WAY FORWARD WITH OPS2030

Prior to the present report, the OECD was invited by the Department of Public Expenditure and Reform (DPER) to reflect upon OPS2020, with a view to outline what worked well, what was more challenging, and what lessons could inform the development of an OPS2030. This followed an initial 2017 OECD Assessment of Ireland's Second Public Service Reform Plan 2014–2016, which highlighted four key areas to consider in the next phase of reform. This OECD reflection of OPS2020 provides insights and explores lessons learned around four main areas: objectives, governance, skills/capabilities, and building up evidence. The main findings of this exercise offer some potentially useful perspectives for strategic foresight use and practice. These perspectives are summarised in the following points:

- Creating a culture of innovation was seen as one of the most effective elements of OPS2020. By strengthening and disciplining anticipation, strategic foresight supports such a culture of innovation—particularly of course anticipatory innovation. This is especially important as the new national public sector innovation strategy has a pillar on transformative innovations.
- Customer service satisfaction and citizen dialogue, user-centred design, and improving service delivery were a particularly valuable element of the reform agenda. Through a strong focus on purposing and end uses, the strategic foresight approach outlined in this document can help ensure relevance and impact for the futures work undertaken.
- OPS2020 was ground-breaking in bringing public service and civil service together, creating common purpose and best practice. Likewise, strategic foresight is a valuable means for promoting the creation of common language to promote shared understanding of an uncertain future.

- Action teams and networks worked to address shared challenges across sectors and facilitated learning/exchange of best practices. This bodes well for the prospect of establishing and harnessing an intersectoral network of futures focal points in Ireland.
- Building skills and capabilities helped to underpin strategic objectives. The concept of specialist skills in a generalist system provided useful learnings around how to maximise capacity. Work to build programme and project management capabilities across public service was generally seen very positively. Strategic foresight can help to further this integration between skills and strategy by putting futures literacy to the service of well defined strategic objectives.
- Building up evidence to evaluate reform outcomes with a focus on citizen expectations and outcomes was encouraging. As discussed, any foresight intervention developed in Ireland should maintain the same attention to feedback and learning loops in order to recursively deliver increasing impact.

4

Action points

Setting up and sustaining a system and practice of foresight in Ireland will require multiple concerted actions over time. It is not possible to know fully in advance what arrangements and practices will prove most effective in Ireland, so some experimentation is likely needed. In addition, to diagnose and improve a system's capacity to support the production and use of strategic foresight, it is necessary to test it by running one or more projects. Only by demonstrating some early success will there be the momentum to pursue further capacity building.

“Ireland needs to start somewhere, but also needs something to come out of the process to justify subsequent resources.”

OPPORTUNITIES IN OPS2030

The OPS2030 process provides an opportunity to implement a number of initiatives that could lay the foundations for ongoing foresight capacity building in the Irish public service. Echoing the areas identified in previous chapters, this chapter considers some of the preparations and plans that could increase the success of Ireland's initial steps in building a foresight system. The main areas considered are:

- Demand and purpose: to make the case, a specific, existing, strategic process would serve as a first demonstration for this highly applied approach
- Skills and capacity: the distinction should be made between different groups and their needs (for example specialists, policy makers and senior leadership), and futures and strategic foresight curricula developed accordingly
- Processes and structures: this will take the longest time to develop, and some areas for improvement will only become apparent during the process
- Communication: to overcome misconceptions, the benefits, intended outcomes, and practice of strategic foresight need to be clearly understood before, during, and after the process
- Evaluation and feedback: in addition to allowing for improvement in subsequent iterations, planning feedback in

advance promotes expectation management and prevents projects being judged by standards they never intended to meet

There are further opportunities in relation to OPS2030 and Civil Service Renewal, as well as work in connection with a Framework for Developing Well-being and Progress, since these are inherently future-facing undertakings. As outlined above, strategic foresight is of particular value in developing national goals and robust strategies for desirable outcomes. It also bridges anticipatory innovation and mission-oriented innovation to enhance public management approaches at the strategic level. The Irish public service could consider taking advantage of these opportunities for synergy by developing a platform for coordinating these closely connected endeavours.

PURPOSE AND DEMAND

Participants in focus group discussions agreed that it was **important to choose a topic or theme for a project with a high chance of impact and demonstrating success.** There should be clear relevance to one or more of the policies or strategies outlined in chapter 3 as areas of potential benefit for strategic foresight—such as the enterprise transformation strategy, the national research and innovation strategy, or the national development plan for infrastructure. A balance might have to be struck between choosing a ‘hot topic’ with high levels of current interest and immediate recognition, versus something more ‘off the radar’ that would offer greater autonomy from political agendas but potentially only reach peak relevance much later, if at all.

An additional consideration was **the need for demand to come from multiple departments in order to justify strategic foresight as a means of promoting interdisciplinary and whole-of-government exchange.** This increases the complexity but also the importance of identifying multiple needs and potential benefits for each potential user in advance. Focus group participants also noted that some potential users may not be aware of the ways in which they stand to benefit from involvement in

the process.

Thus an indispensable step for Ireland is to **prepare a foresight intervention as a business case, consulting parties involved and clarifying purpose and expectations as much as possible in advance** (while acknowledging that both are subject to further evolution as projects unfold). The business case should specify intended outputs and outcomes, while also clarifying what would lie out of scope (for example, nobody should be under any illusion that the project would accurately predict the future or prevent the next crisis). The project should envisage a highly favourable ratio of benefit derived from a modest level of effort and resources. For example, in developing a business case for a climate strategy, it would be possible to identify in advance how multiple scenarios could reveal alternative options to reducing emissions in case certain economic and industrial conditions evolve or change course in unexpected ways. This could help make the case that strategic foresight gave the strategy a greater chance of success.

Linking strategic foresight to the public service reform plan can be done in two ways, each with distinct potential benefits. One is to enhance the plan itself, by factoring in a broader view of the future in which it might have to perform—changing demands on the public service, unexpected challenges in the economic and environmental context, and changing capacities available in terms of human and technological resources. Another way is to make foresight part of the institutional memory of various public service processes, thus creating precedent, experience, and knowledge to facilitate further use of the discipline.

Assigning ownership of the undertaking is another consideration to address at the outset. This has implications for participants' level of commitment, but also for the nature of the content and insights generated since foresight is a highly purpose-driven practice. There should be a dedicated resource that is connected to the development of OPS2030 to coordinate this work.

SKILLS AND CAPACITY

As Ireland develops its foresight capacity it will become possible to distinguish multiple groups of producers, users, and beneficiaries of the work; and develop and assign curricula appropriate to their needs and involvement. The OECD is able to provide support through the design and delivery of such curricula, within the context of successive projects at the request of the Irish government. At this early stage, it is useful to start with a simpler distinction between producers and users.

Producers

Even in countries with highly developed strategic foresight systems, only a relatively small number of people are tasked with initiating and leading strategic foresight interventions. These people are nonetheless indispensable to purposing, structuring, designing, and delivering a successful project. Ireland should consider carefully **which individuals and teams would be best placed to acquire the necessary skills and implement them. Since much of foresight expertise is gained through experience (for example by facilitating workshops), these individuals should expect to undergo continuous learning by doing.** Numerous executive education programmes exist to provide some of the knowledge and practical experience needed to become an effective foresight producer, and the OECD could envisage offering similar capacity-building to member governments subject to sufficient interest.

Over time, it may be possible to **envisage a unit or centre of excellence within the Irish public service, along with staff rotation in and out of other public-service institutions in order to propagate foresight knowledge and experience.** The possibility of setting up a strategic foresight unit will be further explored below.

It is also possible to consider outsourcing some, but not all, of the foresight work in a particular process or policy. This can be useful where such expertise exists in terms of futures literacy and also subject-matter knowledge. As demonstrated in the current coronavirus crisis, research

expertise in Ireland can make an important contribution, and the research community possesses the potential to serve as strong partners with the public sector in future foresight work in Ireland. But the production can never be entirely outsourced because it is the Irish public service who knows the priorities, mental models, and instrumental capacity to be analysed; only the Irish public service can craft foresight processes taking these things into account.

“It is about having the right people there in the mix that specifically look to the future and to have to make sure that as an organisation we constantly look outside.”

“We did some good work on horizon scanning a few years ago, I think, possibly some of the most immediate benefits were in the learning and development space, because we used cross-grade teams across the organisation. And it gave people the scope to contribute on issues that they maybe wouldn’t have had in the ordinary course of their day-to-day work. And I think it was quite empowering. Doing this work is interesting, it is attractive work, it’s one of the things that we will use to attract the cleverest people to work for us, or perhaps to attract clever people to work for us for a while, and then go back into doing other things, thinking about how we can solve problems of the next 120 years. And that’s something that’s one of our unique selling points, as opposed to going working [elsewhere].”

Users

It cannot be taken for granted that policy experts and decision-makers presented with strategic foresight outputs will recognise or take advantage of their value. Ireland should therefore consider at the outset the **potential users of the foresight work envisaged, and prepare them in advance through adequate familiarisation with the concepts and process.** Most experienced foresight practitioners would advise involving decision-makers in the process of developing foresight products as much as pos-

sible, while recognising that this is not always practical.

As with demand and purpose, it is important that potential users of foresight are aware of the nature of foresight and what to expect. Strategic foresight sets out to create ‘uncomfortable knowledge’ that intentionally challenges existing expectations and agendas. Identified users of foresight should be prepared to revisit their plans and priorities as a result of engaging in the exercise.

PROCESSES AND STRUCTURES

One individual or team generating foresight does not guarantee successful implementation of anticipatory innovation. This is more than a functional question: futures knowledge produced in isolation of decision-making and implementation of actions cannot, by definition, be strategic foresight. **Every strategic foresight process must follow the identification of entities and processes where foresight is a direct or relevant contributor.** The intention is not to “enslave” foresight but to recognise that it has no value unless the training, methods, frame of analysis, and eventual results are aligned and constantly adjusted in response to the purpose they are intended to serve. **Embedding the foresight process within a broader set of formal and informal processes and structures may also help to provide support and legitimacy, as well as sustaining the effort and creating expectations.** Creating mandates and incentives for individuals and teams to work on foresight was also identified as necessary; as was ensuring a sufficient degree of autonomy to develop counterintuitive and critical knowledge.

Irish experts noted numerous existing processes and structures which would be important to consider for potential involvement in the foresight process. Options included:

- Nominating foresight focal points throughout the public service, for example one or more in each government department or public agency
- Inviting heads of department to nominate individuals in

the existing research infrastructure to participate

- Engaging committees of the Oireachtas
- Consulting epistemic communities such as the NESC, think tanks, academia, and the private sector

Purposing and impact also depend on the relevance and timing of futures work to political decision-making and deliberations. **It is therefore useful to consider how organisations can coordinate strategic foresight interventions to coincide with their existing processes so foresight and its uses are as interlinked as possible.**

Another avenue of consideration for Ireland was the **creation of one or more dedicated teams, within or spanning public-service institutions.** This could emulate the foresight units housed in prime minister's offices in Finland, Singapore, or the UAE. In this case the centre of government would be a potential location for such a team, and could capitalise on the ability to coordinate activities across government and foster links with risk assessment activities. On the other hand, the day-to-day political focus was considered to be a disincentive for the former. The Department of Public Expenditure and Reform was also discussed as an alternative option favoured by focus group participants, also due to a close connection to the OPS2030 and the public sector innovation strategy.

Focus groups also envisaged **establishing networks of expertise to exchange content and effective practices in foresight.** One variation of such a community would involve foresight focal points from within the administration only, monthly meetings, and undertaking direct work on concrete foresight projects. Chairship could be held by the centre of government or DPER; or rotated. Another community variation could be a broader circle akin to the Finnish national foresight network, engaging a wider range of actors from government, the Oireachtas, and civil society in quarterly meetings, taking on a more exploratory role around emerging issues (horizon scanning).

Furthermore, attention should be given to the processes and touchpoints for influence in the Irish policy cycle, as well as the individuals tasked with facilitating these—they

can serve as intermediaries between foresight producers and users at crucial moments. This is key to working with, not against, existing policy timeframes.

COMMUNICATION

Beyond the clearly important task of communicating the approaches and benefits of strategic foresight to producers and users, focus group participants identified ways in which communication would be necessary to ensure that unfamiliar audiences would have sufficient information to evaluate the success or otherwise of foresight in Ireland. Aside from dispelling common misconceptions such as the expectation that foresight will predict the future, focus group participants advised the following concepts as particularly worth mentioning in the Irish context:

- The potential of **foresight to foster inter-institutional collaboration, work across silos, and hence promote coherence in policy development**
- The possibility to **use the future as a neutral, safe space to discuss and reframe issues that block progress and undermine trust in the present**
- The opportunity to **recognise and respond to change faster**

It was further noted that some communication practices could be put in place right away, without waiting for the production of any planned foresight deliverables. These included giving foresight focal points the role of ambassadors for the practice; and ensuring that processes and deliverables are timed to coincide with moments in the policy cycle when they would be most useful and therefore easy to demonstrate as valuable.

“Scenario planning requires time, effort, energy, engagement, and a lot of qualitative data. And it is supported by the quants [quantitative data], but the quants take less time because an Excel spreadsheet will do it for you. I think if greater investment was made in demonstrating the value of strategic foresight to economists and certain specialties, like health

economists, together with those expert data analysts and statisticians, to work in areas of planning, and not just finance, I really think it would help our overarching planning and going forward not only in terms of who and what we need, but even getting to the skill sets and competences we need.”

EVALUATION AND FEEDBACK

A final indispensable consideration in building a national foresight system is the likelihood that not all desired outcomes will be achieved in the first moments or processes. As shown above, impactful and effective foresight systems often have long histories of experimentation and refinement. Ireland stands to learn from the expertise and effective practice of many of these success cases, including through OECD support, however some of the specific characteristics of the Irish approach will only become apparent in the process of implementing a foresight system, and will have to be taken into consideration iteratively.

To this end, the purposing component of **setting up foresight systems and interventions would also set clear expectations which can be reviewed retrospectively later on**. Envisaging surveys and interviews of participants and stakeholders in the process may also be revealing of the reasons why particular interventions did or did not deliver as intended.

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APPENDIX A: RECENT FORESIGHT ACTIVITIES IN SELECTED GOVERNMENTS

Canada: Policy Horizons

- Policy Horizons Canada is a strategic foresight organisation within the Government of Canada, with a mandate to help the Government develop future-oriented policy and programmes that are more robust and resilient in the face of disruptive change on the horizon. It makes extensive use of methods including scenario planning and megatrends analysis.
- Recent work of Horizons in light of the coronavirus pandemic includes a report discussing the uncertainties and impact dimensions of the crisis in terms of health, economy, work, socioeconomic lives, environment, governance, and international relations.

EU: Commission, Parliament, JRC

- Commission: the first annual Strategic Foresight Report, published in September 2020, presents the Commission's strategy to integrate strategic foresight into EU policy-making. It identifies first lessons from the coronavirus crisis, introduces resilience as a new compass for EU policy making and discusses the role of strategic foresight in strengthening the resilience of the EU and its Member States.
- The report analyses resilience along four interrelated dimensions: social and economic, geopolitical, green and digital; and explains its importance for achieving our strategic long-term objectives in the context of the digital, green and fair transitions.
- Furthermore, the Joint Research Centre hosts a Competence Centre on Foresight, a Megatrends Hub, and a Scenario Exploration System.

Estonia: Foresight Centre at the Parliament of Estonia

- The Foresight Centre is a think tank at the Estonian parliament; its tasks include analysing long-term developments in society, identifying new (mega)trends and development avenues, and drafting development scenarios.
- The Foresight Centre is conducting a study on the impact of coronavirus. The aim of the study is to provide assessment of the upcoming changes in economy, considering the risks and opportunities. The final report of the Foresight Centre's special project on the impact of coronavirus will be completed by October this year. The materials of the study are available online (in Estonian).

France: Futuribles International

- Futuribles has produced working papers (in French) on the coronavirus crisis and its perspectives for the next 18 months.
- The latest Vigie report 2020 contains scenarios for how humans might live in 2050.

Finland: Report on the Future

- The Finnish Prime Minister's office issues an overall Government Report on the Future to the parliament's Committee for the Future at least once per term on long-term future prospects and the government's targets. This process is intended to allow government and parliament to recognise important future developments in sufficient time to take action. The government's implementation of the SDGs is also submitted to the Committee for the Future during each electoral term.
- The Finnish Innovation Fund Sitra also carries out extensive foresight work with implications for policy, including a set of megatrends cards for general use.

Germany: Federal Chancellery

- The Federal Chancellery's strategic foresight team was established in November 2019 and operates as a hub and facilitator for foresight-based exchange, learning and knowledge sharing across the German Federal Government. Regarding coronavirus, the team supports discussions between ministries on plausible and alternative pathways along several key megatrend dimensions.

Germany: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

- Together with the Federal Environmental Agency, the Ministry carries out horizon scan processes every year to identify emerging problems of relevance to environmental and climate policy which the ministry is not working on yet. A theme-specific scan is underway with regard to coronavirus-related issues that appear in STEEP (society, technology, environment, economy, and policy) and have an impact on environmental policy making. The project is planned to run until the 1st quarter of 2021 and will end with the publication of a horizon scanning report.

Iceland: Committee for the Future

- A parliamentary Committee for the Future, set up and operating under the auspices of the Prime Minister's Office, produces periodic megatrends analysis reports.
- The Committee has published a report on Icelandic Society in 2035–2040. The report discusses megatrends in education, human resources, work, automation, rural and fragile communities, demographics, and migration.

Japan: NISTEP

- The National Institute for Science and Technology Policy is home to the world's longest-running recurring government foresight process. The Science and Technology Foresight report 2019 (in Japanese) is the latest of many publications looking at megatrends with significance for the policy domain.

UK: Cabinet Office

- The Department for Environment, Food and Rural Affairs are undertaking scenario construction and systems analysis to look at the long-term impact of coronavirus on rural, environmental and food systems.
- HMRC conduct extensive and regular futures work, including looking at plausible extreme extrapolations of megatrends. Work on stay-at-home societies and millennial cultures was presented at the 2019 GFC annual meeting.

Netherlands: PBL Environmental Assessment Agency

- At the onset of the coronavirus crisis, the Netherlands Bureau for Economic Policy Analysis published a scenario study on the economic impact of the crisis. The Netherlands Bureau for Social Policy Analysis is currently exploring the social consequences of the crisis, PBL Netherlands Environmental Assessment Agency the effects on the living environment and the National Institute of Public Health and the Environment the impact on public health.

Singapore: Centre for Strategic Futures, Prime Minister's Office

- Singapore's Centre for Strategic Futures (CSF), based in the Prime Minister's office, plays a key role in conducting and coordinating regular cross-government foresight studies which then serve to inform the overall strategy of government as well as the more specific foresight work of other ministries.
- The CSF in Singapore has articulated (and is monitoring) how Singapore's operating environment has shifted and could shift because of the crisis. This is largely done by exploring how trends have accelerated or transformed, and in other cases, new paradigm shifts have been created. They are concurrently using this work to facilitate longer-term thinking for better policy-preparedness across government.
- Various government agencies are also doing their own foresight work for forward planning due to coronavirus. CSF is hence also convening the Singapore government foresight community to cross-pollinate ideas and collaborate with each other.

South Africa: Western Cape Government

- The Western Cape Government's Strategic Foresight Unit is currently planning to conduct foresight research on the following areas to advise senior government decision-makers and their departments:
 - What trends are likely to accelerate, remain unchanged, or decelerate over the longer-term as a result of covid-19;
 - Identifying what change in the lives of citizens is likely to become permanent and what is likely to be a temporary;
 - A focus on identifying potential blind spots in current assumptions as a result of covid-19 over the next 6 months to 2 year period.
- All research will include a section focused on identifying potential threats and opportunities for government.

United Arab Emirates

- Foresight work, including on megatrends, is underway throughout the UAE government, in particular through the Future Foresight Strategy, the UAE Future Foresight Platform and the Annual Meeting for Shaping the Future.
- The Future Possibilities 2020 report, in development since well before the coronavirus crisis but which takes the pandemic into consideration, explores six megatrend-style transformations: the Exabyte Economy, the Wellbeing Economy, the Net Zero Economy, the Circular Economy, the BioGrowth Economy, and the Experience Economy.

APPENDIX B: STUMBLING BLOCKS AND MISCONCEPTIONS ABOUT SCENARIOS

The following stumbling blocks are identified and analysed for the purposes of facilitating effective scenario-based dialogue.²⁸

Attempting to gauge probability of the scenarios (either in isolation or in comparison to one another). This can also manifest itself in attempts to disregard a scenario because it seems unlikely to occur.

- **Why this occurs:** this often stems from the misconception that scenarios are intended to be forecasts or predictions. Many also assume that only probable future developments are worth discussing.
- **Why it is unhelpful:** attempting to judge probability draws attention to the validity of the scenarios themselves, rather than the strategy they are intended to serve. It is much easier to critique someone else's work than our own strategy! It also undermines a premise of scenario planning, which is to accept that a good deal of future developments are unpredictable, and many things will occur that seem unlikely from today's perspective. Furthermore, it is possible to learn positive lessons today from fictional future events, even if they never really occur.
- **How to address it:** participants in a dialogue can be reminded of events that have recently occurred that would have seemed almost impossible a decade prior (there are many!); it can also help to refer to fables that are known fictions, but which nonetheless contain valuable lessons. Scenarios are fictions about the future from which we can learn. Another useful technique is to ask leading questions about what developments in the present positively suggest that the given scenario is already coming true.

Attempting to identify actions that would neutralise or 'solve' the characteristics of a scenario that seem problematic. This can also occur when participants describe a scenario as 'unstable' and look for ways to return their image of the future to one closer to the status quo or current expectations.

- **Why this occurs:** this happens when participants accept that a scenario could occur, but find it undesirable and believe that they have the capacity to prevent it coming true or reverse it after it does. It is very common in policy dialogues for participants to fail to make a distinction between (A) what policy as a whole is capable of achieving; and (B) what their own organisation can achieve alone and through its actual partnerships.
- **Why it is unhelpful:** a central principle of scenarios is that the user should be forced to consider how they would

face alternative futures that they are not in a position to determine. Only through the discipline of understanding one's own limitations can one identify concrete actions that can be taken to succeed in the future. Scenarios may reveal very insightful options for public policy as a whole, but if the dialogue does not reveal actions for the user to take then no impact will come of the exercise.

- **How to address it:** participants should be asked to divorce themselves from the present by imagining what they would do if they fell asleep today and woke up in the world described by the scenario. It can also help to structure participants' thinking using verbal devices, such as insisting that every sentence used to explore a scenario begin with the words "this is a world in which..."

Conflation of events and context. This is when there is an excessive focus on "what could happen" in the future instead of the conditions or state of affairs in which the user organisation might find itself.

- **Why this occurs:** this can also occur in participants who expect foresight to attempt to predict the future. It also results from a practice of risk assessment, which is based on the probability and impact of given events.
- **Why it is unhelpful:** scenarios are intended to reveal and challenge mental models about the way the world works. To use the analogy of a highway, it might be important to pay attention to a particular incident and how the vehicles and drivers came to be involved, but in scenario planning we are more concerned with the overall functioning of the traffic: what speeds people use, why the traffic is heavier at particular times, what the weather conditions are like, and so forth. These contextual factors help us to plan our journey into the future better than trying to predict an individual incident at a particular place or time.
- **How to address it:** participants should be asked to imagine the future as a snapshot or movie set, rather than the actual chain of events that make up the movie. A linguistic technique that works in some languages is to use imperfective (progressive, habitual) aspects such as "governments are delivering..." or "civil society is demanding..." to show ongoing conditions rather than punctual events.

APPENDIX C: PARTICIPANTS IN FOCUS GROUP INTERVIEWS

Stakeholder group interview participants were selected on the basis of their involvement with OPS2020, with consideration for balanced sectoral representation. The stakeholders were grouped thematically with a focus on common areas. This OECD reflection exercise benefited from the views of over 50 senior Irish public service leaders, including:

- John Howlin, former Head of the REU, DPER
- Margaret O'Donnell, former Assistant Principal Officer in REU
- Michael Perkins, Assistant Principal Officer in Reform Evaluation Office
- Ronnie Downes, Assistant Secretary, Expenditure Policy and Reporting, DPER
- Jasmina Behan, Head of the Irish Economic and Evaluation Service, DPER
- Paul Quinn, CEO of the Office of Government Procurement
- Dave Cagney, Head of Civil Service HR, DPER
- Anne Marie Hoey, National Director Human Resources, HSE
- Paul Morrin, Assistant Director General, Central Statistics Office
- Eamonn Hunt, Local Government Management Agency
- Shirley Comerford, CEO Public Appointments Service
- Claire O'Reilly, Head of HR, DPER
- Jean Murray, Head of Human Resources, Property Registration Authority
- Diane Lynch, Health Services Executive (HSE)
- Doncha O'Sullivan, Assistant Secretary, D/Justice; PSMG Member
- David Gilbride, Head of Strategy, An Garda Síochána; PSMG Member
- Angela Denning, CEO Courts Service
- Greg Dempsey, Deputy Secretary, D/Health; PSMG member
- John Swords, National Director for Shared Services for the HSE
- Liz Canavan, Assistance Secretary, D/Taoiseach, PSMG, PSLB and OPS2020 Action 4
- Barry Lowry, Office of the Chief Government Information Officer; PSMG Member
- Pauline Mulligan, Assistant Secretary, D/Business, Enterprise and Innovation; PSMG Member
- Professor Martin Curley, HSE CIO
- Tim Willoughby, Head of Digital and Innovation, An Garda Síochána
- Prof Suzie Jarvis, Founding Director, UCD Innovation Academy
- Jamie Cudden, Head of Smart, Dublin City Council
- Audrey Ní Chaoidealbháin, Department of Health
- Capt. (NS) Brian FitzGerald
- Tomás O'Ruairc, Teaching Council
- Dave Keeley, Enterprise Ireland
- Des Dowling, Assistant Secretary, D/Defence; PSMG Member
- Brigitta Doherty, Head of PMO, D/Defence
- Noeleen McHugh, Local Government Management Agency; PSMG Member
- Grainne Cullen, Head of PMO, Department of Education; attends PSMG
- Beverley Sherwood, Head of Civil Service Renewal PMO, DPER; attends PSMG
- Eddie O'Sullivan, PMO Manager, LGMA; OPS2020 Innovation Rep
- Mihai Bilauca, Head of ICT, D/Housing and Local Government
- Eilis O'Connell, Assistant Secretary, D/Agriculture; PSMG Member
- Aine Stapleton, Assistant Secretary, D/Transport; PSMG Member
- Jim Deane, Office of Government Procurement
- Pam Byrne, Chair of ACESA - Association of Chief Executives of State Agencies in Ireland; PSMG Member, CEO of FSAI
- Declan Rigney, Assistant Secretary of the Revenue Commissioner
- Dr Richard Boyle, Head of Research at the Institute of Administration (IPA); PSMG member; Chair of the REU Indicators Report Committee
- Sarah O'Callaghan, Head of Customer Communications, Customer Service & CIB Liaison; Member of OPS2020 Action 2&3 Team 3

APPENDIX D: STRATEGIC FORESIGHT GROUP

Background to the Group: In June 2020 the Public Service Leadership Board approved the approach to develop Our Public Service 2030 (OPS2030), the successor public service reform framework to Our Public Service 2020 (OPS2020). As part of this programme of work OPS2030 will also consider developing foresight capacity in the Public Service. This work will support government policy making in the following ways:

- Better anticipation: to better anticipate changes that could emerge in the future
- Policy innovation: reveal options for experimentation with innovative approaches
- Future proofing: to stress-test existing or proposed strategies and policies.

The Reform Delivery Office (RDO) at the Department of Public Expenditure and Reform (DPER) is engaging the Organisation for Economic Cooperation and Development (OECD) in identifying current foresight activities and capabilities in Ireland's Public Service; considering international best practice and developing recommendations to build Ireland's foresight function and capacity in policy making and public service design under OPS2030.

Purpose of the Group: The Reform Delivery Office (RDO) at the Department of Public Expenditure and Reform (DPER) is engaging the Organisation for Economic Cooperation and Development (OECD) to assess current foresight activities and capabilities in Ireland's Public Service; consider international best practice, and make recommendations to build Ireland's foresight function and capacity in policy making and public service design under OPS2030.

Organisation	Name	Position
Department of Public Expenditure and Reform	Ronnie Downes	Assistant Secretary, Expenditure Policy and Reporting
Local Government Management Agency	Noleen McHugh	Assistant Chief Executive, Local Government Programme Management & Innovation
Department of Justice	Martina Colville	Assistant Secretary, Head of Corporate Services
An Garda Síochána	David Gilbride	Assistant Secretary, Head of Strategy
Department of Defence	Des Dowling	Assistant Secretary, Strategic Planning, Capability Development and Corporate Support
Department of An Taoiseach	Barry Vaughan	Principal Officer, Data and Digital
Department of Health	Sarah Glavey	Principal Officer, Policy Strategy and Integration Unit
Department of Education	Grainne Cullen	Principal Officer, Head of Public Service Reform Programme Office

Enterprise Ireland	David Keeley	Senior Executive Innovation, Enterprise Ireland
Department of the Environment, Climate and Communications	Frank Maughan	Principal Officer, Environment and Climate Division
Office of the Chief Government Information Officer (OGCIO)	Tony Shannon	Principal Officer, OGCIO
Higher Education Authority	Nicki O'Connor	Senior Policy Advisor
DPER	Laura Mahoney	Head of OPS2020 PMO, Reform Delivery Office (RDO)
DPER	Breda O'Brien	OPS2020 PMO, RDO
DPER	Grace O'Regan	OPS2020 PMO, RDO