

# OECD Government Foresight Community Annual Meeting Report 2020

Strategic foresight for future-ready public policy

This report is a synthesis of background materials, presentations and discussions from the seventh Annual Meeting of the OECD Government Foresight Community, held 12-14 October 2020 via video conference. The contents reflect a variety of inputs and perspectives from over 200 leading public sector futurists and foresight practitioners from around the world. They also reflect a shared conviction that strategic foresight – the structured exploration of possible futures and their implications for decisions made today – is a core requirement of effective public policy making and good governance.

The OECD thanks all presenters and participants for their contributions, and for their ongoing efforts and commitment to strengthening foresight for better policies and better lives.

OECD 2020

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*This meeting was held under the Chatham House Rule. Ideas and views discussed during the meeting and reflected in this summary may not be interpreted as official analysis, critique, recommendations, or a reflection of the position of any organisation, including the OECD or its members.*



## OECD Government Foresight Community Annual Meeting Report

*12-14 October 2020, hosted virtually from OECD Headquarters in Paris*

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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.

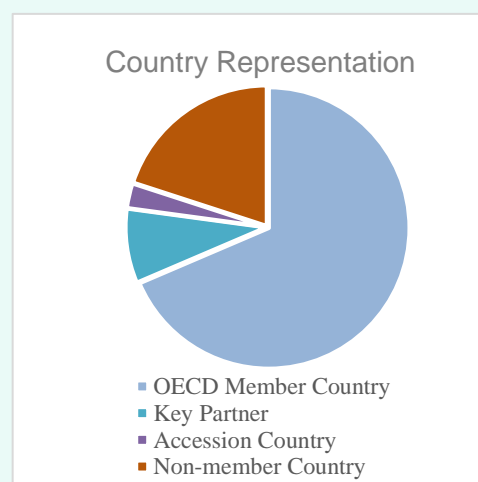
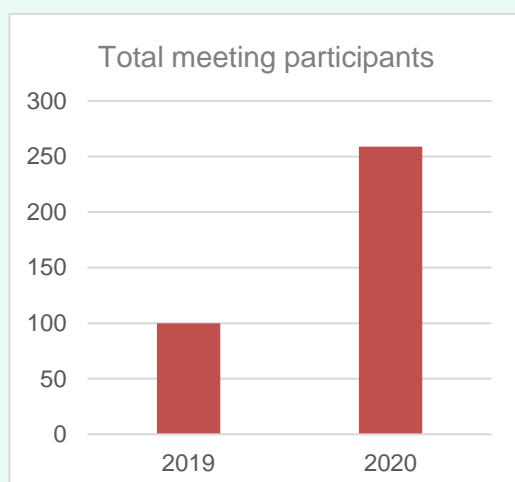
2020 marked the seventh annual meeting of the GFC. The theme for this year's meeting was *many voices, one message*. This reflects the importance of including a diversity of voices and perspectives in the conception and practice of good foresight. It also recognises – in a world that needs foresight more than ever, and where resources for achieving the state of the art in foresight are stretched – an increased need for GFC members to co-ordinate and combine their efforts on issues of joint concern.

In this spirit, the OECD collaborated with the European Environment Agency (EEA) to co-host two special sessions on the meeting's third day. In addition, we were pleased to welcome a number of guest participants from outside the public sector who are also engaged in strategic foresight for public policy. This included participants from international civil society organisations, foundations and others.

Due to the COVID-19 pandemic, the 2020 GFC Annual Meeting was held virtually. Despite this change in format, the event was highly interactive and included a range of activities to foster exchange on foresight content (e.g. emerging trends, scenarios, and implications) as well as on innovations and practical experience in the use of foresight in policy making. Twelve sessions over three days were scheduled to accommodate multiple time zones and included more than one hundred breakout groups to maximise participation and dialogue. Parallel to the discussions, written contributions and reflections were gathered via the online chat window.

### **Meeting Statistics**

*The GFC Annual Meeting was attended by 259 participants representing 138 countries and organisations. Due to the virtual format, participants were able to join sessions of their interest over the course of three days. An average of 150 participants representing 35 countries attended each day.*



Duncan Cass-Beggs, Counsellor for Strategic Foresight, opened the meeting and then gave the floor to OECD Secretary-General Angel Gurría for welcoming remarks. The Secretary-General addressed the significant and unexpected global shifts that have occurred since the 2019 annual meeting, emphasising the even more important role strategic foresight now plays in supporting countries to generate more innovative and future-proof policies, and the importance of the Government Foresight Community as a vehicle for building better policies for better lives.

The session then delved into **foresight in a time of crisis**. A selection of senior foresight practitioners and unit leaders gave brief plenary statements on challenges and opportunities that the COVID-19 crisis has created in their work areas, how they adapted, and lessons learned. Contributors discussed the importance of being agile and responsive in periods of rapid change, and how crisis can open new opportunities for long-term thinking and collaborative visioning.

The second session moved beyond the immediate crisis to **emerging global issues for our post-COVID futures**. It focused on emerging issues that members 1) feel are important for governments to consider and make use of their foresight capacity to address; 2) believe would benefit from collaboration. Collaboration was again recognised as an asset the GFC can leverage as a community. Ten emerging issues were discussed in member-led breakout groups, including futures of connection, envisioning new governance models, and the future of collective intelligence (CI).

In two **community exchange** sessions, forty contributors presented content and lessons learned from recent foresight work, or sought feedback and input on plans and priorities for the year ahead. Sessions covered best practices in foresight for public policy, such as maximising inclusivity and impact; methods, such as matrix wargaming, rehearsing for the future, and risk mapping; thematic work, such as post-COVID scenarios and projects on topics such as the biodigital convergence; and approaches for embedding foresight in governance, such as intergenerational equity and long-term insights briefing requirements.

Participants engaged in two sessions on **the shifting global context** that explored the implications for governance, international organisations and global co-operation of three scenarios developed by the OECD Strategic Foresight Unit: *Multitrack World*, *Virtual Worlds* and *Out of this World*. The session offered an opportunity for foresight colleagues to collaborate on thinking through salient futures issues and prompted reflection on the purpose and value of multilateralism. Timing of the session allowed for a regional focus, notably exploration of plausible future geopolitical developments among participants in the Americas, Africa, Asia and the Pacific, and Europe.

In the first of three sessions with invited guest speakers, a group of practitioners representing the “next generation” of foresight explored perspectives and strategies for **increasing diversity and inclusion in foresight**. The session sought to address challenges the GFC faces and practical opportunities to increase diversity and inclusion from multiple entry points, such as in conceptualising the future; networking, recruitment and retention; and messaging, communication and diplomacy.

A third community exchange session focused on **aspirational foresight in public policy**. Whereas much foresight work is descriptive (exploring what could happen), aspirational or normative foresight (identifying desirable futures) can play a valuable role in building consensus and momentum for policy action. Contributors shared their experiences using aspirational foresight tools and processes, covering topics such as participatory policy design in system innovation; futures thinking and change making capabilities; futures literacy for transformative governance; visioning and storytelling for development strategies; foresight and democracy; and long-term visioning.

The first of two joint sessions held in partnership with the EEA was about **wild cards** – i.e. low probability, high-impact events. Dr. Karlheinz Steinmüller presented the role of wild cards for strategic foresight in the public sphere and how they can be more routinely used by governments. Participants used various wild cards (e.g. a vegetarian revolution, disintegration of the Web, dramatic decline of entomofauna, collapse of critical

information infrastructure) to explore negative and positive implications of unexpected external shocks for their own work areas.

The second joint OECD-EEA session on **foresight for action** began with keynote addresses by representatives from the cabinets of the European Commission President Ursula van der Leyen, and Vice-President for Inter-institutional Relations and Foresight Maroš Šefčovič. Nicole Dewandre spoke on the need for foresight studies to support the European Green Deal, and why foresight remains under-used in policy cycles. Laurent Bontoux introduced solutions on how to produce actionable foresight knowledge and improve its uptake within policy making. Breakout groups developed recommendations in five dimensions (relevance, capacity, support, coordination and communications) critical for ensuring the successful implementation of foresight findings into policy making.

The meeting culminated in a session on the **state of the art of government foresight**. Participants discussed seven characteristics of “world class” anticipatory governance systems, articulating specific examples of exemplary governments practices. This session illuminated what success looks like in foresight in both theory and in practice in governments around the world.

#### *From the chat: Participant feedback on the GFC Annual Meeting*

- The best [foresight] event of the year. I will spread all the lessons learned in my government. You have built a significant network that can do great things together.
- Fabulously insightful conference! A key takeaway I'll be sharing with my team is that diversity and inclusion is not only on the surface level (e.g., age, gender, race, etc.), but also inwards, such as personalities, character traits, etc. (e.g., introverts and extroverts).
- A wonderful meeting with an extraordinary setting! I enjoyed it very, very much! And (without being esoteric) I can feel a spirit of idealistic realism in this network.
- I was incredibly impressed by the operational application of aspirational foresight by OECD... I already brought it up to the senior management in my department as part of our approach to consultations and technical assistance strategies with countries.
- I really enjoyed the wild cards... We're going to use those in our government and invent our own as a way of challenging scenarios our colleagues are developing to see if we can stretch their strategies or identify shortfalls.
- Particularly in this environment during COVID-19, we are all trying to leverage this crisis to build a better world, so having some sort of aspirational future for countries and globally and having the strategies to implement I think would be very helpful. I was very inspired by this.

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## 1. What Future Beyond COVID-19?

*Opening Remarks by Angel Gurría, OECD Secretary-General. For full speech see Annex 1.*

OECD Secretary-General Angel Gurría welcomed participants and acknowledged the significant and unexpected global shifts that have occurred since the 2019 annual meeting. He emphasised the even more important role strategic foresight now plays in supporting countries to generate more innovative and future-proof policies, citing economics, governance and the environment as particularly relevant areas, and the importance of the Government Foresight Community as a vehicle for building better policies for better lives.

### *From the chat: Participant reflections on what they are hopeful about coming out of the COVID-19 crisis*

- More **collaboration** among like-minded communities, e.g. foresight, scientists
- Globalised workforces working together, realising they share global challenges
- Much more **flexibility** in work conditions, especially for those who can work from anywhere
- Telework becoming the norm, but with dedicated physical meetings and intentionally re-created informal spaces for **connection** in the workplace
- Greater investment in social infrastructure
- Greater **civic engagement** in policy initiatives and better appreciation of the need for governance and public services
- Regained **trust** in democratic governments and more responsible decisions from leaders
- That solidarity from the crisis will be used to build a better future by laying down foundations for a **green and inclusive** recovery
- Optimism: realisation that we depend on our neighbours, personally and internationally

## 2. Foresight in a Time of Crisis – Lessons learned from COVID-19

*Plenary session including breakout discussions. See Annex 2 for more detail.*

Following a warm-up activity, a selection of senior foresight practitioners and unit leaders made brief statements on the challenges and opportunities that the COVID-19 pandemic has created in their work areas, how they adapted, and lessons learned about the role of foresight in a time of global crisis. The following is a selection of reflections on each of the points discussed.

### Challenges faced

Contributors spoke to the challenge and discomfort of producing work quickly without compromising quality.

*“Getting content out very quickly, which isn’t always comfortable, but you have to get it out, be confident in what you have, and engage on it to help people think better.”*

*“Facing what happens when time actually gets compressed, and changes that we might typically see happening over a ten-year period suddenly accelerate.”*

*“Incorporating the usual rigour to maintain the reputation of your analyses and institution.”*

### Opportunities that emerged

Contributors saw a spike in demand, and pointed to decision makers’ need for support in making sense of the rapidly changing policy landscape and thinking into the medium and long term. The opportunity to support aspirational futures work is significant and ongoing.

*“Early on we realised we had a role to play to help our colleagues across government look beyond the immediate crisis, and consider the more medium-term impacts.”*

*“Everyone had all sorts of information and had to treat it with urgency, and we were the team who had the opportunity to step back and tell them what was coming in next.”*

*“For the first time, not only are we experiencing something together globally, but we’re talking about it together globally, so this is an opportunity to build a global community to address some of the aspirational scenarios that many of us are helping organisations build.”*

### **Adaptations made**

Contributors noted adapting to compressed timelines and to meet high demand, including at senior levels and for crisis management.

*“We had to be very fast, meeting the challenges in a month or two. We used scanning and interviews to look at the big shifts in the medium term that we could be seeing and challenge our policy assumptions.”*

*“We shifted our time horizon significantly to looking at the 2-5 year time horizon, which is not something we typically do.”*

*“The situation was so dynamic that we eventually decided on what we call a ‘perpetual beta’ approach, where we released early versions and we updated them continuously.”*

*“We have been so operational in our interaction with the crisis management team... It really was a new window and a new view that was utterly appreciated, and is part of the new normal that we hope to get.”*

### **Lessons learned**

Contributors shared lessons about being agile and responsive in the context of rapid change, and how crisis can open new opportunities for long-term thinking and collaborative visioning.

*“Opportunism can benefit everyone. It’s about recognising the opportunity, seizing it and then making it of value.”*

*“Time is a luxury that foresight practitioners are accustomed to, but maybe not one that we can or should expect as the pace of change accelerates.”*

*“Foresight is not wedded to a time horizon.”[i.e. in terms of the horizon of one’s analysis]*

*“Foresight requires agility in sense-making.... It needs to be fast. It doesn’t need to be perfect.”*

*“This kind of crisis is a great opportunity to introduce a more forward-looking and long-term approach into policymaking.”*

Following contributor statements, participants moved into breakout rooms to discuss their own experiences and lessons learned.



### *From the chat: Participant reflections on lessons learned from the COVID-19 crisis*

- To deliver speedy analysis you need a solid knowledge base and an **ongoing** foresight programme.
- It's important not to be blinded by the best-laid work plan. During a crisis foresight units must **pivot focus** to help prevent costly mistakes in rushed policies.
- We can help our colleagues consider **medium-term impacts** during a crisis, when strategies are being adjusted in a near-daily basis and they do not have the bandwidth to think ahead.
- We should more seriously consider building foresight capacity in **non-government actors**, like citizens and civil society, who are also involved in good governance and crisis response.
- This crisis transcends the boundary between work and personal life, and this allows us to be **uncomfortable together** and explore new ideas and realisations in our work context.
- Can't forget the **human element**, like keeping spirits up as a crisis drags on, including among colleagues in our teams, so that we can realise the opportunities we have as a field.
- The problem is not (only) that we need to think about unthinkable futures, but that we need to feel "unfeable" futures. We need to make futures more **"feable."**
- The demand for our work in this crisis and changes we have made to meet it should lead us to reflect on the **foresight of foresight** and what our field can offer in the course of the recovery.
- There is a hunger now like never before in our lifetimes to change the world. It is palpable in every group I've worked with, so now is a time unlike any other. It's a time of **opportunity**.

## 3. Emerging global issues for our post-COVID futures

*Member-led sessions. See Annex 3 for more detail.*

This session focused on issues beyond the Covid-19 pandemic that members 1) feel are important for governments to consider and make use of their foresight capacity to address; and 2) believe would benefit from collaboration.s

It was acknowledged that collaborative projects raise the profile and credibility of the field with both domestic and international audiences. They can bring in a greater diversity of perspectives, and multiply the resources at practitioners' disposal. It was also recognised that collaboration is not cost-free: collaborative projects can be more difficult to organise and incur transaction costs. Perhaps most importantly, foresight practitioners must weigh the benefits of collective intelligence against the danger of groupthink. Nevertheless, collaboration remains an asset that the GFC can leverage as a community.

Participants separated into member-led breakout groups to discuss ten emerging issues and their significance for foresight. These issues are listed below, along with key takeaways.

### 1. *Future of connection*

*Lead: Katherine Antal, Policy Horizons Canada*

- Loneliness and social isolation were already growing before the pandemic.
- Many new technology applications lie ahead, with unknown social implications.
- Connection is more than a local community problem; addressing it may require broader institutional changes.

### 2. *"This is not new...but any chance we can use our repeated mistakes in a way to improve?"*

*Lead: Tianna Brand, Foresight Advisor, World Organisation for Animal Health (OIE), France*

- Infectious disease outbreaks are multiplying. We know they are coming and that they result from our actions and decisions. If disease outbreaks are not a failure of foresight, what is it a failure of?
- Much is known about infectious disease pathways, yet we continue to disregard this information.

- There is a tendency to think that this is “someone else’s problem” and not see the broader implications of action and inaction. Can strategic foresight crack the code on repeated mistakes?

### 3. *Health (immunity and mental well-being)*

*Lead: Puruesh Chaudhary, Founder and President, AGAHI, Pakistan*

- In recent history, health has been driven by corporations rather than citizens. As the world moves towards longevity, awareness of immunity and mental well-being as global common goods is imperative for a healthier and a happier society.
- Multilateral forums – including, but not limited to, the UN, G7, G20, BRICS, SCO, SAARC, WEF – need to craft this into their agendas.
- Develop a global consensus amongst health organisations to raise awareness of the importance of immunity and well-being. This would tie in perfectly with environmental initiatives on clean/quality air.

### 4. *Envisioning new governance models*

*Lead: Rob Cowden, Director for Governance Issues, National Intelligence Council, United States*

- State-society relationships are under growing strain worldwide.
- These conditions may drive shifts in models, ideologies or ways of governing.
- What models might emerge that would satisfy public desire for system changes?

### 5. *Rethinking the race between education & technology*

*Lead: Peter De Smedt (BE), Policy advisor/Senior scientist, Flemish Government*

- COVID-19 and confinement measures have had severe effects on education and learning.
- The digital leap forward is part of an acceleration in technological change and hyperconnectivity.
- Should “future of work” initiatives be updated?

### 6. *The dilemma of consent management in the digital age*

*Lead: Rob Hanson, Manager, Policy and Quality, Commonwealth Scientific and Industrial Research Organisation, Australia*

- The pandemic is amplifying the digitisation of private and public sector services.
- Data markets are becoming regulated.
- Privacy is the only human right that can be “unlocked”.

### 7. *The personal side of digital health - The Humanome*

*Lead: Nicklas Larsen, Senior Advisor, and Bogi Eliassen, Director of Health, Copenhagen Institute for Futures Studies, Denmark*

- How digital health will look from a personal point of view in a post-COVID world remains to be explored.
- Future personal and digital health needs to be addressed through the lens of different scenarios taking into account usability, culture, geography, and regulation.
- Discussions are needed on how to approach a public/private and decentralised solution for future personal health data in order to avoid commercialisation and further fragmentation.

### 8. *Future of collective intelligence (CI)*

*Lead: Hao Guang Tse, Strategist, and Seema Gail Parkash, Deputy Head, Center for Strategic Futures, Singapore*

- Collective intelligence is changing, and governments are playing catch-up.
- Public narratives about collective intelligence lack imagination.
- The GFC forum is an example of a collectively intelligent system.

### 9. *Social conflicts in emerging countries related to sustainability*

*Lead: Francisco Javier Osorio-Vera, Research Professor, Center for Strategic Thinking and Foresight, Universidad Externado de Colombia*

- Social conflicts in emerging countries, provoked by lack of inclusion by public administrations, have prevented the generation of a joint long-term territorial vision for quality of life of the population.
- The territorial foresight approach strengthens decision-making based on 1) long-term consensual course; 2) interaction with the environment; 3) stakeholder interests; and 4) definition of future public policy. All four aspects can minimise social conflict.
- Collaboration with the OECD and others could encourage and consolidate generation of joint visions based on public policy recommendations.

#### 10. *Global digital decoupling and implications for development and development co-operation*

*Lead: Duncan Cass-Beggs, Counsellor for Strategic Foresight, OECD*

- Digital decoupling and deglobalisation could force countries to pick sides, with particular challenges for development.
- High uncertainty about the pace and shape of decoupling (e.g. two or multiple blocks?) calls for a foresight approach.
- A collaborative foresight approach could help foster alliances needed for solutions.

## 4. Community Exchange

*Member-led sessions. See Annex 4 for more detail.*

In two rounds of member-led sessions, contributors presented findings and lessons learned from recent foresight work, or sought feedback and input on plans and priorities for the year ahead. Thirty-one breakout groups covered the following themes: **best practices** in foresight for public policy, such as maximising inclusivity and impact; **methods**, such as matrix wargaming, rehearsing for the future and risk mapping; **thematic work**, such as post-COVID scenarios and projects on futures of sense-making and the biodigital convergence; and approaches for **embedding** foresight in governance, such as intergenerational equity and long-term insights briefing requirements.

<i>Breakout group</i>	<i>Contributor and Institution</i>
1. <a href="#">How to design EU reference scenarios in an inclusive way?</a>	Erica Bol, Joint Research Center, European Commission
2. <a href="#">Insights from review of foresight approaches across governments</a>	Anne Bowers, Principal, Civic Participation Practice, School of International Futures
3. <a href="#">Scenario-based risk monitoring for LIBOR transition</a>	Federico Galizia, Chief Risk Officer & Mariana Lopez Amoros, Treasury & Risk Specialist, Inter-American Development Bank
4. <a href="#">Insights from IMF's experiences with matrix wargaming</a>	Sandile Hlatshwayo & Alberto Behar, International Monetary Fund
5. <a href="#">Development co-operation in 2025: what could change with the current global health and socioeconomic crises? Four scenarios</a>	Krystel Montpetit, Foresight Team Lead & Ana Fernandez, Head of Unit, Foresight, Outreach and Policy Reform, Development Cooperation Directorate, OECD
6. <a href="#">Sense-making in the future</a>	Julie-Anne Turner, Policy Horizons Canada
7. <a href="#">Finland for next generations - Government Report on the Future</a>	Jaana Tapanainen-Thiess, Secretary General, Government Report on the Future and Government Foresight Group, Prime Minister's Office, Strategy Department, Finland
8. <a href="#">Future(s) of African-European relations</a>	Dr. Kerstin Cuhls, Scientific Project Manager, Fraunhofer Institute for Systems and Innovation Research, Germany
9. <a href="#">Rehearsing the future – an approach for actually using foresight studies</a>	Ed Dammers, Department of Spatial Planning and Quality of the Local Environment (PBL), The Netherlands

10. <a href="#">The biodigital convergence</a>	Avalyne Diotte & Pierre-Olivier DesMarchais, Policy Horizons Canada
11. <a href="#">Post-COVID-19 scenarios project</a>	Dr. Elaine Marcial, Associate Researcher, Institute of Applied Economic Research, and Coordinator of the Research Group of Foresight Studies - NEP-Mackenzie, Brazil
12. <a href="#">The European Parliament's post-Corona risk mapping exercise</a>	Eamonn Noonan, Policy Analyst, Global Trends Unit, European Parliamentary Research Service
13. <a href="#">Strategic foresight at the heart of WCO's strategy</a>	Ricardo Treviño Chapa, Deputy Secretary-General, World Customs Organization
14. <a href="#">How do we develop long-term thinking in people?</a>	Fredy Vargas Lama, Center for Strategic Thinking and Foresight, Universidad Externado de Colombia
15. <a href="#">From global megatrends to drivers of change assessment: towards an improved understanding of systems' change</a>	Lorenzo Benini, European Environment Agency
16. <a href="#">'How to' prepare better recovery plans? – supporting energy leaders through foresight insights and tools</a>	Anastasia Belostotskaya, Associate Director, Scenarios and Special Projects, World Energy Council, United Kingdom
17. <a href="#">Using the law to embed foresight – the Wales Well-being of Future Generations Act</a>	Andrew Charles, Head of Sustainable Futures, Futures and Strategic Policy Making, Welsh Government
18. <a href="#">Estonia national COVID-scenarios project</a>	Tea Danilov, Director & Uku Varblane, Expert, Foresight Centre, Parliament of Estonia
19. <a href="#">Connecting the dots: the German Chancellery's role in championing strategic foresight</a>	Nels Haake, Strategic Foresight Advisor, Department for Policy Planning and Strategic Foresight, Germany
20. <a href="#">Existential risks – ensuring humanity's survival into the 22nd century</a>	Nicklas Larsen & Timothy Shoup, Senior Advisors, Copenhagen Institute for Futures Studies, Denmark
21. <a href="#">Strategic foresight in Malaysia: imagining the future of anti-corruption</a>	Rushdi Abdul Rahim, Senior Vice President, Malaysian Industry Government Group for High Technology (MIGHT), Malaysia
22. <a href="#">Thailand post Covid-19 foresight</a>	Dr. Surachai Sathitkunararat, Executive Director, APEC Center for Technology Foresight (APEC CTF), Assistant to the President, Office of National Higher Education, Science, Research and Innovation Policy Council (NXPO), Thailand
23. <a href="#">Mandatory Long Term Insights Briefings (LTIBs) on trends, risks, and opportunities affecting New Zealand</a>	Diane Owenga, Programme Director & Melita Glasgow, Principal Advisor from the Policy Project, Department of the Prime Minister and Cabinet, New Zealand
24. <a href="#">Technology foresight for climate change mitigation in India</a>	Dr. Gautam Goswami, SC G & Ms. Jancy Ayyaswamy, Sc – F, Technology Information, Forecasting and Assessment Council (TIFAC), Dept of Science & Technology, India
25. <a href="#">Post COVID trade and investment megatrends and a new ASEAN foresight capability</a>	Dr. Stefan Hajkowicz, Principle Scientist in Strategy and Foresight, CSIRO, Australia
26. <a href="#">Four and a half China scenarios</a>	Dr. Hans-Christian Hagman, Chief Analyst and Senior Adviser to the Swedish State Secretary for Foreign Affairs Ministry for Foreign Affairs



27. <a href="#">Global Strategic Trends 7 (to be published 2023)</a>	Col. Joachim Isacsson, AH 2 Futures, Lt Col Jennifer Burgess and Paul Norman, Strategic Analysis Programme, DCDC, UK Ministry of Defence
28. <a href="#">Participatory future dialogues for the German High-tech Strategy</a>	Simone Kimpeler, Head of Competence Center Foresight, Fraunhofer Institute for Systems and Innovation Research, Germany
29. <a href="#">Strategic foresight for environmental emergencies</a>	Alanna Markle, Strategic Foresight Junior Analyst & Alexa Piccolo, Policy Analyst, Environment Directorate, Organisation for Economic Co-operation and Development, Paris
30. <a href="#">Singapore's COVID-19 foresight journey</a>	Liana Tang, Deputy Director, Centre for Strategic Futures, Singapore
31. <a href="#">The future of the civil service (United Kingdom)</a>	Charles Featherston, Head of Horizon Scanning and Futures at Government Office for Science, United Kingdom

### *Selection of takeaways and discussion highlights as reported by session leads*

#### *Inclusivity calls for collaboration (Breakout group 1)*

How can we design reference scenarios, which are mainly limited to online participation, to be more inclusive, non-linear for more flexibility, and capable of evolving over time?

- Work with member states, integrating their national processes, and/or help develop a new process using existing research and projects as a starting point.

#### *Getting traction with policy makers requires intentional approaches (Breakout group 9)*

It is important to relate foresight studies to strategic policy issues: to focus on specific difficulties policy makers face and put them into a broader perspective.

- Use the right language and metaphors, not only to make foresight studies more understandable but also appealing for policy makers and stakeholders.

#### *New biodigital capabilities are creating a policy gap (Breakout group 10)*

The group reflected on the gap between current policies across many jurisdictions and new biodigital capabilities arising through new products, platforms, services, and industries.

- Ethical challenges, economic opportunities and potential for inequality are important considerations.

#### *Innovative uses of networking can facilitate collective working (Breakout group 11)*

“We built a network that we call the “Future Network.” It is a Brazilian collaborative space to share information about the future, so it was easy to get these experts to participate. We add experts from specific fields, too, such as from the Health Ministry.”

- “All the high-level engagement that we had in the research may also be caused by the subject proximity and, consequently, effects on the experts’ lives.”

#### *Existential risks should be a priority for the GFC (Breakout group 20)*

The GFC can play a critical role in raising awareness and co-ordinating international efforts toward developing assessments and plans for a broad range of existential risks.

- Together the GFC should address how scenario planning for “plausible futures” is no longer sufficient to engage with and plan for existential risks.

## 5. The Shifting Global Context

### *OECD-led sessions exploring global scenarios to 2035*

Participants explored three future scenarios developed by the OECD Strategic Foresight Unit – *Multitrack World*, *Virtual Worlds* and *Out of this World* – and their implications for governance, international organisations and global co-operation. The session offered an opportunity for foresight colleagues to collaborate on thinking through salient futures issues and prompted reflection on the purpose and value of multilateralism. Timing of the session allowed for a regional focus, notably exploration of plausible future geopolitical developments among participants in the Americas, Africa, Asia and the Pacific, and Europe.

Multitrack World	Virtual Worlds	Out of this World
In the world of 2035 different systems and standards have solidified in different parts of the world, creating a handful of separate, parallel clusters of states that differ on values and definitions of well-being. With a large-scale movement away from globalisation and significant distrust between clusters, there is a diminished interest in and incentive for international co-operation. This is a world of diversity rather than universality, where ideas of what constitutes better policies.	Welcome to the metaverse of 2035, an interconnected virtual platform where the majority of human interaction, for business or leisure, takes place. Technology companies provide the hardware and software. States control what hardware and creative freedoms are afforded to their citizens within the virtual universe. Diplomacy is more important and more complex than it has ever been, as relationships between states, platform companies, and users need to be managed.	The year is 2035, and humanity is facing multiple threats to its well-being and ability to thrive. The world is in shock following a disaster in outer space that catalysed widespread expressions of discontent towards leaders perceived as neglecting co-operation and exacerbating the risks humanity faces. Multilateral institutions face fundamental questions about their purpose and role in guarding humanity against the power it has to destroy its own long-term potential.

### *What might governments and organisations need to start doing now to be prepared to thrive given the possibility of any of these scenarios?*

- A **digital declaration of human rights** could be the new frontier
- Address the lack of **trust and legitimacy** in public sector organisations, nurture more participatory and inclusive governance
- Increase the **futures literacy** of decision makers and give foresight and integrating futures the same relevance that macroeconomic modelling is given now
- Fully **integrate futures** thinking and foresight into planning and operations
- Consider the question of which **values** are going to be preserved
- Promote foresight exercises in high-level meetings between institutions so as to create **collaborative decision making** and policy ideas around them
- Provide **knowledge that is relevant and understood** by not only policy makers but citizens and businesses; sometimes we speak different languages
- Create regulatory and institutional systems that can help as the world changes; **appropriate incentives** must be created to reach desired scenarios

## 6. Increasing Diversity and Inclusion in Foresight

*Interactive panel and breakout discussions. See Annex 8 for guest speaker bios.*

In this session, invited speakers representing the “next generation” of foresight practitioners engaged with participants to explore perspectives and strategies for increasing diversity and inclusion in the field. Guest speakers included Özge Aydoğan, Strategy Specialist, Policy, Foresight & Partnerships, UNICEF; Pupul Bisht, Creative Lead & Network Weaver, Next Generation Foresight Practice, School of International Futures; Kwamou Eva Feukeu, Project Officer, Futures Literacy, UNESCO; Sandile Hlatshwayo, Economist, IMF; and Prateeksha Singh, Head of Experimentation, UNDP Asia-Pacific Regional Innovation Centre.



The following are reported reflections from themed breakout groups led by the panellists and two OECD foresight analysts.

### *Conceptualising the future*

“There is an over-reliance on data and a tendency to focus on forecasting rather than foresight, which is tied to the worldview that if we follow all the steps in the right order there is a way to know, discover or find the future. This is based on dominant narratives rooted in the colonial history of our world which have a desire to precisely define anything that’s unknowable or beyond what we can conceive. This is a trap and illusion that needs to be avoided in our work. We need to think about how can we expand and shift to seeing the future not as a distant place we are trying to find, but a place that we’re trying to co-create. This intention can influence the way we practice, who participates in our processes, who designs them, and for what outcome.

The desire to identify the destination is also based in a Western modernistic view of time as a linear entity where we are moving from the past into the present and towards the future. What happens when you engage with cultures and communities that have cyclical understandings of time? It’s difficult because it can seem like they see the future as flat or as a representation of the past. I highly challenge this. The real problem is that we don’t have the vocabulary and syntax to interpret what that exploration of the future looks like. It’s about expanding our vocabulary versus excluding concepts, approaches, or worldviews that don’t fit into the neat categories we feel comfortable with.”

### *Purposing*

“First, being clear at the onset what foresight means, especially with regard to its political and democratic use or purpose. We should not do foresight in isolation. We need to think about how it can make sense and be utilised effectively for strategy making. We need to look at overcoming the “lack of evidence” challenge, i.e. how to collect/define evidence from the future, since many policy making processes remain past-data-driven. Whenever possible, foresight should be decoupled from political processes. The latter often represent a challenge to design foresight processes, as politicians tend to be interested only in near futures given political/election cycles. Finally, we need to go beyond traditional, top-down and expert-based foresight processes towards consultative processes that allow for co-creation and inclusion of non-traditional foresight perspectives across age groups, disciplines and geographies. Building in broader stakeholder consultations as part of the design of foresight and strategy making processes is critical, as is overcoming intergenerational gaps.”

### *Networking, recruitment and retention*

“The session started with the recognition that we evolved in a futures ecosystem. Looking at our CVs, we could deduce that futurists in both the public and private sector evolve in and thanks to networks. Our teams

are often small in size, which encourages the reproduction of academically trained or socially networked individuals from similar geographical and academic backgrounds. We could make a similar analogy to the scenarios we produce and the images of the future we tend not to question. Diversity and inclusion therefore come from a conscious act. Participants discussed the decision to seek out panellists, for example.

A practical proposition on the table was rotation positions. Foresight positions within international organisations tend to become permanent. Recalling a recent World Futures Studies Federation around what a futurist is, we observe a tendency to associate the profession with a series of specific tools and methodologies which do not pave the way for learnings from anthropology, decolonial studies, narrative poetics or the Theatre of the Oppressed. To reconnect these worlds, we are fortunate to help advance a discipline which specialises in understanding why and how we anticipate, or, to use our jargon, the structures and functions of human anticipatory systems and processes. Our discipline is interdisciplinary by nature. The rationale for inclusion is a given, while it remains a conscious decision to make.”

### *Convening, partnering and public engagement*

“We discussed our power as co-ordinators of sessions bringing in expertise and also our experience as participants. The first thing that came up is bringing in experts who are more representative of the world we live in. There are many dimensions to this, but having access to global networks is absolutely critical. Also, being conscious of who gets to be a part of these global networks is a deeper level of inquiry that we must surface. Before we convene a panel, we also need to be conscious of who is best poised to engage with our audience. We can use that as an entry point. Serving the purpose needs to take priority, versus finding a well-known name or trendy person in the field who we follow online but who may not be able to connect the dots and push the discourse.

We also raised the need to find creative ways to engage our communities internally. For example, holding tutoring sessions of five or six people within our organisation or government so people unfamiliar with foresight can talk and learn in a safe space. This can enable the kind of interdisciplinary discourse we need to elevate the field. Similarly, signalling meetings and other simple interventions can create engagement within organisations. Finally, it’s also about having a critical look at the disciplines that we want to be a part of our discourse. Who is a foresight practitioner? Who is a futurist? Using that language limits deeply who we can access. Looking at points of practice of practitioners on the ground who may not identify as futurists as such is a very important entry point to moving towards the kind of inclusion we want to see.”

### *Messaging, communication and diplomacy*

“While some participants admitted to self-censorship in their strategic foresight work, most do not feel censored. However, many expressed concern over whether their strategic foresight work is ever used, or if used, is done so in an incorrect manner. One participant with communications expertise discussed the need to tailor products for different audiences, which is more about amplifying the receptivity of audiences to the work rather than explicit censorship (although sometimes sensitive areas like geopolitical tensions can be intentionally tamped down to avoid negative reactions). Participants expressed concern over the tension of operating in institutions with strong biases towards “evidence”/data-based policy-making, increasing skepticism of their strategic foresight products’ value. The group also discussed the need to break our monopoly over futures work by empowering other groups (e.g., indigenous) to craft and promote their own futures. Some of this is already occurring, funded by universities (e.g., University of Montreal) and foundations.”

### *Horizon Scanning*

“We likewise questioned who we should see as the experts: not just people who have diplomas and titles, but also people who will be impacted by policies. These are people we should be reaching out to. Inviting outsiders to our conversations is also really important. Most importantly, we should remember that we in strategic foresight are learners, not oracles. Every horizon scan or foresight study that we embark on should be a voyage of discovery for us. We need to approach every study as beginners, with that curious mentality.



For example, even for a queer person, working on a project like that of the experiences of transgender people serving in the military, one can have one's eyes opened by others' experiences, of all different ages and background. As practitioners, we're there to learn and impart wisdom, and this is something we should remind ourselves of constantly."

### *Funding Projects and Programmes*

"Funding foresight work requires a strategy for ongoing engagement with policy makers, and participants noted the need to make them feel safe and secure. Practically, fundraising is a balancing act between offensive and defensive strategies. Redirecting resources towards ongoing engagement can lead to sacrifices being made to the quality of work produced. Managers should examine whether the drive to meet funders' needs excludes perspectives which could create social benefit. This is especially true in the public sector, where futures work is a public good that carries the attendant obligation to meet a diverse array of public needs, including those that may be underserved and underfunded by the government at large. Are historically marginalised voices or novel perspectives typically only included in teams' or units' project design when it becomes an explicit funder or institutional priority to do so? If so, what creative solutions might exist to fund work that puts both quality and inclusivity at its core?"

## **7. Aspirational Foresight in Public Policy**

*Member-led sessions. See Annex 5 for more detail.*

Whereas descriptive foresight explores alternative scenarios for what could happen in the future, aspirational or normative foresight explores the futures that participants believe could be both desirable and achievable. The two are complementary for effective forward-looking policy making: descriptive foresight challenges expectations and generates a broader view of multiple possibilities, while aspirational foresight can draw from this expanded palette to paint a shared vision needed to mobilise action.

In this session, representatives of governments and international organisations presented their experiences of using aspirational foresight tools and processes for better policies. Each gave a brief "pitch" on their project, then expanded on it in a breakout group (summarised by contributors below).

### **1. Participatory policy design in system innovation**

Peter De Smedt (BE), Policy advisor/Senior scientist Flemish Government & Kristian Borch (DK), Senior scientist

A system innovation approach has great potential for governments to improve their policy design for sustainable transitions. This participatory approach requires more systemic understanding of technological change and better organisation of stakeholder engagement than most traditional practices (e.g. evidence-driven, technocratic or idealistic, consensus approaches) can offer. How can a participatory policy design tool with a strong emphasis on sustainable transitions be developed? A reflexive understanding of knowledge creation in stakeholder networks can be applied to develop it in accordance with a system innovation approach.

### **2. How to increase futures thinking and change making capabilities?**

Mikko Dufva & Jenna Lähdemäki-Pekkinen, The Finnish Innovation Fund Sitra

This session explored ways to make foresight and change making more inclusive and understandable. It was based on lessons learned from the Futures Makers project, which aims to champion hope-inducing future views in Finland, to develop them with people other than those who work in the field of foresight, and to increase the futures capabilities of individuals and organisations. Participants received a preview of project outputs to be published in January 2021 and discussed lessons learned about demystifying foresight, combining futures thinking with change making, and doing all this virtually.

### **3. Pitch for our own: 'Futures Literacy for Transformative Governance'**

Riel Miller, Head & Kwamou Eva Feukeu, Project Officer, Futures Literacy, United Nations Educational, Scientific and Cultural Organization

Over the past eight years and reinforced during COVID times, UNESCO has developed and fine-tuned an action-research/action-learning tool called Futures Literacy Labs. The overarching value added is not in the tool but in its capability. This capability-based approach enables governments and civil society to engage with futures not only for optimisation, preparation and planning, but also to enhance their creativity for inclusive societies. Differences between expectations and expected outcomes of 2020 Labs were presented.

### **4. Aspirational foresight for better public policies**

Mónica Lilián Méndez Caballero, Global Security Analyst, Mexico

Aspirational foresight techniques allow us to identify and socialise future visions and find common elements shared within societies. Based on the experience of a foresight process for public security agencies in Mexico, this session discussed how to make the most of aspirational foresight for policy making. It concluded that to go beyond the prevalent top-down approach for policy decision making and visioning, it is relevant to develop inclusive exercises for personnel to provide their perspectives so they are included in institutional programmes and projects.

### **5. Using Visioning and Storytelling for Development Strategies in the Western Balkans**

Jan Rielander, Head of Unit, Multi-dimensional Country Reviews, OECD Development Centre

OECD Multi-dimensional Country Reviews support developing countries in shaping strategies for their development. Based on a holistic conception of what development means and entails, the methodology combines rigorous diagnostics with people-centred strategic foresight and governmental learning. Each project builds on an initial workshop which uses visioning and storytelling to identify and elaborate a desired future which serves as a guidepost for assessing the country's current reality and setting out pathways for development.

### **6. The Project on Foresight and Democracy**

Sheila Ronis, President, The University Group & Leon Fuerth, Forward Engagement, United States

In a trial of limited scope, the Round Table system piloted in this study enabled open-minded, non-polarised discussion of socially challenging issues in the United States related to profound ongoing and longer-range issues arising from demographic shifts and technology. The project is currently working with a college of public service in a major university to extend this method to the grassroots level, with the goal of encouraging the growth of a national network of local Round Tables. Although the focus is the United States, trends are treated in a global context, and the method may have value at that scale.

### **7. Ambisyon Natin 2040: Tuning in to people's aspirations**

Nerrisa T. Esguerra, Director IV, Development Information Staff & Bien A. Ganapin, OIC Director IV, Trade Services, and Industry Staff, National Economic and Development Authority, Philippines

In 2015, one year before the national elections, the Philippines' socioeconomic planning agency embarked on a long-term visioning process to formulate a national vision and address longstanding problems of fragmentation, discontinuity and short-termism. The result was AmBisyon Natin 2040 (Our Vision 2040), adopted by the new administration 2017. This session recounted the visioning process, which used a combination of technical expertise and tools of the government bureaucracy, as well as creativity in communication and advocacy. Challenges to sustaining the initiative and increasing the bandwidth of interactions were also discussed.

### *Selection of takeaways and discussion highlights as reported by session leads*

- There are a lot of **different roles in foresight**: engaging with people with no previous experience (the educational role), going into a room with big thinkers, report writing, plus many more. When we try to tackle all these roles do we end up in a situation where we are not as good as we could be because we're trying to do many things at once?
- **Popularising foresight** is important and it would be great if foresight would be introduced in undergraduate and graduate degrees. Training centres in governments can also establish an introduction to foresight course for analysts early in their careers.
- It takes a lot of time and effort to understand systemic problems. You don't get very far if you don't **understand the central phenomena**. For instance, it is hard to talk about the future of health care if you don't understand the genome and AI.
- Foresight is in a very different position than just five years ago. The fact that the European Commission now has a vice president for inter-institutional affairs and foresight says a lot. However, the situation is **different in different parts of the world**. In Latin America foresight practitioners are still considered fortune tellers.
- Aspirational foresight processes can be **embedded in strategic planning** to define the institutional goals and projects for an administration.
- Be creative in **setting up common spaces** for members of the institution to share their points of view and to create effective results reports for those perspectives be considered in institutional projects.
- During the project's implementation process, keep communication with the foresight committees along the institution to **increase awareness of the usefulness** of foresight skills. The challenge is buy-in at all levels of the organisation to think longer term and think about the future in traditional planning cycles.

## **8. Joint EEA-OECD Session: Wild cards**

*See Annex 6 for more detail.*

This session was the first of two co-hosted with the European Environment Agency (EEA). It was chaired by Karlheinz Steinmüller, wild card expert and scientific director and founding partner of 'Z\_punkt GmbH – The Foresight Company' in Cologne, Germany. Dr. Steinmüller explored the role of wild cards for strategic foresight in the public sphere, addressing such questions as: What experiences are there with the use of wild cards? Who uses them? How can wild cards be generated and selected? How can wild cards be used more routinely by governments in their work? What challenges – on the methodological level and in communication – have to be overcome when using wild cards?

After a Q&A, participants moved into breakout groups. Each was provided with a wild card covering one of the STEEP categories asked to identify potential primary and secondary impacts and related implications for policy makers. Wild cards covered the five STEEP categories and were distributed as follows:

Category	Wild Card
Society	1: Vegetarian revolution 2: Health security regimes
Technology	3: Superconductivity at room temperature 4: Collapse of critical information infrastructure
Economy	5: Disintegration of the web 6: Global financial crisis

Environment	7: Global food crisis 8: Seaweed pest 9: Dramatic decline of entomofauna
Politics	10: Cities take the lead 11: Minimum flight distance introduced globally

Groups concluded the exercise by formulating three main insights about policy making with wild cards, summarised below.

### Methodological challenges of wild cards

- **Uncertainty:** Wild cards are intrinsically uncertain. From a policy perspective, uncertainty in impacts, as well in time scale and spatial scale, must be addressed and transparently communicated.
- **Probability:** It is challenging to assess the probability of a wild card. What kind of evidence for a certain level of probability can be incorporated? Black swans are “unknown unknowns” without any way to assess their probability. How to treat them?
- **Global character:** Wild cards are systemic shocks in a global context so should be addressed globally. Co-operation and multilateralism are essential.

### Reactions of policy makers

- **Urgency:** Policy makers often wait for problems to become urgent before implementing a mechanism to deal with them. Wild cards need anticipatory reactions. Politicians should invest in foresight, develop scenarios and use the results for policy making, even if the problem is not yet pressing.
- **Implausibility:** Perceived implausibility may lead to rejection of wild cards; plausibility is needed to convince policy makers. Tools such as a likelihood index or risk analysis make it easier to raise awareness and allocate resources.
- **Quantification:** As a rule, the institutional focus is on quantification like cost-benefit analysis, while qualitative aspects are often not on the radar.

### Options and opportunities

- **Foresight literacy:** Education plays a decisive role. We need foresight literacy (including wild cards) in secondary education to raise preparedness.
- **Psychological research** is necessary to better understand reactions to wild cards and to minimise vulnerability. The example of the pandemic demonstrates that it is not the death rate as such that creates major economic impacts, but rather panicking and responses to that.
- **Global governance:** Governing a global crisis is an issue of global governance with the need to regulate competition and co-operation, but also to allow communities to self-organise.

### General observations

- **Social responsibility:** The impact of policies on social responsibilities (volunteering and other political grassroots initiatives) is a key element of policy making.
- **Risk of optimisation:** How to deal with future vulnerabilities? By learning from the disruption. However, there is a risk that optimising crisis response mechanisms according to one specific crisis can lead to a loss of resilience with respect to future ones.
- **Question of normalisation:** Collapse and resilience are challenging notions. The question is whether or not we can go back to the state of affairs before the wild card.



## 9. Joint OECD-EEA Special Session: Foresight for Action

*Supporting report on foresight for action and full session description are available in Annex 7.*

The OECD-EEA joint session on Foresight for Action opened with keynote presentations from Nicole Dewandre, Policy Co-ordinator for Foresight in the cabinet of European Commission President Ursula Van der Leyen, and Laurent Bontoux, in charge of foresight in the cabinet of Maroš Šefčovič, European Commission Vice President for Inter-institutional Relations and Foresight. Ms. Dewandre spoke on the need for foresight studies to support the European Green Deal, and why foresight remains under-used in policy cycles. Mr. Bontoux introduced approaches for producing actionable foresight knowledge and how improve its uptake within policy making.

After a Q&A, participants moved into breakout groups to consider a question on the implementation of foresight practices into policy making and formulate general principles to answer it. These are summarised below, integrating answers and commentaries from different groups working on the same question.

### 1. What are the best ways to ensure that foresight studies are relevant for policymakers?

- **Do quicker foresight** (e.g. COVID scenarios responding to the emergency), add speed to foresight processes. Discussion of overall scenarios should be prioritised over development of full-fledged scenarios, which can be done in strategic conversations.
- **Continuous investment.** Governments should continuously invest in forward-looking activities and anticipation capacities even if there is no emerging issue. This can pay off when issues arise and helps to keep certain policies on the radar.
- **Regular consultation and communication about foresight needs.** Establish a systematic process of consultation with policy makers of all levels. Such iterative processes adapt foresight work to political needs, identify politicians' blind spots, and enhance understanding of what foresight is and what it can contribute.
- **Exchange on foresight with other countries** and world regions. Foresight cannot be done successfully in national or regional isolation. Foresight in one country has impact on others and vice versa. To guarantee successful foresight work, one has to understand perspectives of other parts of the world.
- **Build comfort with uncertainty.** Foresight disrupts routines. Disruptions, uncertainty and complexity are uncomfortable. Can foresight be made more "bearable" for policy makers? Institutions must think about and commit to internal transformation (agility).
- **Build long-term accountability.** Foresight is not about producing guidelines for the short-term but refocusing attention on long-term impacts. Try to get at least a substantial fraction of policy makers to shift their minds to long-term issues.
- **Build a shared terminology.** Use the language of the policy arena you are working for. Translation is important: explain words, adapt languages, avoid jargon. This may require a learning period while capacity is built.
- **Communication, context, and consequences are key** for delivering messages effectively. Output format should be suited to the audience. A project output in terms of documents or presentations is not the end of a foresight study; continued communication with policy makers helps to ensure its relevance.
- **Acknowledge competition.** Many groups (lobbies, stakeholders, think tanks) compete for the attention of policy makers. Call out weaknesses in unfounded input, incorrect data or information lacking in competing studies.
- **Improve the policy literacy of foresight experts.** As a mirror image of the need to increase foresight literacy among decision makers, foresight experts should understand the unwritten principles of policy making and the conditions and restrictions policy makers face, their contexts, aspirations and room for manoeuvre. "Policy literacy" is needed.

## 2. What are the best ways to improve the capacities of policy makers to use foresight?

- **Foresight capacity** is not only the ability to do foresight, but foresight literacy: to know what foresight is and how to do it. To be able to distinguish foresight from forecasting. But be careful: foresight is not “better” than forecasting. They are different tools, both important.
- **Integrate policy makers into foresight processes.** Establish exchange programmes where policy makers spend time in a foresight group at different stages of a project, and the other way round. Invite policy makers to scanning clubs that regularly bring people together to discuss signals. Participants in such meetings increase their foresight capacity without knowing it and build confidence.
- **Synchronise needs of policy makers and foresight.** Timeliness and relevance are decisive. Use windows of opportunity; react very rapidly to consultancy demands. Offer smaller projects, increase frequency of exchange with policy makers. Policy makers often have the capacity to “jump” on a specific issue when it suddenly becomes important – foresight teams should be able to react equally rapidly.
- **Connect to citizens.** Make the process more open and inclusive. Involving citizens gives foresight results more relevance for policy makers. What citizens say is more important for politicians than the opinion of foresight people.
- **Develop foresight champions in institutions.** The best case would be foresight training for officials/politicians. A utopian idea: foresight sabbaticals for politicians!
- **Counteract biases.** Policy makers may have biased visions on policy issues due to their background and experiences; foresight studies can help broaden their visions. Foresight studies should not only be rational but also emotional; they should express policy makers’ hopes and fears.
- **Be conscious of electoral cycles.** Every change of government implies changes of responsibility; connections to departing high officials and politicians are lost. Better to build foresight capacities from the bottom up (there are no permanent success stories with top-down approaches). Resources should be developed outside the government, keeping in mind that opportunities for capacity building are quite different in the industrialised and the developing world.

## 3. What are the best ways to increase organisational and high-level support for the use of foresight in policymaking?

- **Gain support from the highest level possible** (i.e. chairperson or president). Foster foresight by involving a high-level champion within the organisation, in particular scientific officers or board members in charge of innovation or strategy building. Give high-level representatives an opportunity to gain visibility.
- **Long-term/short-term:** Organisations predominantly focus on short-term issues. Make policy makers understand that long-term perspectives can help them to address short-term issues (e.g. floods due to climate change). Policy makers should regard long-term issues as an investment and not a cost factor to their short-term objectives. Establishing a link between foresight and resilience is useful; this leads to a focus on long-term transitions rather than short-term “remediation”.
- **Ensure relevance** to decision makers and organisations by linking foresight to current projects. Address issues policy makers are interested in, in particular grand societal challenges as they are discussed in society and media. Use practical examples to show how foresight can lead to better policy making (as in the case of COVID-19).
- **Embed foresight in policy processes.** Engage policy makers at an early stage in foresight processes (e.g. kick-off workshops and later practical exercises).
- **Overcome silos.** Foresight should not be limited to the interests of a particular agency or department. Including employees/officials from outside foresight units fosters dissemination of results to other parts of an organisation. Involve formal and informal “foresight ambassadors” who can spread information about foresight to their peers.

- **Make foresight an opportunity to connect to a broader audience** and for the organisation to gain visibility. Inclusiveness (gender, age, race, experience, expertise) increases legitimacy and credibility.
- **Involve external participants** (e.g. experts, stakeholders). This requires an adequate budget for external support.
- **Use big data** to provide evidence and create buy-in for both governments and businesses.
- **Create short, narrative products** that show clear benefits for the organisation and are targeted towards the audience. But even the best report is only the first step in transferring results into an organisation.

#### 4. What are the best ways to improve the communication of foresight studies?

- **Tailor study dissemination** to target groups. Stakeholders, the audience and champions are not the same people! Identify the right audience. Marketing and perception should not be underestimated; high quality work may not be sufficient. There are lots of tools and channels for communication: visualisation, infographics, workshops, different social networks for different audiences. Use existing platforms. It is not necessary to create always something new.
- **Know your audience.** Be sensitive and attentive to the needs of your audience. Ensure ownership through engagement (keep balance: engage with stakeholders, but not too many!). Practitioners may have not much time, for others it might be important to demystify foresight.
- **Speak with one voice.** Increase trust by presenting your team with internal coherence. Who speaks matters. The higher the level of the spokesperson(s), the higher the chances of reaching out to a wide audience.
- **Find a balance between process and result.** How much do we need to explain what we do, our approach, the methods? How much time should be allocated to showing the results of our work? At the beginning it is important to talk about both. Audiences expect diverse and convincing results. However, from an organisational perspective, the process is often more important than the product.
- **Practice parsimony.** Communicate in succinct, well-targeted messages. Keep them simple and straightforward. Decisions are the point of relevance for policy makers; make your results “actionable by design”. Central questions are conclusions for action (“so what?”). Bring real terms (money!) into the talk, ground it to the present.
- **Training** is the easiest way to reach people at the level of government and universities. Trainings for experts from ministries improves foresight literacy across the government.
- **Policy simulation games.** Games are a powerful information tool. This can take a lot of time and can be expensive if done in a convincing way, but it is well worth the investment.

#### 5. What are the best ways to co-ordinate foresight without creating common blind spots?

- **Create room for multiple foresight approaches.** Practice flexibility in your own approach, for example in terms of methodology. Carefully consider the method for the foresight process to ensure dialogue and a workable mix of individual and collaborative efforts.
- **Ensure inclusiveness and legitimacy** in planning the foresight process.
- **Trust in a diversity of people and skills.** Working in silos leads to blind spots. Different teams follow different approaches and have different information sources and narratives. Practitioners have their own strategies, methods, language (with respect to trends, drivers etc.). Foster networking between teams and communicate this to policy makers; a wide network enhances credibility. Check information sources and data for accuracy and bias.
- **Push beyond the comfort zone.** Speak truth to power. Dare to be annoying. Just being “pleasant” to superiors can lead to blind spots. Practice thinking out of the box as much as possible. Leave your desk (and your silo) and talk to people in many areas and positions outside and inside government.

- **Involve policy makers.** Bring policy makers into the “kitchen” (the foresight process); don’t bring them the “bread” (the results).

## 10. State of the Art of Government Foresight

### *OECD-led closing plenary and breakout groups.*

The meeting’s concluding session focused on the characteristics of “world class” systems of foresight for public policy and anticipatory governance. In breakout groups, participants identified what constitutes the “state of the art” in this area, highlighting recent examples of best practices of their government foresight colleagues. Insights and examples are summarised below.

Characteristic	Level 1	Level 2	Level 3
<b>1. Purposes</b>	Future-ready policies	Future-ready society	Futures literate and engaged population
<b>2. Incentives</b>	Government commitment	Legislated commitment	Parliamentary and public oversight
<b>3. Practices</b>	Occasional broad and thematic foresight studies	Ongoing horizon-scanning, scenario planning, visioning...	Systematic embedding of foresight in policy design, implementation
<b>4. Processes</b>	Participation of core foresight enthusiasts	Participation at all levels (incl. decision-makers)	Participation of citizens, civil society
<b>5. Institutions</b>	Central foresight unit and cross-govt. networks	All ministries have foresight units, networks	External futures and foresight centres, etc.
<b>6. Capacities</b>	Hire and train foresight specialists	Foresight literacy for all public servants	Futures and foresight literacy for citizens
<b>7. Collaboration</b>	National	Regional	Global

### *1. Purpose of foresight in improving public policy*

The purpose of strategic foresight in the public sector is to equip governments and societies to continuously explore and prepare for the future in order to navigate, adapt, and shape the future through better policies. A number of existing foresight processes support this type of objective, for example, “metascans” on key emerging changes or anticipated radical technologies and strategic assessments of how trends and uncertainties might shape the world. More specific examples include national tax administrations of several countries collaborating to assess future developments and their relevance for tax and revenue; and identifying professions of the future. Strategic foresight efforts at both the broad contextual and sector-specific levels can interlink and reinforce each other as part of an ongoing system of integrating futures thinking into policy making.



## *2. Incentives, mandate and leadership for foresight to improve public policy*

Participants discussed the importance of changing what people expect when they think about the future. Better awareness of foresight – not just among policy leaders, but the broader population – will create greater incentive for futures to be mainstreamed. More futures literacy to generate higher citizen demand, along with feedback mechanisms between citizens and policy makers, is needed. Financial incentives and explicit agendas to discuss the future were seen as crucial, and it was noted that introducing foresight in various forms depends on the policy formulation structure.

Best practice examples;

- A parliamentary committee for the future. This creates the legislative incentive, but also has side effects in terms of bringing in creativity that other committees don't often have.
- Binding legislation that offers budget and regulation to support foresight and futures thinking and literacy.
- Having a high-level role like a Commissioner for Future Generations creates awareness about the issue, in this case cross-generational responsibility.

## *3. Practices for widespread ongoing application of foresight to improve public policy*

Group members pointed to the use of foresight methods in all or most policy processes as the ideal. This can be instated in law or policy. It can be encoded through practices like having a standard set of questions (e.g. on futures, impacts, and transitions), guidelines or tools to ensure that the exploration and mapping of systems and relationships is done in a participatory way in all policy processes.

On the other hand, there is a counterargument for the advantages of being somewhat independent and outside the formal structures of governance/government. Independence protects a foresight mission from political cycles and short-term pressures. Hosting and feeding a government-wide foresight network (with self-selected or assigned participants) can build ambassadors for foresight across government institutions.

The group also discussed examples of foresight and futures thinking being used by or in relationship with law making or democratic oversight institutions. There is need to think of the relationship between rights, laws and futures, or new/future rights (e.g. climate rights). The use of foresight in law making could be considered a possible new frontier, concerned with future undefined liabilities. Foresight can also be used in areas that require flexible and adaptive legislation as the regulatory terrain changes rapidly in response to technology development, for example regulation of health products and privacy law. A third area is the use of foresight in research resource allocation, for example applying foresight in resource allocation for public research programmes. There are currently obstacles to resource allocation to trans-disciplinary work in science and research systems; research funding and incentives do not sufficiently support it. There is a need to strengthen linkages between the foresight community and academic fields including transition studies and ecosystem science.

## *4. Processes for active participation of decision makers and stakeholders at all levels in the futures thinking process to improve public policy*

Which decision makers need to be involved in foresight conversations varies by context. This typically includes public servants (analysts, task teams, management) most involved in conducting analysis and developing policy proposals. However, for significant policy proposals (such as broad national strategies or major initiatives) the foresight conversation should actively involve senior public servants, politicians, and broader representatives of society as well.

Personally experiencing a change in perception about possible futures and their implications leads decision makers to acquire a more future-ready framework from which to base their choices. Engagement is enhanced when outputs coincide with moments of important decisions, such as the expiry of a previous strategy or the preparation of an election campaign. In practice, this means designing ongoing and ad hoc strategic foresight

processes that involve active discussions and engagement with alternative future scenarios and their implications at appropriate times in the decision-making process. Examples include timing reports to co-ordinate with elections, mid-term policy review cycles, or in anticipation of ministerial reviews.

In addition, bottom-up engagement initiatives that target citizens and other non-governmental stakeholders are important elements of a whole-of-society approach to using foresight to improve public policy. Some of the aspirational foresight practices presented offer examples of approaches to this level of engagement. These include learning labs and a summit to promote futures literacy; citizen engagement roundtables on specific topics such as population ageing; and hope-inducing future views developed with people other than those who work in the field of foresight. Some of these approaches seek to gather participant perspectives through a foresight process to feed into a policy conversation or national vision, while others seek to increase the futures capabilities of individuals and organisations outside of government.

### *5. Institutions to successfully perform the above practices and processes on an ongoing basis*

The first question group members suggested should be asked is: where is the buy-in? A diffused (networked) system requires constant confirmation of buy-in. Second: where is the power? Stability of an institution is very important, both in and outside the public sector, so politics don't interrupt. Foresight units should study recurrent issues documented in case studies and analyse successes and failures; this can be instructive for designing institutional arrangements. However, "context is king" when institutionalising foresight.

Options of models that participants discussed using for their government foresight work included:

- A central group that co-ordinates, but may comprise several internal units with greater freedom or capacity to think freely.
- A dispersed network of foresight-literate public servants (this model uses training institutions as a structure).
- Multilateral or bilateral collaboration among countries in the same region or with shared interests (openness is noted as a precondition to this model).
- Active non-state actors who have been more willing to support topical foresight studies in some contexts.

Examples of successful institutional practices included five-yearly executive and parliamentary reports; being situated within government but not reporting to the political apparatus; a Senate-based commission for the future; an annual foresight report committed to integrating foresight through an institution; and distributed networks of practitioners and sectoral teams, coupled with a central hub (this model is noted for its incapacity to pick up and integrate best practices).

### *6. Capacities and skills to perform practices and processes and achieve foresight purposes*

Starting with the question of "why we care about building foresight capacity", participants noted that different foresight units accomplish different functions. Work is very context dependent. Anticipatory governance, meanwhile, implies that foresight must be involved in everything. One can apply the tools of foresight without calling it foresight – for instance, challenging assumptions is useful for testing whether or not a current policy is robust.

State-of-the-art-practices in this area have the characteristic of involving and extracting expertise from outside the foresight unit. Capacity should be spread across the organisation, not only concentrated in foresight units, for resilience and overcoming budget limitations. It is only useful if there is demand for foresight units' services; if people are not responsible for solving problems, it doesn't matter if you can solve them or not.

Best practice examples:

- 'Introduction to foresight' courses to embed capabilities across the public service, not only to preserve the capability but to build internal networks of advocates who understand the value and limits of our work. Build awareness of the toolkit and the various techniques. Given the composition of the ministry, focal topics for the workshops should be flexible to cover the range of interests.
- Start a 'scanning club' where officers share what they have seen as part of their ongoing work. It's very difficult to get people to dedicate time to brainstorming sessions, but they don't mind sharing things they come across in their daily work.
- Approach foresight as a way of thinking and tool for enhancing public service productivity. The idea is not to do foresight projects, but to incorporate the principles and way of thinking, using the tools in regular work which enhance public service delivery. As the number of advocates increase, new strategic units may be created. The planning ministry should incorporate some elements of a forward-looking plan. Make the link to foresight's relationship with other capacities. For example, a resiliency institute uses the tools of strategic foresight.

### *7. Collaboration with global partners and others to advance shared foresight objectives*

Participants discussed 1) collaboration to create content; 2) creating political pull when content exists but extra profile is needed; 3) benefiting from capacity or expertise that you lack; and 4) creating collective cover for addressing sensitive issues. They identified a number of purposes and potential for collaboration in foresight, such as sharing content and ideas and findings, as well as doing more inclusive foresight that involves participants from various countries, helping to get out of our bubble. Collaboration can leverage differential strengths, but advantages need to prevail over the administrative burden. Exchanging ideas and getting feedback is key.

Informality and trust are essential for impactful collaboration. This can play a role in providing a sounding board that gives feedback on the findings of a report. Finally, having access to unique networks that can feed in insights and perspectives that a unit could otherwise not access can amplify impact.

Best practice examples:

- An initiative which involved a collaboration between representatives from several countries on a single topic (migration), co-ordinated and supported by two units. The added value of this project compared to conducting a similar foresight project in a single country is that it broadened perspectives, pooled efforts, and raised profile, especially by bringing the product to a ministerial-level meeting at the conclusion.
- A global trends report in which authors visit other countries to seek input and feedback. This engagement serves to pull together participants in a way that is beneficial to building awareness of foresight in the country visited.

## Annex 1: What Future Beyond COVID-19?

### *Opening Remarks by Angel Gurría, Secretary-General, OECD*

Welcome to our annual meeting of the Government Foresight Community.

Much has changed since we met a year ago. The global pandemic shattered many of our expectations. It unleashed new magnitudes of doubt and insecurity across the world, and across all policy areas that governments face.

At the OECD, we are working tirelessly to support our members and the international community in their response. We launched a Digital Hub on Tackling the Coronavirus, providing a single entry point to the OECD's analysis on the economic and social impacts of COVID-19. To date, we have published 156 policy briefs in virtually all areas of our policy work.

In addition, we have also provided policy advice to global fora such as the G20; we have kept open lines of communication with other multilateral organisations to ensure a co-ordinated and coherent response; and we have organised three virtual Ministerial Council Roundtables on the economic and employment outlook and the environment, as well as a number of targeted COVID-19 Ministerial briefings for a number of our Member countries.

Yet, in the current context, one thing has remained clear: we need strategic foresight more than ever.

Strategic foresight cannot only help us deal with the current crisis, it should also help us to tackle ongoing crises which will not wait for COVID-19 to end. This includes the waste of resources on stranded assets, the erosion of trust in governments and institutions and of course the urgency of climate change.

While predicting the future is impossible – and the current crisis proves this well – strategic foresight offers policy makers invaluable tools to help them face the unexpected. Strategic foresight is about challenging our expectations and our assumptions. It is about exploring the future to generate more innovative and future-proof policies today. And it is about looking beyond the present, beyond the near-future, and taking a look at what lies further ahead of us.

The COVID-19 crisis exposed a number of realities which affect the way we tackle challenges. This includes the very delicate connection between our environment and our health; the pre-existing structural vulnerabilities in our economies and societies; and most of all, the repercussions of our present problems on our shared future.

The crisis has also clearly shown us that now is the time for leaders to rethink and rebuild, while embracing longer-term approaches. We must all acknowledge that none of us can do this alone, and strategic foresight possesses the ability to unite and offer a common goal for all policymakers.

At the OECD we believe that governments must boost their demand, capacity, institutions and processes in favour of more and better strategic foresight. We also think that the best way to build such capacity is through greater international collaboration and knowledge sharing. It is a simple equation: the more minds and the more perspectives are brought together to co-produce projects, the stronger and the most effective the strategic foresight work becomes.



As you know, the OECD is at the forefront of policy analysis and standard-setting in most areas of the economy and society. This is precisely why our Government Foresight Community is a key vehicle for building better policies for better lives. By sharing our best ideas and our best practices, we can learn from each other and strengthen the quality and impact of our foresight work. Together, we can expand and mainstream the practice of foresight globally, for our mutual benefit.

The COVID-19 crisis has amplified the importance of your role. Our recovery strategies to build back better need your strategic vision and input. Let's keep helping each other improve, let's keep learning together. I very much hope that this meeting provides scope and knowledge to keep strengthening our foresight community for the benefit of humanity.

Thank you for your work. I wish you a great meeting.



## Annex 2: Foresight in a Time of Crisis – Lessons learned from COVID-19

### *Full statement notes from plenary session contributors.*

#### CONTRIBUTOR ONE

- Started looking at what are the big shifts in the medium term that we could be seeing and challenge our policy assumptions using scanning and interviewing and talking to people.
- Had to be very fast, meeting challenges in a month or two and understanding what is changing in the policy landscape, where might things be going, what are we sure of, what are we not sure of.
- We published in a report of driving forces. This was highly appreciated by policy makers because it allowed them to challenge their own assumptions. They were tested on what did we plan for and how might things go very differently?
- Workshops with Council, part of the PM's office. We had a lot of PMs and analysts come in. We interviewed them before, took the assumptions they had and checked that against driving forces.
- In the third iteration, explained how they could be using the work we had been doing. Once you have drivers, how do you use that to think through your assumptions, create assumptions that might be relevant for you?
- Challenges and opportunities we have had. Really challenging because as a unit you have to deliver – if you don't show up now to do foresight, you become irrelevant forever.
- What we learned is that you don't have to be perfect. Information that you provide is for helping people think through their problems and hold the space for very high strategic engagements for the future is really key.
- So we had to get our content out very quickly, which isn't always comfortable, but you have to get it out, be confident in what you have, and engage on it because all you do is actually help people think better.

#### CONTRIBUTOR TWO

We have three lessons to highlight for the practice of strategic foresight:

- Opportunism can benefit everyone.
  - It's important not to be blinded by the best-laid work plan.
  - Early on we realised we had a role to play to help our colleagues across government look beyond the immediate crisis, and consider the more medium-term impacts of Covid-19.
  - Existing strategies were being adjusted on a near-daily basis, but we also knew that new options would be needed when the medium term shifts followed, which people simply didn't have the bandwidth to think about.
  - So being able to recognise and meet that need, demonstrating value, demonstrated to stakeholders that FS is something to invest in in the long term. It's about recognising the opportunity, seizing it, and then making it of value to everyone.
- Foresight is not wedded to a time horizon.
  - We know this already from our work. Technology moves at a different rate of change than other issues, so we maybe look at it on a horizon of ten years rather than 20 years.
  - But covid-19 really brought that home because as FS practitioners we're more used to looking at the 10-20 year time horizon.
  - But when happens when time actually gets compressed, and changes that we might typically see happening over a ten year period suddenly accelerate?
  - So we ended up shifting our time horizon significantly and looking at the 2-5 year time horizon, which is not something we typically do.
  - We chose that horizon because we thought if we looked too far ahead we might end up underestimating the impact of the pandemic, but if we looked further in the future we might overestimate the impacts of the pandemic. As a team we had quite a bit of conversation about how far to look.

- Time is a luxury that foresight practitioners are accustomed to, but maybe not one that we can or should expect as the pace of change accelerates.
  - With covid-19 we knew that our analyses and products would be immediately useful, and we needed to start getting them out sooner rather than later.
  - But at the same time the situation was also so dynamic, so what we eventually decided on was what we call a “perpetual beta” approach where we released early versions and we updated them continuously.
  - We thought that would make the most sense because it would allow us to adapt our material as the situation developed.
  - The lesson for us here is that foresight requires agility in sense-making, and that’s really something the pandemic brought home for us and required us to innovate new ways of working.
  - It needs to be fast, it doesn’t need to be perfect.
  - But at the same time, how do you incorporate the usual rigour to maintain the reputation of your analyses and your institution as well?

### CONTRIBUTOR THREE

- It’s been an extraordinary time, a deep tragedy. I think all of us know someone who has been ill or died with this, and that’s coloured everything we’ve done.
- But at the same time it’s been an incredible opportunity, just amazing.
- The whole globe has a new way of working, and if you think about the implications of this Zoom world that we’re in, cash-strapped governments and businesses now bring people from all over the world together at the drop of the hat to talk together. Today I’m in Paris and Bangalore, tomorrow I’ll be in San Francisco.
- The opportunity there for community among foresight practitioners has been amazing, and that leads to another opportunity that I think we should all take advantage of in this time where we’re all interacting on our screens together - we ought to think about the foresight of foresight.
- We have the opportunity to feed a hunger that’s never been felt before in my lifetime for the whole globe to work together to build a better future. I think the impetus there has just never been felt.
- For the first time, not only are we experiencing something together globally, but we’re talking about it together globally, so this is an opportunity to build a global community to address some of the aspirational scenarios that many of us are helping organisations build.
- It is time not only for scenarios as to possible futures, but scenarios for aspirational futures that we can work together to build.
- I think it’s a unique, unique moment, and I welcome it.
- In the midst of all this tragedy, that we have the opportunity for the foresight of foresight, in this deep hunger, for us to change the world. This hunger is palpable in every group I’ve worked with, so it’s a time unlike any other. It’s a time of opportunity.
- I’ll be glad when it’s over, but I have this sense of, when it’s ending I hope that we will have done the work that we can do only in this time, where everyone in the world is the same postage stamp on a screen.

### CONTRIBUTOR FOUR

- What we’ve seen is that where we have helped in doing anticipation and foresight is to help get the crisis team out of crisis mode and thinking ahead about how to better understand and respond to the situation.
- Everyone has all sorts of information and has to treat it with urgency, and we were the team who had the opportunity to step back and tell them what was coming in next.
- This is the best lesson we have had.
- For us, this is the first time we have been so operational in our interaction with the business and crisis management, so this is the big lesson, to have this vision that you’re probably very used to in your community.

- It really was a new window and a new view that was utterly appreciated, and is part of the new normal that we hope to get.

#### CONTRIBUTOR FIVE

- Contrary to most of your institutions, this is a very young division created this year.
- One of the main lessons is that this kind of crisis is a great opportunity to introduce a more forward-looking and long-term approach into policymaking.
- We have been very much at the core of the governments activity since the pandemic started, and because of the pandemic.
- In March we wrote the first report that advanced estimates on the temporal length and socioeconomic impacts of Covid.
- We then were tasked with the design of the national exit strategy, and we have now presented an over 500 page report with over 100 authors on the future of the country in the post-Covid world.
- I think none of these opportunities would have happened without the pandemic, so I think maybe one of the good things that Covid will bring, at least to countries like mine, is precisely a government, a society and a media that is more inclined toward a more long-term view of policymaking.

## **Annex 3: Emerging global issues for our post-COVID futures**

*Descriptions of member-led sessions and session summaries submitted by contributors.*

### **1. Future of Connection**

Katherine Antal, Policy Horizons Canada

#### ***Session Description***

This session discussed Policy Horizons Canada's Future of Connection project. Governments are increasingly aware of the health and social capital costs of loneliness and social isolation. This has led to some local and national responses. But the forces shaping this systemic issue are not local and merit consideration of the global foresight community. The fear of contagion and interpersonal contact during the pandemic could accelerate a number of technological shifts. Automation could change social life as socially intelligent robots and virtual assistants gain proficiency and take on new roles. Meanwhile, an emphasis on remote interactions is shifting the spaces for connection in a range of areas including work, learning, healthcare, socializing, rituals, dating, and even sex. The social implications of these and other technological changes on interpersonal connection are not well understood. Policy Horizons invited the foresight community to consider how these and other changes might shape our opportunities, capacities, and motivations to connect with others in the future.

#### ***Session Summary***

Beyond technological forces of change, the Future of Connection study is also considering a number of relevant social and economic shifts. These include a movement to teach social and emotional skills in schools, and a willingness to address the causes and consequences of trauma that interfere with connection. Whether inequities revealed during the pandemic could drive greater investments in the social determinants of health is a key uncertainty. Participants were invited to raise other observations, questions, and changes shaping the Future of Connection.

The group discussed the security challenges and social problems associated with loneliness, including the possibilities for political exploitation or radicalization/extremism. They discussed the importance of communities that meet the needs of future generations and consider who is left out; UNICEF's Child Friendly Cities was suggested as a good example to frame this discussion. Participants raised a question: how might philanthropists invest in cities?

The group recognized the benefits of physical contact and the fact that these may be difficult to replicate online, but they also reflected that pandemic isolation in 2020 has allowed a number of possibilities for connection that would not have been possible 30 years ago. It has enabled reconnection with those further away, and peer-to-peer/sharing economy actions are creating opportunities to share kindness among strangers. Within constraints, people are finding creative ways to connect. For some, this moment has created space to improve work-life balance.

In addition to mention of the shift in communication modes (e.g. heavy smartphone use among youth), the discussion raised a question about how people are using information they find online. Here we find a bridge to Policy Horizons' other social futures project on the Future of Sensemaking.

### **2. This is not new...but any chance we can use our repeated mistakes in a way to improve?**

Tianna Brand, Foresight Advisor, World Organisation for Animal Health (OIE), France

#### ***Session Description***

It seems that we fail, every time, to heed the signals of emerging infectious diseases. With everything we know about the patterns of disease emergence (including our understanding of interactions with nature), the investments in research, risk assessments, surveillance and preparedness, we are faced with responding to outbreaks. Our systems and infrastructure (e.g., travel, trade and manufacturing) are so interconnected that outbreaks are no longer localized (African Swine Fever, COVID-19).

The policies, advice, standards and guidelines offered by international and intergovernmental organisations and which in many cases are adopted and agreed to by member countries, states or actors do not seem to be

implemented. There is global collaboration to develop this information and documents, but it seems to stop there.

Strategic Foresight is about identifying new challenges and opportunities. This session discussed how to use Strategic Foresight to address the “same old, same old” and design actions and policies on a global, systemic scale where there are no winners and no losers but meaningful collaboration?

### *Session Summary*

Amongst foresight and futures thinking practitioners it is relatively easy to recognize signals and warning signs of future events along with the interconnectivity of signals and possible impacts of events. For these types of thinkers and practitioners, systems and the health of systems are clearly seen to interact with each other – taking an all-inclusive, “one health” approach to issues is an obvious way forward.

The foresight toolbox is enormous and there is no end to the uses of the various methodologies (futures wheel, influence cascades, scenarios, etc.). However, the biggest hurdles seem to be breaking down the barriers in political systems and with policy makers. While COVID-19 was imagined through horizon scanning, trend analysis, even scenario work, there was a lot of debate around probability of it occurring rather than truly looking at the issue and considering the possible systemic impacts prior to its arrival. Or simply not in the interest of current agendas, whatever they may be.

## **3. Health (Immunity and Mental Wellbeing)**

Puruesh Chaudhary, Founder and President, AGAHI, Pakistan

### *Session Description*

Health is often on the agenda of various Governments but not entirely all, as the world is divided into advanced, developing, least developed, and underdeveloped. This is unfair approach has mostly been derived from the conceptual underpinning of economic growth; rarely have we witnessed wellbeing as the core foundation of what it means to be a healthy nation. The pandemic should offer us the space to reflect on this divide and our primitive ideas around the growth paradigm.

In recent history health has been driven by corporations rather than citizens; and while the world is moving towards longevity; awareness around immunity and mental wellbeing as a global common good is imperative to have healthier and a happier society.

Multilateral forums such as but not limited to UN, G7, G20, BRICS, SCO, SAARC, WEF need to craft this in to their agenda.

In this session, participants discussed how to develop a global consensus amongst health organizations to raise awareness on the importance of immunity and wellbeing; tying in with various initiatives to do with clean/quality air.

### *Session Summary*

The session participants concluded that foresight and futures thinking needs to be “socialised” in the way that makes it accessible and understandable to everyone. Such that the tools and futures literacy are not confined to governments and private institutions but broader and reaching farther into societies. Health is often on the agenda of various Governments but not entirely all, as the world is divided into advanced, developing, least developed, and underdeveloped. This is unfair approach has mostly been derived from the conceptual underpinning of economic growth; rarely have we witnessed wellbeing as the core foundation of what it means to be a healthy nation. The pandemic should offer us the space to reflect on this divide and our primitive ideas around the growth paradigm.

## **4. Envisioning new governance models**

Rob Cowden, Director for Governance Issues, National Intelligence Council, United States

### *Session Description*

In the coming decades we expect that the relationships between states and societies will fall under greater



strain. These tensions will be driven by a growing gap or mismatch between what publics expect and what governments can or are willing to deliver. This dynamic is likely to worsen in the near term as states are burdened by additional debt from the response to COVID-19. Many countries are likely to remain stalled in this state of disequilibrium if governments and societies are unable to reach consensus on new models for political order.

The combination of widespread public discontent and major crises--whether it is the COVID-19 pandemic or other future shocks--create conditions that are ripe for shifts in the models, ideologies, or ways of governing. A key uncertainty is what models or ideologies may emerge or take hold that satisfy public desires for systemic changes. A strategic foresight approach would help us examine this uncertainty and envision plausible shifts. Global collaboration in this effort will help us to mitigate our biases and identify and explore new or different models.

In this session, participants discussed how a strategic foresight approach would help examine this uncertainty and envision plausible shifts. Global collaboration in this effort will help us to mitigate our biases and identify and explore new or different models.

## **5. Rethinking the Race Between Education & Technology**

Peter De Smedt (BE), Policy advisor/senior scientist Flemish Government

### *Session Description*

Technological innovation is changing the nature of many jobs and the qualifications employers require in their workers. As highlighted in the European Commission's first annual Strategic Foresight Report, the COVID-19 crisis has accelerated a number of megatrends, including technological change and hyperconnectivity. In addition, confinement measures have had severe effect on education and learning.

A recent survey of 5300 teachers in Europe indicates the increased use of digital platforms and tools during confinement. For example, in Flanders 77% of the teachers who took part in the survey gave distance learning to the entire class in the corona period, compared to 10% pre-corona.

Participants in this session discussed:

- How much of this digital leap forward will be continued and how this will affect the race between education and technology in the near future.
- Can we exchange lessons learned and do we need to update some of the future of work initiatives?

## **6. The dilemma of consent management in the digital age**

Rob Hanson, Manager, Policy and Quality, Commonwealth Scientific and Industrial Research Organisation, Australia

### *Session Description*

Globally digital privacy and data sharing regimes are refactoring the control citizens have over their data. Privacy is the only human right that can be unlocked or surrendered, which is done with informed consent, so therefore the quality of this informed consent is paramount to the protection of human rights in the digital age.

In order to adequately safeguard the data being harvested and ingested into algorithms and AI at increasing scale, we need to consider the potential harms that could arise from the outcomes of these processes and meaningfully provide controls and impart sufficient knowledge of their risks.

Participants in this session discussed:

- How would or could the patchwork of jurisdictions work together in order to provide for the transnational flow of data, and the digitisation of economies?
- What business models, and economic stimulus could be unlocked by this consumer data?
- Do our current frameworks and regimes allow for responsible innovation at scale?

## 7. The personal side of digital health - The Humanome

Nicklas Larsen, Senior Advisor & Bogi Eliassen, Director of Health, Copenhagen Institute for Futures Studies, Denmark

### *Session Description*

In this session we explored the visual framework and addressed how it applies to a future healthcare context as an aggregating medium that aids individuals in collecting, correlating, and understanding the use of health-related data. The need for integration between personal health records, public health systems, and psychological aspects of individual health was addressed as a necessity for the tool to be a valuable foundation for individuals to achieve greater quality of life and wellbeing based on data. How the Humanome consistently highlights the need to overcome high-level barriers in governance and policy around cross border data sharing, as well as the partnerships and data management that need to be implemented in order to realise digitally enabled, personalised, and preventive health were also discussed.

### *Session Summary*

It is becoming clear that fully realising personalised health requires not only a new way of thinking, but also coordination and collaboration on an unprecedented scale. This poses a challenge to federated countries, which have fragmented political landscapes and, accordingly, varying regulations, policies, and practices. This is particularly relevant in Canada, which grants its ten provinces and three territories a considerable degree of autonomy in many domains, including healthcare, and as the sessions' final element, we presented the launch the upcoming foresight process '**Canada Health 2030**' in Q1 2021.

In a series of virtual workshops, public and private stakeholders, and experts from across Canada will come together to explore and achieve consensus on the future direction of personalised healthcare in Canada. As a part of this effort, CIFS will aid Canadian stakeholders in identifying key strengths, opportunities, uncertainties, and needs facing the future of personalised Canadian healthcare. This will be based on four plausible scenarios for the development of personalised health in Canada including a roadmap for realising a preferred scenario and establishing Canada as a global leader in personalised health.

## 8. Future of collective intelligence (CI)

Hao Guang Tse, Strategist, & Seema Gail Parkash, Deputy Head, Center for Strategic Futures, Singapore

### *Session Description*

The Centre for Strategic Futures (CSF), Singapore, is exploring the future of collective intelligence (CI). This project, which CSF is in the early stages of developing, explores how richer data, new communications technologies and machine intelligence are creating new possibilities for CI, and their potential implications.

CI occurs when agents work together, often via technology, in mobilising a range of data, information, ideas and insights to address a problem. New technologies enable CI systems to use new forms of data, to rally agents on massive scales, to include non-human agents, and to connect agents in novel ways.

Participants in this session discussed:

- How might evolving CI methods transform decision-making and information sharing?
- How might they spill over into society and the built environment?
- How might they enable large systems such as cities to be flexible and anti-fragile?

## 9. Social Conflicts in emerging countries related to sustainability

Francisco Javier Osorio-Vera, Research Professor, Center for Strategic Thinking and Foresight, Universidad Externado de Colombia

### *Session Description*

Social Conflicts in emerging countries related to sustainability.

Articulating visions of sustainable territorial development at the sub-national level is a challenge throughout the planet. In Latin America, due to the characteristics of its primary export-led economic model, the

deficient practices of public administrations have generated failures to implement structural reforms, with this economic-social inequality, asymmetries of urban and rural development without a long-term vision.

Given the general context above, participants in this session discussed the following 3 key public problems that have emerged:

1. Public administrations do not respond to the critical problems of these behaviors and the population suffers from not being heard.
2. The omission of public administrations in the face of social inclusion has not allowed the generation of a joint territorial vision, much less long-term, to ensure Quality of Life in the Population.
3. There is a marked “cognitive-political deviation” of the public administrations; that when they come to power, they no longer need to consider citizens.

### *Session Summary*

The discussion on the manifestation of social problems related to the economic and social sustainability of the territory is based on the failed response capacity of public administrations to achieve a joint effort to build a long-term vision for the territory.

Now, the fundamental question we must ask ourselves is whether public administrations are willing to promote change under the logic of governance.

Therefore, in our research article we demonstrate with our model that psychological (cognitive bias), economic (social choice and collective action), and sociological (culture) factors must be considered. This explains that sometimes for a specific group of actors it is optimal not to resolve the dilemma of joint interaction (government sector and organized civil society).

The proposed model demonstrates that the following 3 normative considerations must be taken account:

- The government is the one who must reveal the appropriate incentives to promote collective action that leads to the achievement of public benefit goals.
- Governments with the ability to regulate social interactions and pressures (perverse interest groups that promote abuse of power and corrupt relationships) are required for the common good.
- It is crucial not to lose sight of the concept of territorial ethics, where principles of efficiency and equity should regulate the interaction between ethics and regional economic policy.

In our discussion, the group reflected to what extent government actors are aware and what would make them react, and the following was concluded:

- The omission given by the cognitive-political deviation of the governmental actors, generates a loss of “political profitability”.
- The international "moral" sanction is present, this compromises the national image, which affects the reputation of foreign investment in favour of territorial development.

## **10. Global digital decoupling and implications for development and development cooperation**

Duncan Cass-Beggs, Counsellor for Strategic Foresight, Strategic Foresight Unit, OECD

### *Session Description*

The digital decoupling of China and the United States could potentially split the world into separate and incompatible ecosystems of digital hardware, software, services and standards. This fragmentation could have significant negative impacts for global development, and for developing countries in particular. It could potentially force countries to choose one digital ecosystem or the other, and hinder their ability to build the effective digital infrastructures necessary for successful economic development, good governance, and citizen well-being.

This session discussed a collaborative strategic foresight approach to this issue that could help to explore the many possible scenarios for whether and how such digital decoupling could unfold over the coming decades, the potential reactions to it, and the different implications these scenarios could create for global development.

The approach would also provide an opportunity to develop a common vision among developing countries (and the donor countries supporting them) for a trustworthy and robust digital infrastructure that serves national development needs while providing the flexibility for ongoing interoperability with chosen regional and global partners.

## Annex 4: Community Exchange Session Details

*Descriptions of member-led sessions and session summaries submitted by contributors.*

### 1. How to design EU reference scenarios in an inclusive way?

Erica Bol, Joint Research Center, European Commission

#### *Session Description*

Recently the European Commission presented its 2020 Strategic Foresight Report including its foresight agenda for the coming period. One of the priorities are 'foresight reference scenarios about the future of Europe'. The question now is: how to design these reference scenarios in an inclusive way, mainly limited to online participation, non-linear for more flexibility, with the possibility to evolve during time.

During this session the first draft of the concept proposal was shared, followed with a discussion on ideas and suggestions, along with an invite to participate in the building the scenarios.

#### *Session Summary*

Participant comments:

- A genuine desire and excitement expressed by the participants to see the European Commission step-up and take upon a project like this; to start the conversation about 'the EU we aim for'.
- Possible ways to be inclusive was very much supported (also related to the session on 'Increasing diversity and inclusion in foresight').
- Would be good to use existing research and projects as a starting point (also a form of co-creation).
- Good idea to work together with member-states, integrating their national processes and/or help start a process.

Some questions / suggestions:

- The terminology for 'reference scenarios' might be confusing.
- How are you going to deal with the possible tensions between the different drivers?
- Working with 4 scenarios can be limited, is it an idea to use more?
- Is there a way to connect the reference scenarios to the 'resilience scoreboard' also presented in the 2020 Strategic Foresight Report?

### 2. Insights from review of foresight approaches across governments

Anne Bowers, Principal, Civic Participation Practice, School of International Futures

#### *Session Description*

SOIF, working with the UK Government Office of Science (GOS), is mapping foresight approaches in governments across the world to identify what works best and what is most effective. Excitingly, the work is focused at the eco-system level including legislative, executive, audit, civil society roles and relationships, lifting up from the unit level that most case studies focus on.

This is not the first time that governments have turned to foresight, nor is it the first time we are asking ourselves how governments make foresight impactful at a system level. Strategic foresight is most certainly key to governance and strategy in today's world. But to be impactful, long-term thinking must be embraced at the institutional level. It must be meaningfully and deliberately woven into existing processes, structures and mental models.

During this session, hypotheses emerging about the attributes of successful characteristics of sustained impactful foresight at and across national ecosystems were shared.

### 3. Scenario-based Risk Monitoring for LIBOR Transition

Federico Galizia, Chief Risk Officer & Mariana Lopez Amoros, Treasury & Risk Specialist, Inter-American Development Bank

#### *Session Description*

LIBOR is the most widely used interest rate benchmark worldwide and plays a central role in today's



financial system. But concerns about the limited liquidity of the market underlying LIBOR, and the term bank credit component it includes, led the Financial Conduct Authority of the UK to indicate that it will end its support for LIBOR from 1 Jan 2022. While alternative rates have been identified, there are uncertainties in terms of their implementation that could impact sovereign, corporate and retail borrowing and lending markets.

A cross-functional working group at the IDB has built a set of scenarios to assist in the internal preparation for the transition and to engage in strategic dialogue with clients and stakeholders in the MDB community. During this session, IDB shared the scenarios, key insights from this process and explored potential collaboration around their use with participants.

### *Session Summary*

Although the LIBOR transition might seem a very far topic to most of us, it is not. The transition will have an impact not just on global finance, but on all individuals' finance and debt management.

There is low degree of information and engagement on the topic at a public level - that we confirmed through a survey to Financial Regulators in Latin America and the Caribbean - even though the set deadline is approaching fast (December 2021), and many uncertainties around how the transition will unfold remain.

During the session, we shared both, the implications of the transition and the importance of the topic and its future repercussions at a global scale, and at an individual level. IDB shared two videos with two plausible scenarios, out of a set of 5 manufactured scenarios, for the LIBOR Transition, and further discussed on all the uncertainties surrounding this endeavour.

## **4. Insights from IMF's experiences with matrix wargaming**

Sandile Hlatshwayo & Alberto Behar, International Monetary Fund

### *Session Description*

The IMF team presented on their experience with policy gaming and discussed how such exercises can be used to inform institutional operations and policy design. Matrix games, a particular variant used at the IMF that emphasize discussion amongst many stakeholders: are flexible, allowing for several themes to be covered under one exercise; uncover blind spots of the participants; benefit from the inclusion of special experts who can provide insight on unseen institutional politics and points of flexibility; can generate elaborate and nuanced futures within just a few hours; and are easily applied in a virtual context.

### *Session Summary*

The IMF team conducted a "live" policy game from a recent exercise on the political economy of Covid-19 vaccine development, production, and distribution. In addition to showcasing the game's design and mechanics, they also shared game outcomes. Against the odds, diversifying the set of manufactured vaccines allowed emerging markets with existing capacity to hedge risks while the show of solidarity increased vaccine trust and uptake amongst their populations. The group discussion focused on whether game players are inclusive enough, what the organizational impact of such games are, and how to recruit participants when the method is new to an organization.

The IMF seeks collaboration and more diverse views for future games; please contact [shlatshwayo@imf.org](mailto:shlatshwayo@imf.org) and [abehear@imf.org](mailto:abehear@imf.org) if you are interested in joining.

## **5. Development co-operation in 2025: what could change with the current global health and socioeconomic crises? Four Scenarios**

Krystel Montpetit, Foresight Team Lead & Ana Fernandez, Head of Unit, Foresight, Outreach and Policy Reform, Development Co-operation Directorate, OECD

### *Session Description*

There is little doubt that the current global health crisis and its resulting socioeconomic crisis will be a history-altering event. Yet how will it alter the development co-operation system? The four scenarios

explored in the OECD's Development Co-operation Directorate foresight brief offer insights into the changes that may plausibly occur in the development co-operation system and that we should anticipate so to better prepare for the future. All scenarios are extrapolations of different conjunctions of early signals collected during three foresight events: two foresight workshops and one foresight seminar held between April and June 2020. Participants to these three events contributed most of the early signals of change leveraged in this brief. They were complemented as necessary by signals reported by other foresight experts. Points of convergence, as well as differential conclusions of these three foresight events jointly contributed to informing the four scenarios described in the foresight brief.

## 6. Sense-making in the future

Julie-Anne Turner, Policy Horizons Canada

### *Session Description*

Policy Horizons is exploring the futures of sense-making. This study explores how we might receive information, what and whom we could trust, and ultimately how we might interpret our worlds in ways that make sense to us. There may be surprises and disruptions even for the foresight practitioners and futurists among us—professional sense-makers themselves.

Misinformation, weaponized narratives, and anti-science conspiracy thinking are already urgent themes for policy makers, especially amid the pandemic. Other developments receive less attention, such as challenges to long-established social narratives, new roles for machines in creating original expression, and emerging aesthetic and sensory experiences. This foresight looks at whether and how governments and societies may mobilize to face major challenges such as climate change and economic transitions. This seems especially relevant for democracies that rely on the ability of populations to collectively make sense of a changing environment.

### *Session Summary*

During this session, Julie-Anne Turner from Policy Horizons Canada presented the future of sense-making study. Sense-making is the process by which people interpret and give meaning to their world, which influences how they make decisions and take action. We are analysing how these factors could change in the future, and examining driving forces such as the acceleration of artificial intelligence (AI) and shifts in social narratives.

The machines we use to make sense, such as AI, are changing rapidly and taking on new roles in creative expression. But AI could cross another frontier as it gets better at analysing context, for example in a video or in the physical environment. As AI mines our social interactions, moods, and patterns, we might change the way we view ourselves and one another.

Narratives play an important role in framing our identity, our expectations, and our commitment to the social contract. Events or messages that challenge those narratives can be very disruptive. If the narratives that people use to understand their social worlds break down and are not replaced by convincing alternatives, uncertainty and distrust could cascade into the mainstream. Anxiety and uncertainty might even become the prevalent sense-making frames. The future might see shifts in how we perceive governments and institutions. We might find new ways to build trust and empathy, and use new social and technological tools to fight disinformation.

Finally, government policy both relies upon and plays a role in sense-making—for example, in explaining risks, creating information, and supporting cultural production. The substance and effectiveness of policy depends not only on how decision makers make sense of the world, but how the population makes sense of the decisions and policies implemented.

## 7. Finland for next generations - Government Report on the Future

Jaana Tapanainen-Thiess, Secretary General, Government Report on the Future and Government Foresight Group, Prime Minister's Office, Strategy Department, Finland

### *Session Description*

This session explored The Government of Finland's next Report on the Future which began preparation during the exceptional COVID-19 spring. The Government Report on the Future aims to identify issues that will be important for decision-making and require particular attention in the future, and it serves to open discussion for the coming years. The report will be presented in two parts to the parliament. The first part will provide an overall picture of the future operating environment through scenario work exploring Finland for the next generations. Key features of the scenario work are participation, co-creation and collaboration and it will serve as a framework for continuous monitoring and provide situational awareness. In the second part of the report, the Government will focus on one or more of the phenomena that emerged in the scenario work and reflect on possible directions for solutions. As part of its work on the Report on the Future, the PMO is organising 50 dialogues on the future of Finland. The goal is that people who, for one reason or another, do not usually take part in discussions on the future will get involved.

## 8. Future(s) of African-European Relations

Dr. Kerstin Cuhls, Scientific Project Manager, Fraunhofer Institute for Systems and Innovation Research, Germany

### *Session Description*

We conducted interviews and a Delphi survey for the Federal German Ministry of Economic Cooperation and Development, together with the German GIZ. The results will be used as input into African-European consultations under the German EU presidency and demonstrate that we are at a crossroads when talking about multilateral cooperation. The report is ready just now, and includes questions on changes due to the Covid 19 pandemics.

## 9. Rehearsing the future – an approach for actually using foresight studies

Ed Dammers, Department of Spatial Planning and Quality of the Local Environment (PBL), The Netherlands

### *Session Description*

In the Netherlands most policymakers working on the national level are familiar with foresight studies and frequently use them. But policymakers not always use foresight studies in accordance with their intended use and sometimes they don't use the studies at all. To stimulate the intended use of foresight studies PBL is developing a new approach: rehearsing the future. This approach consists of organising a series of informal dialogues in which policymakers in a joint and guided undertaking practice the use of scenarios, for instance, to prepare vision building or decision-making. The informal dialogues may be organised prior to or in parallel with the formal procedures of vision building or decision-making. Although no formal decisions would be taken within the informal dialogues, the dialogues could help to prepare such decisions and make decision-making smoother and less time-consuming.

### *Session Summary*

The participants of the session highly appreciated the presented approach. They remarked that it was well thought through and also well elaborated. The guiding principle of the approach is that it's necessary not only to conduct foresight studies in a participatory way, but also to facilitate the actual use of foresight studies by policymakers and stakeholders. During the discussion, the participants remarked that it's important to relate foresight studies to strategic policy issues, to focus on specific difficulties that policymakers are facing when dealing with these policy issues (uncertainties related to the future challenges, conflicts between policymakers and stakeholders, lack of commitment among them, etc.) and to put these policy issues in a broader perspective.

It was also mentioned that it may be helpful to use the right language and metaphors, not only to make foresight studies more understandable but also to make them appealing for policymakers and stakeholders. While doing this, it should be kept in mind that there are very different target groups that may use foresight

studies in very different ways, e.g. for inspiration when building a policy vision, for providing insights into the expected impacts of alternative policies measures or to solve conflicts related to the policy issues they are dealing with. The participants concluded that it would be interesting to exchange experiences on facilitating the actual use of foresight studies and also to seek other ways of cooperation.

## 10. The Biodigital Convergence

Avalyne Diotte & Pierre-Olivier DesMarchais, Policy Horizons Canada

### *Session Description*

Digital technologies and biological systems are beginning to combine and merge in ways that could profoundly disrupt our assumptions about the economy, society, governance, humans, and ecosystems. Policy Horizons is exploring this biodigital convergence.

A biodigital way of living and thinking could permeate our daily lives and institutions, as digital technologies have done in the last four decades. The changes may be driven by feedback loops: digital tools accelerate the pace of bio-discovery, and biological systems are inspiring innovative digital technologies. The consequences could spread across all sectors, ranging from sustainability and ecosystem regeneration to public safety and defense. Genetically engineered microorganisms might offset our need to extract natural resources from forests, fields, mines, and oceans. Biodigital convergence might both enable and motivate biosurveillance that monitors novel bio-risks and vectors of disease.

This session discussed this area of foresight, highlighting the interconnectedness of nature, technology, and human experience, and identifying potential risks, opportunities, and implications for policy makers.

### *Session Summary*

Policy Horizons Canada's Avalyne Diotte and Pierre-Olivier DesMarchais shared three ways in which the biodigital convergence is emerging:

- the full physical integration of biological and digital entities
- the coevolution of biological and digital technologies
- the conceptual convergence of biological and digital systems

They shared examples suggesting that emerging biodigital innovations are already allowing us to change humans, living microorganisms, and altered ecosystems. They also highlighted how the COVID-19 pandemic could accelerate the development and deployment of biodigital innovations.

During the discussion, the group reflected on the gap between current policies across many jurisdictions and the new biodigital capabilities arising through new products, platforms, services, and industries. Considerations about ethical challenges, economic opportunities, and potential for inequality arose in the discussion.

Questions were raised about which countries are currently leading in biodigital research and development, and what could be the potential geopolitical and trade implications over the coming years.

## 11. Post-COVID-19 Scenarios project

Dr. Elaine Marcial, Associate Researcher, Institute of Applied Economic Research, and Coordinator of the Research Group of Foresight Studies - NEP-Mackenzie, Brazil

### *Session Description*

This session discussed an innovative methodology created for the pandemic situation. The project started on March 17th, 2020, six days after the World Health Organization declared a worldwide state of a pandemic. The project took two months. The result of each step was reported to the experts to support their reflection for the following action. It mobilized 390 experts from different fields such as health, economics, humanities, and social sciences, geopolitics, security and defense, engineering, information, and communication technologies.

### *Session Summary*

The main subjects discussed in my break room, highlighting the questions and answers, are presented below.

- **Is it possible to replicate the methodology used?** Yes, it is. We have been using mini scenarios for a long time to help us answer Intelligence's questions. We made some adjustments to apply it in a remote environment. We also added statistical measures of position and dispersion proved useful and shortened the convergence of opinion's process, providing valuable information for the Control Team's decision-making process.
- **Which tools did you use?** The use of mobile devices and applications to research and debate proved to be efficient. It is essential to highlight Zoom, WhatsApp, and some tools such as Google Drive, Google Form, Google Sheet, and Google Docs.
- **How much did the project cost?** It only cost the researchers and the experts' time. All the tools that we used were free.
- **How to engage the experts?** Since 2016, when we conducted the Brazil 2030 project, we built a network that we call "Future Network." It is a Brazilian collaborative space, in WhatsApp, to share information about the future. So, it was easy to get these experts to participate. We add experts from specific fields, too, such as from the Health Ministry, for example. All the high engagement that we had in the research may also be caused by the subject proximity and, consequently, effects on the experts' lives.
- **How were the scenarios used, and who used them?** We do not know, but we presented it to the Secretariat for Strategic Affairs (Republic Presidency), Secretariat of Government (Republic Presidency), Federal Revenue Service, Federal District Government. Lots of people from different ministries and other government sectors asked for the final product. We observed many government action changes, but we cannot confirm the scenarios' results.

## **12. The European Parliament's post-corona Risk Mapping exercise**

Eamonn Noonan, Policy Analyst, Global Trends Unit, European Parliamentary Research Service

### *Session Description*

This summer, the EPRS and other EP services jointly undertook a Risk Mapping in the light of the coronavirus pandemic. This has now been published as "Towards a more resilient Europe post-coronavirus. An initial mapping."

In our institutional planning, horizon scanning has long been identified as part of the policy cycle. The EP research services have seen it an intrinsic part of their role. However, this is the first time that a horizon scanning exercise of this scale was undertaken entirely in-house - and yet compiled in a period of generalised teleworking.

This presentation introduced the main lines of the analysis and outlines key lessons from the exercise. The report ranges over the entire policy agenda, but social issues emerged as a key focus. The session made particular reference to the sustainability of social protection systems.

## **13. Strategic foresight at the heart of WCO's strategy**

Ricardo Treviño Chapa, Deputy Secretary-General, World Customs Organization

### *Session Description*

These last years, the World Customs Organization has annually published its annual Environmental Scan, a public document that provides an overview of the main global trends affecting trade and their potential impact on Customs roles, policies and practices. Starting from a descriptive document, the Environmental Scan has progressively evolved to provide a stronger analysis and the potential steps to be taken by Customs to respond to opportunities and challenges. In 2020, the Environmental Scan was drafted following the PESTLE methodology. This session presented on the recent developments of the Environmental Scan and exchanged ideas with practitioners on the future of WCO's strategic planning.



## 14. How do we develop Long Term Thinking in people?

Fredy Vargas Lama, Center for Strategic Thinking and Foresight, Universidad Externado de Colombia

### *Session Description*

We have researched for more than two years the long-term thinking of High Decision-makers in Government in Latin America (especially taking the Government of Peru as a base case-study). Among other results, we concluded that Government Officials, in many cases, do not make long-term decisions because people do not demand them directly.

There is ample international evidence, including from the OECD, that Long-Term Thinking both individually and collectively brings many benefits to society (Javidan 2007) (Carey et al., 2018). But, why don't people think long term?

Participants in this session discussed

- How do we develop this kind of thinking in people?
- What is the role of education in long-term thinking?

### *Session Summary*

Session Development:

- We presented the theoretical and conceptual framework of the studies developed in the last years in the Centre of Strategic Thinking and Foresight at Universidad Externado de Colombia, regarding Why are senior Government decision-makers in emerging countries elusive to employ long-term thinking?
- Likewise, results are presented regarding the importance of long-term thinking in the population to demand its long-term political authorities. It included international theoretical and practical evidence in this regard.
- A live exercise was carried out with the attendees, using our tools to determine the factors that can help people think more in the long term.

Results:

- After performing the live exercise, the results are analysed in real-time.
- They are compared to the results with experts from Latin America, and it is found that within the main factors detected, there is a broad coincidence: 4 out of 5 equal main factors. The only factor that was more relevant among the experts is the “Capacity to Generate Individual Future Images,” which was not highly valued in the case of the Latin American Experts.
- An additional point to highlight: The highest common factors in both exercises were “Future Literacy” and “High-Quality Educational Development”, added to “Having a National Planning System from the Long-Term in Government.”

Suggestions:

- The experts suggested the importance of continuing these research and analyses of topics to understand both the long-term processes of decision-makers and those of the general population, and to be able to design contributions in this regard from public policy.

## 15. From Global Megatrends to Drivers of Change assessment: towards an improved understanding of systems' change

Lorenzo Benini, European Environment Agency

### *Session Description*

The European Environment Agency (EEA) has been among the first institutions of the European Union that explicitly deployed foresight in its integrated environmental and sustainability assessments. A decade after the publication of the first Global Megatrends assessment, the recently released EEA report: Drivers of change of relevance for Europe's environment and sustainability, characterises different forms of drivers of change, including global and European (mega-)trends, emerging trends and wild-cards, across a wide

spectrum of themes, and discusses their potential implications for Europe's political agenda on environment and sustainability.

This session discussed about the next edition of the European Environment – State and Outlook report, a foresight exercise built on the 'Drivers of change' designed with the aim of assessing scenarios of transformation in production-consumption systems which are at the core of sustainability challenges (i.e. energy, food, mobility).

## 16. 'How to' Prepare Better Recovery Plans? – Supporting Energy Leaders Through Foresight Insights and Tools

Anastasia Belostotskaya, Associate Director, Scenarios and Special Projects, World Energy Council, United Kingdom

### *Session Description*

The Covid-19 crisis is having significant and uneven impacts across societies and economies. The resilience of global energy sector has been tested. Recovery will not be easy and should address the challenges of producing more energy in a new context of affordability and social justice.

As the world oldest energy community, the World Energy Council is engaging its network in 90 countries and leveraging its energy foresight capabilities to support energy leaders in 'how to' better recover from the crisis.

During the session participants got familiar with insights and tools that the World Energy Council has been developing, such as crisis scenarios, World Energy Transition Radar and Scenario Summits, and exchanged examples on scenarios applications in other sectors.

### *Session Summary*

The presentation focussed on foresight tools and insights that the World Energy Council (the Council) is developing together with its global community to support energy leaders in decision making under uncertainty. While the Council has been building scenarios for more than two decades, it has always focussed on scenarios use and application.

In response to the Covid-19 crisis, the Council has been surveying its global community on impacts, actions, and outlook. Using those insights, the Council built four medium term scenarios to 2024 – **Pause, Rewind, Fast-Forward and Re-Record**. Each scenario explores three critical uncertainties – **ambition, trust and ability to control the virus** – and how these might combine and impact recovery.

The Council used scenarios to build the first **World Energy Transition Radar** – an interactive tool that provides real-time signals from across the world and shows how recovery plans are starting to change the pace and direction of global energy transition.

To help energy leaders to better prepare recovery plans, the Council is running a series of **Scenario Summits** – the **role-play live simulation**. Each summit convenes leaders in energy and other industries, together with wider stakeholders in government, civil society and finance. Leaders select from a menu of strategic options; stress test their decisions and learn fast about the shifting situation. Scenario Summits enable energy leaders to better understand the future which is emerging from the interaction of actions.

The session concluded with a discussion of other Council's tools that can be used together with foresight and support organisations and leaders in managing successful energy transition. For example World Energy Issues Monitor – an annual survey that shows what issues keep energy leaders awake at night, and World Energy Trilemma Index – the tool that helps policy-makers track countries performance in balancing energy equity, energy security and environmental sustainability.

## 17. Using the law to embed foresight – the Wales Well-being of Future Generations Act

Andrew Charles, Head of Sustainable Futures, Futures and Strategic Policy Making, Welsh Government

### *Session Description*

In 2015, Wales (UK) legislated for the Well-being of Future Generations Act as part of its response to Agenda 2030 (the Sustainable Development Goals). The legislation established seven long-term well-being goals addressing economic, social, environmental and cultural aspirations agreed by Senedd Cymru Welsh Parliament. The Act requires Government and public organisations to look to the long term; establishes an independent Future Generations Commissioner; and places a duty on Government to prepare and publish a Future Trends Report after each parliamentary election (every 5 years).

This session shared the experience of using legislation to embed foresight into public policy making and institutions from Wales, and plans for the next statutory Future Trends Report in 2021/22.

## 18. Estonia national COVID-scenarios project

Tea Danilov, Director & Uku Varblane, Expert, Foresight Centre, Parliament of Estonia

### *Session Description*

The COVID-19 crisis has been a true black swan – an unexpected event that is having enormous consequences on virtually every aspect of our daily life. The post-corona world will be full of unknown factors, and different development paths will be possible in the internationalisation of economy, in the changing of consumer preferences as well as in the speed of green transition in connection with state support measures. The Foresight Centre of Estonian Parliament is conducting a study on the impact of COVID-19 induced crisis on economic structure and international competitiveness of Estonia. From the broad range on uncertainties, we are focusing on the factors that have emerged directly from the crisis. We are building scenarios based on two factors. The first one describes the role of the state government – whether the crisis is used for accelerating structural shifts in the economy. The second factor describes the rising inequality (income inequality, digital divide etc.) and the potential public response. During this session, the expected outcome of each scenario on various economic sectors illustrating the risks and opportunities were presented, followed by a discussion on the scenario framework and the soundness of selected factors.

## 19. Connecting the dots: The German Chancellery's role in championing strategic foresight

Nels Haake, Strategic Foresight Advisor, Department for Policy Planning and Strategic Foresight, Germany

### *Session Description*

The German Federal Chancellery recently established a small Strategic Foresight team in its Political Planning, Innovation and Digital Policy Department. In a mission to champion foresight across the Federal government and help decision-makers navigate emerging strategic challenges, the team currently focuses on three strands of work:

- Produce futures insights for senior leadership
- Build and connect existing anticipatory capacity of all Federal Ministries
- Champion foresight interventions across all policy fields
- During this session, Nels and Julia briefly looked back on the history of futures work in the German Chancellery and gave insights into the first foresight initiatives the unit is undertaking. This included presenting the newly created Ministerial Foresight network as well as the ongoing foresight training series. In addition, Nels and Julia shined light on some ongoing projects of the team, ranging from a workshop series on long-term covid-19 perspectives to thematic work streams on risk governance and value shifts. Interactive exchange on best practices in building foresight capacity in government for the final discussion.

## 20. Existential Risks – Ensuring Humanity's Survival into the 22nd Century

Nicklas Larsen & Timothy Shoup, Senior Advisors, Copenhagen Institute for Futures Studies, Denmark

### *Session Description*

In this session, we explored how the COVID-19 pandemic has been an eye-opening example of why more

time and more resources should be devoted to low-probability, high-impact events, such as global catastrophic and existential risks. We should acknowledge our ignorance, be humble about existing knowledge, and start exploring our blind spots. Yet only a few models exist on how to think about existential risks, including both natural (non-anthropogenic) risks that are mostly out of our control and human-driven (anthropogenic) risks, where we have varying degrees of agency. Addressing existential risks involves exploring a range of events that could occur in the near future as well as contemplating how the world might look in the second half of this century. We often make decisions about risk based on those currently living, without considering the generations to come. How can we change this paradigm and foster thinking about existential risk?

### *Session Summary*

The session revolved around CIFS' work with existential risks, including key issues such as the 'turkey problem', existential risk as an understudied field, and social challenges around reducing exposure to existential risks while maintaining balanced privacy, liberty and security.

Four issues were discussed:

- **Technology-as-a-force multiplier.** The group agreed that it was not only a risk but also an area of immense opportunity. "If we don't try to mitigate risks, we might not have time to wait for technology. Something can be developed as a solution, but the second- and third-level impacts might be dire".
- **Relevance of Nation-States for Governance.** The group expected nation-states to remain relevant but acknowledged the possibility of disruptive change toward global authoritarian surveillance or radical decentralisation of political structures.
- **Short-Term Mindsets.** Our hunter-gatherer brains make evaluating low-probability, high-impact risks very challenging. Overcoming this tendency involves raising awareness of existential risks, developing futures literacy, and challenging democracies to look beyond the next election cycle. In addition, climate change is not the only (and maybe not even the biggest) existential risk we will confront during the 21st century, and we should broaden the discussion appropriately to other risk categories.
- **Role of The OECD Government Foresight Community.** Foresight is not about predicting the future but rather exploring a range of futures and scenarios to develop robustness, resilience and agility to low-probability, high-impact events. The GFC can play a critical role in raising awareness and coordinating international efforts toward developing assessments and plans for a broad range of existential risks. Together the GFC should address how scenario planning for 'plausible futures' is no longer sufficient to engage with and plan for existential risks. We in the GFC arena should allow ourselves to be more speculative about assessing wildcards, and seemingly 'crazy' scenarios. The training of the human mind to think outside-the-box is the best exercise we can do; it should inform how we engage with existential risk. We at CIFS look forward to more deeply engaging with all of you in the GFC on prioritising existential risk as a needed priority focus area for the future.

## **21. Strategic Foresight in Malaysia: Imagining the Future of Anti-Corruption**

Rushdi Abdul Rahim, Senior Vice President, Malaysian Industry Government Group for High Technology (MIGHT), Malaysia

### *Session Description*

Foresight in Malaysia is nothing new. Generally has been practiced in since the 1990s with emphasis on Technology Foresight. However since 2010, the science advisor to the prime minister then, has emphasis the need of its used beyond technology foresight. Since then, it was used in various other fields. Sharing here is one of the work "Future of Anti-Corruption" where it was used to create the National Anti-Corruption Plan.

### *Session Summary*

The following were discussed:

- There are a number of foresight tools & methods available. Therefore, methods chosen should reflect local needs and context to cater its adoption to case studies. The selection and combination of methods are made to ensure the best outcome and participation of stakeholders.
- The use of scenarios – though at times not published – act as a tool to instigate critical thinking, and act as means to produced better planning.
- Cite in this case, the difference made - how the use of scenarios contributed to the development of the strategies in the plan.
- Highlights challenges in conducting the foresight work that could be divided into two distinct areas - content management and stakeholders management.

## **22. Thailand Post Covid-19 Foresight**

Dr. Surachai Sathitkunararat, Executive Director, APEC Center for Technology Foresight (APEC CTF), Assistant to the President, Office of National Higher Education, Science, Research and Innovation Policy Council (NXPO), Thailand

### *Session Description*

For the purpose of policy planning and design, we use foresight methodology, in particular the scenario planning method, to construct an overview of 4 possible future outcomes, based on 2 axes (continuity of Covid-19 vs economic recovery). These scenarios are 1.) “Cliffside Route” (outbreak persists + economic recovery), 2.) “Speedy Highway” (Covid-19 subsides + economic recovery), 3.) Lost and stuck (outbreak persists + economy is slumped), and 4.) “Using Low Gear” (outbreak subsides + economy is slumped), which provides a general picture of how the future might possibly emerge. Moreover, the future is projected in 4 phases: Restriction Phase, Reopening Phase, Recovering Phase, and Restructuring Phase – each of which requires different types of attention and action. Lastly, the policy initiatives aim to address a number of important issues in Thailand, such as inequality, imbalanced growth, vulnerable society, fragmented work systems, and lack of public mindedness.

## **23. Mandatory Long Term Insights Briefings (LTIBs) on trends, risks, and opportunities affecting New Zealand**

Diane Owenga, Programme Director & Melita Glasgow, Principal Advisor from the Policy Project, Department of the Prime Minister and Cabinet, New Zealand

### *Session Description*

New Zealand has introduced a new *Public Service Act 2020* to support a modern, more joined-up and more citizen-focused public service. One of the new instruments required by the Act and designed to support the public service to better meet future needs is the long-term insights briefings. These briefings are to be published by all government departments at least once every three years. They are to explore the medium to long-term trends, risks and opportunities facing New Zealand and the options for responding to these matters. The briefings provide an opportunity to strengthen the focus on the long-term. We are now considering how to operationalize the briefings to meet this intent.

This session posed questions to explore and discuss key aspects of the process.

- How to coordinate the selection of topics and common inputs across the briefings without a central unit to drive this?
- How to consult with the public in seeking their input on the selection of topics and content of the briefings?

### *Session Summary*

#### **Context**

The new *Public Service Act 2020* requires a chief executive of a department to give a Long-term Insights Briefing to the appropriate minister at least once every three years and to do so independently of ministers.



The minister must present a copy of the Long-term Insights Briefing to Parliament as soon as is reasonably practicable.

The Briefings are to explore the medium and long-term trends, risks and opportunities facing New Zealand and the options for responding to these matters. They may also set out the strengths and weaknesses of policy options, without indicating a preference for a particular option.

Chief executives may develop one Long-term Insights Briefing for their department, or join with other chief executives to develop a Briefing covering multiple departments on common subject matter. There is a requirement for departments to undertake public consultation on both the subject matter to be included in the Briefing and then on the draft Briefing once developed.

## **Discussion**

There was a broad-ranging discussion with session participants on how to maximise the opportunities and manage the risks provided by the Long-term Insights Briefings. The discussion focussed on:

- the type of information that could inform the Long-term Insights Briefings, including the security classification and what would be considered actionable insights and analysis
- how to break up the subject matter to be considered across the different Long-term Insights Briefings into manageable chunks
- how and who to consult with on the Long-term Insights Briefings.

We are interested in learning from the experiences of other countries as we begin to operationalise the Long-term Insights Briefings. We encourage you to contact us if you are happy to share your insights or experiences. Please contact [Melita.Glasgow@dpmc.govt.nz](mailto:Melita.Glasgow@dpmc.govt.nz).

## **24. Technology Foresight for Climate Change Mitigation in India**

Dr. Gautam Goswami, SC G & Ms. Jancy Ayyaswamy, Sc – F, Technology Information, Forecasting and Assessment Council (TIFAC), Dept of Science & Technology, India

### ***Session Description***

Impact of climate change on environment, society and economy is unprecedented; the toughest challenge being faced by every nation is how to mitigate this impact sustainably. Entire world is trying to adopt different measures to limit global temperature rise below 20C. India is quite proactive in protecting environment; adoption of sustainable lifestyle is deep-rooted in the culture of every Indian. Therefore, India has set up a very ambitious target to reduce GHG emission intensity by 30-35% at 2005 level, to achieve 40% of electric power installed capacity from non- fossil fuel by 2030 and also create additional sink of about 2.5-3.0 million ton of CO<sub>2</sub>.

This session discussed about how TIFAC, being an autonomous think tank of Government of India, has identified the technology needs to achieve these targets by 2030. Global technologies are identified following different foresight techniques including patent analysis and prioritized them as per Indian context following Multi Critical Design Analysis (MCDA) technique.

## **25. Post COVID Trade and Investment Megatrends and a new ASEAN Foresight Capability**

Dr Stefan Hajkowicz, Principle Scientist in Strategy and Foresight, CSIRO, Australia

### ***Session Description***

According to the United Nations global trade is estimated to have contracted by 27% in the first half of 2020 and over the entire year foreign Direct Investment is forecast to drop by 40% reaching 2005 levels. This represents a massive and unprecedented shock to global trade and investment patterns. As trade and investment recover over the coming years we expect to see significant structural shifts. There will be opportunities and risks. Digital technology, changed mobility patterns and supply chain resilience against a backdrop of global environmental, economic and geopolitical uncertainty will drive us towards a “new normal”. In this session Dr Stefan Hajkowicz described a collaborative strategic foresight project involving Australia’s national science agency CSIRO and national trade and investment organisation Austrade. This

involved the description of our strategic foresight methodology and a set of megatrends describing shifts in the trade and investment landscape in the months and years during and after COVID-19. The session also touched upon a new strategic foresight capability being developed by CSIRO and the ASEAN secretariat.

## **26. Four and a Half China Scenarios**

Dr. Hans-Christian Hagman, Chief Analyst and Senior Adviser to the Swedish State Secretary for Foreign Affairs Ministry for Foreign Affairs

### *Session Description*

The future trajectory of China is one of the most important global variables. Although the inner workings of Beijing power, ambition and strategy are somewhat opaque, it is known that this superpower has clear political goals and made impressive long-term investments. China has considerable resources, is globally dynamic and is a skilful institutional player. At the same time China faces significant internal challenges and external pressures. Approaches to the economy, as well as to rights, freedoms and governance in China are often viewed as contrasting with those in Europe and elsewhere. Whatever tomorrow's Chinese direction, it will have a significant impact on global norms, institutions, trade, development, innovation, technical standards and not least the risk of conflict. This session studied possible secondary and tertiary effects of four plausible China scenarios, and one improbable one.

## **27. Global Strategic Trends 7 (to be published 2023)**

Col. Joachim Isacson, AH 2 Futures, Lt Col Jennifer Burgess and Mr Paul Norman, Strategic Analysis Programme, DCDC, UK Ministry of Defence

### *Session Description*

MOD's Development, Concepts and Doctrine Centre is UK Defence's 'Think Tank' and is responsible for delivering the Global Strategic Trends, which is part of a range of work to analyse long-range assessments of possible future security challenges. It provides Defence, cross Government Departments and allies/partners with a forward-looking strategic context. It promotes discussion about the linkage between current strategic choices and their impact on an uncertain future.

To better capture the complexity of interacting trends and drivers, we are using a largely qualitative systems approach (societies, economy and environment with information, technology, governance, geopolitics and security being issues influencing all aspects of the system); regional context, shared spaces and global actors will be analysed through the lens of the system and scenarios.

Alternative global and regional future scenarios will help decision-makers consider uncertainty, discontinuities, disruptions and shocks; conclusions and insights will point to global security implications. Engagement underpins all aspects of our approach.

### *Session Summary*

Good question about the analysis of constants (things that may change less) and how they may influence our systems-based approach. When it comes to the 'constants' it is important to look at the context and how that may change, for example impact of climate change in combination with other drivers of change and the adaptive capacity among the actors you look at. Also, a good discussion about how to approach different dimensions of change.

A discussion about perspective, how to manage biases and stay objective, and at the same time have a buy in from core government stakeholders, was particularly relevant and this is something we are hoping to address within GST7. In this respect, the process is just as important as the end-product which is why we are keen to engage and gain additional perspectives from other countries/cultures. It is also important to constantly engage with core stakeholders and international partners, who among others will be key in identifying implications.

## 28. Participatory Future Dialogues for the German High-tech Strategy

Simone Kimpeler, Head of Competence Center Foresight, Fraunhofer Institute for Systems and Innovation Research, Germany

### *Session Description*

The Hightech-Strategy is the current research and innovation strategy of the German Federal Government and functions as the umbrella of the German innovation policy. The accompanying participation process aims to include new perspectives from society in the further development of the strategy. To this end, seven regional dialogues have been carried out in different German regions from June to August 2020. Each dialog focuses on a specific challenge of the Hightech- Strategy (e.g. Bio-IT for Health in the Rhine area in Cologne) and combines an online discussion open to citizens and experts with one or two stakeholder conferences (most of them in digital form due to Covid restrictions as well as on site). Traditional and new actors from science and society come together to jointly develop regionally-specific strategies for societal challenges based on the principle of futures thinking and co-creation.

The results of the regional dialogs are evaluated with regard to future societal challenges, future skills and changes of innovation culture required for Germany. To this end, recommendations for the further development of the Hightech-Strategy are then presented to the State Secretaries as representatives from all ministries.

## 29. Strategic Foresight for Environmental Emergencies

Alanna Markle, Strategic Foresight Junior Analyst & Alexa Piccolo, Policy Analyst, Environment Directorate, Organisation for Economic Co-operation and Development, Paris

### *Session Description*

The OECD is proposing to conduct a participatory strategic foresight exercise in support of the planned 2021-22 horizontal initiative Building Climate and Economic Resilience in the Transition to a Low-Carbon Economy. This foresight exercise will develop and test a toolkit aimed at helping policy-makers better understand future environmental emergencies and create appropriate strategies to manage social and economic progress in the context of a changing climate. Specifically, the toolkit guides senior government officials through an interactive process with three core components: environmental emergency scenarios, transformative change pathways, and developing effective strategies. The OECD Strategic Foresight Unit undertake this work in partnership with the OECD Environment Directorate and the project team involved in the horizontal initiative on transitions to a low-carbon economy. This session primarily aimed to solicit input from GFC members on the project's conceptualization and proposed intervention design.

### *Session Summary*

The discussion in this session initiated with feedback on the planned presentation of the work. Participants emphasized two factors. First, using virtual reality or another experiential learning method (e.g. interactive maps, podcasts) to help the target audience connect deeply to the material was an option that struck people as being very promising. Second, it was noted that leaving space for positive outcome pieces was essential. Other participants expressed the synergies between this planned work and other projects on sustainability scenarios and pointed out the potential for overlap and potential to share resources and collaborate. The topics being explored were seen as very compatible, in particular the emphasis on exploring the links between environment and economy, though it was noted that the scope of the modelling should be better defined. One participant offered the option of using AI modelling or a changing function over time in the base scenarios to be more accurate than a constant function, given these scenarios will take place within future societies where behaviour is likely to change. In addition, the importance of looking at tipping points was reinforced. Finally, several participants expressed interest in assisting with securing country contacts as potential pilots for the project.

### 30. Singapore's COVID-19 Foresight Journey

Liana Tang, Deputy Director, Centre for Strategic Futures, Singapore

#### *Session Description*

Early on in the COVID-19 pandemic, the Centre for Strategic Futures (CSF) enhanced the longer-term planning capabilities of the broader Singapore public service through its COVID-19 foresight work. This work comprised a 'live' report on key shifts in Singapore's operating environment due to COVID-19, deep dives into salient policy questions of the day across a range of domains, and capability development efforts with the policy community. A dynamic and iterative approach to the work was necessary because of the constantly evolving public health situation, both at home and abroad. This sharing covered the overall approach and insights gained from CSF's on-going experience in COVID-19 foresight.

### 31. The future of the Civil Service (United Kingdom)

Charles Featherston, Head of Horizon Scanning and Futures at Government Office for Science, United Kingdom

#### *Session Description*

It is a privilege to serve the government of the day and citizens. To enhance its capability to do so, the UK has launched the Civil Service Modernisation and Reform programme. This programme is a major priority of the current UK government. The project is in its early stages. We are currently gathering evidence about the Civil Service and where it might need to change and shaping the programme. However, we also need to make the Civil Service fit for the future. This session will focus on presenting and soliciting member input on preliminary plans for how best we can explore the future and use these findings to inform the UK's Civil Service Modernisation and Reform programme.

## Annex 5: Aspirational Foresight in Public Policy

*Descriptions of member-led sessions and discussion summaries submitted by session leads.*

### 1. Participatory policy design in system innovation

Peter De Smedt (BE), Policy advisor/senior scientist Flemish Government & Kristian Borch (DK), senior scientist

#### *Session Description*

Governments are affected by an unprecedented technological acceleration that is transforming societies. Most technologies unfold in complex and unpredictable ways. Unfolding technologies have been both a source of societal and environmental challenges as well as a possible response to address them. For these reasons, sustainable transitions have progressively become a policy discourse on how to guide innovation trajectories.

In this session, we explained how a system innovation approach has great potential for governments to improve their policy design for sustainable transitions. This participatory approach requires a more systemic understanding of technological change and a better organization of stakeholder engagement than most traditional practices (e.g. an evidence-driven, technocratic or an idealistic, consensus approach) can offer. How can a participatory policy design tool with a strong emphasis on sustainable transitions be developed? In this session, we explained how a reflexive understanding of knowledge creation in stakeholder networks can be applied to develop such a tool in accordance with a system innovation approach.

### 2. How to increase the futures thinking and change making capabilities?

Mikko Dufva & Jenna Lähdemäki-Pekkinen, The Finnish Innovation Fund Sitra

#### *Session Description*

This session explored ways to make foresight and change making more inclusive and understandable. The session was based on the lessons learned from the Future Makers project (<https://www.sitra.fi/en/topics/future-makers/>), which aims to champion hope-inducing future views in

Finland, to develop them with people other than those who work in the field of foresight and to increase the futures capabilities of individuals and organisations.

Participants in this session got:

- to see a sneak peek of the concrete outputs of the project that will be published in January, which include a 3-hour introductory futures workshop, a training program for those who want to go deeper, and a website containing all the materials and a new version of our Future Makers Toolbox.
- to discuss the lessons learned about demystifying foresight, combining futures thinking with change making and doing all this virtually.

### *Session Summary*

Points from the discussion:

- There are a lot of different roles in foresight: engaging with people with no previous experience about foresight, the educational role, going into a room with big thinkers and drafting a report plus many more roles. When many foresight professionals try to tackle these roles do we end up in a situation where we are not as good as we could be because trying to do many things at once?
- Popularizing foresight is important and it would be great if foresight would be introduced in undergraduate and graduate degrees.
- It takes a lot of time and effort to understand systemic problems. You don't get very far if you don't understand the central phenomena. For instance it is hard to talk about the future of health care if you don't understand the genome and AI. Perhaps we are not going to do a breakthrough in big problems together with the larger audience?
- Foresight is in a very different position than just five years ago. The fact that the European Commission now has a vice president for interinstitutional affairs and foresight tells a lot. Popularizing foresight is the next step.
- However, the situation is different in different parts of the world. In Latin America foresight practitioners are still considered fortune tellers.

After the presentation the audience was asked whether popularizing futures thinking and increasing futures capabilities is important in their work (importance from 1 to 5). The average of the answers was 3.9.

### **3. Pitch for our own: 'Futures Literacy for Transformative Governance'**

Riel Miller, Head & Kwamou Eva Feukeu, Project Officer, Futures Literacy, United Nations Educational, Scientific and Cultural Organization

#### *Session Description*

Over the past 8 years and reinforced during Covid times, UNESCO has developed and fine-tuned an action-research/action-learning tool called Futures Literacy Labs (FLLs). The overarching value added was not in the tool, but in the capability. This capability-based approach enabled governments and civil society to engage with futures not only for optimisation, preparation and planning, but also to enhance their creativity for inclusive societies. During this session, the differences between expectations and expected outcomes of 2020 Labs were presented.

Participants discussed how:

- to question the notion of causality embedded in results based frameworks.
- being more FL to notice differences between diversity and inclusion (example of the Labs around the notion of trust or controversial history).



#### 4. Aspirational foresight for better public policies

Mónica Lilián Méndez Caballero, Global Security Analyst, Mexico

##### *Session Description*

In 2019 only 45% of citizens in OECD countries trusted their government. Democracies require social-engaging aspirational futures. Without inclusive practices to understand the lived experiences of the people, policies will only partially provide the needed services, causing exclusion and lack of confidence for sectors of population. Aspirational foresight techniques allow to identify future visions, to socialize them, and to find common elements shared within societies.

The risks of not having a common, aspirational vision within societies are the lack of consistent, aligned present actions. The result, will often be uncoordinated actions providing unfruitful outcomes and contributing to disappointment and lack of trust from the public. For this reason, when designing public policies having a clear, aspirational vision is essential. Based on the experience of a foresight process for public security agencies in Mexico, in this session we will discuss how to make the most of aspirational foresight for policy making.

##### *Session Summary*

From a case of a Mexican public agency more than tripling its members' number in a decade, with the result of organizational subcultures, the presentation and conversation was about mechanisms used to include more voices in the processes of setting institutional common visions, to increase internal self-identification and external legitimacy.

The Mexican practices to include the results of the aspirational foresight practices into policy making were:

- embed the aspirational foresight process in the strategic planning to define the institutional goals and projects for the administration.
- be creative to set common spaces for members of the institution to share their points of view and to create effective results reports for those perspectives be considered in the institutional projects.
- at the projects implementation process keep communication with the foresight committees along the institution to increase awareness of the usefulness of foresight skills.

From the conversation in the group we identified that as governmental foresight practitioners we are all facing the same kinds of challenges. For instance, sustaining the long-term vision and engaging internal groups within our institutions. Biggest challenge is buy-in at all levels of the organization to think longer term and think about the future in the traditional planning cycles.

It was agreed that educating the community on foresight is a long journey. There are country examples of capacity-building in top down and bottom up approach. By working with training centres to establish an introduction to foresight course for analysts early in their careers. And additional short training session for senior management.

In conclusion, to go beyond the prevalent thinking of top down approach for policy decision making and visioning, it is relevant to develop inclusive exercises for the personnel to provide their perspectives and to get those included in the institutional programs and projects.

#### 5. Using Visioning and Storytelling for Development Strategies in the Western Balkans

Jan Rielander, Head of Unit, Multi-dimensional Country Reviews, OECD Development Centre

##### *Session Description*

Multi-dimensional Reviews support developing countries with shaping strategies for their development. Based on a holistic conception of what development means and entails, the methodology combines rigorous diagnostics with people-centred strategic foresight and governmental learning. Each project builds on an initial workshop, which uses visioning and storytelling to identify and flesh out a desired future for the country. This vision then serves as a guidepost for assessing the country's current reality and for setting out pathways of development. The visioning process is often very creative and brings the freedom of dreaming

into strategic processes that can otherwise be driven too much by a focus on current shortcomings and overly bureaucratic processes. We have undertaken this process with 19 countries around the globe and continuously developed the methodology. The session presented the most recent experience stems from the Western Balkans region.

## **6. The Project on Foresight and Democracy**

Sheila Ronis, President, The University Group & Leon Fuerth, Forward Engagement, United States

### *Session Description*

Since the 2019 meeting, Leon Fuerth and Sheila Ronis have completed their project on Foresight and Democracy under sponsorship of the Rockefeller Brothers Fund. They concluded that in a trial of limited scope, their Round Table system enabled open-minded, non-polarized discussion of socially challenging issues in the United States, having to do with profound ongoing and longer range issues arising from demographic shifts (race, ethnicity, gender, age, wealth) and technology (climate change, advanced AI, synthetic biology, predictive surveillance). They are currently working with a college of public service in a major university to extend this method towards the "grass roots", with the goal of encouraging the growth of a national network of local Round Tables. Although their focus is the United States, they treat these trends in a global context, and believe their method has value at that scale. This presentation shared their conclusions.

## **7. Ambisyon Natin 2040: Tuning in to people's aspirations**

Nerrisa T. Esguerra, Director IV, Development Information Staff & Bien A. Ganapin, OIC Director IV, Trade Services, and Industry Staff, National Economic and Development Authority, Philippines

### *Session Description*

Policymaking and planning processes in the Philippines have been beset by lack of coherence and by discontinuity associated with political transitions and divisions. Reforms would often face risks of reversals or would get weakened by contradictory or counterproductive initiatives. Delays and stoppage would mar programs and projects when a new administration comes in.

In 2015, one year before the national elections, NEDA, the Philippines' socioeconomic planning agency, embarked on a long-term visioning process to formulate a national vision and address long-standing problems of fragmentation, discontinuity, and short-termism. The result was AmBisyon Natin2040 (our vision and ambition), which the new administration adopted in 2017.

In this session, NEDA narrated the visioning process, using a combination of technical expertise, tools of the government bureaucracy, as well as creativity in communication and advocacy. We also discussed challenges to sustaining it and increasing the bandwidth of interactions with our constituencies who will be the mainstays and center of all innovation toward realizing the vision.

## **Annex 6: Joint OECD-EEA Special Session, Wild Cards**

*Background paper on Wild Cards and detailed session report provided by the European Environment Agency. To request the full set of Wild Cards used, contact Celine Bout: [celine.bout@eea.europa.eu](mailto:celine.bout@eea.europa.eu).*

### **1. Wild Cards: The Concept**

The concept of wild cards was introduced in 1992 with a joint study of the CIFS (Copenhagen Institute for Futures Studies, Denmark), BIPE Conseil (Issy-Les-Moulineaux, France) and the Institute for the Future (Menlo Park, California/USA). The three institutes proposed a definition that addressed mainly the business world: “A wild card is a future development or event with a relatively low probability of occurrence but a likely high impact on the conduct of business.” (BIPE et al. 1992, p. v) Sometimes slightly reformulated, this definition has been accepted by most of the foresight community (see e. g. Petersen 2000, Steinmüller 2008, Petersen/Steinmüller 2009).

From the perspectives as well of system theory and economy, wild cards can be described as unexpected external shocks. They are events or developments that are characterised by the following aspects:

1. Very low ex ante probability: Before they have occurred, wild cards are regarded as extremely unlikely and therefore – mostly – as irrelevant. Very often, they are completely ignored as “unknown unknowns” or at least neglected.
2. High impact: Wild cards have a large impact on the usual conduct of activities in business, politics or private life; they disrupt established procedures and processes and pose novel challenges to decision makers.
3. Strategic surprise: As a rule, wild cards take decision makers in surprise, and they arrive in most cases so fast that institutions, social systems and individuals are not able to effectively respond to them.

One has to draw an important distinction between historical wild cards on the one hand and possible future wild cards on the other. To be of any use, wild cards have to be considered in foresight activities before they occur. Therefore, all wild cards that are utilised in forward looking studies or for decision making belong to the same ontological type as scenarios: They are fictional, hypothetical sketches of possible future developments – in difference to real, historical wild cards, the ones that have occurred.

Sometimes, the terms wild card and black swan are used interchangeably. In fact, they are closely related but not identical. Taleb (2007) has defined a black swan as an event with the following attributes:

- Rarity: It is an “outlier”; it is situated outside the realm of regular expectations.
- Extreme impact
- Retrospective predictability: “Human nature makes us concoct explanations for its occurrence after the fact, making it explainable and predictable.” (Taleb 2007, p. xviii)

As a rule, neither the likelihood nor the impact potential of a wild card is sufficiently known in advance; but both have to be crudely assessed when identifying an event as a wild card. With respect to probability, a qualitative evaluation will, as a rule, be sufficient, determining that the event in question is indeed rather improbable but not entirely impossible. In the same way, a qualitative estimate of the impact is needed for the identification of wild cards: wide-ranging impacts should be expected.

At first glance, a wild card is something surprising, perhaps even shocking, something which happens unexpectedly. Surprise is, however, even a still more subjective category than probability. It depends on one’s world view: The same event might occur for most persons as a surprise, for a specific group it may be an expected outcome of processes or the successful outcome of a plan – as it was in the case of the attacks on 9/11 for the terrorists.

In a way, the definition given above actually plays down the real value of the notion of wild cards. Characterising them by low probability and high impact misses one central point: Wild cards are shocking not only because they have really large impacts on business or other activities, they shock us since they do

not fit into our usual frame of reference, they run counter our perception of the ordinary, normal way things develop, they challenge the concepts through which we regard the world, perhaps even ridicule them.

In this sense, wild cards may be regarded as “futurequakes”. When they happen, they change our perception of future, present, even past – and the concepts we apply to organise all the data about the world around us. It is often observed that wild cards force us to re-write the future, but this is only part of the truth. They entice us even to re-write the past. After a wild card has occurred, we look with different eyes on past developments; we start to discern all the trends or actions that led to the wild card, all the preconditions necessary for it. Wild cards disrupt or reinforce trends. Rather as a rule, they create new trends, and shake existing structures: institutions, infrastructures. As futurequakes they transform future-oriented activities, lead to the reformulations of plans and projects, destroy and create room for manoeuvre.

Wild cards change our frame of reference, our mental map of the world. A point in case is the emergence of words with new meanings after a wild card has occurred: super-terrorism, Arab Spring, infodemic.

## 2. Types of Wild Cards

Wild Cards can originate from quite different sources: First, trends or cross-cuts (combinations) of trends may give rise to wild cards. Points in case are unknown or neglected processes like the accumulation of endocrine disruptors (hormone-like substances) in the natural environment or the accumulation of plastics in the oceans, the huge North Atlantic garbage patch and the Great Pacific garbage patch. Their impacts on marine ecosystems and circulation patterns are not yet sufficiently understood. Other examples are possible tipping points in the climate system.

Second, actors can provoke wild cards either by intended or by unintended consequences of their action like scientific breakthroughs, risks of innovations, or impacts of large projects. In some cases, political actors made it their strategy to be unpredictable for their adversaries and to take them in surprise (a common pattern in military conflicts). Such actors try to destabilise existing systems and to create in this way new options for themselves. Their intention is to change the “rules of the game” – with disruptive business models, breaches of contracts or conspiracies. History is full of examples: from usurpators to terrorists.

From an epistemological point of view it is important to distinguish two types of wild cards:

1. Possible future events that could be known, but are ignored or neglected by the general public or the decision/policymakers: These are the famous “elephants in the room”<sup>1</sup>. Very often, experts or certain groups of lay persons are well aware of them, but do not succeed in convincing others to take them seriously. For a long time, impacts of climate change or risks within the global financial system belonged to that category.
2. Intrinsically unknowable future events that no expert has in mind. They are beyond our grasp, because we lack concepts to describe them and means of observation. These are the literal “unknown unknowns”. The number of wild cards in this category is essentially infinite.

We exclude here a third category: Future events that are known and relatively certain to occur but without any certainty as to timing (type of “the next earthquake”). They can be regarded as inevitable surprises, but they are no wild cards in the strict sense.

Putting the focus on category 1, one can demand with Herman Kahn to “think about the unthinkable”. Strictly speaking, the term “unthinkable” does not apply here (i. e. to the elephants in the room). In a recent study Gowin and Langdon (2017) stipulated that in most cases top managers and senior officials are well aware of certain unpleasant developments or potential future mishaps; they regarded these things however as “unpalatable”: You do not like to touch them, to talk about them. These uncomfortable ideas are not helpful for your career, sometimes even put under a kind of taboo. Seen from this perspective, most black swans are the product of ostrich policy.

Different aspects may be used to systematise wild cards.

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<sup>1</sup> Sometimes also called black elephants or grey elephants or grey rhinos.

- **Topic:** The subject of the wild card, or the sector in which the wild card originates, or upon which it will have direct impact. According to the STEEP sector framework, one can distinguish societal, technological, economic, ecological, and political wild cards.
- **Impact:** How severe are the impacts and consequences of the wild card? Within a scenario project, one can ask whether the wild card has only minimal consequences for a given scenario or whether it will trigger an entirely new scenario. Usually, such a differentiation between potent and less potent wild cards is possible only after an impact analysis.
- **Plausibility / probability:** All wild cards are by definition rather unlikely, but nevertheless it is useful to distinguish highly improbable from simply not very probable wild cards. Again, at least a superficial assessment is required. Even without a rudimentary assessment of probabilities, wild cards are intuitively regarded as plausible or less plausible. Plausible wild cards fit – although perhaps only after a closer examination – into the worldview of the researchers and/or the addressees. Other wild cards contradict intuition and common sense, without, however, being absolutely impossible. From a methodological perspective, it might be worthwhile to take even wild cards, deemed “impossible”, into account because the demarcation line between the possible and the impossible is based on present knowledge and transgressing existing borders might produce new insights.
- **Time scale:** Wild cards differ also with respect to time scales: There are on one hand sudden, unique events and on the other hand surprising, sudden developments that take some time to evolve. One may also distinguish between wild cards, which occur without any preparation whatsoever – often in the form of accidents or catastrophes due to a chance coincidence of circumstances – and wild cards, which are the result of longer-term processes, typically creeping catastrophes.

At least for the latter type of wild cards, creeping catastrophes or, more generally, wild cards that develop within a time of latency, early warning can be feasible. Similar to early warning systems for natural catastrophes like earthquakes, systems can be installed to monitor whether a specific wild card is becoming more probable – sometimes described as the “approaching” of the wild card. A point in case is astronomical observation systems for near earth objects that might cause impacts. However, for most wild cards exist no easily observable parameters. One has to rely on weak signals<sup>2</sup>, singular observations that have to be interpreted.

### 3. Uses of Wild Cards in Foresight

In foresight studies, wild cards are utilised for diverse aims. Most generally, wild cards inspire “thinking out of the box” and contribute to a future-oriented mind-set. Therefore, projects often start with an exercise in collecting wild cards. Thinking about extreme events can lead to a better understanding of own perspectives and to insights into the perspectives of other actors. Wild cards can also curb as well hypes as hyper worst case thinking, and produce inspiration for additional options for action.

Technically, wild cards are used to stress-test scenarios. If a scenario withstands the impacts of a larger portfolio of wild cards, it can be regarded as robust and therefore more probable. The same can be said of strategies, where the procedure is sometimes called “wind-tunnelling”. Wild cards can give rise to supplementary scenarios and enlarge the space of possible strategies beyond the range of the probable futures.

As external shocks, wild cards are disruptive. Therefore, most wild cards are regarded as catastrophes, but some have – at least for certain actors – a distinct utopian character. If you work with a portfolio, it is important to find the right balance for it: with “usual” wild cards and some exotic ones, with wind cards from the focal field of the study and outside of it, with threatening wild cards and some positive ones.

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<sup>2</sup> Ansoff defines weak signals as „imprecise early indications about impending impactful events [...] all that is known is that some threats and opportunities will undoubtedly arise, but their shape and nature and source are not yet known.” (Ansoff 1984)



In the following, we present shortly three examples of the use of wild cards in foresight projects and foresight training.

### *Example: Project iKnow*

The project iKnow (for „interconnecting knowledge through wild cards & weak signals”) was commissioned by the EC within the framework program Horizon 2020, and it run from 2008 till 2011. Its aim was to elucidate and examine events and developments potentially shaping or shaking the future of the European Research Area and to develop and pilot conceptual and methodological frameworks to identify, classify, cluster and analyse wild cards and weak signals. The project had a consortium of six foresight and two software development partners. One of the main results was a comprehensive database of more than 1000 wild cards and weak signals. These were identified by intensive scanning of different sources, by brainstormings and interviews. When you try to identify wild cards, you have to overcome certain challenges: Where to look for wild cards? How to transgress a perhaps too narrow horizon? What are appropriate filters for a monitoring? All systematic approaches may exclude the most interesting emergent issues!

We learned that you should try to find what you are not looking for. Wild cards have impacts far from the field they originate from. Therefore, you should consider also wild cards outside your normal field of observation. This is the so-called principle of serendipity: The ability to perceive things you are not focussed on.

### *Example: Neo-Carbon Energy Project*

The Neo-Carbon Energy project that run from 2014 to 2017 was one of the Tekes (the Finnish Funding Agency for Innovation) strategic research openings, which was carried out in cooperation jointly with VTT Technical Research Centre of Finland Ltd, Lappeenranta University of Technology, and Finland Futures Research Centre at the University of Turku.

In May 2017, the project consortium organised a Future Clinique<sup>3</sup> “Surprising Energy Futures: Anticipating Discontinuities and Testing Resilience of Renewable Energy World with Black Swans” (Heinonen et al. 2017). The aim of the event was to contribute to the four transformative societal scenarios of the Neo-Carbon Energy project. Seven out of about forty identified wild cards were chosen to test their impact on the four scenarios. Perhaps the most interesting result of the Future Clinique was that several wild cards had an impact in favour of the energy transition. They are disruptive surprises, but mainly with positive consequences. The lesson is that some wild cards may foster or even provoke necessary societal transitions!

### *Example: Wild Card Training at BAKS*

Since several years, the German Federal Academy for Security Policy (Bundesakademie für Sicherheitspolitik, BAKS) runs senior courses on security policy (annually) and seminars on strategic foresight (twice a year). Participants are senior officials from German ministries and governmental agencies as well as some guests, among them representatives from embassies or company managers. Both courses include wild card exercises. They serve as a mind opener for a foresight process and they are used for the identification of wild cards for stress-testing scenarios.

The experience from about ten of these courses is that wild cards are a good exercise in future thinking and inspire discussion beyond mainstream topics. In principle, senior officials, at least the senior official who participated, are very open to taking wild cards seriously, and they are aware of lots of them in their respective fields of work. However, they also tell you that there is no systematic way to integrate them into their usual work routine. Urgent daily business is always more important than future possibilities.

## **4. Main Results of the Session on Wild Cards**

Within the framework of the OECD Government Foresight Community (GFC) Annual Meeting, the EEA co-hosted two special sessions, one about wild cards, the other focused on “foresight for action”. During

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<sup>3</sup> The Futures Clinique is a specific participatory and exploratory futures workshop format to tackle uncertainties, to identify disruptions and to generate innovations.

both sessions, breakout groups elaborated challenges and opportunities for policymakers that arise within foresight activities.

The breakout groups of the wild card session were provided with selected exemplary wild cards and a template for wild card analysis. The groups were invited to fill the template with primary and secondary impacts of their wild card and implications for policymakers and to formulate three main insights about policymaking with wild cards.

The breakout groups produced diverse, rich and deep results: on wild cards in general, on their specific wild card, on reactions of policymakers, on challenges and opportunities connected with the use of wild cards in policymaking. The entirety of the results cannot be displayed here. We present, however, in the following a condensed overview of the main results mainly from the formulated insights, but also from commentaries and from some policy implications in the templates.

### *Methodological challenges of wild cards*

**Uncertainty:** Wild cards are per se uncertain. From a policy perspective, uncertainty in impacts as well in time scale as in spatial scale has to be addressed and transparently communicated.

**Probability:** It is challenging to assess the probability of a wild card: What kind of evidence for a certain level of probability can be incorporated? Black swans are “unknown unknowns” without any way to assess their probability. How to treat them?

**Global character:** Wild cards occur as systemic shocks in a global context and have to be answered globally. Cooperation and multilateralism are essential.

### *Reactions of policymakers*

**Urgency:** Policymakers usually wait for the problem to become urgent. Mechanisms to deal with the problem are then not in place in the time available. Wild cards, however, need anticipatory reactions: Politicians should invest in foresight, develop scenarios and use the results for policymaking, even if the problem is not yet pressing.

**Implausibility:** Perceived implausibility may lead to rejection of the wild card, plausibility is needed to convince policymakers. Tools like a likelihood index or risk analysis make it easier to raise awareness and to allocate resources.

**Quantification:** As a rule, the institutional focus is on quantification like cost-benefit-analysis, while qualitative aspects often are not on the radar.

**Over-optimisation** in response to a crisis leads to new vulnerabilities and prepares the ground for the next crisis.

**Short term reactions** usually do not correspond to long term needs (like the necessity to establish or activate networks) – or even counteract them.

**Exploitation:** Some politicians could exploit the wild card (in this case: a global food crisis) for their individual political advantages.

### *Options and opportunities*

**Coherent approaches** are needed to mitigate or to adapt to the impacts of a wild card. But coherence is often difficult to achieve. (Example: “One Health” approach of the WHO has difficulties in finding its way into practice.)

**Stakeholder alliances** are important, sometimes even alliances with unexpected, unusual partners. Policymaking has to ensure regulatory frameworks that enable cooperation at the local, regional, and international level.

**International cooperation:** Use existing international organisations like UN, NATO ... to foster cooperation and to re-define power relations. It may be assumed here that humanity is to react to extreme wild cards with institution building on the global level.

**Foresight Literacy:** Education plays a decisive role. We need foresight literacy (including wild cards) in secondary education to raise preparedness.

**Psychological Research** is necessary to better understand the role of psychology in reactions to wild cards, with the aim to minimise vulnerability. The example of the pandemic demonstrates that it is not the death-rate as such that creates major economic impacts; it is rather panicking and responses to that.

**Global governance:** We need to understand the question of governing a global crisis as an issue of global governance with the need to regulate competition and cooperation, but also to allow communities to self-organise.

**Forms of cooperation:** Create new rituals to foster shared responsibility and joint reactions.

### *General observations*

**Social responsibility:** The impact of policies on social responsibilities (like volunteering and other political grass-root initiatives) becomes a key element of policymaking.

**Executive power:** Increased governmental power during a crisis poses itself a challenge for democracy. Executive power should be handled carefully.

**Risk of optimisation:** How to deal with future vulnerabilities? By learning from the disruption. But there is a risk that the optimisation of crisis response mechanisms according to the needs of a specific crisis leads to a loss of resilience with respect to other potential crises.

**Question of normalisation:** Collapse and resilience are challenging notions: The key question is whether we can go back to the state of affairs before the wild card or not.

**Avoid the idealism trap:** Solutions will not develop according to an idealistic perspective (of us as foresight people); answers to a crisis will be given in the usual way of policymaking: The stronger actors have an advantage and follow their agenda. Nevertheless, policymaking should produce mechanisms that lead to socially favourable outcomes.

## **5. Challenges for the Use of Wild Cards in Policymaking**

There are many different obstacles to the use of wild cards as well on the individual psychological level as on the organisational level. Most of the points discussed below have been raised during the breakout sessions. We present the main ideas here in a more systematic way, combined with insights from own experiences and research.

**Attitudes to uncertainty:** Uncertainty is an intrinsic aspect of the future and the most prominent property of wild cards. However, most decision makers try to avoid uncertainty; sometimes they consciously neglect uncertainties or – subconsciously – suppress them. One of the reasons is, that many decision makers suspect that their clients, their employees, or their subordinates expect from them perfect insight and foresight. As superiors and experts they do not allow themselves to acknowledge the uncertainties behind their decisions.

**Urgency vs. importance:** The former president of the USA Dwight D. Eisenhower once said: “I have two kinds of problems: the urgent and the important. The urgent are not important, and the important are never urgent.” Before they occur, wild cards never are regarded as urgent. If taken into account at all, they are regularly shifted to low positions on the daily agenda. Other tasks are always more pressing, and fulfilling them is rewarding. Answering to wild cards seems to be a luxury.

**Short term vs. long term:** Urgency vs. importance has its counterpart on the time scale. As long as a wild card does not occur, it seems reasonable to postpone prevention measures, preparation and the development of mitigation schemes: No need to tackle this task right now ... Foresight as an activity directed at the long term operates in most organisations in competition with activities for the short term.

**Probability vs. possibility:** Wild cards are low probability events, and frequently there is no reliable way to assess their probability. As far-fetched possibilities they can easily be disregarded. Even worse: Organisations rely (and have to rely) in many aspects on quantification. Decision makers are on the safe side if they can underpin their decision with figures. Most numbers attached to wild cards, however, are highly questionable. It is never comfortable for a decision maker “to play” with vague possibilities, with things that most probably will never happen.

**Silos and responsibilities:** Wild cards originate from the most different sources and have most diverse impacts. Wild cards rarely fit into the division of responsibilities as laid down in most organisational structures – with the exception of strategy or foresight units (if these exist). Even if a specific wild card can be attributed to a specific department, this department will never answer to wild cards outside its competence.

**Prevention paradox:** Sometimes, wild cards have been prevented or mitigated (like the Year 2000 Computer Problem). They might occur, but in a mild form – and after the event the media, the general population or other policymakers regard all early warnings as exaggeration and all the forecasts as moonshine: Despite these disaster prophecies, nothing has happened! Even worse: The warning, all the measures taken have produced high social and economic costs (as sometimes discussed in connection with the current pandemic). As a policymaker or an organisation you are in an uncomfortable position: If you do not react to the approaching crisis you will be blamed for it, if you react, the alarm you gave will be criticised. Not to speak of the possibility of warnings and measures that proved in the end as really unnecessary. – When you answer to wild cards, you are never in a winning position.

## 6. Opportunities to Use Wild Cards in Policymaking

**Communication is key!** The prerequisite for successful policymaking with respect to wild cards consists in convincing other people: high ranking officials, employees in other departments, the scientific community, the media, and last but not least the general population. If you want to prevent a wild card, to prepare for its occurrence, to mitigate its impact, you need the support of other people. Usually, this starts with your own organisation. How to convince the organisation that a certain wild card is important, despite its low probability and unusual character? From the perspective of a consultant, much depend on timeliness of the efforts and on the communication strategy. All the principles of strategic communication apply here, beginning with a clear definition of addressees, of messages, and communication channels.

**Plausibility:** “Wild card communication” has however some peculiarities. First of all: You have to make the wild card plausible! There are many ways to do this. One can take examples from history, wild cards events that have been ignored before and their impacts. One can present supporting facts, weak signals indicating the increasing probability of the wild card or trends that might give rise to it. One can outline conditions for occurrence, and finally embed the road to the wild card into a convincing narrative.

**Countermeasures:** Studies on risk perception have demonstrated that most people underestimate the probability of certain classes of risks, in particular risks that are completely out of their control (or human control in general). Risks – or wild cards – that bear apparently a fatal character are often totally ignored. It is therefore imperative to indicate ideas about possible countermeasures against the wild card. In the best case, these measures should also make sense for normal business, at least in a limited way. And these measures should fit into the organisation’s aims and mission.

**Resilience:** A strong argument in favour for the use of wild cards is resilience. A central aim of using wild cards in policymaking is to minimise surprises for the organisation, make the organisation “wild card proof”. Of course, this is an ideal goal. You can never prepare for all unknown unknowns. But you can at least develop strategies to make the organisation more resilient: To make it more open to new information, to foster intra-organisational cooperation, in short: to increase the social capital of the organisation.

**Contingency plans:** When a wild card occurs, executive bodies take the helm (sometimes “strong men”!). Rapid and adequate action is needed – based on a contingency plan. Such plans are not developed from scratch at short notice. They have to be prepared and in some way tested either in a simulation game or a real test run. Where in responding to the wild card, the executive powers take the lead; in preparing for them, legislative bodies are in charge. They should pass laws or adopt strategies that have provisions for wild cards (like specific emergency laws for pandemics) and initiate the development of contingency plans.

**Protected spaces:** In most organisation, contingency plans for wild cards or other extreme risks and strategic surprises can but should not be developed by the ordinary planning bodies within ordinary business as usual planning processes. Thinking about wild cards needs room for creativity, for unusual, sometimes even counterintuitive ideas, for tackling “unpalatable” issues, for non-mainstream thinking, not infested by group-think. In some cases, for some wild cards, the participation of stakeholders is required. In other cases (as for apparently fatal wild cards), confidentiality may be indispensable.

**Timeliness is crucial:** Within the framework of an idealised abstract policy cycle (with stages of agenda setting, policy formulation, policy adoption, policy implementation, monitoring and evaluation), wild cards

should be introduced as early as possible, at best in the stage of agenda setting, so that wild cards are recognised as one of the elements of the whole policy cycle. Windows of opportunity are open during policy formulation – either to address certain wild cards or to stress-test policies or strategies against a pre-selected portfolio of wild cards. The window closes when policies are formally adopted.



## **Annex 7: Joint OECD-EEA Special Session, Foresight for Action**

*Background paper provided by the European Environment Agency.*

### **Growing demand for foresight to support governance**

In Europe and elsewhere, there is growing recognition that achieving a sustainable future will require societies to fundamentally reconfigure their core systems of production and consumption. For governments, the need to stimulate and orient urgent processes of societal change presents a major governance challenge. System innovation is inherently complex and uncertain, characterised by risks, setbacks, unintended outcomes and trade-offs. In this context, policymakers are increasingly looking to foresight methods to support evidence-based governance.

As is increasingly acknowledged (e.g. EEA, 2019), foresight studies can support the governance of sustainability transitions in a variety of ways, including scanning for emerging trends, innovations and risks; identifying and exploring normative visions and the pathways to achieving them; improving communication about the future; and facilitating participatory governance processes. A growing literature supports foresight's efficacy as a tool for enhancing decision-making in the face of environmental change, for example in environmental and energy security (Bray et al., 2009), ecological conservation (Cook et al., 2014), visioning processes (Raudsepp-Hearne et al., 2020), and navigating wicked problems (Wilkinson and Eidinow, 2008).

In view of these potential benefits, numerous foresights studies are published to support decision making by public authorities from international to local levels. Past experience suggests, however, that the uptake and use of foresight in policymaking is seldom simple. For a variety of reasons, the outputs of foresight activities may not be fully aligned with the needs and realities of policymaking.

### **Alignment of foresight studies with policymaking needs**

A foresight study will only be used by policymakers if they consider it relevant to the policies they are developing or implementing. Relevance is largely determined by three characteristics: the theme, spatial scale and time horizon addressed (PBL, 2019a).

**Theme:** To be relevant, foresight studies should address not only the thematic context affecting a policy but also tackle the strategic choices facing policymakers in a more focused way (OECD, 2020). Adopting a broad thematic scope is common in foresight studies and can help provide insights into the relationships with related policy issues. It can mean, however, that the study is too complicated, superficial or abstract for policymakers to use (Habegger, 2010).

Foresight studies may also tackle themes that extend across government departmental boundaries, particularly if addressing cross-cutting environmental or sustainability themes. This can create an opportunity – indeed the EU Better Regulation Toolbox highlights the value of foresight processes in promoting policy coherence (EC, 2018). But it can also create a challenge if government functions are siloed and some departments exert disproportionate influence. In this context, cross-cutting themes may suffer, particularly if public budgets are being reduced.

**Scale:** Foresight studies focusing on a particular scale are only of limited use for policy issues taking place at higher or lower scales. For example, a national study can provide inspiration for European policy but does not provide insight into future developments across Europe. Alternatively, it can support policymaking at sub-national levels but the results first have to be 'translated', requiring an additional study. This can create a barrier for policymaking.

**Time horizons:** Foresight studies often adopt a long-term perspective, looking ahead 10 to 50 or even 100 years. Policymakers often need to focus on short-term imperatives and may struggle to justify long-term planning over immediate problems. Even when dealing with long-term issues, policymakers are primarily concerned with implications in the present due to pressures for accountability, electoral cycles (usually four or five years) and budgetary cycles (often annual), etc. (van der Steen and van Twist, 2013). Foresight studies

need to recognise the legitimacy of these more short-term concerns; those that do not take this into account will miss their target and be set aside as an ‘academic exercise’.

Electoral cycles also imply changes of governments, often leading to a shift in priorities and approaches. For example, a government that sees the environment as a high priority may recognise the need for longer-term policymaking in this area but may not be around to see its fruition, let alone its implementation (EEA, 2011).

### **Misalignments with policymaking norms and institutional context**

Policymakers may struggle to use foresight outputs if they clash with their operational norms and context, for example:

- Foresight studies can sometimes struggle to respond to the demand for ‘evidence-based’ policymaking. Foresight studies often generate ‘soft’ insights about the future, only indirectly based on empirical knowledge. In contrast, policymakers operate in a context in which conflicting viewpoints, desires and expectations are exchanged, weighed and negotiated (Sarewitz, 2000). To play this political-strategic game, policymakers often need hard, empirical evidence (PBL, 2019b).
- Language can also be a barrier. Foresight studies may express insights about the future in abstract, analytical terms. In contrast, policymakers often work from experience and practical knowledge, and their language is often more concrete and less formal.
- Foresight studies often explore possible futures and policy implications in a very open way. In contrast, policymakers often have limited room to think in very different directions because achieving significant policy change is often difficult, involving complex trade-offs. Moreover, policies normally emerge from compromises after many consultations and negotiations.
- Organisational culture can also be an impediment to the uptake and use of strategic foresight approaches. Public bureaucracies are often built around strong hierarchical structures, with engrained institutional path dependencies (EEA, 2011). As such, they are sometimes (although certainly not always) inflexible in their approaches to new methods. This can deter creative thinking and rapid adoption of novel approaches.

### **Policymaker capacities and motivations for using foresight studies**

In some instances, foresight outputs are used in ways that distort their intended aims. For example, when using scenarios, policymakers and other stakeholders may only take a single scenario into consideration, treating it as a prediction when developing policy, rather than considering a full set of scenarios (e.g. PBL, 2010).

In part, this kind of behaviour may reflect a lack of familiarity with foresight approaches. Policymakers can find it difficult to take into account diverse possible futures and develop policies on that basis (Ahlqvist and Rhisiart, 2015). Since foresight studies seldom offer guidelines for their use, they may be perceived as ‘academic exercises’ (WRR, 2010).

Futures thinking is often more about looking for signs of future change and adjusting policies and management models, rather than following a more traditional linear model of receiving evidence and acting on it. There is often a need for significant capacity-building and behaviour change. While concentrated efforts to increase the understanding and capacity of senior politicians can be very helpful, it is also important to ensure a broad base of futures thinking and skills in government departments (Habegger, 2010). In many ministries, frequent rotations of staff, restructuring and shifts in responsibilities mean that it is often important to minimise reliance on a few individuals (EEA, 2011).

Policymakers may also ignore foresight studies if they challenge their expectations or desires about the future. For example, in one case in the Netherlands, policymakers developed a policy strategy for urban development that only accounted for futures indicating high economic growth (PBL, 2019b). As a result, when economic crisis hit in 2008, it was unclear which investments would be viable.

Strategic considerations may also play a role. For example, researchers conducting cost-benefit analyses are sometimes pressed by policymakers to make choices that influence their results. One study reviewed cost-benefit analyses of motorway projects and found that most presented only a single future, assuming high

mobility growth and excluding alternatives. The focus on high-growth futures increases the political urgency of road expansion, shifting cost-benefit calculations towards investments (CE, 2013).

### Challenges generating sufficient organisational commitment

In the past, foresight activities have often been undertaken by small groups of experts or as one-off projects, with temporary and limited impacts (OECD, 2019). There are too few examples of sustained foresight practices, with widespread application to policymaking.

In part, this may reflect a lack of demand for foresight from senior managers in public institutions. In this situation, foresight activities may be squeezed out by more immediate pressures or reporting requirements; there may be limited space for policymakers at lower levels to challenge existing assumptions and policies; and foresight activities may take the form of academic exercise, without necessary institutional engagement and orientation towards key priorities.

Changing this situation is difficult because transforming organisational practices and norms normally depends on sustained legitimisation and support from high levels to authorise action and provide necessary resources.

### Failures in communicating foresight studies and supporting their use

Many foresight experts pay more attention to doing research than disseminating results. Conducting a foresight study often requires considerable human and financial resources and time. Once completed, experts often send a report to the main target groups and assume that policymakers will be motivated and able to use the results. In reality, many potential users may be unaware of the study, unfamiliar with foresight generally, or sceptical of the results. A few policymakers may have been involved in the study (e.g. participating in workshops) but even they may not fully accept the alternative futures developed (Rhisiart et al., 2017).

When disseminating results, the form of communication plays an important role (PBL, 2019b). Target groups have different communication needs. For example, high-level policymakers may be interested in brief narratives about the future, whereas policymakers at the middle level may need more specific and quantified results. In many cases, however, communications are restricted to producing a report, organising a conference or giving some presentations, rather than developing differentiated outputs and ‘selling’ them to target audiences (Peperhove et al., 2018).

### Problems with coordination of foresight studies

The ad hoc character of many foresight projects mean that they often address specific aspects of a policy and are seldom developed in systematic and integrated way (Amanatidou, 2014). Several different foresight studies may be published for the same policy, potentially presenting different sets of alternative futures. Policymakers struggle to comprehend and use such differently formulated results.

These problems can be addressed in part by coordinating foresight studies or developing ‘reference scenarios’ that provide a consistent framework for other future studies. However, this kind of coordination can necessitate substantial consultation, bureaucracy and transaction costs. Moreover, adopting a coordinated or shared framing can mean that foresight studies develop common blind spots. For example, weak signals of low-probability, high-impact events are easily ignored when they do not fit into a reference framework. This may reduce the robustness and flexibility of policies and thereby increase their fragility (Taleb, 2014). In a global context characterised by concurrent and potentially interconnected crises (corona virus, financial crisis, climate change) there are risks in aligning foresight studies.

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## Annex 8: Guest Speaker Bios

### Increasing Diversity and Inclusion in Foresight

**Özge Aydoğan** is a creative foresight, policy and strategy specialist. She has spent the past 10 years advancing international development with the UN and IFIs. She is the recipient of the 2018 Joseph Jaworski Next Generation Foresight Practitioners Award in International Policy, thematic foresight lead of the Young UN's policy lab, and co-initiator of Frontier Foresight, an emerging participatory foresight design lab.

**Pupul Bisht** is a multi-disciplinary futurist and the Winner of the Joseph Jaworski Next Generation Foresight Practitioners Award 2018. She founded the Decolonizing Futures Initiative in 2018— a global project that aims to engage marginalized communities in imagining their preferred futures in order to inform and inspire inclusive policymaking and innovation.

**Kwamou Eva Feukeu** is a Project Officer acting as the Africa coordinator for Futures Literacy at UNESCO. She is an experienced facilitator and lab designer, and member of the World Futures Studies Federation and Plurality U+ network. She is a jurist by training and focuses her recent works on the role that norms play in the production and evolution of anticipatory systems. She is also keen to work on African representations and uses of the future. Her PhD is currently underway at the Centre for Complex Systems in Transition at the University of Stellenbosch.

**Sandile Hlatshwayo, Ph.D.** is an economist at the International Monetary Fund whose primary research interest is quantifying the consequences of policy uncertainty. Her work has been featured in *The Economist*, *The New York Times*, *Financial Times*, and *The Washington Post*. She also mentors, advises universities on pipeline programs, sits on the board of Black Professionals in International Affairs, and serves as an inaugural member of the American Economic Association's Committee on the Status of LGBTQ+ Individuals in the Economics Profession.

**Prateeksha Singh** is a multidisciplinary practitioner whose practice sits at the confluence of Systems, Foresight and Design Research. Based in Bangkok, she is the Head of Experimentation with the UNDP Asia-Pacific Regional Innovation Centre where she works with regional offices to understand the cohesion amongst current portfolios of work, and ways to address deeper systemic change.

### Wild Cards

**Karlheinz Steinmüller** Since 1991, Karlheinz Steinmüller has engaged in futures studies for large enterprises and public administrations. His special fields of expertise include innovations, technological foresight, scenario development and wild cards. He has also done research into the history and methodology of foresight. He also lectures on foresight methodology at Freie Universität Berlin. Steinmüller studied physics and obtained his PhD in 1976 for a philosophical thesis on reductionist approaches in biology. He has published together with his wife eleven science fiction books, three books about foresight and a biography of Charles Darwin.

### Foresight for Action

**Nicole Dewandre** is policy coordinator in charge of foresight, education, culture, sport and youth in the cabinet of Ursula von der Leyen, president of the European Commission. She studied applied physics engineering, economics, operations research and philosophy in Belgium and in the USA. She joined the European Commission in 1983 and was in charge of research and industry in Jacques Delors' advisory group. Since 1993, she focused on science and society issues. As head of unit in DG RTD, she developed policies on (i) gender equality in research, (ii) partnership between civil society and researchers, and (iii) harnessing EU-funded research to sustainable development. In 2011, she joined DG CONNECT as advisor to the Director General, Robert Madelin, in charge of fostering a human-centric digital transition. Since 2016 and before joining the President's cabinet on December 1, 2019, she has developed a research project in the Joint Research Centre, based on a critical analysis of the language use in EU policy-making.



*Laurent Bontoux* is a member of the cabinet of Maroš Šefčovič, vice-president of the European Commission, in charge of foresight. After his engineering and doctoral studies in France and the USA, Laurent worked for a few years in industry (equipment R&D, chemical risk assessment). He joined the European Commission in 1993 where he spent most of his efforts dealing with research and science to inform policymaking. He worked especially on health and environmental risk assessment and dealt with issues as diverse as nanotechnologies, antimicrobial resistance and the potential health effects of electromagnetic fields. This led him to gain hands on experience in stakeholder engagement and on how to apply scientific evidence in policymaking. Laurent then spent 8 years in the thick of bringing future oriented systemic thinking into EU policymaking, both by applying classic foresight methods and developing innovative foresight approaches. He is now using this experience to bring the benefits of foresight to a more strategic level.

## Annex 9: Resources Shared by Participants

Government of Canada — Emergence Room

<https://medium.com/@JayneEngle/the-emergence-room-82a151ec6737>

Shell — Covid scenarios

<http://www.shell.com/rethinkingthe2020s>

World Energy Council — Covid Scenarios

[https://www.worldenergy.org/assets/downloads/World\\_Energy\\_Council\\_-\\_Covid\\_Scenarios\\_Summary\\_-\\_FINAL.pdf](https://www.worldenergy.org/assets/downloads/World_Energy_Council_-_Covid_Scenarios_Summary_-_FINAL.pdf)

Finnish Innovation Fund Sitra — recent articles on the long-term impacts of COVID, based on megatrends work

<https://www.sitra.fi/en/news/our-article-series-stimulates-the-reader-to-think-about-the-impacts-of-the-coronavirus-and-the-options-available-for-the-future/>

Policy Horizons Canada — recent work from the Economics team on the Future of Work

<https://horizons.gc.ca/en/2019/06/20/the-future-of-work-five-game-changers/>

Singapore Centre for Strategic Futures— blog with recent think-pieces on COVID-19

[https://medium.com/@pmo\\_csf](https://medium.com/@pmo_csf)

Finnish Innovation Fund Sitra — project Future Makers aiming to popularize futures thinking

<https://www.sitra.fi/en/topics/future-makers/>

Geneva Centre for Security Policy & Institut Barcelona d'Estudis Internacionals — recent piece on COVID-19

[https://www.globe-project.eu/en/covid-19-time-to-put-strategic-foresight-at-the-heart-of-leadership\\_10031](https://www.globe-project.eu/en/covid-19-time-to-put-strategic-foresight-at-the-heart-of-leadership_10031)

UK Government: Government Office for Science — Futures, Foresight and Horizon Scanning

<https://foresightprojects.blog.gov.uk/2017/06/21/materials-to-help-you-plan-for-population-ageing/>

Estonian Foresight Centre — Estonia's COVID scenarios

<https://www.riigikogu.ee/en/foresight/>

Asian Development Bank — recent knowledge product on futures thinking and foresight for policy makers

<https://www.adb.org/publications/futures-thinking-asia-pacific-policy-makers>

European Parliament Research Service (EPRS) — Summary of the EU Commission's recent Annual Foresight Report

[https://www.europarl.europa.eu/RegData/etudes/ATAG/2020/652094/EPRS\\_ATAG\(2020\)652094\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/ATAG/2020/652094/EPRS_ATAG(2020)652094_EN.pdf)

Centre for Strategic Futures — recent article on COVID shifts

[https://medium.com/@pmo\\_csf/how-covid-19-is-reshaping-the-world-3a156eba49f0](https://medium.com/@pmo_csf/how-covid-19-is-reshaping-the-world-3a156eba49f0)

European Environment Agency — briefing on environment and sustainability in Europe

<https://www.eea.europa.eu/soer/2020/intro>

Teach the Future — a foundation whose mission is to teach futures-thinking skills to students and educators around the world and to inspire them to influence their futures. <http://www.teachthefuture.org/>

UNESCO — working project “The Capacity to Decolonize”

<http://foresightfordevelopment.org/c2d/wp-content/uploads/2020/09/C2D-Proposal.pdf>

European Strategy and Policy Analysis System (ESPAS) — report analysis on EU institutions  
[https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659272/EPRS\\_BRI\(2020\)659272\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659272/EPRS_BRI(2020)659272_EN.pdf)

Finland Futures Research Centre — Diverse foresight helps in facing surprising futures  
<https://ffrc.wordpress.com/2020/04/07/diverse-foresight-helps-in-facing-surprising-futures/>

Institute for the Future — The first five minutes of the future (foresight exercise)  
<https://medium.com/institute-for-the-future/the-first-five-minutes-of-the-future-b7e8e275aa8f>

EU Science Hub — report on understanding political nature  
<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/understanding-our-political-nature-how-put-knowledge-and-reason-heart-political-decision>

International Journal of Foresight and Innovation Policy — call for papers for Special Issue on: “Foreseeing and Designing Intercultural Dialogic Sustainability Policies” (ending on 1 July 2021)  
<https://www.inderscience.com/info/ingeneral/cfp.php?id=4759>

World Futures Review — article on the History and Future of Anticipatory Democracy and Foresight  
[https://padlet-uploads.storage.googleapis.com/784181358/4c0e305e87e11de7cf36c6730f4183cc/2018\\_Bezold\\_History\\_and\\_Future\\_of\\_Foresight\\_and\\_AD.pdf](https://padlet-uploads.storage.googleapis.com/784181358/4c0e305e87e11de7cf36c6730f4183cc/2018_Bezold_History_and_Future_of_Foresight_and_AD.pdf)

A Bias Radar for Responsible Policy-Making: Foresight-Based Scientific Advice – Book by Van Lieve Woensel (Palgrave 2020)  
<https://www.palgrave.com/gp/book/9783030321253>

Visual Capitalist — video on the largest economies in 2030  
[https://www.youtube.com/watch?v=L5v9jt4\\_ho](https://www.youtube.com/watch?v=L5v9jt4_ho)

Policy Horizons Canada —  
Exploring Social Futures, <https://horizons.gc.ca/en/2020/03/20/exploring-social-futures/>  
Exploring Biodigital Convergence, <https://horizons.gc.ca/en/2020/02/11/exploring-biodigital-convergence/>

Copenhagen Institute for Future Studies —  
Nordic Health 2030, <https://scenario.wpengine.com/wp-content/uploads/2020/10/The-Next-Era-in-Global-Health.pdf>  
<http://nordichealth2030.org/linux14.dandomainserver.dk/wp-content/uploads/2019/11/nordic-health-2030-magazine.pdf>

Pandemics Existential Risks and Enablers of Change Scenarios Reports:  
[https://scenario.wpengine.com/wp-content/uploads/2020/06/SR\\_Pandemics\\_01.pdf](https://scenario.wpengine.com/wp-content/uploads/2020/06/SR_Pandemics_01.pdf)

Vargas-Lama, Osorio-Vera (2020) “The Territorial Foresight for the construction of shared vision and mechanisms to minimize social conflicts: the case of Latin America.” Futures 123 (2020) 102–625,  
<https://www.sciencedirect.com/science/article/pii/S0016328720301154>

European Commission — 2020 Strategic Foresight Report [https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/strategic-foresight/2020-strategic-foresight-report\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/strategic-foresight/2020-strategic-foresight-report_en)

Department of Spatial Planning and Quality of the Local Government —  
Rehearsing the future, <https://www.pbl.nl/en/publications/rehearsing-the-future>  
Using scenarios, <https://www.pbl.nl/en/publications/using-scenarios-for-environmental-nature-and-spatial-planning-policy>  
Building scenarios, <https://www.pbl.nl/en/publications/using-scenarios-for-environmental-nature-and-spatial-planning-policy>

NEP-Mackenzie, Brazil — Post-COVID-19 Scenarios  
<https://bit.ly/2XSsj8w>

European Parliamentary Research Service (EPRS) with the Directorates-General for Internal Policies (IPOL) and External Policies (EXPO) — Towards a more resilient Europe post-coronavirus. An initial mapping  
[https://www.europarl.europa.eu/RegData/etudes/STUD/2020/653208/EPRS\\_STU\(2020\)653208\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/653208/EPRS_STU(2020)653208_EN.pdf)

European Environment Agency —  
Drivers of change of relevance for Europe's environment and sustainability,  
<https://www.eea.europa.eu/publications/drivers-of-change>

World Energy Council —  
World Energy Crisis Scenarios – [www.worldenergy.org/crisis-scenarios](http://www.worldenergy.org/crisis-scenarios)  
World Energy Transition Radar – [www.worldenergy.org/radar](http://www.worldenergy.org/radar)  
World Energy Transition Toolkit – [www.worldenergy.org/transition-toolkit](http://www.worldenergy.org/transition-toolkit)

Prime Minister's Office of Malaysia —  
National Anti Corruption Plan, <https://www.pmo.gov.my/2019/07/national-anti-corruption-plan/>

UK Ministry of Defense —  
Global Strategic Trends, <https://www.gov.uk/government/publications/global-strategic-trends>  
Development, Concepts and Doctrine Centre,  
<https://www.gov.uk/government/groups/development-concepts-and-doctrine-centre#futures>

Fraunhofer Institute for Systems and Innovation Research —  
German High-Tech Strategy 2025, <https://www.mitmachen-hts.de/>

Forward Engagement —  
Foresight and Democracy, <https://forwardengagement.org/foresight-and-democracy>

National Economic and Development Authority, Philippines —  
The Life of all Filipinos by 2040, <http://2040.neda.gov.ph/>

