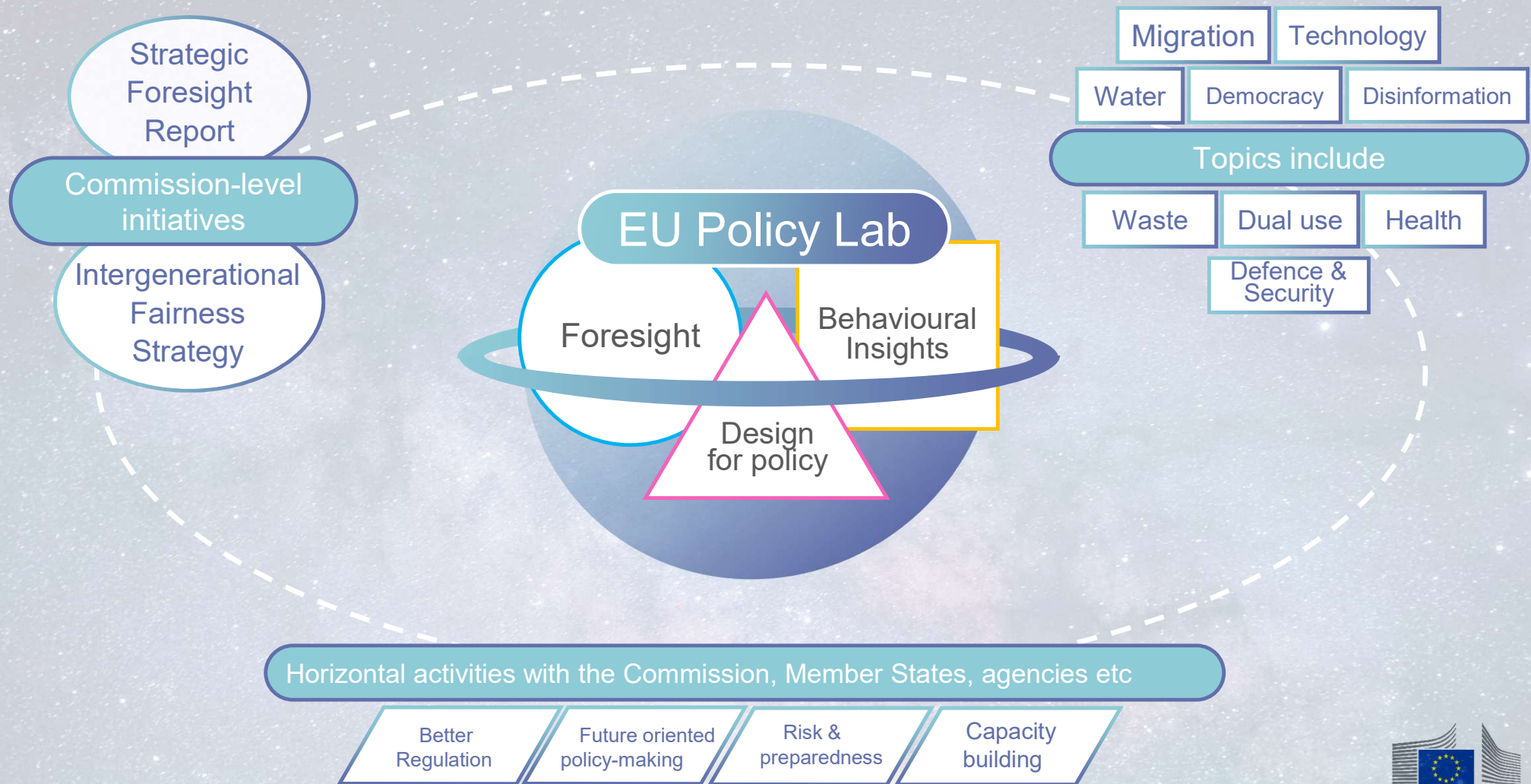


How the European Commission uses Technology Foresight

Commission on Science and Technology
for Development

Geneva, 8 April 2025





Slide 3

B(0 Trainings included in the horizontal activities?
BAILEY Gwendolyn (JRC), 2025-03-28T08:35:04.640

AM0 0 They are in capacity building
MOCHAN Antonia (JRC), 2025-03-31T10:12:18.530

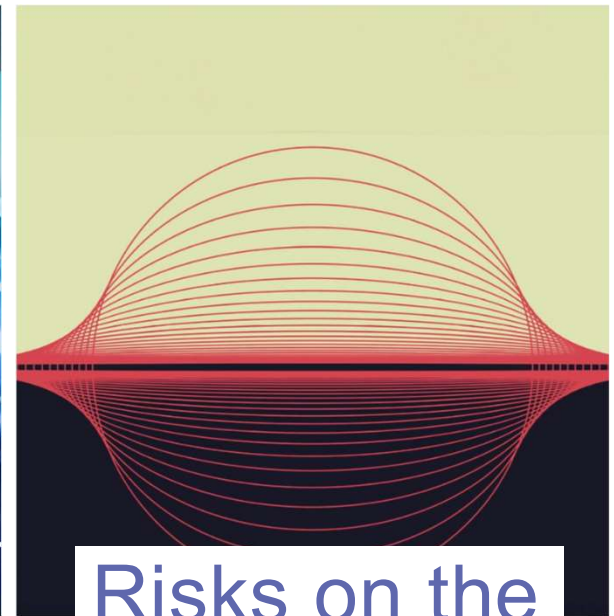
Competence Centre on Foresight



Sustainability
Transitions

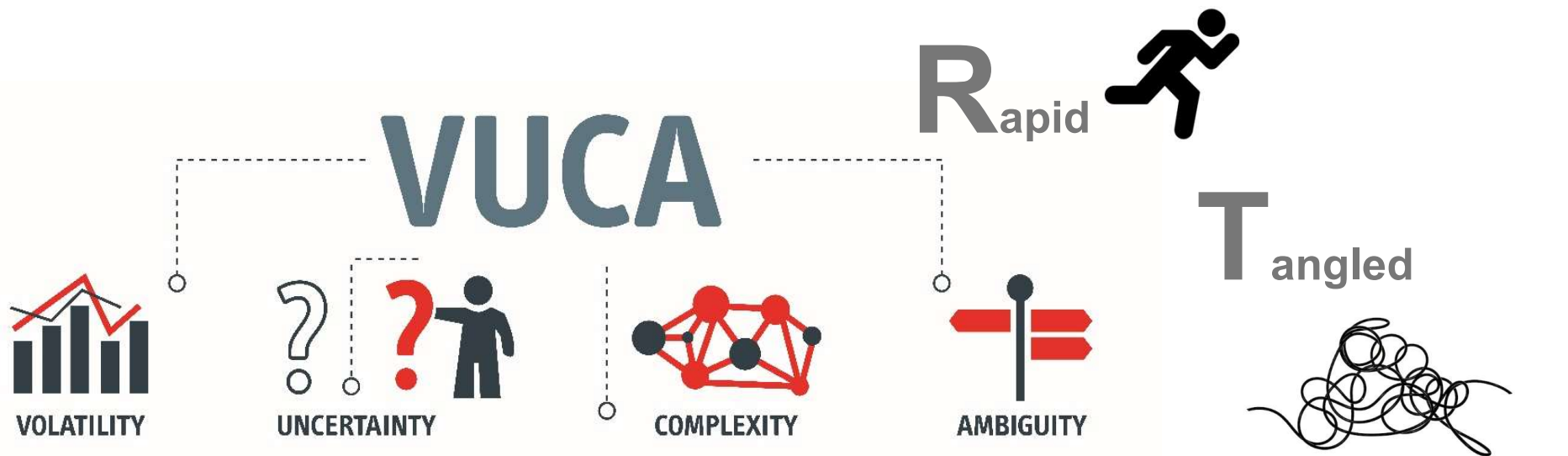


Technology
Foresight



Risks on the
Horizon

Foresight helps us be better prepared in a VUCART world



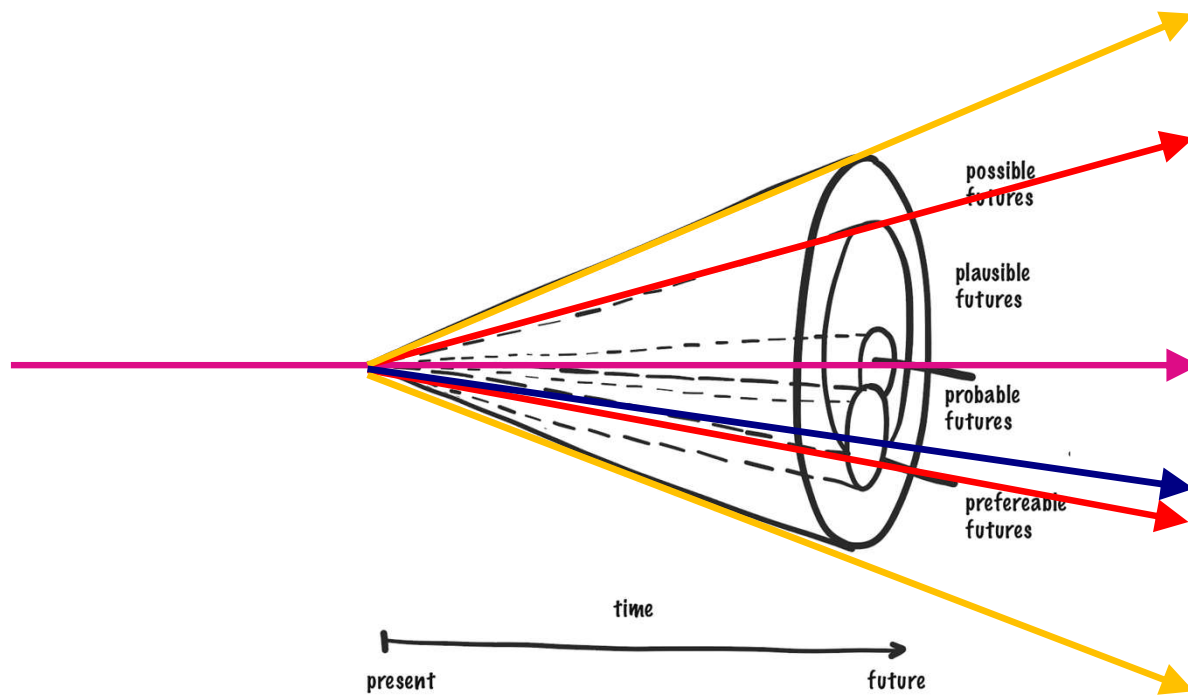
What is foresight about?

- Remove uncertainty?



- Explore uncertainty!

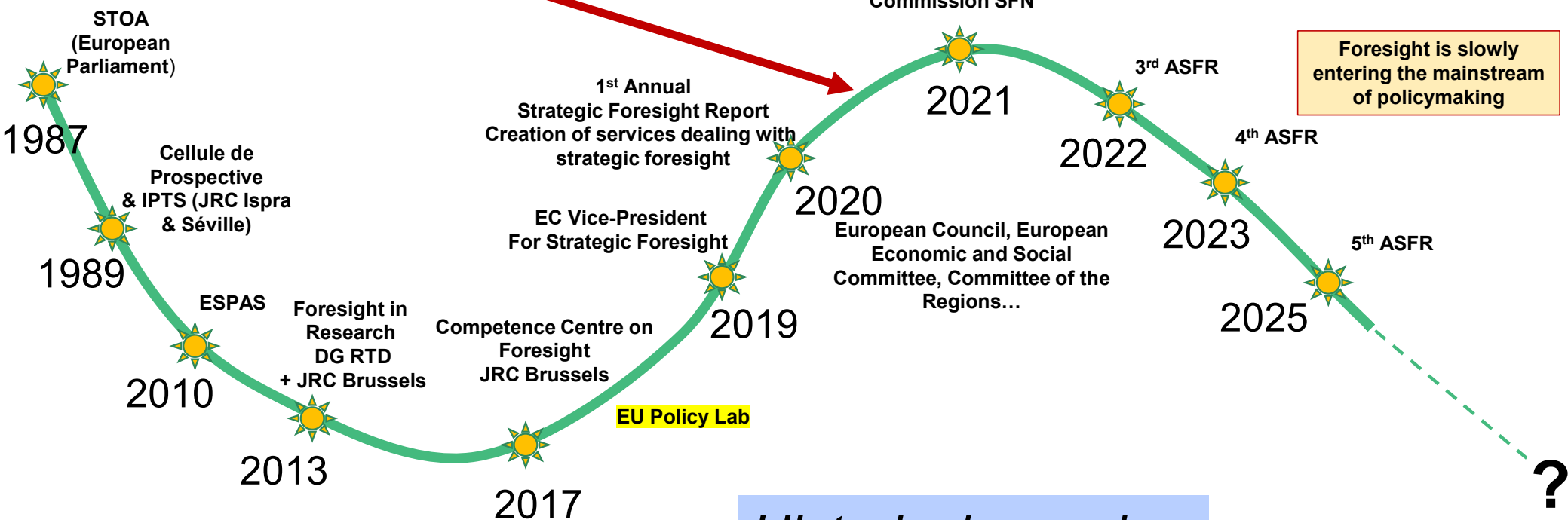




Foresight in EU institutions

Commission:
Strategic foresight enters the “*Better Regulation toolbox*”
Foresight competence progression model

Foresight is slowly
entering the mainstream
of policymaking



Historical overview



Why do we do technology foresight?

Funding
decisions

Feedback to
policy

Work
programme
input

Strategic
intelligence

Anticipatory
governance

Future
scientific
development



What do we do when we do technology foresight?

Identify

- Identify emergent, disruptive and/or critical technologies

Apply

- Apply to a specific policy domain and/or policy challenge.

Recognise

- Recognise factors that enable – drive – hinder
- Recognise the need to address blind spots by engaging a diverse community

Provide

- Provide policy implications for policymakers



How do we do technology foresight?



Horizon scanning – mapping new signals of change and sense making workshops



Delphi survey - structured expert survey on different possible developments in the long-term future on a given topic



Scenario planning – two or more stories of plausible futures



Megatrends analysis – long-term driving forces



Visioning and backcasting – preferred future state to guide direction



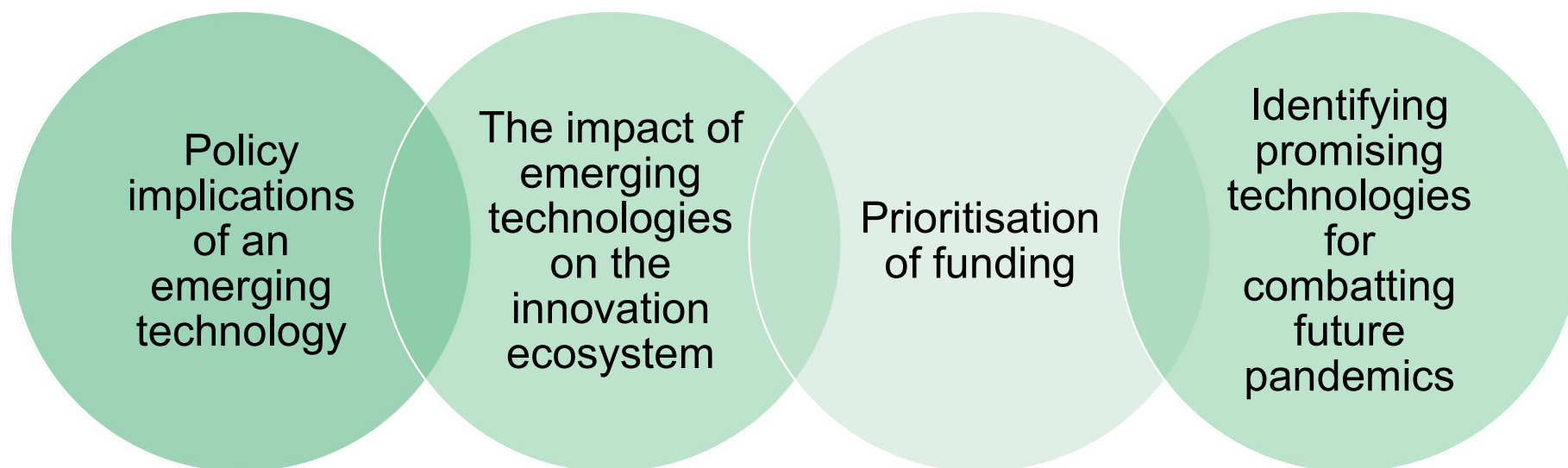
Policy gaming – interactions in hypothesised future situation



Design futures – creative design of future possibilities/products



Some recent examples



Implications of neurotechnology

Why?

What are the implications for a range of policies of the emerging technologies and applications that monitor and stimulate the brain?

How?

Literature review. Workshop with futures wheel, visioning, backcasting.



Innovation ecosystem

Why?

Are there issues that the European Institute of Technology should have on its radar to address society's major challenges?

How?

Horizon scanning, signals assessed with experts. Identify issues with highest impact and uncertainty. Develop scenarios.



Innovation funding

Why?

What should the European Innovation Council be funding to promote innovation in Europe?

How?

Horizon scanning, signals assessed with experts in workshops. Literature reviews.



Pandemic preparedness

Why?

Which technologies for detecting and decontaminating airborne pathogens have the most promise?

How?

Delphi survey with experts. Workshop to consider impact and timeline. Scenarios to test different technologies.



What have we learned?

- Foresight is a mindset.
- The future is already here, it's just unevenly distributed.
- Foresight is about making better decisions today as well as in the future.
- Foresight provides a structured approach to understanding and addressing complexity.
- Foresight is crucial for actors with limited agency.
- Timelines are shortening.
- Context is as important as the technologies.
- Diverse participation/inclusion is crucial.
- Foresight complements more quantitative approaches.



What have we struggled with?

- Short-term thinking
- Foresight is not forecasting
- “That could never happen”
- Moving beyond the “usual suspects”

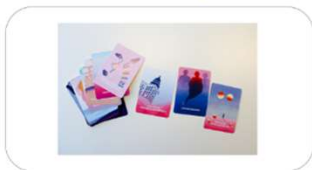


The Megatrends Hub



Megatrends are long-term driving forces that are observable now and will most likely have significant influence on the future.

Polycrisis Exploration Workshop



Workshop tool to facilitate strategic conversations about current and future risks, disasters, and polycrisis.

Digital Transition Toolkit



Toolkit for strategic conversations on digital transition for farmers and rural communities.

Reference Foresight Scenarios



Four scenarios for the global standing of the EU in 2040 offer strategic reflections which can serve as a compass for decision-makers navigating under increasingly unpredictable circumstances.

The Scenario Exploration System (SES)



Teaching and simulation tool to experience your possible paths towards the future, in relation to a certain topic.

FutureGov Game



Tool to stimulate policy debates offering structured conversations that can examine multiple viewpoints on a given policy and examine socio-political actors' landscape.



Thank you



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