Introduction to Day 2
Policy insights and outlook

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MISSION-ORIENTED SWAFS TO ADVANCE INNOVATION THROUGH CO-CREATION

LISIS LABORATOIRE INTERDISCIPLINAIRE Sciences Innovations Sociétés

A reminder of Day 1

Technology in and for society:
Innovating well for inclusive transitions

- High-level roundtable
- Keynote: STS lenses to inform policy
- Panel 1: Upstream Inclusion
- Conversation: Values-Driven development

Day 1

Dec 6, 2021 11:30 AM - 1:30 PM

Welcome, Scene-Setting and High-Level Roundtable: Rethinking Technology for Inclusive Transitions

The OECD Secretary-General will provide welcome remarks, followed by a High-level roundtable.

How to drive systems transitions in energy, food, global health, and transport is a critical challenge for the world. Systems change must be simultaneously social and technological and novel technologies – whether digital, material, biological or all three – will certainly play an important role. However, based on previous experiences, the impacts of new technologies are often both positive and negative and these impacts can be unevenly distributed, with potentially disruptive consequences. For this reason, the U.N. Sustainable Development Goals and a number of related declarations and agreements urge countries to foster innovation and technological development within a broader context of poverty eradication, responsible consumption and production, and inclusive and sustainable growth.

- What values, principles and policies must be operationalised to ensure a just and values-centred technological transformation?
- How can public policy and governance help ensure that both the development and implementation of technology in these sociotechnical systems will be inclusive?
- What kinds of discussions and policies will be necessary to align sociotechnical change with societal values and address concerns?


Roberto Cingolani
Italy


Mathias Cormann
OECD


Yuko Harayama
Japan


Manuel Heitor
Portugal


Lim Hyesook
Korea


Jason Kelly
Ginkgo Bioworks


Esther Lynch
European Trade Union Confederation


Jean-Eric Paquet
DG Research and Innovation of the European Commission


Chris Philp
United Kingdom


Ulrik Vestergaard Knudsen
OECD

Dec 6, 2021 1:40 PM - 2:10 PM

Keynote: Science and Emerging Technology for Inclusive Transition: New Directions


Sheila Jasanoff
Harvard Kennedy School

Dec 6, 2021 2:20 PM - 3:35 PM

Panel 1. Building Inclusivity Upstream: Engaging Diverse Actors in the Development of Emerging Technology

Inclusivity in science and technology is an important design principle for innovating well. Inclusivity is often framed in terms of access to knowledge and equitable enjoyment of technological benefits. This panel, however, frames inclusivity in terms of access to the processes of technology development, where enriching diversity of participants is linked to the creation of more socially relevant science and technology.

- What are tools and mechanisms for involving more diverse actors "upstream" in the development of emerging technology?
- How can involving new actors – such as knowledge-producers, entrepreneurs, co-creators, co-owners, and research participants etc. -- present pathways towards more just and inclusive transitions?


Richard Johnson
BIAC Technology & Innovation Committee (OECD) / iGEM Foundation


Anil Prakash Joshi
Himalayan Environmental studies and conservation Organization (HESCO)


Shobita Parthasarathy
University of Michigan


Flurina Schneider
Institute for Social-Ecological Research / Goethe University Frankfurt


Angela Simone
Bassetti Foundation


Henriette Van Eijl
European Commission

Dec 6, 2021 3:45 PM - 4:20 PM

Conversation: Values-Driven Development of Emerging Technologies in an International Context


Tarun Chhabra
National Security Council, United States


James Wilsdon
University of Sheffield

Some key Insights from Day 1

- PACE OF POLICY *(needs and practices)*
- VALUES (*front and centre?)*
- MISSIONS *(societal goal-driven policies)*
- INCLUSIVITY *(from engagement to co-creation?)*

PACE OF POLICY *(needs and practices)* (1/4)

- The accelerating **pace** of change (and policy cycles)
  - Technologies emerge rapidly (rapid disruptive innovation can be beyond societal absorptive capacity)
  - Policy is challenged to rapidly respond to crises and anticipate – agile, and informed in real-time

- Strategic Intelligence for rapid decision making
  - Technology Forecasting, Foresight and Technology Assessment are being mobilised
  - Strategic Intelligence tools and use of output is strongly (national) context dependant
  - Challenge to embed such strategic intelligence into the heart of policy making *(a challenge discussed in the chat)*

VALUES (*front and centre?)* (2/4)

- Value-centred approaches
  - “Open, free and inclusive values to be included into technology innovation”
  - “Democracy affirming technologies”
  - “Mission-oriented policies must be inclusive and co-created” (paraphrased)

- Challenges
  - “Values differ across communities – rural and urban” (paraphrased)
  - Values evolve (and differ across communities) perhaps “value forecasting”?
  - Values are embedded in technologies, but can also be used to discriminate – anticipatory governance is key!

MISSIONS *(societal goal-driven policies)* (3/4)

- Goal-driven and mission-oriented
  - To set directions for innovation ecosystems (to achieve societal goals)
  - As a means for Strategic Science Cooperation & coordination

- Challenges and opportunities
  - Balancing top-down leadership with bottom-up inspirations (and wisdom)
  - Whole government approach (cross-Ministry and joined up policy making)
  - Real-time steering and monitoring (measuring mission contributions?)

  - Opportunity: goal-orientation for technology and innovation policy provides in-roads for citizen (and other stakeholder inclusion)

INCLUSIVITY *(from engagement to co-creation?)*

- Various rationales for inclusion
  - ***Societal buy in:*** transparency, trust, education
  - ***Democracy:*** citizens have their say in the directions of technical change
  - ***Harnessing potential:*** creative ideas come from wide range of stakeholders

- Challenges and opportunities
  - Co-creation of policies: representation as well as insights
  - User-producer interfaces to inscribe “the right” values into technologies and their deployment
  - How to nurture and harness bottom-up technology innovation whilst coupling with regulation and good governance?
  - Capacity building is essential *(for includers and the included)*

Day 2

The thrust of Day 2 (2/2)

Goal-driven and mission-oriented approaches
Evidence, examples and open questions

Panel 2. Developing emerging technology for critical missions

Dec 7, 2021 | 12:00 PM - 1:40 PM

Strategic Intelligence for Directionality
Contexts, tools and practices

Panel 3. Setting Goals and Agendas Through Foresight and Participatory Processes

Dec 7, 2021 | 1:50 PM - 3:00 PM

Anticipatory Governance
Tools and insights for upstream gov.

Panel 4. Tools of Upstream Technology Governance: Soft Law, Standards, and Ethics-by-Design

Dec 7, 2021 | 3:10 PM - 4:20 PM

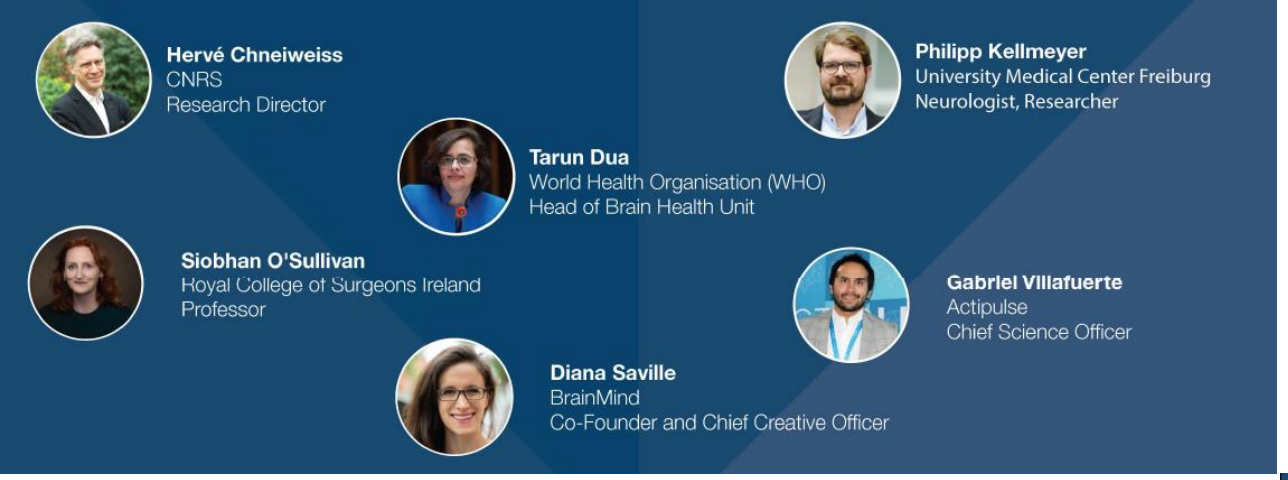
Panel 2
Developing emerging technology for critical missions

Goal-driven and Mission-oriented?

Present calls for “goal-oriented” and transformative innovation display a new level of urgency to better connect emerging technologies to specific challenges and goals like the SDGs.

- How can policies and practices by government and other stakeholders help ensure that the development of novel technologies addresses the most important problems?

- How might governance and inclusive processes help meet this challenge?

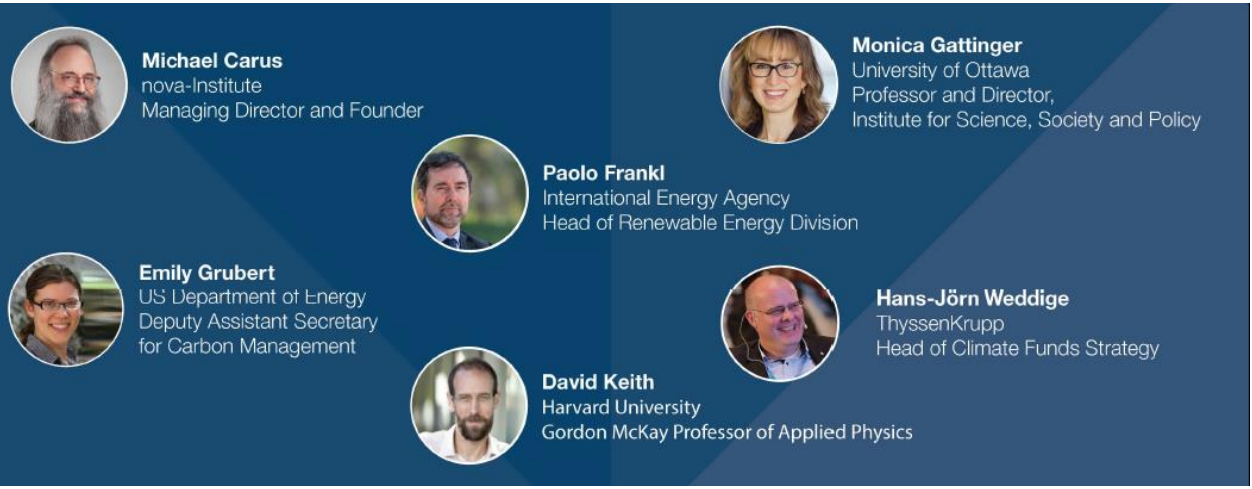


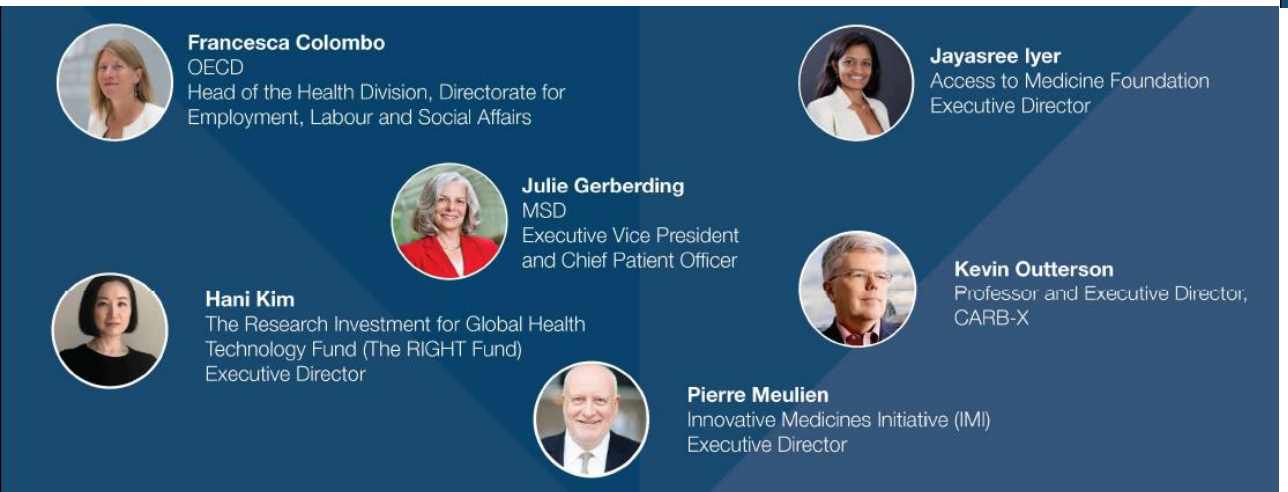
2a) Harnessing Responsible Neurotechnology for Brain Health

- What kinds of tools and policies are needed to help ensure that emerging neurotechnology advance the mission of brain health in an ethical fashion?
- How can the recently enacted OECD Recommendation best be implemented?

2b) Realizing Net Carbon Neutrality: The Role of Carbon Management Technologies

- What knowledge is necessary to better guide policy communities as they manage emerging technology portfolios for carbon management?
- What can more holistic approaches to carbon management offer for developing technology pathways to net carbon neutrality?





2c) Innovating Global Health: Collaborative Action Where Markets Fail

- What kinds of tools and policies are needed to help ensure that emerging neurotechnology advance the mission of brain health in an ethical fashion?
- How can the recently enacted OECD Recommendation best be implemented?

Thank You!

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