Breakout 1: The future we want in science and technology

Panel 1.2: Human enhancement: emerging technology and the human future,
facilitated by the Working Party on Biotechnology, Nanotechnology and Converging Technologies (BNCT)

23 April 2024 from 14:05 to 15:50 Paris time, OECD Conference Centre, 2 Rue André Pascal, Paris, France

Join us to explore the transformative impact of advances in nano-, bio-, digital, and material technologies on human health and well-being, shaping a new era of personalized medicine and human enhancement. Breakthroughs in genomics, gene editing, 3D printing, and stem cell therapies hold promise for tailored medical treatments and new powers to alter heredity. Brain-computer interfaces offer potential therapies for individuals with disabilities and mental illnesses, as well as enhancement of sensory and cognitive experiences, raising ethical, legal, and social considerations. The rapid pace and broad scope of these technological advancements require critical reflection on the nature of human augmentation, the balance of benefits and risks, and the potential for exacerbating societal inequalities. Join us as we navigate the complexities of human enhancement in an era of unprecedented technological progress.

Session Objectives

- Launch the OECD Policy Toolkit for Responsible Innovation in Neurotechnology.
- Build the evidence base for mutual learning and future policy through structured input from business, academia, and civil society.
- Identify user needs for further analysis and engagement in developing ethical frameworks to address issues of human enhancement with potential discussions on broader governance frameworks.
- Discuss actions to further advance a common agenda at the international level.

Key questions

- What do we mean by human enhancement, and what is new or different about human enhancement technologies? What spheres of human activity will they affect most?
- What values are at stake?
- Given what we know about human enhancement technologies, what lines might we want to draw? How can we ensure equity and inclusion both within and across societies in the debate, development and impacts from the relevant technologies?
- Are current forms of governance adequate to address these concerns? What more is needed?
- How can spaces be opened up to enable broad dialogue between technologists, policymaker, the private sector and citizens?

Potential Outcomes

A conversation that frames and helps enable the global debate on human enhancement among policymakers, industry, academia, and the broader society in view of developing an actionable agenda, including:

- Welcoming the new toolkit for policy makers to implement the Recommendation of the OECD Council on Responsible Innovation in Neurotechnology [OECD/Legal/0457] as neurotechnologies figure to be important in human enhancement technologies.
- Identifying user needs for further research, analysis, and engagement in developing an ethical framework.
- Discussing actions to advance the agenda at the international level, for instance, collect input for the further development of international norms in neurotechnology or other technological fields.
- Calling for OECD work on future-looking assessment of human enhancement at the CSTP and the BNCT.

Featured Speakers

Speakers and panellists include representatives from academic institutions, policy, labour representatives and technology developers.

Moderator: Marcello Ienca, TU Munich, Germany

- **Aisén Etcheverry,** Minister of Science and Technology, Chile
- **Aida Ponce Del Castillo**, Emerging technologies and Foresight, European Trade Union Institute, Belgium
- **Hervé Chneiweiss**, Professor, Sorbonne University, France
- **Masaaki Mochimaru**, Director of Human Augmentation Research Center, The National Institute of Advanced Industrial Science and Technology (AIST), Japan
- **Siobhán O'Sullivan**, Executive Director, Royal Irish Academy
- **Steve Gullans**, CEO at THYNK, the United States

Why should you attend?

The multistakeholder meeting is designed as a platform for experts and academics in the field of science, technology, and innovation to convene and actively participate in dialogue, exchanging knowledge and expertise with peers from OECD countries and beyond. It offers an opportunity to engage with high-level representatives from international organisations, as well as from business and civil society. Your presence at the OECD underscores your dedication to the principles of international cooperation while strengthening the pivotal role of science, technology, and innovation in driving sustainability transitions. Don't miss this opportunity to engage, learn, and network with leaders in this space!

Breakout 1: The future we want in science and technology. Human enhancement: emerging technology and the human future	
14:05 – 14:25	**Launch of the OECD Toolkit for Responsible Innovation in Neurotech** • Welcome by moderator, Marcello Ienca, TU Munich, Germany • Opening remarks, DSTI Director Jerry Sheehan presents the toolkit for responsible innovation in neurotechnology • Opening remarks by Aisén Etcheverry, Minister of Science and Technology, Chile
14:25 – 14:50	**Moderated panel discussion** • Aída Ponce Del Castillo, Emerging technologies and Foresight, European Trade Union Institute, Belgium • Hervé Chneiweiss, Professor, Sorbonne University, France • Masaaki Mochimaru, Director of Human Augmentation Research Center, the National Institute of Advanced Industrial Science and Technology (AIST), Japan • Siobhán O'Sullivan, Executive Director, Royal Irish Academy • Steve Gullans, CEO at THYNK, the United States
14:50 – 15:20	**Comments on panel discussion** *(pre-booked)* By representatives of different stakeholder groups (youth, private sector etc); each 2min
15:20 – 15:40	**Open discussion with all participants**
15:40 – 15:50	**Concluding remarks** • Moderator summarises highlights from the breakout discussion • Concluding statements by panelists on key elements of an international agenda that can be advanced by governments

What is the BNCT? The Working Party on Biotechnology, Nanotechnology and Converging Technologies (BNCT) brings together national and international experts and policymakers to develop cutting-edge analysis on the policy challenges and opportunities presented by emerging and converging technology, including synthetic biology, neurotechnology, industrial biotechnology, and advanced materials. Recently the group has focused on challenges of technology governance in emerging technology fields, synthetic biology and bioeconomy, and technology assessment and other strategic intelligence.

Have Questions? Please contact cstpministerial2024@oecd.org;
Register here (for in-person and remote participation)