From climate change to population ageing to far-reaching geopolitical adjustments, the world is facing unprecedented changes marked by uncertainties and unknowns. While there is untapped potential for research and innovation to address these trends, the speed of technological change adds to the uncertainty and makes policy oversight of emerging technologies increasingly difficult.

Several key trends and issues specifically related to the organisation and conduct of research and innovation activities also require policy responses and solutions. Besides the challenge of governing emerging technologies, there are, for example, issues around solving the reproducibility crisis in science; striking the right balance in the types of funding for public and business R&D; ensuring the attractiveness of research careers; supporting and organising universities and PRIs so that they meet the challenges of the 21st century; and boosting innovation across the wider economy, particularly among SMEs.

Governments need to reflect on what the interplay of such trends and issues means in terms of opportunities to be seized and challenges to be met. More adaptive policies are needed that can better respond to disruptive scientific, technological and societal developments. Analysis of future trends can alert policy makers, the business community, researchers and society more generally to important upcoming issues.

The OECD STI Outlook provides a platform for analysing future trends and issues

Using its Science, Technology and Innovation (STI) Outlook as a platform, the OECD will look out 10-20 years into the future on selected topics related to research and innovation policy.

The STI Outlook is a flagship publication overseen by the OECD’s Committee for Scientific and Technological Policy (CSTP) with the purpose of reporting on the latest trends and issues relevant to STI policy. It also serves as a platform for showcasing OECD STI policy work and for exploring new topics that might be covered in future projects.

Examples of sorts of questions covered in the STI Outlook 2020

- How can emerging technologies like gene editing and AI be developed and applied in the public interest?
- How should research universities adapt to the challenges facing them in the next decade?
- How can winner-take-all dynamics be managed to avoid stark inequalities in outcomes and opportunities?
- How can emerging economies in Africa and Asia use research and innovation in their development?
- How effective and efficient are policies like tax credits, public VC, and mission-oriented policies?
- How can new sources of data improve the evidence base for STI policymaking?
The year 2020 will see the launch of many future-oriented reports and events. Some of these will be put together by national governments, others by private foundations, think tanks, large firms, and international organisations, among others. It should be possible to collaborate with some of these exercises to analyse selected topics covered in the STI Outlook 2020. The STI Outlook 2020’s architecture, which is built around multiple launch points during the year, is conducive to developing different partnerships with their own specific focus.

- National ministries and agencies conducting forward-looking analyses and events in 2020
- Research centres working on topics related to the STI Outlook 2020
- Large STI event organisers
- Other international organisations conducting relevant analysis
- Large consulting houses that regularly conduct future-oriented techno-economic analyses
- Private foundations and charities that are active in the STI area
- Popular science journals that could feature long-term perspectives in their pages

WANT TO KNOW MORE?
If you would like to explore collaboration options with the OECD’s Directorate for Science, Technology and Innovation, or to learn more about the STI Outlook 2020, contact Sylvain Fraccola (sylvain.fraccola@oecd.org) or Michael Keenan (michael.keenan@oecd.org).