

**INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION
ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)**

**Geneva, Switzerland
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Contribution by OECD

**to the CSTD 2024-2025 priority theme on “Diversifying economies in a world of
accelerated digitalization”**

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PRIORITY THEME 1: Diversifying economies in a world of accelerated digitalization

United Nations Commission on Science and Technology for Development (CSTD)

To whom it may concern

The [27th CSTD annual session](#) selected “Diversifying economies in a world of accelerated digitalization” as one of the priority themes for its 28th session (2024-25 period). This theme directly addresses SDG 9 “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation” at the 2030 Agenda.

Although the contribution of science, technology and innovation (STI) to the achievement of other sustainable development goals (SDGs) is discussed in every session of the CSTD, its role in upgrading and diversifying industrial capabilities and the linkages with industrial policies have not been specifically addressed for several years in the Commission. Economic diversification, including through the upgrading of industrial capabilities, is an essential component of economic development and a key area of SDG 9, which aims at enhancing scientific research and accelerating technological upgrade of industries through innovation, particularly in developing countries.

Under this priority theme the Commission could discuss challenges and opportunities brought about the rise of new digital technologies, as Artificial Intelligence, for industrial and innovation policies aiming at increasing productive capacities and diversifying the industrial structure toward higher value productions to benefit all while preserving cultural identity, including indigenous knowledge. The accelerating pace at which frontier technologies emerge and develop makes policymakers struggle to navigate and design responsive policies. Under this theme, the Commission can examine the challenges and opportunities specific to countries at different level of development, and what can least developed countries do to face the disproportionate challenges they face; work to identify best practices and inform inclusive policies for innovation and economic diversification; discuss how to leverage international cooperation to guarantee that uneven technological capabilities will not worsen inequality.

The CSTD secretariat is in the process of drafting an issues paper on the theme to be presented at the CSTD inter-sessional panel meeting to be held in the second half of October 2024 in Geneva. In this context, we would like to solicit inputs from international organizations, UN entities and agencies, and regional commissions on this theme. We would be grateful if you could kindly answer the following questions based on your organization’s work at the global, regional, and/or national levels:

1. What are the specific challenges developing countries face to develop or adapt frontier technologies and AI?
2. Can you provide successful examples of adoption or development of AI and other frontier technologies you contributed to?
3. Can you provide examples of inclusive policies for innovation and economic diversification specifically tailored to diffusion of digital technologies and AI?

Input below provided by the OECD-STP Project Lead for OECD Working Party on Innovation and Technology Policy (TIP): caroline.paunov@oecd.org. Please feel free to contact us for further information with Rahul.pallan@oecd.org in Cc.

- Inclusive policies for innovation specifically tailored to diffusion of digital technologies and AI are those aimed at building capacities (e.g. entrepreneurship education); at addressing discrimination and stereotypes (e.g. awareness-raising activities, role models and mentoring programmes); and at addressing barriers to entrepreneurship (e.g. facilitating disadvantaged groups’ access to finance through microcredit or equity financing, providing tailored business development support, and promoting their insertion into business and research networks).
- Some countries have already implemented “inclusive innovation policies”. Examples include targeted grants for research projects led by researchers from disadvantaged groups

in South Africa; a programme to improve the research environment for women in Japan; and initiatives to support the entrepreneurship of minority communities in Israel

- For more details, you can refer to this report: [Digital Innovation, Seizing Policy Opportunities](#) (page 72)

4. Do you have examples policy instruments to favour the diffusion of frontier technologies in the economy targeting specific sectors?

Input below provided by the OECD-STP Project Lead for Innovation and Policy Evaluation: alistair.nolan@oecd.org. Please feel free to contact us for further information with Rahul.pallan@oecd.org in Cc.

- This issue is addressed in some detail in [this chapter](#) (Part II – Chapter 7) on institutions to support technology diffusion in OECD (2017), *The Next Production Revolution: Implications for Governments and Business*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264271036-en>.

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- Novel policy instruments to favour the diffusion of frontier technologies in the economy include demonstration facilities for SMEs, and experimental policy approaches, such as test beds and regulatory sandboxes. The use of these instruments and of more classical STI instruments in the context of the digital transition is discussed in this report ([Digital Innovation, Seizing Policy Opportunities](#), chapter 4)
- Regarding the diffusion of frontier technologies for the green transition, examples of experimentation at local level have also shown their potential. Two insightful cases are the GreenLab in Denmark and Lorraine Smart Cities Living Lab in France, that were discussed during a workshop ([Aiming for the stars: Advancing key technology moonshots for green futures - Insights from workshop by OECD - Issuu](#)). For fostering the diffusion of green innovations and achieving net zero emissions targets, countries have developed ambitious strategies notably focused on investments in R&D for selected technologies, demonstration and early technology deployment initiatives, regulations, financial and tax incentives efforts. Green innovation strategies of European Union, Japan, Korea and the United States have been presented during a workshop: [Accelerating innovation for the green transition - Insights from the METI-OECD workshop by OECD – Issuu](#))

5. Are you engaged in putting in place mechanisms to strengthen industrial capabilities through partnerships among different stakeholders (e.g., university-industry, or private-public)?

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- The role of cross-sectoral partnerships in strengthening industrial capabilities has been examined in several publications:
 - [Unlocking co-creation for green innovation: An exploration of the diverse contributions of universities \(oecd-ilibrary.org\)](#): This paper shows the crucial role of universities and their partnerships with industry and society to foster the development and diffusion of green capabilities. It outlines policy recommendations to support these initiatives, such as the preservation of universities' neutrality, the adoption of challenge-based research programmes, the integration of support to

university co-creation in the green STI policy mix, the enhancement of coordination across policy areas to support initiatives' success, and the support to the diffusion of successful approaches.

- [Aiming for the stars: Advancing key technology moonshots for green futures - Insights from workshop by OECD - Issuu](#)): Teams equipped with diverse technological capacities and a robust industry knowledge are best placed to develop breakthrough solutions and identify diverse commercially viable applications. This is exemplified by GreenCoLab in Portugal, where the application of algae biotechnology is harnessed to enhance the environmental sustainability of industrial processes and outputs across a wide range of sectors.
- [Accelerating innovation for the green transition - Insights from the METI-OECD workshop by OECD – Issuu](#): Besides the role of collaborative efforts of universities, research organisations, businesses and public authorities, [this workshop provides insights on](#) citizen engagement and its role in increasing the potential uptake of solutions. For instance, Aspern.mobil Lab, led by the Vienna University of Technology, engages a range of actors including citizens in the development and testing of new sustainable mobility solutions in the neighbourhood of aspern Seestadt in Vienna.

6. How can international cooperation support the uptake of new technologies and the development of technological capabilities and ensure that industrial policies will benefit all and do not worsen inequality?

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- Please see the final three chapters on development co-operation in - *OECD (2023), Artificial Intelligence in Science: Challenges, Opportunities and the Future of Research*, OECD Publishing, Paris, <https://doi.org/10.1787/a8d820bd-en>.

7. What can do the UN CSTD to support an economic transformation that enhances the productive capabilities of countries and foster an inclusive digital transformation?

Please indicate contact person(s) responsible for projects/policies and international collaboration in this context in case we need clarification on the inputs.

Please send your responses and any further inputs on the theme to the CSTD secretariat (stdev@unctad.org) by **24 July 2024**. We look forward to receiving your valuable inputs.

Sincere regards,

CSTD secretariat