

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

**Geneva, Switzerland  
17-19 November 2021**

Contribution by UNWTO

to the CSTD 2021-2022 priority theme on “Industry 4.0 for inclusive development”

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## **PRIORITY THEME 1: Industry 4.0 for inclusive development**

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

To Whom it May Concern,

As you are aware, the [CSTD 24<sup>th</sup> annual session](#) selected “Industry 4.0 for inclusive development” as one of the priority themes for its 25<sup>th</sup> session (2021-22 period).

This priority theme is directly relevant to SDG 9 on industry, innovation and infrastructure. As highlighted by the [Technology and Innovation Report 2021](#), we live at the beginning of a new technological revolution around Industry 4.0 technologies such as AI, robotics, Internet of Things, and blockchain. The way to be prepared to benefit from Industry 4.0 is by promoting the use, adoption, adaptation, and development of technologies associated with this new technological wave. This priority theme will focus on the challenges and prospects for developing countries to pursue an industrialization path considering the emergence of Industry 4.0. This may include the possibility of bypassing intermediate stages of technology that other countries have historically passed in their development process, often referred to as “leapfrogging”. The priority theme will cover the impact of this new technological revolution on the traditional channels for technological learning and innovation in developing countries, including FDI and participation in Global Value Chains. It will examine the opportunities for “leapfrogging”. It will also consider the role of public policies in enabling vulnerable groups and communities to benefit from Industry 4.0, including through better and more equitably accessible jobs.

Questions to be addressed include: How can developing countries take advantage of the window of opportunity presented by the Industry 4.0 technologies for technological upgrading and catch up? What can countries do to ensure that Industry 4.0 does not increase inequality? What is the role of international cooperation in facilitating this process?

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 on 17-19 November 2021. 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. Could you share national strategies, policies, laws, programmes and initiatives concerning Industry 4.0 concerning your member countries?
2. What are the challenges that governments have faced or may face for promoting Industry 4.0, to contribute to national development priorities and accelerate the progress towards the SDGs?
3. What should governments, the private sector, labour unions and other stakeholders do so that developing countries can benefit from these technologies?

In order to boost the benefits of the Industry 4.0, it is essential to strengthen the global innovation and entrepreneurship ecosystem by fostering the flow of knowledge, best practices, technology and investments amongst its stakeholders, namely Governments, institutions, corporations, investors, accelerators, education centres and startups, which shorten the time of finding disruptive and forward-thinking solutions.

On the other hand, it is key to focus on education, especially on the development of digital skills and the use of new technologies so that more added value jobs can be created in all economic sectors, and especially in tourism.

UNWTO initiatives that support Member States and the private sector to make technology more accessible are:

- **UNWTO Startup Competitions and Challenges:** Global calls and selection processes characterized by the participation of both private and public sectors, best startups are awarded, mentored, and connected to the global ecosystem.
- **UNWTO Tourism Online Academy:** UNWTO is working closely with top universities to up-skill tourism workforce in destination planning, sustainability, and management.
- **UNWTO Jobs Factory:** UNWTO joined forces with Hosco, the professional network specially designed for the hospitality industry. A platform that will support and improve your competitiveness regarding job creation and help you leverage human capital development in your country and region, helping the tourism workforce access the best job opportunities.

The UNWTO Jobs Factory harnesses the power of Hosco's machine learning to match candidates with suitable positions, connecting employers with the very best talent our sector has to offer. It will allow monitoring current and future skills development, facilitating intelligent labour market data collection, insights, and forecasting. In addition, to identifying trends and the shift in occupations due to the digital transformation, ensuring agile response to change in the educational and training institutions, and helping our Member States make important decisions to support jobs based on the latest, trusted data.

- **UNWTO Investment Programme: Investment Readiness for Green Finance Mechanisms** in partnership with the International Finance Corporation (IFC).
4. What actions can the international community, including the CSTD, take to help countries take advantage of Industry 4.0 for inclusive and sustainable development?
  5. Could you suggest some contact persons responsible for projects/policies and international collaboration in this context as well as any experts (from academia, private sector, civil society or government) dealing with projects in this area? We might contact them directly for further inputs or invite some of them as speakers for the CSTD inter-sessional panel and annual session.
  6. Do you have any documentation, references, technological assessments, future studies or reports on the priority theme?

### UNWTO Investment Guidelines

- UNWTO Investment Guidelines – **Enabling Frameworks for Tourism Investment** (2021)
- UNWTO Investment Guidelines – **Strategies to Safeguard Tourism Investments during COVID-19** (2021)
- FDI Intelligence **Tourism Investment 2020 – Global Greenfield Investment Trends in Tourism** in collaboration with UNWTO

### Other documents

- **UNWTO Travel and Tourism Tech Startup Ecosystem and Investment Landscape** (2021)
- **UNWTO Top 100 Innovators Catalogue** (2021)
- **Top 25 Innovators Working for a More Sustainable and Innovative Tourism Catalogue** (2021)

Please send your responses and any further inputs on the theme to the CSTD secretariat ([stdev@unctad.org](mailto:stdev@unctad.org)) by 6 September 2021. We look forward to receiving your valuable inputs.

Sincere regards,

CSTD secretariat