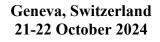
INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)



Contribution by Austria

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)

Dear CSTD Member

The <u>27th CSTD annual session</u> 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 "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 CSTD member States on this theme. We would be grateful if you could kindly answer the following questions based on your experience in your country.

- 1. What are the specific challenges your economy is facing to develop or adapt frontier technologies and AI?
 - Lack of Al talents (gaining and retaining Al experts);
 - Lack of female AI experts;
 - Slow knowledge transfer from science to economy;
 - Lack of HPC infrastructure for research and industry (including access for SMEs)
- 2. Can you provide successful examples of Al and other frontier technologies uptake in your country?
- 3. Has your country put in place inclusive policies for innovation and economic diversification specifically tailored to diffusion of digital technologies and Al?
 - The Research, Technology and Innovation Strategy 2030;
 - "Al and digital technologies" are a focus in the RTI Pact 2024–2026;
 - The Governmental AI Strategy "Artificial Intelligence Mission Austria (AIM AT)"
- 4. Do you have examples of policy instruments in place to favour the diffusion of frontier technologies in the economy and targeting specific sectors? See below

- 5. Has your country put in place mechanisms to strengthen industrial capabilities through partnerships among different stakeholders (e.g., university-industry, or private-public)?
 - EIT knowledge Innovation communities;
 - National Competence Centers for Excellent Technologies (COMET-Centres),
 - Three regional Knowledge Transfer Centres (WTZ);
 - Spin Off Fellowship Programme (administered by FFG);
 - Christian Doppler Laboratories and Josef Ressel Centres (CDG)
- 6. How can international cooperation support the uptake of new technologies and the development of technological capabilities in your country and ensure that industrial policies will benefit all and do not worsen inequality?
 - Common regulation (Al Act);
 - Open Science / Open Data
- 7. What can do the UN CSTD to support an economic transformation that enhances your country productive capabilities 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 (<u>stdev@unctad.org</u>) by **24 July 2024**. We look forward to receiving your valuable inputs.

Sincere regards,

CSTD secretariat

Executive Summary (englisch)

Artificial intelligence (AI) is a collective term for powerful computer technologies with the potential to change many areas of society. The use of AI opens up new dimensions in the personalization of services, the optimization of processes or the management of resources across all economic and social sectors. AI can provide companies with decisive competitive advantages and, at the same time, support important socially and ecologically necessary transformation processes in a wide variety of areas. AI is a cross-cutting technology whose safe and targeted use can make a significant contribution to climate change mitigation and post-Corona pandemic economic recovery.

In addition to these opportunities, the use of AI also comes with major challenges and potential areas of concern. It is therefore essential to ensure that a secure framework for the use of AI applications is created together with our European partners that also covers the issue of fundamental rights, such as data protection, equality rights, and the prohibition of discrimination accordingly.

In order to be able to realize the opportunities of AI for Austria and to minimize the potential risks, the present AI strategy of the Austrian Federal Government was developed under the title Artificial Intelligence Mission Austria 2030 (AIM AT 2030). It focuses on pursuing the following three objectives:

- A broad deployment of AI oriented towards the common good is targeted, carried out in a responsible manner on the basis of fundamental and human rights, European fundamental values, and the upcoming European legal framework.
- 2. Austria should position itself as a research and innovation location for AI in key areas and fields of strength, and
- 3. by means of the development and use of AI, the competitiveness of the Austrian technology and business location should be secured.

Based on the EU's Coordinated Action Plan on AI, the AIM AT 2030 defines the necessary basic principles for trustworthy AI (chapter 3). In order to unleash the potential of trustworthy AI, concrete measures for a functioning AI ecosystem (chapter 4) are set out. Complementing these two basic pillars, steps for realizing the potential are outlined in very specific AI application fields (Annex), which range from climate protection to applications in industry or education.

All technologies and their applications are developing very fast. For this reason, AIM AT 2030 sets the guidelines in which the use of AI in Austria can and should develop. At the same time, AIM AT 2030 focuses on agile, interdisciplinary and participatory implementation and further development.

The AI strategy of the Austrian Federal Government is defined as an agile strategy. It is not perceived to keep still for the coming years, but rather is open to changes,

additions, and clarifications, learning with regard to implementations that have already taken place, and can and should thereby constantly evolve.

This strategy is interdisciplinary. All has the potential to influence numerous fields of application. Therefore, it is imperative to take an interdisciplinary approach to shaping Al for the future. More than 160 experts from a variety of disciplines (technology, economics, natural sciences to law, social sciences or educational sciences) were involved in the development of the strategy. This broad approach is also reflected in the numerous federal ministries involved.

The federal government's AI strategy is participative. Experts and other stake-holders have already been involved in drawing up the strategy. The strategy also includes broad participation of civil society organizations, intermediaries, and citizens in the implementation of the measures.

This strategy is European: The federal government attempts to formulate its target provisions in close coordination and comprehensive agreement with the fundamental values and objectives of the European Union and the Community measures. With this strategy, Austria thus also contributes to the promotion of Europe's industrial and technical performance and supports the spread of AI throughout the Union's economy.

This strategy is international: The federal government will actively participate at the international level in order to strengthen and concretise the international legal framework (especially human rights and international humanitarian law) for the digital space and to develop standards for the ethical use of AI in accordance with human rights.

The AIM AT 2030 comprises clear objectives and measures pursuing these, which are divided into general fields of action, and a selection of initial relevant fields of application on the subsequent pages.

The following figure shows the objectives and the individual fields of action of the two basic pillars "Trustworthy AI" and "Creating ecosystems". A detailed assignment of the measures to the three objectives is color-coded in the text.

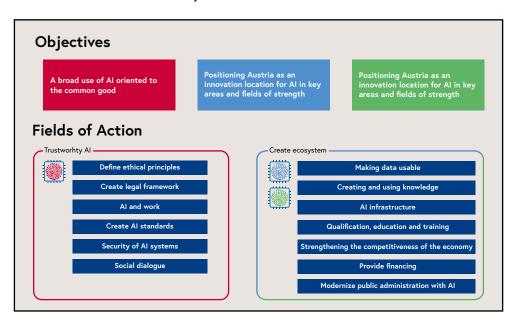
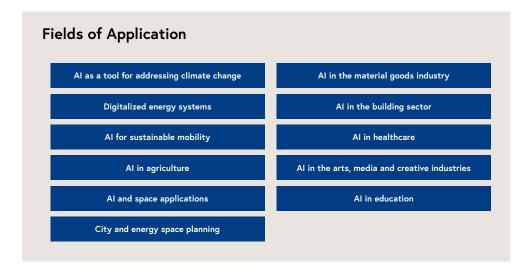


Abbildung 4
Objectives and Fields of
Action

AIM AT 2030 13

The AI application fields listed in the annex are broadly based and cover numerous sectors, including industry, climate protection, agriculture, energy, health, education, law, and culture. They are regularly updated and supplemented depending on the topic area.

Abbildung 5
Fields of Application



With this strategy, the Austrian Federal Government defined ambitious goals for dealing with AI. In line with the complexity of the topic, the AIM AT 2030 strategy is to be seen as the beginning of a process that will be subject to ongoing development.