|  |  |
| --- | --- |
| **Agenda item: PL.2** | **Document C25/56-E** |
| **16 May 2025** |
| **Original: English** |
|  |  |
| Report by the Secretary-General | |
| REPORT ON PP RESOLUTION 214 (BUCHAREST, 2022) – ARTIFICIAL INTELLIGENCE TECHNOLOGIES AND TELECOMMUNICATIONS/ INFORMATION AND COMMUNICATION TECHNOLOGIES | |
| **Purpose**  The purpose of this document is to provide a comprehensive report of ITU’s Artificial Intelligence (AI) activities, its rapid growth, and increasing demands from our members and stakeholders.  **Action required by the Council**  The Council is invited to **note** the document.  **Relevant link(s) with the Strategic Plan**  Development of international standards; development of policy frameworks and knowledge products, capacity development, convening platform.  **Financial implications**  Additional funding to support its AI-related activities have been requested (see Council Document [C25/43)](https://www.itu.int/md/S25-CL-C-0043/en).  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **References**  [*Resolution 214 (Bucharest, 2022) of the Plenipotentiary Conference)*](https://www.itu.int/en/council/Documents/basic-texts-2023/RES-214-E.pdf)*,* [*ITU WTSA Resolution 101 (New Delhi, 2024)*](https://www.itu.int/dms_pub/itu-t/opb/res/T-RES-T.101-2024-PDF-E.pdf) | |

ITU has been at the leading edge of artificial intelligence (AI) since 2017 with the aim of identifying practical AI applications to solve global challenges and contributing to universal connectivity and sustainable digital transformation.

ITU is executing an ambitious programme on AI, guided by [Resolution 214 (Bucharest, 2022)](https://www.itu.int/en/council/Documents/basic-texts-2023/RES-214-E.pdf) of the Plenipotentiary Conference, and amplified by [Resolution 78/265](https://documents.un.org/doc/undoc/gen/n24/087/83/pdf/n2408783.pdf) and [Resolution 78/311](https://documents.un.org/doc/undoc/gen/n24/197/26/pdf/n2419726.pdf) of the UN General Assembly. These AI resolutions underscore the necessity of developing secure and trustworthy AI systems that contribute to inclusive, sustainable development.

ITU has over 315 AI standards that are either published or in development. This effort is supported by ITU’s broad membership and enhanced through collaborations with ISO and IEC, its partners in the World Standards Cooperation (WSC). Additionally, coordination extends to other standards bodies and UN agencies. The adoption of [Resolution 101 (New Delhi, 2024)](https://www.itu.int/dms_pub/itu-t/opb/res/T-RES-T.101-2024-PDF-E.pdf) further emphasizes ITU’s recognized role in establishing trusted AI standards.

At the heart of ITU’s efforts is the AI for Good platform led by ITU and supported by over 40 UN partners, which aims at identifying innovative AI applications, building skills and standards, and advancing partnerships to solve global challenges.

Additionally, ITU co-chairs the UN [Inter-Agency Working Group on AI](https://unsceb.org/inter-agency-working-group-artificial-intelligence) and the AI Subgroup of the Working Group on Digital Technologies, promoting UN system-wide coordination and policy coherence on AI in its support to Member States and other stakeholders, as well as implementation of the Global Digital Compact (GDC).

As demand for AI activities grows significantly, ITU is adapting its programmes to meet global needs. This report details ITU’s role in harnessing AI’s benefits while minimizing risks, supporting its members, UN partners, and other AI stakeholders in their work to ensure a prosperous future.

**AI standards development and exchange**

In its pursuit of universal connectivity and sustainable digital transformation, ITU has developed standards for utilizing AI in various relevant scenarios. These efforts are amplified by close collaboration with other standards bodies and UN partners, supporting the development and publication of a comprehensive suite of standards across a variety of domains. Notable examples include:

– The [Focus Group on AI-Native Networks](https://www.itu.int/en/ITU-T/focusgroups/ainn/Pages/default.aspx) aims to exploring and defining the fundamental changes needed in network architecture to fully harness the potential of AI.

– The United for Smart Sustainable Cities (U4SSC) published the [Guiding Principles for AI in Cities](https://www.itu.int/en/publications/Documents/tsb/2024-U4SSC-Guiding-principles-artificial-intelligence-in-cities/files/downloads/2301175_U4SSC%20_Guiding-principles-artificial-intelligence-in-cities.pdf), providing practical insights into the effective application of AI in urban settings.

– ITU launched the [Global Initiative on Resilience to Natural Hazards through AI Solutions](https://www.itu.int/en/ITU-T/extcoop/ai4resilience/Pages/default.aspx) aiming to provide expert guidance and support for research, innovation, and the development of standards.

– The [Global Initiative on AI for Health](https://www.itu.int/hub/2023/07/new-un-initiative-aims-to-step-up-ais-contribution-to-health/) has restructured and adopted a roadmap, devoting efforts to promote standardized guidelines, catalyze cross-sector collaboration, and encourage broader participation from the global health and AI communities.

– ITU-T Study Group 2 has started work on a number of Recommendations that use AI for network management.

– ITU-T Study Group 5 published the [AI and the Environment Report](https://www.itu.int/dms_pub/itu-t/opb/env/T-ENV-ENV-2024-1-PDF-E.pdf) and is developing new standards to assess greenhouse gas emissions and improve the energy efficiency of AI systems. Additionally, ITU contributed to the [Standardization for AI Environmental Sustainability](https://www.sustainableaicoalition.org/wp-content/uploads/Standardization_AI_Sustainability.pdf) Report.

– ITU-T Study Group 11 focuses on the standardization of AI-driven tools that can be applied at the signalling level to support various services within IMT-2020 networks and beyond.

– ITU-T Study Group 13 is maintaining the [AI standardization roadmap](https://www.itu.int/rec/T-REC-Y.Sup72-202211-I/en), including existing standards and standards under development across various standards bodies.

– ITU-T Study Group 20 is advancing the development of international standards for the use of AI in the context of smart cities and communities.

– ITU-T Study Group 21 is working on new standards to provide a framework for the authentication of multimedia content, and in collaboration with ISO and IEC on [AI watermarking and multimedia authenticity](https://aiforgood.itu.int/event/detecting-deepfakes-and-generative-ai-standards-for-ai-watermarking-and-multimedia-authenticity/).

The ITU-R Study Groups included various AI aspects in their studies:

– ITU-R Study Group 1 published the report on [Next generation spectrum monitoring](https://www.itu.int/pub/R-REP-SM.2542), which applies new trends in data sciences, including AI and big data technologies, to the automation of spectrum monitoring.

– ITU-R established the Correspondence Group [Machine learning for propagation studies](https://extranet.itu.int/rsg-meetings/sg3/wp3j/cg3j3k3l3m27/SitePages/Home.aspx) to provide guidance in the application of machine learning in the development of radio-wave propagation prediction methods.

– ITU-R Study Group 6 is working on the AI for broadcasting, including the use of generative AI in broadcasting programme making workflows and the extraction of audio and video objects during production.

The world’s first [International AI Standards Summit](https://aiforgood.itu.int/international-ai-standards-summit-programme/) in 2024 convened by ITU brought together experts and stakeholders from global standards bodies to address the growing demand for accelerating standards development for responsible, safe, and inclusive AI. Annual International AI Standards Summits are now planned to answer the call from the global community for comprehensive and impactful AI standards. The 2025 International AI Standards Summit will take place on 2-3 December 2025, in Seoul, Korea (Republic of).

The [International AI Standards Exchange](https://aiforgood.itu.int/summit25/programme/) is focused on the future trajectory of AI and how to develop technical standards to create more opportunities for innovation worldwide and will take place on 11 July as part of the 2025 AI for Good Global Summit.

Support for AI deployment and capacity development

ITU is working to equip countries around the world with the knowledge and tools necessary to take advantage of AI, with the aim of ensuring that the benefits of AI are globally accessible and equitable.

Through the AI for Good Impact initiative, which aims to scale impactful AI solutions and strengthen capacity-building efforts — particularly for developing countries, [the AI Skills Coalition](https://aiforgood.itu.int/ai-skills-coalition/) has been established as a transformative movement aimed at empowering individuals and communities — with essential AI expertise. By providing access to [high-quality AI training](https://aiforgood.itu.int/ai-skills-coalition/ai-courses-portfolio/), the Coalition seeks to bridge the AI divide and ensure inclusive participation in this technological revolution. In addition, ITU expanded this initiative by launching [the Young AI Leaders Community](https://aiforgood.itu.int/young-ai-leaders-community/), inviting AI experts aged 18 to 30 to establish six regional hubs aimed at fostering a strong and diverse community of AI leaders.

The AI for Good Impact initiative also includes flagship programmes such as the [Global AI Challenges](https://aiforgood.itu.int/about-us/geoai-challenge/), the AI for Good [Innovation Factory and Startup Acceleration Programme](https://aiforgood.itu.int/about-ai-for-good/innovation-factory/), and the [Robotics for Good Youth Challenge](https://aiforgood.itu.int/robotics-for-good-youth-challenge/), which engages young innovators worldwide and will culminate in a global competition at the AI for Good Global Summit in 2025. These programmes, alongside the newly released [AI for Good Impact Report](https://aiforgood.itu.int/newsroom/publications-and-reports/), underscore ITU’s commitment to bridging the AI divide, fostering international partnerships, and supporting sustainable development goals through AI capacity building.

The AI for Good Impact Initiative, also launched a new series of regional Impact events, including AI for Good Impact India — alongside WTSA-24 in New Delhi — at the request of the Indian government. The AI for Good Impact Africa is set to take place on 31 October 2025 during the AI Africa Expo, in partnership with the G20 secretariat.

The [Global Initiative on Virtual Worlds and AI](https://www.itu.int/metaverse/virtual-worlds/), launched by ITU, Digital Dubai, and UNICC, serves as a global platform that aims at fostering open, interoperable and innovative AI-powered virtual worlds that can be used safely. ITU, France, and UNEP co-initiated the [Coalition for Sustainable AI](https://www.sustainableaicoalition.org/) at the French AI Action Summit. ITU’s [Open Source Programme Office](https://www.itu.int/en/ITU-D/ICT-Applications/Pages/Initiatives/ITU_OSPO/About.aspx) project is also exploring how open source AI models could enhance digital public services, especially in countries with scarce resources.

The UN [Early Warnings for All Initiative](https://earlywarningsforall.org/site/early-warnings-all) has set up an [AI for Early Warnings for All Sub-group](https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Pages/AI-Sub-Group-EW4All-.aspx). Coordinated and led by ITU, the sub-group is driving the launch of AI pilot initiatives across various countries to demonstrate the practical benefits of AI in enhancing early warning systems. One of the pilots is the development of a tool to help countries monitor and map the number of people who are not covered by digital networks. The first results are available for Vanuatu, Fiji, Dominican Republic, Mozambique, Somalia, South Sudan, Haiti, and Tonga.

[ITU’s Giga project with UNICEF](https://www.itu.int/en/ITU-D/Initiatives/GIGA/Pages/default.aspx) employs AI strategically to expand Internet connectivity to connect schools worldwide. The [AI Skills Accelerator for Girls](https://www.itu.int/women-and-girls/women-in-ict/ai-skills-accelerator-for-girls/) project will provide girls and women with digital, ethical and managerial skills to become content creators and boost creativity and innovation. ITU Regional Office for Asia and the Pacific is organizing the [Southeast Asia AI Webinar Series](https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/Pages/Events/2024/Southeast%20Asia%20AI%20Webinar%20Series/Southeast-Asia-AI-Webinar-Series.aspx) to continue to share information and build capacity on gender-sensitive and socially inclusive AI standards, policies, frameworks and initiatives.

Over the past year, a number of courses have been offered in the field of AI and an ITU course on AI governance is being finalized, to be featured on the [ITU Academy](https://academy.itu.int/). The course will be launched in October 2025 in Geneva and thereafter rolled out globally.

AI adoption is a key element of the ITU’s Transformation agenda. ITU launched the [AI Hub](https://ituint.sharepoint.com/sites/AIHUB), a single point of access for AI tools, e-learning materials, resources and AI Seed Funds open to all ITU staff. ITU also regularly organizes sessions on AI and emerging technologies for ITU staff and the diplomatic community under the Learning Labs initiative and the [Demystifying Digital initiative](https://www.itu.int/hub/membership/our-members/permanent-missions-in-geneva/demystifying-digital-series/), respectively, to help facilitate the use of such technologies in day-to-day work and a better understanding of emerging trends. More details on ITU’s AI Transformation can be found in Document [C25/55](https://www.itu.int/md/S25-CL-C-0055/en).

AI governance, policy, and regulatory-related work

The first [AI Governance Day](https://aiforgood.itu.int/summit24/programme/#day0) was held during the AI for Good Summit in 2024. The event brought together participants from around the world, including ministers, policy-makers, researchers, and technologists from both developed and developing countries. The event’s multistakeholder composition aligned with ITU’s mission to provide an inclusive, neutral, and globally representative platform for AI. The [AI Governance Day Report](https://s41721.pcdn.co/wp-content/uploads/2021/06/2401225_AI_Governance_Day_2024_Report-E.pdf) details the key insights and recommendations from the policy discussions and aims to guide stakeholders in developing effective AI governance strategies. The 2025 [AI Governance Dialogue](https://aiforgood.itu.int/summit25/programme/) will be held in Geneva on 10 July 2025 as part of the 2025 AI for Good Global Summit.

The ITU [AI Landscape Survey](https://www.itu.int/dms_pub/itu-s/md/23/sg/cir/S23-SG-CIR-0031!!PDF-E.pdf) for Member States gathered information about their AI-related policy and regulatory initiatives and how these efforts align with their ongoing digital transformation endeavors. The survey questions are now incorporated into the ITU Regulatory Survey to be conducted regularly.

ITU’s commitment to bridging the AI gap is also exemplified by the outcomes of the 2021 World Telecommunication/ICT Policy Forum and the [2024 Global Symposium for Regulators](https://www.itu.int/itu-d/meetings/gsr-24/) (GSR‑24) which features dedicated sessions for regulators about AI and robotics for positive impact. The topic of AI skills was also featured prominently at the ITU [Digital Skills Forum](https://www.itu.int/itu-d/meetings/digital-skills-forum/). The [ITU Digital Skills Toolkit](https://academy.itu.int/itu-d/projects-activities/research-publications/digital-skills-toolkit) provides step-by-step guidance to policymakers on how to develop national strategies and roadmaps to address the pending AI and digital skills gap.

Additionally, ITU has initiated the drafting process of a Joint Statement on child protection in the context of AI, in a collaborative effort with the Committee on the Rights of the Child.

Supporting UN system-wide coordination on AI

The UN [Inter-Agency Working Group on AI](https://unsceb.org/inter-agency-working-group-artificial-intelligence) (IAWG-AI), co-chaired by ITU and UNESCO, leads a comprehensive coordination effort across almost 50 UN entities, and has developed key initiatives like the [UN System-wide Ethical Principles for AI](https://unsceb.org/sites/default/files/2022-09/Principles%20for%20the%20Ethical%20Use%20of%20AI%20in%20the%20UN%20System_1.pdf) and the [UN System White Paper on AI Governance](https://unsceb.org/sites/default/files/2024-04/United%20Nations%20System%20White%20Paper%20on%20AI%20Governance.pdf). Two resolutions ([ITU WTSA Resolution 101](https://www.itu.int/dms_pub/itu-t/opb/res/T-RES-T.101-2024-PDF-E.pdf), [UNESCO 220 EX/Decision 41](https://unesdoc.unesco.org/in/documentViewer.xhtml?v=2.1.196&id=p::usmarcdef_0000391785&file=/in/rest/annotationSVC/DownloadWatermarkedAttachment/attach_import_62b78268-302b-4211-9c0b-1d7ebf2a2a3b%3F_%3D391785eng.pdf&locale=en&multi=true&ark=/ark:/48223/pf0000391785/PDF/391785eng.pdf#%5B%7B%22num%22%3A129%2C%22gen%22%3A0%7D%2C%7B%22name%22%3A%22XYZ%22%7D%2C54%2C665%2C0%5D)) adopted by Member States of ITU and UNESCO, respectively, recognizing the work of IAWG‑AI.

In its [48th session](https://unsceb.org/sites/default/files/2024-12/CEB.2024.6%20-%20HLCP%2048th%20Session%20Final%20Report.pdf), the High-level Committee on Programmes, acknowledging the importance of the IAWG-AI, requested alignment of its work and offering UN system support to GDC implementation. ITU and UNESCO are now working together with other IAWG-AI member agencies, providing inputs to the Working Group on Digital Technologies, alongside an updated work plan requesting the integrated development of an AI toolbox and common online platform based on a standardized taxonomy, to further facilitate interagency cooperation in capacity-building activities to support Member States.

The Working Group on Digital Technologies, co-chaired by ITU and ODET, has set up six sub-groups, including one on AI, co-led by ITU, ODET, and UNESCO, and tasked with follow-up to the AI-related provisions of the GDC. The AI subgroup is now convening jointly with the IAWG‑AI at regular intervals to help channel UN system inputs to the relevant GDC-mandated processes.

Co-Facilitators have been appointed for the intergovernmental process and consultations to identify the terms of reference and modalities for the establishment and functioning of the Independent Scientific Panel on AI and the Global Dialogue on AI Governance. ITU hosted the Co-Facilitators for a working breakfast discussion on 12 February 2025 to update them on ITU’s efforts in AI, also a briefing of the Co-Facilitators to Geneva-based Missions, and a Co-Facilitators consultation for Geneva-based UN organizations.

In addition, ITU coordinates inputs and prepares the annual [UN Activities on AI](https://aiforgood.itu.int/about-ai-for-good/un-ai-actions/) report. In the [2023 version](https://s41721.pcdn.co/wp-content/uploads/2021/06/S-GEN-UNACT-2023-PDF-E-Exec-Summ.pdf) released on the 2024 AI Governance Day, 408 AI projects from 47 agencies are reported, covering all 17 SDGs. The 2024 UN Activities on AI report is in preparation and scheduled to be launched at the 2025 AI for Good Global Summit.

Multistakeholder collaboration

Since its inception in 2017, the AI for Good platform has transitioned from an annual summit to an “All Year, Always Online” format, hosting over 150 online events per year, in addition to an annual summit in Geneva. This year the AI for Good Global Summit is spearheading ITU’s bold return to Palexpo with an expected 10,000+ participants, making it Switzerland’s largest and most impactful tech event. The AI for Good platform has become a powerful tool for fostering public-private partnerships, facilitating knowledge exchange, and assisting developing countries in achieving sustainable development through the practical application of high-potential AI use cases.

Through ITU’s [AI for Good initiatives](https://aiforgood.itu.int/programme-ai-for-good/), including the [Neural Network smart-matching platform](https://aiforgood.itu.int/neural-network/) with over 43 000 members from over 180 countries, the AI4G Infinity Framework, and the AI Scholar Programme, [AI start-up](https://aiforgood.itu.int/about-ai-for-good/innovation-factory/) and [robotics competitions](https://aiforgood.itu.int/robotics-for-good-youth-challenge/), [machine learning](https://aiforgood.itu.int/about-ai-for-good/aiml-in-5g-challenge/) challenges, and the ITU Journal, a repository of AI knowledge and applications is being amassed. The [AI for Good Impact Initiative](https://aiforgood.itu.int/impact-initiative/) plays a crucial role in mobilizing the necessary resources to broaden AI applications globally, ensuring equitable progress across all SDGs and regions. This foundation will enable the establishment and contribution to a wealth of knowledge, driving sustainable development aligned with the SDGs.

The annual WSIS Forum serves as a multistakeholder platform for the broader ICT for Development community to discuss the challenges and opportunities for emerging technologies such as AI in the context of development. Several dedicated tracks, high-level dialogues and workshops were organized at WSIS Forum 2024 —including by ITU and other UN partners— on related thematic topics. Notably, the [WSIS+20 Forum High-Level Event](https://www.itu.int/net4/wsis/forum/2024/en) and the AI for Good Global Summit were held in the same week. This scheduling allowed diverse stakeholder communities to leverage the opportunities offered by both platforms, facilitated a comprehensive dialogue on the integration of AI into development strategies, emphasizing the importance of multistakeholder collaboration in harnessing emerging technologies for sustainable development.

In partnership with the [Partner2Connect Digital Coalition](https://www.itu.int/itu-d/sites/partner2connect/), ITU invites contributions from diverse sectors for projects and financial commitments, focusing on AI-enhanced access to technology and connectivity and accelerating adoption through skills development and digital inclusion.

Demand for more activities

ITU continuously addresses AI across multiple pillars, with a special focus on robust technical standards, inclusive capacity development, resilient digital public infrastructure, and global exchanges on policy, regulation and research.

There is growing interest in ITU’s policy and capacity development work, as well as its AI for Good initiative—reflecting the increasing recognition of ITU’s role and expertise in this space.

In this regard, the ITU secretariat has requested additional funding to support its AI-related activities, as outlined in Council Document [C25/43](https://www.itu.int/md/S25-CL-C-0043/en).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_