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ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)**

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Contribution by ITU

to the CSTD 2023-2024 priority theme on “Global cooperation in science,  
technology and innovation for development”

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**PRIORITY THEME 2:** Global cooperation in science, technology and innovation for development

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

The [26<sup>th</sup> CSTD annual session](#) selected “Global cooperation in science, technology and innovation for development” as one of the priority themes for its 27<sup>th</sup> session (2023-24 period). This theme addresses SDG 17 “Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development” 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, SDG 17 itself has not been specifically addressed for several years in the Commission. Interaction among CSTD members has resulted in several pilot programmes for international collaboration in STI. However, there is a need to consider from a broad strategic perspective the question of international collaboration in STI, including its digital dimensions. Under this priority theme the Commission could discuss the status of global STI cooperation (including coordination and funding) in knowledge creation and dissemination, the diffusion and sharing of technology and alternative modes of technology creation and distribution such as open-source approaches.

Under this theme, the Commission will examine how STI organizations at the global and regional levels collaborate better to scale up their impact on key development challenges; how to ensure that the international STI agenda is aligned with the development priorities of the Global South and includes adequate mechanisms for cooperation and sharing; and finally what could be the role of the CSTD in coordinating and imparting directionality to international STI collaboration and technology sharing.

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 2023 in Portugal. 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:

**CSTD 2023-2024 PRIORITY THEME 2:** Global cooperation in science, technology, and innovation for development

**What STI cooperative mechanism(s) at global or regional levels has your organization initiated or joined in?**

As ITU, we are actively engaged in promoting global cooperation in Science, Technology, and Innovation (STI) for development, with a particular focus on Priority Theme 2 of the UN CSTD. To foster collaboration and knowledge-sharing, we have initiated and actively participate in several STI cooperative mechanisms at both global and regional levels.

One of our key initiatives is the Innovation and Entrepreneurship Alliance for Digital Development. Through this cooperative platform, we provide technical assistance and support to UN Member States, aiming to strengthen their innovation and entrepreneurship ecosystems. By sharing best practices, experiences, and expertise, we empower nations to leverage digital technologies for sustainable development and economic growth. The Alliance serves as a powerful catalyst for inclusive and impactful STI initiatives, enabling countries to tap into the potential of emerging technologies and foster digital transformation.

Additionally, our engagement in Study Groups is fundamental to our commitment to global cooperation in STI. These Study Groups offer valuable forums for Member States and other stakeholders to collaborate and exchange insights on various STI-related topics. By facilitating knowledge-sharing and cross-border cooperation, we drive innovation and accelerate progress towards achieving common development goals.

At the regional level, we actively participate in and support STI cooperative mechanisms that are tailored to the specific needs and challenges of each region. By partnering with regional organizations and stakeholders, we promote localized and contextually relevant solutions, thus ensuring that STI initiatives are inclusive and impactful for all communities.

ITU's commitment to global cooperation in STI for development is evident through initiatives such as the Innovation and Entrepreneurship Alliance for Digital Development and active involvement in Study Groups. By fostering collaboration, knowledge-sharing, and technical assistance at both global and regional levels, we contribute to harnessing the transformative potential of STI and advancing sustainable development for the betterment of societies worldwide.

The ITU Members States have unanimously adopted the Connect 2020 Agenda, setting out the shared vision, goals and targets that Member States have committed to achieve in collaboration with all stakeholders across the ICT ecosystem. The Connect 2020 goals and targets aim to bridge the digital divide and provide broadband for all, enabling and fostering access to and increased use of ICTs worldwide, and in particular in the LDCs –as well as ensuring that telecommunication/ICTs are a key enabler and a mean to accelerate the implementation of the 2030 Agenda for Sustainable Development;

By providing globally harmonized spectrum and standards, ITU enables the development of high quality, reliable, sustainable and resilient infrastructures accessible to all under affordable and equitable conditions;

The Harmonized Calculation Method for Africa (HCM4A) agreement was signed. It builds on strong partnerships with the African Union and the European Union to accelerate digital transformation and improve lives in Africa. The National Table of Frequency Attribution (NTFA) technical assistance for South Sudan was finalized. The Digital Dividend Evaluations for Madagascar and Djibouti were finalized.

ITU contributes to building resilient ICT infrastructure by assisting Member States in elaborating both holistic and targeted ICT policies and regulations that can contribute to reducing barriers to broadband deployment, actively facilitating build-out of national fibre-optic networks and international connectivity links, including across sectors. ITU also promotes the deployment of ICT services in unserved and underserved areas, including emergency and accessibility-enhanced services;

By developing guidelines and recommendations for the elaboration, implementation and enforcement of a wide array of ICT regulatory policies and other legal instruments to stimulate the deployment of broadband networks, particularly in developing countries;

By fostering the development of telecommunication/ICT network through the "ITU Interactive Transmission Map". This project provides a global perspective of broadband connectivity allowing the ICT community to identify broadband investment opportunities;

Target 9.5. and 9.c - Space, mobile, transport industries benefit from ITU activities, which encourage investments by maintaining a stable and predictable regulatory environment, and promoting an efficient and sustainable use of spectrum resources;

ITU is constantly promoting affordable access to ICT and Internet, through the development of standards and also within the following contexts:

- IMT 2020/5G, smart and future networks
- Broadband access and affordable optical networks
- Tariffs
- Consideration of Cost of implementation/complexity during development of recommendations
- Policy/governance: cooperation with WSIS process, ISOC etc.
- Workshops and tutorial

The implementation of the Conformity and Interoperability (C&I) programme of ITU helps to increase interoperable products and systems, contributing to the availability of universal and affordable ICT solutions;

The ITU and the Craig and Susan McCaw Broadband Wireless Network project is providing low-cost broadband connectivity and developing ICT applications for schools and hospitals with implementation in several African (in Burkina Faso, Mali, Rwanda, Swaziland, Lesotho and Djibouti) and Arab countries;

Through the establishment of telecentres that will provide connectivity to remote and rural areas, which will also serve to reduce vulnerability to disasters;

ITU is supporting the adaptation to new ICT infrastructures by developing guidelines for implementing regional IXPs, taking into account the drop of Internet interconnection rates and the legal and regulatory framework of each country assisted; In the framework of the ITU Interactive Transmission Map, ITU makes use of transmission links, together with data related to traffic, exchanged between countries for identifying missing links on regional/subregional basis and developing case studies for planning broadband infrastructures;

ITU is contributing to bridging the standardization gap needed to ensure that countries experience the economic benefits associated with technological development, and to better reflect requirements related to universal and affordable access to the Internet;

ITU contributes to promoting building confidence and security in the use of ICTs as an integral part of resilient infrastructures, through programmes aimed at building capacity and facilitating the establishment of cybersecurity capabilities in Member States;

ITU's Study Groups are collaborating and coordinating with relevant organizations in various ways in order to develop consistent standards and avoid duplication of efforts: exchanging liaisons, encouraging delegates to attend related organizations' meetings and events in addition to ITU's meetings (so called "dual participation") for more direct and effective collaboration, creating JCAs (Joint Coordination Activities) in various areas as necessary, holding joint events and workshops, etc.

Target 9.a - Through the project "National Broadband Policies and Applications", implemented by ITU and the Ministry of Science, ICT and Future Planning (MSIP) of the Republic of Korea, ITU is providing technical assistance to developing countries;

Target 9.1 and 9.c - ITU also contributes to the monitoring of these targets by collecting and disseminating a number of relevant ICT indicators, including on broadband Internet access in urban and rural areas, mobile population coverage, and broadband Internet prices.

The International Telecommunication Union (ITU) has initiated and joined various Science, Technology, and Innovation (STI) cooperative mechanisms at global and regional levels. Some of these include the World Summit on the Information Society (WSIS), which aims to bridge the digital divide, the ITU Academy, offering ICT capacity-building courses, and the Connect the World series, which focuses on mobilizing resources for ICT development.

ITU's cooperation programs are designed to align with the development priorities of participating developing countries. The ITU's strategic goals emphasize promoting universal access to ICTs, fostering digital inclusion, and assisting countries in their development efforts. The organization's initiatives are designed to support the United Nations Sustainable Development Goals (SDGs), particularly SDG 9 (Industry, Innovation, and Infrastructure) and SDG 17 (Partnerships for the Goals).

The main outcomes of ITU's STI cooperative mechanisms include increased access to ICTs, improved digital skills, and enhanced regulatory frameworks in participating countries. These outcomes contribute to economic growth, social development, and digital inclusion, benefiting both men and women. ITU also works to promote gender equality in ICT through initiatives such as the EQUALS partnership and the annual Girls in ICT Day.

Some difficulties ITU faces when implementing cooperation mechanisms include limited financial resources, challenges in coordinating efforts among multiple stakeholders, and addressing the diverse needs of participating countries. Additionally, the rapid pace of technological change and the growing digital divide can make it challenging to achieve desired outcomes.

Factors contributing to the success of ITU's cooperation mechanisms include strong partnerships with governments, industry, and civil society, a clear focus on addressing global development challenges, and the ability to leverage ITU's expertise and resources. Conversely, factors contributing to the failure of these mechanisms may include insufficient funding, lack of coordination among stakeholders, and inadequate attention to the specific needs of participating countries.

ITU could propose several areas of cooperation to CSTD in coordinating and imparting directionality to international STI collaboration and technology sharing. These may include:

- Supporting the development and implementation of national STI policies and strategies in line with the SDGs.
- Strengthening capacity-building efforts through ITU Academy and other initiatives, focusing on digital skills and ICT training.
- Enhancing cooperation on digital infrastructure development, particularly in underserved and rural areas.
- Promoting knowledge sharing and best practices on ICT regulation and policy among CSTD member countries.
- Strengthening partnerships with other UN agencies, private sector entities, and civil society organizations to foster greater collaboration and resource mobilization in the field of STI.

The ITU is part of the United for Smart Sustainable Cities (U4SSC), a global UN initiative coordinated by ITU, UNECE and UN-Habitat, and supported by CBD, ECLAC, FAO, UNDESA, UNDP, UNECA, UNESCO, UNEP, UNEP-FI, UNFCCC, UNIDO, UNOP, UNU-EGOV, UN-Women, UNWTO and WMO.

U4SSC provides an international platform for information exchange and partnership building to guide cities and communities in achieving the UN Sustainable Development Goals. One of the significant achievements of the initiative has been the development of the U4SSC Key Performance Indicators based on an international standard developed by ITU Study Group 20: Internet of things (IoT) and smart cities and communities (SC&C). The U4SSC KPIs are a vital tool for cities wishing to achieve the UN Sustainable Development Goals. They support cities and communities worldwide in evaluating their level of smartness and sustainability. Over 150 cities worldwide are already implementing these KPIs.

The ITU also launched a "Toolkit on Digital Transformation for People-oriented Cities and Communities". Developed in close collaboration with 10 UN entities and cities it supports strategizing and planning the digital transformation of cities and communities to promote sustainable, inclusive, resilient, and improved quality of life for residents in cities and communities. The resources contained in the Toolkit, act as a one-stop guide, include on international standards and guidance, latest research and projections, and cutting-edge reports on a variety of timely topics relevant to the digital transformation of cities and communities. The Toolkit can universally benefit cities and communities, as well as regions and countries regardless of their level of smart or digital development, or their geographical or economic status. Overall, the toolkit aims to support cities and communities to leverage potential solutions to identified challenges to maximize positive impacts and support progress toward the SDGs, especially SDG 11, at the local level.

The ITU has established an international Focus Group on metaverse to bring together stakeholders from around the world and build a community of metaverse practitioners. Recently, metaverse has become one disruptive area of innovation with great potential to change our economy, way of living and communicating and society. In this nascent phase of the metaverse, the industry has not converged towards common terms and definitions. The metaverse concept has attracted considerable public attention. The Focus Group is analysing the technical requirements of the metaverse to identify fundamental enabling technologies in areas from multimedia and network optimization to digital currencies, Internet of Things, digital twins, and environmental sustainability. The Focus Group will also provide a collaboration platform for dialogue, for identifying stakeholders with whom ITU could collaborate, and for enabling the inclusion of non-members to contribute to the technical pre-standardization work.

### **To what extent the existing cooperation programmes are aligned with the development priorities of participating developing countries?**

The ITU's approach to cooperation programmes is characterized by a strong commitment to customizing initiatives in alignment with the development priorities of participating developing countries. Recognizing the diverse needs and challenges faced by these nations, we strive to ensure that our cooperation programmes are relevant, tailored, and responsive to their specific contexts.

As a fundamental principle, the ITU engages in extensive consultations with participating developing countries to gain a deep understanding of their development priorities. By actively involving national governments, relevant stakeholders, and local communities in the planning and implementation processes, we ensure that the cooperation programmes address the most pressing challenges and contribute directly to the countries' development agendas.

Through these consultations, we identify the areas where Information and Communication Technology (ICT) and STI can make the most significant impact on sustainable development. Whether it is enhancing digital infrastructure, strengthening capacity building, fostering innovation and entrepreneurship, or promoting digital inclusion, our cooperation programmes are shaped to align with the unique priorities and goals of each participating developing country.

Furthermore, the ITU emphasizes the importance of ownership and local leadership in all cooperation initiatives. We work hand in hand with national governments and institutions, providing technical assistance and knowledge-sharing while respecting the sovereignty and decision-making authority of the participating countries. This ensures that the programmes are implemented in ways that resonate with the local realities and are sustainable in the long run.

The success of our cooperation programmes is measured by their tangible impact on the development outcomes of participating countries. By closely monitoring and evaluating the results, we continuously adapt and improve our approaches to meet the evolving needs and priorities of these nations effectively.

ITU's approach to cooperation programmes is deeply committed to tailoring initiatives in alignment with the development priorities of participating developing countries. Through extensive consultations, local ownership, and targeted interventions, we strive to make a meaningful and positive contribution to the sustainable development goals of each country. Our focus remains on empowering these nations to leverage the full potential of ICT and STI for their social, economic, and environmental progress, ensuring a brighter and more inclusive future for all.

ITU contributes to SDG11:

- ITU contributes to the achievement of this goal through developing and delivering training programmes on smart and sustainable cities. ITU contributes to accessible transport systems for all, with special attention to persons with disabilities by promoting accessible ICTs in public transport systems, including by promoting the public procurement of accessible ICTs for public transport systems. ITU contributes to promoting the protection of ICT systems governing critical infrastructures and services (including transport) in order to avoid and prevent the disruption of services and ensure business continuity.
- ITU contributes to target 11.6 through the work of s on creating the Smart Society, which raises awareness and examines best practices for fostering and enabling deployment and use of smart devices, including mobile devices, contributing to the protection of property and persons; smart management of motor vehicle traffic; saving electrical energy; measuring the effects of environmental pollution; improving agricultural yield; management of healthcare and education; management and control of drinking water supplies; and solving the problems facing cities and rural areas, etc.
- Building upon the activities and lessons learnt from Niger on the Smart Village initiative, ITU has provided technical support to Liberia through the UN Resident Coordinators Office for initial assessments, stakeholder consultations and site visits undertaken in three selected counties to guide the process to develop a smart village model for Liberia. Following the assessments and stakeholder consultations undertaken in 2022, the UN Resident Coordinator's Office and the Project Implementation Team are organizing a stakeholder validation workshop to develop an implementation plan for a smart villages model based on the priority services identified during the assessments.
- ITU contributes to target 11.5 and 11.b by implementing national emergency telecommunication plans that will help countries reduce vulnerability and enhance resilience when disasters strike, as well as the establishment of early warning and monitoring systems to mitigate the effects of climate change.
- ITU-T Study Group 20 develops technical standards leveraging the Internet of Things to accelerate the digital transformation of cities and communities in developed and developing countries. In support of SDG target 11.2, ITU is a key part of the United for Smart Sustainable

Cities (U4SSC), a global UN initiative coordinated by ITU, UNECE and UN-Habitat, and supported by CBD, ECLAC, FAO, UNDESA, UNDP, UNECA, UNESCO, UNEP, UNEP-FI, UNFCCC, UNIDO, UNOP, UNU-EGOV, UN-Women, UNWTO and WMO. U4SSC provides an international platform for information exchange and partnership building to guide cities and communities in achieving the UN Sustainable Development Goals. One of the significant achievements of the initiative has been the development of the U4SSC Key Performance Indicators based on an international standard developed by ITU-T Study Group 20: Internet of things (IoT) and smart cities and communities (SC&C). The U4SSC KPIs are a vital tool for cities wishing to achieve the UN Sustainable Development Goals. They support cities and communities worldwide in evaluating their level of smartness and sustainability. Over 150 cities worldwide are already implementing these KPIs.

- ITU studies telecommunication/ICT accessibility for persons with disabilities, and in support of SDG target 11.2, has developed a Recommendation which explains how audio-based network navigation systems can be designed to ensure that they are inclusive and meet the needs of persons with visual impairments.
- Responsible for IoT security and in support of SDG target 11.2, ITU has developed a series of standards including a Recommendation on a simple encryption procedure for Internet of things (IoT) environments.
- ITU in support of SDG target 11.2 has developed a number of Recommendations on Internet of things (IoT), ubiquitous sensor networks, IoT-based web-of-things, key performance indicators for smart sustainable cities, inter alia, giving general guidance to cities and provides key performance indicators (KPIs) for digital transformation to help cities achieve Sustainable Development Goals (SDGs), as well as on infrastructure and services for smart sustainable cities.
- ITU Study Group 20 experts, in support of SDG target 11.3, developed an internationally accepted definition for Smart Sustainable Cities (SSC) as well as an extensive list of key performance indicators (KPIs) for cities wishing to accelerate their digital transformation and wishing to implement a smart city maturity model. ITU in support of SDG target 11b, is developing Recommendations to reduce the environmental impact of ICT and how Internet of Things can be applied for the sustainable growth of communities. In the area of emergency communications, several Recommendations have been developed for call priority schemes that ensure that relief workers can get communication lines when they need to, whether using traditional or next generation communication networks. Complementary to the need to provide call priority during emergencies is the ability to deliver warnings to users, and standards are fundamental to ensure that warnings are delivered in a timely way, uncorrupted from the source to the end users – no matter how they can be reached.
- ITU studies telecommunications for disaster relief/early warning, network resilience and recovery, and in support of SDG target 11.5, developed a Recommendation with requirements for safety confirmation and broadcast message service for disaster relief, which can realize public organizations' business continuity plans (BCP) and can, to the best of their ability, help protect lives and property during a disaster.
- ITU, in support of SDG target 11.5, studies appropriate ways to improve network resilience and recovery against disasters.



- In support of SDG target 11.5, the Common Alerting Protocol (CAP) was standardized as a simple but general format for exchanging all-hazard emergency alerts and public warnings over all kinds of networks.
- In support of SDG target 11.b, is developing Recommendations to reduce the environmental impact of ICT and how Internet of Things can be applied for the sustainable growth of communities. In the area of emergency communications, a number of Recommendations have been developed for call priority schemes that ensure that relief workers can get communication lines when they need to, whether using traditional or next generation communication networks. Complementary to the need to provide call priority during emergencies is the ability to deliver warnings to users, and standards are fundamental to ensure that warnings are delivered in a timely way, uncorrupted from the source to the end users – no matter how they can be reached.
- ITS- GNSS, radars, IoT for road, railway, aviation and maritime transport are all enabled by the activities of ITU on spectrum regulations and standards and their promotion. Earth Exploration satellites, Sound and Television broadcasting and broadband mobile, as enabled by ITU, contribute to the protection of the world’s cultural and natural heritage.
- By managing spectrum resources and developing standards and best practices on radiocommunications, ITU contributes to ensure more accurate weather predictions, climate change monitoring and mitigation, public protection and disaster relief, as well as search and rescue, thus increasing resilience to disasters and reducing the losses caused by disasters.

ICTs are specifically mentioned as a means of implementation under SDG17, highlighting the cross-cutting transformative potential of ICTs. Indeed, ICTs are crucial in achieving all of the SDGs, since ICTs are catalysts that accelerate all three pillars of sustainable development – economic growth, social inclusion and environmental sustainability – as well as providing an innovative and effective means of implementation in today’s inter-connected world. Paragraph 15 of the 2030 Agenda for Sustainable Development highlights that “the spread of information and communication technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies...”

ITU contributes to Goal 17:

The launch of the Innovation and Entrepreneurship Alliance for Digital Development with its technical assistance tailored to Member States requirements has seen home grown solutions to challenges faced.

The ITU World Telecommunication Development Conference in June 2022 provided a unique opportunity to develop innovative approaches and new models of collaboration for connectivity and digital solutions in this final Decade of Action to achieve the SDGs. WTDC mobilized the global community around the power of digital transformation and reshape the connectivity agenda to achieve the SDGs;

- The implementation of ITU Strategic Plan, linked to the ITU Connect 2030 Agenda, and WTDC Action Plan will contribute in achieving the SDGs. Based on key policy and regulatory developments which impact innovation and investment, including and in particular through implementation of the Regional Initiatives and to implement the SDGs where ICTs can play a decisive role, including health, education, gender equality, agriculture, governance, e-waste and emergency telecommunications. Mapping of activities between other Sectors is conducted and calendar of events which facilitates collaboration and coordination between Sectors is developed;

- The “World Telecommunication and Information Society Day” celebrated annually on 17 May, to raise awareness of the possibilities that the use of the Internet and other ICTs can bring to societies and economies, as well as ways to bridge the digital divide. Since 2020, aligned with the Decade of Action, themes are focused on promoting the Connect 2030 Agenda to follow the progress of ITU membership to deliver on its goals and targets (in line with the SDGs), and to share the guidance of ITU and the contribution of the membership towards connecting the world;
- ITU Study groups that provide an opportunity for all Member States and Sector Members, Associates and Academia, to share experiences, present ideas, exchange views and achieve consensus on appropriate strategies to address ICT priorities;
- Mobilizing in-cash and in-kind resources through partnership with various stakeholders from the ICT ecosystem for the implementation of ICT activities, projects and initiatives in developing countries at national and regional levels, including by developing strategies and related tools and services (databases sponsorship packages, dedicated websites, concept notes, promotional vehicles, etc.);

Strengthening the global ICT innovation ecosystem through activities such as know-how sharing (e.g. Global Innovation Forum, WSIS, Digital World, Broadband Commission for Sustainable Development), and co-creating grassroots projects based on new global and local partnerships. In addition newly established International Centre of Digital Innovation (I-CoDI), will provide assistance to the Member States facilitation integration of telecommunication/ICT innovation into their national development agendas; Launch of I-CoDI Regional Hub for Africa: Within the framework of the activities under the International Centre of Digital Innovation (I-CoDI), a Regional Hub for Africa has been established with dedicated physical space in the Regional Office that aims to bring together different partners and create synergies around ongoing activities using different innovative approaches, tools and processes that can solve complex connectivity challenges for meaningful connectivity. It also aims to foster collaboration across governments, UN country teams, development partners, private sector, academia and other stakeholders to implement joint initiatives to advance digital transformation in the Africa region.

Empowering Africa young leaders to solve regional digital challenges: Africa’s youth (ITU youth envoys, community workers, entrepreneurs, researchers, students and young professionals) from various backgrounds shared best practices on youth-led digital innovations at the Generation Connect Global Youth Summit in Kigali. ITU in collaboration with partners such as ILO, UNHCR and ATU convened young leaders from around the Africa region to lead and participate in partner sessions that provided youth organizations and youth leaders a forum to present and discuss their innovations and projects to empower youth to contribute to the digital transformation of their societies., in support of joint programmes and initiatives

- The African Telecommunications Union (ATU) and ITU partnered to launch the Innov4Youth initiative to gatherPartner2Connect pledges.
- UNFPA and WIPO partnered with ITU to run an Innovation Challenge to seek and support “Innovation to Empower Women and Girls”.
- In partnership with UNFPA, ITU helped rethink the Tech4Youth platform, which addresses a range of issues related to the empowerment and resilience of Youth for SDGs 3 and 5, and developed a new initiative called Tech4Girls, an innovative training and mentoring project to improve creativity and problem-solving, and communication and entrepreneurial skills of young girls.

- Technical assistance was provided to Benin, Brunei Darussalam, North Macedonia, and Zimbabwe to develop roadmaps and recommendations to strengthen their innovation ecosystem for accelerated digital transformation.
- Promoting and scaling up actions at the global level aiming at adopting whole-of-government approaches for investing in shared digital infrastructure that can lead to more rapid scale-up of digital services at less cost and greater return on investment, and how to coordinate investment to make digital public goods available that can enable digital transformation for SDGs;

#### GovStack

- Two Building Block (BB) technical specifications were published.
- The Horn of Africa GovStack implementation in Djibouti and Kenya started in June with a series of digital service co-design workshops to prioritize and rank five government services to be digitized in 2023 using a GovStack Service Design & BB Approach.
- Technical specifications for geographic information systems, e-signature, cloud & infrastructure, UX/UI, and e-marketplace started their co-design process in September.
- The GovStack CIO Digital Leaders Forum was launched at WSIS Forum 2022 with the participation of Egypt, Estonia, India, Peru, Rwanda and Ukraine
- Organizing global and regional forums and seminars to discuss global trends in ICT regulation for Sector Members and other national and international ICT and intersectoral stakeholders, through events such as the Global Symposium for Regulators (GSR) as well as strategic dialogues on topical policy, legal, regulatory, as well as on economic and financial issues and market developments;
- Proposing guidelines and recommendations addressed to the regulatory community and industry stakeholders (policy-makers, national regulatory authorities (NRAs), network operators/service providers, equipment manufacturers, digital players, governments, academics, international and regional agencies, civil society) to promote and encourage cooperation and collaboration at regional and global level on policy, regulatory and economic issues notably through ITU Research publications, the Global Symposium for Regulators (GSR) Best Practices Guidelines, REG4COVID platform, etc;
- Strengthening the means of implementation and enhancing access to science, technology and innovation by strengthening international cooperation and knowledge sharing on key ICT topics through its dedicated study groups;
- Providing a neutral platform for international cooperation towards building a harmonized and coordinated approach to fast-forward the evolution of the information society;

2022 World Telecommunication Development Conference (WTDC) in Africa region: The World Telecommunication Development Conference (WTDC) was, for the first time held in Africa region in Kigali Rwanda from 6-16 June 2022. The event which attracted the largest delegation from African countries to any ITU event explored new avenues to connect the unconnected for sustainable and cemented ITU's status as a key development partner for critical sectors such as education, health, agriculture and the environment. Partner2Connect (P2C) digital coalition and global pledging platform rallied unprecedented support from governments and companies to expand Internet access everywhere as a key aspect of sustainable development. By the close of the WTDC (18 June),

the P2C platform had registered 425 pledges with an estimated value of USD 26.06 billion of which 32% targets implementation in African countries.

- The Industry Advisory Group on Development Issues and Private Sector Chief Regulatory Officers' (IAGDI-CRO) meeting, held in February 2022, contributed to the Partner2Connect Digital Coalition and catalysed announcements of concrete proposals and pledges from our valued ITU-D Sector Members. As of October 2022, ITU-D membership has contributed to P2C with over 80 pledges worth USD 8.8 billion.
- Monitoring of Target 17.6 by collecting and disseminating data on Internet access and usage, in particular fixed broadband access, which is a key requirement for enhanced access to science, technology and innovation networks;
- The establishment of Mutual Recognition Agreements for a common and harmonized Conformance and Interoperability (C&I) programme at international and regional levels. Through the share and efficient use of C&I infrastructures – as laboratories, accreditation bodies and regulatory practices – technical requirements can be harmonized and the transit of ICT goods and services can be facilitated, increasing trade and regional development; ITU – NCA (Ghana) capacity building in conformance and Interoperability virtual training for ITU Member States in Africa was held during 21st – 25th November 2022 to enhance knowledge in analysing and interpretation of test report and regulatory aspects of electromagnetic compatibility (EMC)
- The deployment of broadband technology and network infrastructures for multiple telecommunication services and applications, and to the evolution to all IP-based wireless and wired next-generation networks (NGNs), introducing digital broadcasting, which is opening up opportunities for the dissemination of environmentally sound solutions;
- The monitoring of Target 17.8 by collecting and disseminating a number of relevant ICT indicators that enable STI capacity building in least developed countries, including on Internet access and usage, international bandwidth and ICT prices. Activities are carried out in close collaboration with the Partnership on Measuring ICT for Development;
- Bringing together key stakeholders to discuss international cooperation on ICT through its annual Global Symposium for Regulators, regional economic forums and dialogues and the World Telecommunication/ICT Indicators Symposium (WTIS), organised by ITU;
- Promoting ICT regulatory policies enhancing policy coherence, notably by making knowledge exchange tools and platforms available, raising awareness about the importance of an enabling environment;
- Building harmonized regulatory frameworks within and across regions, and establishing a broader and inclusive dialogue and enhanced cooperation among all stakeholders;
- Enhancing the global partnership for sustainable development by working with governments, through their policy making and development of institutional frameworks for the ICT sector as well as with the private sector, to lay the foundation of modern digital economies;
- Further scaling up a series of strategic initiatives aiming at acceleration of achievement of diverse SDGs thanks to ICTs, such as Connecting Every School to the Internet (GIGA), International Center of Digital Innovation (I-CoDI), Connect2Recover, Digital Transformation

Centres, EQUALS, Girls can Code, Be He@lthy Be Mobile, Big Data for Measuring the Information Society, Financial Inclusion Global Initiative (FIGI);

- Encouraging and promoting effective public, public-private and civil society partnerships by partnering with a range of stakeholders to empower women, girls, youth, children, indigenous peoples and persons with disabilities (e.g. for example by leading the Thematic Area on Digital Skills of the Global Initiative for Decent Jobs for Youth, and through the ITU-ILO Digital Skills Campaign for Decent Jobs for Youth; by leading the International Girls in ICT Campaign; by hosting EQUALS: the global partnership to bridge the gender digital divide or by contributing to the regional initiatives and events in ICT accessibility – ICT for all);
- An ongoing track record of inviting experts from developing countries to ITU meetings, workshops etc. Also the Focus Group on Innovation studied cases of ICT innovations for developing countries and developed proposals for new standardization activities for ITU study groups and the ICT Innovation Panel;
- Developing and disseminating best practices on the use of radiocommunications and organizing seminars and workshops, ITU contributes to enhance the use of enabling technologies, in particular information and communications technologies;

Cooperation and coordination with other standards developing organizations, such as through ITU Focus Groups, workshops and seminars, liaison activities etc;

- The annual WSIS Forum continues to be a key platform for multistakeholder networking and collaboration to develop inclusive and development-oriented information and knowledge societies. The Forum brings together high-level officials, academics, practitioners, ICTs experts, youth, business, and civil society leaders to engage in addressing issues on ICTs for development. The WSIS Forum 2021 began in January and culminated in the final week from 17 to 21 May 2021. The agenda and outcome of the Forum are strategically aligned to the WSIS Action Lines and the SDGs ([www.wsis.org/forum](http://www.wsis.org/forum));
- Creation of the WSIS Action Lines and SDG matrix, coordinated by ITU and developed by a number of United Nations agencies at the WSIS Forum 2015, and ever since used as a tool to map how ICTs may contribute to the implementation of SDGs. The Matrix serves as an easy reference for stakeholders engaged in shaping the future of both, the SDGs and the WSIS processes ([www.wsis.org/sdg](http://www.wsis.org/sdg));

Revitalised UN partnership with Multilateral Development Banks in Cabo Verde: Under the Cabo Verde UN country team joint initiative on 'Digital strategy and financing', a partnership of exchanges at the national level built on shared goals and priorities, placing the country's digital development at the centre, 'has been established to optimize development cooperation and resource mobilization between UN agencies (UN-ITU-UNECA) and Multilateral Development Banks (World Bank, AfDB). ITU is contributing to rural and school connectivity and digital skills for youth for the next United Nations Cooperation Framework (UNCF) 2023-2027. Building on this platform of exchanges, ITU and UN will collaborate to implement programmes in line with the Digital Cabo Verde Agenda.

Partnering for increased impact: The ITU and United Kingdom's FCDO partnership around four streams of work to support digital inclusion in Digital Access Partnership countries in Africa, namely support toward a strengthened enabling policy and regulatory environment, sustainable connectivity models, partnerships, and digital skills, saw stakeholders engaged through the work in Kenya and Nigeria and new work launched in South Africa. The platform provided for stakeholders in the national ecosystem to engage, share, and tap into each other's expertise and insights for future joint

work. The coordination and bringing together of initiatives also saw the crystallization of gaps, opportunities, and co-creation of guidance that could inform further interventions.

Giga Africa making progress to support the connectivity of more schools and their communities: Giga in Africa continued supporting the countries that had already launch Giga and welcomed interactions with and interest by additional countries. 13 countries in Sub-Saharan Africa are actively in discussions with the Giga team around how the knowledge resources, insights and technical support can accelerate their national initiative and ambitions. Connecting the first batch of 63 Giga schools in the Bugesera district in Rwanda was completed and on occasion of the WTDC in Kigali, the Ministries, ITU and UNICEF brought together Giga partners, Government and regional and local municipality representatives to visit on of the Giga connected schools. Teachers and students shared insights into how being connected had changed their lives, while partners spoke to the usefulness of getting a glimpse of what Giga looks like in practice and how the schools and the communities around them are benefitting directly from such pilot implementations.

ITU-PRIDA project: On 7 September, the PRIDA project team organized the HCM4A agreement signature event in Addis-Ababa, Ethiopia. The Harmonized Calculation Method for Africa (HCM4A) agreement signed by 44 African countries in presence of the BDT Director, the EU Ambassador at the AUC, and the ATU Secretary General, among other attendees. The HCM4A agreement was signed by 31 Countries out of 46 who expressed their indication of interest. With that signature, the HCM4A agreement, one of the major outcomes of the PRIDA Project, entered in force. Next steps will be the agreement implementation, and the development of a dedicated software development. The ITU-PRIDA project is also supporting African countries implementing diverse technical assistance activities (digital dividend evaluation, National Frequency Table Allocation, strategic plan definition, etc.).

Fostering the use of Artificial Intelligence and other digital technologies in the health sector: During the Seventy-second session of the WHO Regional Committee meeting for Africa, ITU and WHO with support from USAID organized a Ministerial meeting on the use of Artificial Intelligence for Health as a side event on 25 August. The event brought together Ministers of Health and Ministers of ICT who shared country experiences and emphasized the critical role of integrating digital technologies such as Artificial Intelligence to advance digital transformation in the health sector. Different strategies to strengthen institutional capacity and enable cross-sectoral collaboration for enhanced health care in Africa were highlighted.

Girls in ICT Day celebrations 2022: On 28 April, the Girls in ICT Day was celebrated in the Africa region as a hybrid event in coordination with Generation Connect youth envoys and the Africa Network of Women with several participants joining online and with close to 100 young girls in physical attendance in Addis Ababa, Ethiopia. During the event, the challenges and opportunities in safely accessing the internet were discussed as the main theme. Celebrations were also held by various partners including Governments in more than 20 countries in the region. World Telecommunication and Information Society Day and the Girls in ICT Day events in Cameroon were organized during one month with training, conferences and talks in schools, a hackathon, competition on best ICT solutions and projects, and training over 300 girls on coding. In Zambia, the Digital Transformation Centre in Zambia also trained 150 girls from underprivileged communities in ICT digital skills and inspire them to take up studies in STEM subjects.

Girls in ICT Day celebrations 2023:

During the Transform Africa Summit 2023, in collaboration with the Postal and Telecommunication Regulatory Authority of Zimbabwe (POTRAZ) and Smart Africa, ITU co-organized, the annual International Girls in ICT Day celebration on 27th April under the theme “Digital Skills for Life” to

promote the development and strengthening of digital skills among girls and young women in an effort to bridge the gender digital divide.

Additionally, the ITU Regional Office for Africa in collaboration with UN Economic Commission for Africa (UNECA) organized the national Girls in ICT day celebrations in Addis Ababa, Ethiopia. During the national celebrations, the need to strengthen digital literacy was emphasized to leverage technology as a tool for digital transformation. The challenges and opportunities on developing digital skills for life were highlighted and information on the different initiatives within the schools to develop and strengthen digital skills was exchanged.

Launch of the second phase of the African Girls Can Code Initiative (AGCCI): The second phase of the African Girls Can Code Initiative (AGCCI) was launched in collaboration with the African Union Commission, UN Women, UNECA, UNICEF, UNESCO and other partners with financial support from the Government of Belgium. The second phase will aim to equip young girls with digital skills through national programmes in eleven selected countries.

Enhancing the digital ecosystem and digital skills for the economic empowerment of women: Through the ITU-EIF project activities have been undertaken that include the Hub of Africa Addis Fashion Week, product development workshops, digital market webinar series and workshops which have enabled women entrepreneurs to show-case their products, receive training and mentoring, gain in-depth understanding of the information and digital tools needed to improve their readiness and competitiveness in the international market. During the webinar series and workshops, the women entrepreneurs have been equipped with knowledge on; how to understand customers using digital tools, how to build an online brand identity, introduction to pricing, wholesale marketing, design and digital photography.

Digital skills for decent jobs for youth: The ITU and International Labour Organization (ILO)'s partnership and programme in Africa to boost decent jobs and enhance skills for youth in the digital economy organized online and face-to-face events, activities and challenges, engaging youth, Government agencies, private sector and civil society. From the '[Creating decent jobs for youth through digital transformation](#)' webinar during the Africa-Europe Week of Partnerships 2022, to a youth led session on '[Decent jobs in Africa's digital economy](#)' at the Generation Connect Youth Summit in Kigali, Rwanda and to progress made on country projects (South Africa, Kenya, Rwanda, Côte d'Ivoire, Senegal, Nigeria, Ethiopia) that align with national priorities under the [ITU-ILO joint programme in Africa](#), as a result of the work youth are getting more empowered and able to benefit from opportunities in the digital economy. Such efforts further allow strides to be made towards the goal of 25 million youth digitally skilled through the global ILO-ITU Digital Skills for Jobs Campaign.

Creating a circular economy for electronic waste in Africa: ITU in partnership with UNEP is supporting Governments to develop policies, regulations and strategies including the implementing the Extended Producer Responsibility (EPR) concept to set the basis for a future implementation of the sound management and measurement of electronic waste with support extended 8 countries in sub-Saharan Africa in 2022.

Early Warning for All Initiative:

As the lead of Pillar 3 on Dissemination and Communication ITU contributed to the write-shop on the Early Warning Initiative organized by the World Meteorological Organization (WMO) and the African Union Commission (AUC) held in June 2023 in Ethiopia. The need to engage the ICT Ministries and Regulators, the use of multiple communication channels, a regulatory approach, resilient infrastructure networks, engagement with the private sector and the use of the Common Alerting Protocol (CAP) among others were highlighted during the workshop. It was noted that the

Early warning for All initiative aims to build upon existing initiatives and strengthen capacity at national levels for sustainability. Follow up discussions and consultations are planned with different partners and stakeholders to finalize the action plan in coordination with the pillar leads and the African Union Commission.

Strides toward meaningful connectivity for all: In February 2022 the Government of Uganda and ITU project 'Technical Assistance and Training to Uganda on National ICT Development', financially supported by China's South-South Cooperation Assistance Fund (SSCAF) was launched. Transformative projects and partnerships that aim to support countries' implementation of national digital transformation priority areas are at the forefront of the work in the region.

Scaling up and designing for sustainability: To scale up the impact and sustainability of the #Tech4Youth initiative and Task force Innov Covid-19 for local youth resilience and digital innovation in Benin established by UNFPA and to create lasting impact for beneficiary populations, there is a need strengthen the specialized technical assistance to develop and nurture digital innovation ecosystems through an open innovation approach. In 2022 ITU and UNFPA teamed up to assist, nurture and support the local digital innovation ecosystem in Benin and develop uses cases that can be applied for other countries in the region for the development of a sustainable and inclusive initiatives to accelerate inclusive digital transformation.

Exploring innovative solutions: Cameroon inaugurated the CDIC (Cameroon Digital Innovation Center) offering Fablabs, multimedia studios, coworking space, digital academy, for start-ups and a call center. Young people are trained in conceptualizing innovative solutions for digital transformation projects, assisted by experts through coaching sessions. Congo launched at Kintele University an Artificial Intelligence research center and lab, offering Master 1 and Master 2 curricula.

ITU in Africa: The Regional for Africa has throughout the year supported Governments on activities and projects towards the implementation of their national digital transformation initiatives and agendas. Common to them is a need to strengthen the collaboration between public and private stakeholders and adopt an inclusive and multi-stakeholder approach to the design and implementation. ITU through its work in the region has sought to work closely with the membership and conduct outreach to further broaden the reach.

The ITU Focus Group on metaverse to bring together stakeholders from around the world to develop a metaverse standardization roadmap for the benefit of all people. Part of the work of the Focus Group includes identifying challenges and opportunities that need to be addressed to maximize the benefits of the metaverse while minimizing its harms, including for developing countries.

**What are the main outcomes of such mechanism(s)? And what are the impacts of the resultant cooperation on participating countries? Pls. include the gender dimension.**

The main outcomes of the ITU's cooperation mechanisms, which are customised to the development priorities of participating developing countries, are the establishment of home-grown digital solutions to address local challenges. Through targeted and contextually relevant initiatives, the ITU aims to empower countries to leverage Information and Communication Technology (ICT) and Science, Technology, and Innovation (STI) for sustainable development.

The impacts of such cooperation on participating countries are multifaceted and profound:

1. Localized Solutions: By aligning cooperation programmes with development priorities, participating countries can develop tailor-made digital solutions that directly address their



specific challenges. This approach ensures that the initiatives are practical, effective, and have a meaningful impact on the lives of their citizens.

2. **Digital Inclusion:** Through the establishment of home-grown digital solutions, the ITU fosters digital inclusion, enabling marginalized communities and underserved regions to access the benefits of technology. This helps bridge the digital divide and create more equitable opportunities for all.
3. **Economic Growth:** By supporting the development of digital solutions for local challenges, countries can harness the potential of ICT and STI to stimulate economic growth. These solutions often lead to the emergence of innovative startups and small and medium-sized enterprises, creating jobs and driving economic progress.
4. **Enhanced Governance:** Home-grown digital solutions can strengthen governance and public service delivery. By leveraging technology to improve efficiency, transparency, and accessibility, participating countries can enhance their public administration and meet the needs of their citizens more effectively.
5. **Sustainable Development:** The adoption of home-grown digital solutions can contribute significantly to achieving sustainable development goals. From promoting environmental conservation through smart and efficient technologies to improving access to education and healthcare, these solutions support a more sustainable future.
6. **Knowledge Transfer and Capacity Building:** Cooperation programmes facilitate knowledge transfer and capacity building, empowering local communities with the skills and expertise to develop, maintain, and innovate digital solutions independently.
7. **Partnerships and Collaboration:** The ITU's cooperation mechanisms often foster partnerships and collaboration between participating countries and other stakeholders, including the private sector, civil society, and academia. Such partnerships amplify the impact of the initiatives and promote a more holistic approach to sustainable development.
8. **Resilience and Adaptability:** Home-grown digital solutions are designed to be adaptable to local conditions and needs. This promotes resilience, allowing countries to respond effectively to changing circumstances and evolving challenges.

ITU's approach to cooperation, which focuses on establishing home-grown digital solutions to local challenges, has far-reaching impacts on participating countries. By aligning initiatives with development priorities, fostering digital inclusion, stimulating economic growth, and supporting sustainable development, the ITU empowers nations to leverage the transformative power of ICT and STI for the betterment of their societies and the global community as a whole.

### **What are the main difficulties your organization has encountered or is facing when implementing the cooperation mechanisms?**

The implementation of cooperation mechanisms by ITU to establish home-grown digital solutions in alignment with the development priorities of participating countries has encountered certain difficulties, mainly related to cooperation among organizations and financial resources.

1. **Cooperation Among Organizations:** Collaboration among various organizations, both within and outside the UN system, is essential for the success of cooperation mechanisms. However, coordinating efforts, aligning objectives, and leveraging each organization's strengths can be challenging. Overcoming bureaucratic hurdles and fostering effective partnerships require ongoing communication and a shared vision among stakeholders.

2. **Financial Resources:** Implementing meaningful cooperation mechanisms demands substantial financial resources. Developing and deploying home-grown digital solutions, especially in developing countries, requires significant funding. Securing sustainable and long-term financial support can be a persistent challenge, given the competing priorities and limited resources available.
3. **Resource Constraints in Participating Countries:** Many participating countries face resource constraints, hindering their ability to fully engage in cooperation mechanisms. Limited human and technical resources can impact the successful implementation and sustainability of home-grown digital solutions. Capacity building and technical assistance are essential to address these constraints effectively.
4. **Institutional Commitment:** The success of cooperation mechanisms relies on strong institutional commitment from participating countries. Changes in government priorities or lack of sustained commitment can disrupt the continuity of initiatives, affecting their long-term impact.
5. **Technological Challenges:** Implementing digital solutions can be complex, especially in areas with limited digital infrastructure and connectivity. Ensuring the compatibility of technologies, data security, and scalability can be technically challenging, requiring expert guidance and support.
6. **Local Contextualization:** Tailoring digital solutions to the local context is vital for their effectiveness. However, understanding the unique challenges and needs of diverse communities requires in-depth research and engagement with local stakeholders, which can be time-consuming and resource-intensive.
7. **Measuring Impact:** Assessing the impact of cooperation mechanisms and home-grown digital solutions is essential to gauge their effectiveness. However, measuring the real and long-term impact can be challenging due to various factors and the time it takes for sustainable development outcomes to materialize.

Addressing these difficulties requires a multi-faceted approach, including fostering stronger collaboration among organizations, mobilizing financial resources through innovative financing mechanisms, offering targeted capacity building and technical assistance, and ensuring continuous political and institutional commitment.

Despite the challenges faced, ITU remains committed to overcoming these difficulties and continues to advance cooperation mechanisms that establish home-grown digital solutions in line with the development priorities of participating countries. By addressing these challenges and building on lessons learned, ITU strives to make a lasting and positive impact on the sustainable development goals of the global community.

**In respect of achieving the objectives and goals, what are the factors contributing to the success or failure of the cooperation mechanism(s) in which your organization has joined?**

In the pursuit of achieving the objectives and goals of cooperation mechanisms, successful collaboration proves to be a critical factor, yet it can also present challenges. Several key factors contribute to the success or failure of the cooperation mechanisms in which ITU has joined:

1. **Shared Vision and Objectives:** Successful cooperation requires all participating organizations to have a shared vision and clear objectives. When there is a common understanding of the goals to be achieved, it becomes easier to align efforts and coordinate actions effectively.

2. **Effective Communication:** Open and effective communication among all stakeholders is vital. Miscommunication or lack of information-sharing can lead to misunderstandings, duplication of efforts, and inefficiencies, hindering the achievement of common objectives.
3. **Commitment and Engagement:** The commitment and active engagement of all involved parties are essential for success. When stakeholders are genuinely invested in the cooperation mechanism and its outcomes, they are more likely to contribute meaningfully and sustain efforts over time.
4. **Resource Mobilization:** Adequate financial and human resources are crucial for implementing cooperation mechanisms successfully. Securing the necessary resources to support initiatives and maintain momentum can be challenging, particularly in resource-constrained environments.
5. **Flexibility and Adaptability:** Cooperation mechanisms must be flexible and adaptable to changing circumstances and evolving needs. The ability to adjust strategies and approaches in response to new challenges is key to maintaining relevance and effectiveness.
6. **Institutional Support and Stability:** Cooperation mechanisms may be influenced by institutional dynamics and changes in government priorities. Strong and sustained political support is vital for ensuring continuity and stability in the implementation of initiatives.
7. **Inclusivity and Empowerment:** Ensuring the meaningful participation of all stakeholders, particularly local communities and beneficiaries, is crucial for the success of cooperation mechanisms. Empowering these stakeholders to actively contribute and take ownership of initiatives enhances their impact and sustainability.
8. **Monitoring and Evaluation:** Regular monitoring and evaluation of cooperation mechanisms are essential to assess progress, identify gaps, and make data-driven decisions for improvement. A lack of proper monitoring and evaluation can hinder the understanding of what works and what needs adjustments.
9. **Synergy among Partners:** Cooperation mechanisms often involve multiple partners with diverse expertise. Ensuring synergy and complementarity among these partners is vital to avoid duplication of efforts and maximize the impact of combined contributions.
10. **Overcoming Cultural and Organizational Differences:** Cooperation among organizations with different cultures, working methods, and organizational structures can present challenges. Building mutual understanding and finding common ground is necessary for successful collaboration.

While successful collaboration is crucial for the achievements of cooperation mechanisms, it can also be a challenge due to various factors. Recognizing and addressing these factors, such as establishing a shared vision, effective communication, commitment, resource mobilization, flexibility, and inclusivity, are essential to overcoming challenges and ensuring the success of cooperation initiatives. By fostering strong partnerships and continuous improvement, ITU remains committed to making a positive and lasting impact on global development goals.

**What cooperation could your organization propose to CSTD in coordinating and imparting directionality to international STI collaboration and technology sharing?**

ITU can propose comprehensive cooperation strategies to the UN Commission on Science and Technology for Development (CSTD) to effectively coordinate and impart directionality to international STI collaboration and technology sharing. Building on the work already established by

ITU and its partners, we aim to address remaining gaps and enhance the impact of global STI initiatives. The proposed cooperation includes the following key elements:

1. **Global Knowledge-Sharing Platform:** ITU can collaborate with CSTD to establish a robust global knowledge-sharing platform that brings together diverse stakeholders from governments, academia, private sectors, and civil society. This platform would facilitate the exchange of best practices, experiences, and lessons learned, enabling countries to learn from one another and implement successful STI initiatives.
2. **Technical Assistance and Capacity Building:** ITU can offer its expertise in providing technical assistance and capacity building to developing countries, particularly in areas where there are gaps in STI capabilities. By tailoring capacity-building programs to address specific needs, we can empower countries to harness technology effectively for sustainable development.
3. **Data Sharing and Open Innovation:** Promoting open data sharing and collaborative innovation can accelerate STI progress. ITU can work with CSTD to encourage countries and organizations to share non-sensitive data and foster an ecosystem of open innovation, leading to more impactful digital solutions.
4. **Partnerships with Multilateral Organizations:** ITU can facilitate partnerships with other multilateral organizations involved in STI and development. Collaborating with organizations like the World Bank, UNESCO, and UNDP, among others, can leverage their expertise and resources to amplify the impact of STI initiatives.
5. **Inclusive Digital Infrastructure Development:** ITU can propose initiatives to support the development of inclusive and resilient digital infrastructure, particularly in underserved and remote areas. This includes expanding broadband access, enhancing connectivity, and ensuring that digital technologies are accessible to all segments of society.
6. **Fostering Local Innovation Ecosystems:** Encouraging the establishment of innovation hubs, incubators, and accelerators can nurture local talent and entrepreneurship. ITU can support CSTD in facilitating the creation of such ecosystems, enabling countries to develop their home-grown digital solutions.
7. **Addressing Ethical and Policy Challenges:** ITU can propose cooperation to address ethical challenges arising from STI applications, such as data privacy, security, and AI governance. Collaborative efforts to establish ethical frameworks and policies will foster responsible technology development and usage.
8. **Measuring and Evaluating Impact:** Cooperating with CSTD to establish standardized methods for measuring the impact of STI initiatives can ensure evidence-based decision-making and facilitate the scaling up of successful projects.

By building on ITU's existing work and expertise, and collaborating with CSTD, we can create a synergistic approach to STI collaboration and technology sharing. Together, we can fill the remaining gaps and reinforce international efforts to harness the transformative potential of STI for sustainable development and inclusive progress.

The International Telecommunication Union (ITU), together with Saudi **Arabia** jointly organized the STI Forum 2023 “Side Event – Leveraging the metaverse in cities to achieve the SDGs” as part of the ITU’s [Webinar Series on Digital Transformation](#). The ITU Digital Transformation Webinar Series discuss topics related to cross-sectoral digital transformation and related standardization activities. The Webinar Series forms an ideal vehicle for investigating the expanding role of digital

transformation in driving innovation, sustainable growth and inclusion as well as responding to crisis situations.

This session aimed to directly address and highlight the promising developments in the metaverse for accelerating progress towards SDGs. This session explored how cities leverage the metaverse to accelerate their pathway to achieving the SDGs.

Another session was organized by ITU, Broadband Commission, Global Partnerships Forum, and the Permanent Mission of Romania in New York: STI Forum Side Event: Generative AI for the SDGs: Friend or Foe, Hope or Hype?

Generative AI, a subfield of AI that can create novel content or ideas, such as images, music, and text, without human input, can be a powerful tool for advancing the United Nations' Sustainable Development Goals (SDGs). It has the potential to inform new and creative solutions to complex problems like climate change, food insecurity, healthcare and education, but is also raising many ethical concerns. Progress in the understanding and implementation of generative AI tools will require multistakeholder efforts and collaborative decision-making to ensure a safe and inclusive digital future for all.

This roundtable will present a landscape overview of generative AI, including benefits and risks of its use and the current UN response to the rapidly evolving technology. In the first portion of our discussion, we will explore the potential use-cases of generative AI for accelerating progress on the SDGs, the inherent risks associated with its application, and what safeguards may be needed to protect users. In the second portion, we will shift the focus to dialogue regarding potential collaborations and partnerships for shaping future policies and frameworks that maximize the use and safety of generative AI. By engaging in this dialogue, we can work collaboratively towards establishing guidelines, regulations, and ethical standards that ensure responsible and beneficial use of generative AI technology.

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

- Gitanjali Sah, Strategy and Policy Coordinator, ITU
- Vladimir Stankovic, Program Officer, ITU

Please send your responses and any further inputs on the theme to the CSTD secretariat ([stdev@unctad.org](mailto:stdev@unctad.org)) by **15 August 2023**.