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Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels
Item 3 of the provisional agenda
Science and technology for development

Report on the intersessional panel meeting*

Held between 6 and 7 November 2023 in Lisbon

Prepared by the UNCTAD secretariat

* This report summarizes the intersessional panel's discussions. The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the United Nations or its officials or Member States. This document has not been formally edited.

I. Introduction

1. At its twenty-sixth session in March 2023, the Commission on Science and Technology for Development (CSTD) selected the following substantive themes for its 2023–2024 intersessional period:

(a) Data for development; and

(b) Global Cooperation on Science, Technology, and Innovation for Development

2. The Secretariat organized an intersessional panel meeting in Lisbon on 6 and 7 November 2023 to address these themes. The meeting also discussed progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society (WSIS) at the regional and international levels, including the WSIS+20 review, as well as an informal discussion on the relation between WSIS+20 and the Global Digital Compact. The meeting intended to contribute to considerations by the CSTD at its twenty-seventh session in April 2024.

II. Organization of work

3. The meeting was attended by member States, representatives of international organizations, civil society, the technical and academic community, and other observers. The documentation for the meeting included the issues papers on the two themes prepared by the Secretariat with inputs from the member States and relevant international organizations, presentations, and written comments submitted by participants.

III. Opening

4. The meeting was opened by the Chair of the CSTD[1] who highlighted the CSTD's critical role as the UN's platform for discussing technology's impact on global development and the emerging challenges posed by new technologies that risk creating a wider digital divide among nations.

5. The Deputy Secretary General of UNCTAD[2], in his opening remarks, emphasized the Commission's role as a focal point in the UN system for dialogue, discussion and partnerships on science, technology and innovation (STI) for development. On partnership, he cited a few technical cooperation activities that are coordinated by UNCTAD under the auspices of CSTD. These include: (a) the CropWatch Innovative Cooperation Programme, in collaboration with China that enables satellite data-based agricultural monitoring in developing nations; (b) the Young Female Scientist Programme and Young Scientist PHD Programme aiming to build scientific research capabilities in developing countries, in partnership with the University of Okayama in Japan; (c) the Training on the Bio-Circular-Green Economic Model held in Bangkok, Thailand in 2023, financed by Thailand and tailored to female entrepreneurs and researchers from CSTD's developing member States; and (d) a project in collaboration with the Atlantic International Research Centre and financed by Portugal, aimed at employing geo-observation technology to foster sustainable urban development. The Deputy Secretary-General encouraged member States to make use of the CSTD's capacity building programmes, emphasizing the STI's pivotal role in achieving sustainable development.

6. In his opening remarks, the Secretary of State for Digitalisation and Administrative Modernisation of Portugal[3], stressed the vital role of STI in accomplishing the Sustainable Development Goals (SDGs). He highlighted how scientific breakthroughs propel human

[1] Ms. Ana Cristina das Neves, Portugal.

[2] Mr. Pedro Manuel Moreno, Deputy Secretary-General, UNCTAD.

[3] Mr. Mário Campolargo, Secretary of State for Digitalisation and Administrative Modernisation, Portugal.

development, citing ongoing progress in areas like smart mobility, energy efficiency, education, food supply, and cultural development. He also underscored the necessity for continued ethical reflection as society continues to embrace greater technological sophistication. He emphasized the importance of having well-informed citizens and suggested anchoring ethical discussions on scientific progress around notions like information, freedom, democracy, solidarity and inclusion. Highlighting his country's ongoing initiatives fostering capacity building and promoting international partnerships, he concluded by calling for continued investment and cooperation in STI to achieve the SDGs.

IV. Theme 1: Data for Development

7. The Vice Chair of the CSTD[4] moderated this session. The issues paper was presented by the Head of the CSTD Secretariat[5]. The paper analyses how data can address significant developmental challenges, while at the same time mismanagement of data can create issues such as data security, privacy and increased digital divide, as well as growing power imbalances among maker players and among countries. The current fragmented global data governance landscape poses a risk to achieving the full benefits offered by data. Such opportunities and challenges associated with data call for the harmonization of data governance frameworks among countries, and within a country the implementation of a whole-of-government approach to data governance to effectively harness the positives of data while mitigating the negatives. Multi-stakeholder engagement should be among the principles for data governance frameworks.

8. The keynote speaker[6] emphasized the role of data as a potent agent for societal advancement and how it informs and guides policy-making, allowing governments to allocate resources with greater efficacy and thereby improving citizens' welfare. His country is committed to leveraging data as an asset for national development and has worked out a national strategy on data use. The core determinants for generating value from data, he remarked, hinges on the quality and infrastructure of data. He highlighted how accurate and reliable data form an important bedrock, relying on a robust digital infrastructure. In conclusion, the speaker called attention to the systemic challenges faced by countries including digital divides, affirming his belief that by addressing these challenges collaboratively, it is possible to collectively drive economic growth and chart a course towards a more prosperous and data-empowered future.

9. The first panellist[7] presented concrete cases of how data can be used in different areas, including in economic activities, in research and analysis and policy making, as well as in knowledge enhancement. He emphasized that how to organize and analyse data effectively and accurately is critical to generate real value from data. He explained the three key elements that are needed for the transformation from "data" to "value": a) acquiring fastly and efficiently massive multi-source heterogeneous data; b) combining various data and systematically analyzing them effectively and deeply; and c) maintaining capable and suitable platforms to demonstrate the analyzed results and transform them into value quickly. He then described how to obtain large amounts of data and solve the problem of data island in the era of big data. In his view, use of Robotic Process Automation and AI will do a great help in this regard. Finally, he stressed that global collaboration is required to ensure superior data quality.

10. The second panellist[8] delved into data's multi-faceted value for sustainable development goals, highlighting disparities in gains at various levels, such as at the levels of country, firm and individuals. She said there are two lenses for assessing the value of

[4] Mr. Peter Major, Hungary

[5] Ms. Shamika Sirimanne, UNCTAD

[6] Mr. Mário Campolargo, Secretary of State for Digitalisation and Administrative Modernisation, Portugal

[7] Mr. Jun Yang, Professor & Director of Digital Economy Lab, University of International Business & Economics, China.

[8] Ms. Stephanie Diepeveen, Senior Research Associate, Bennett Institute for Public Policy, University of Cambridge.

data: the economic lens treating data as an intangible asset with economic characteristics, and the informational lens focusing on data's content and context. She gave the example of urban transport to discuss these two lenses. Data are being integrated into urban transport services in multiple areas: at the point of service, through data-based systems such as intelligent transport systems, and in decision-making, often informed by the use of smart cards and automated fare systems. The creation, capture and distribution of data's value in the transportation sector require better coordination from the government to ensure an inclusive, safe and resilient urban transport system. She urged further research into the scale and distribution of costs of data use, especially in developing countries, as well as options for balancing costs with value distribution. In conclusion, she recommended open dialogue and global coordination at the CSTD for inclusive and effective use of data for sustainable development.

11. The final panellist[9] highlighted a shift in the data debate towards prioritizing equitable data flows, stressing the significance of equity in global policy talks. In urging expanding countries' focus beyond privacy and security to include trust, she expressed concerns about big tech's unchecked control on data flows and its impact on trust and equity. She explored the power concentration in foundational AI models and underlined the need for local governance. Advocating a new social contract for data as the collective good, she called for: a) increasing public financing of data infrastructure; b) ethical self-regulation, and c) binding regulations for tech companies' accountability. She emphasized the importance of building community partnerships and updating data governance laws.

12. In the ensuing discussions, delegates[10] acknowledged how rapid technological changes such as big data are having a major impact on life and society. Clearly data have a pivotal role in sustainable development. The delegate from South Africa shared his view on how the evolving data landscape intersects with development and offers potential for accelerating the development goals in developing countries. He emphasized bridging digital divides, enhancing data quality, providing investments for digital transformation, and a human-centred approach to data for development. Several delegates highlighted how data have been successfully utilised in disaster risk prevention, agriculture, health, and environmental monitoring. The delegates from Paraguay, Türkiye, and Djibouti emphasized the crucial importance of utilizing informed data management to shape policies and actions, harnessing the power of digital technologies to foster a future society marked by economic growth, increased job opportunities, and diminished inequalities.

13. Many delegates[11] shared examples of how they are actively engaging in data initiatives nationally, regionally and globally. The delegate from Brazil presented his country's programmes in improving national data capacities, strengthening national statistics and data systems, training professionals, and promoting data quality. Initiatives by the United States of America have aimed at fostering open science and promoting scientific research using data, while Portugal has initiated a capacity building programe for developing countries to use satellite data for urban development and ensuring clean water. Paraguay has established a monitoring and evaluation system that measures progress and addresses inequalities by disaggregating data, and The Gambia outlined their open data strategy to make government data available, open, shareable, and accessible to those who need it. A delegate from Austria discussed Austrian universities' commitment to the FAIR and CARE principles for data, particularly concerning indigenous data. The participant from UNESCO highlighted UNESCOs' work in the field of ocean science, observing ocean resilience, sustainable ocean planning, and ocean data and information management.

14. Some delegates[12] urged addressing inequalities, data security, and the digital divide, by ensuring fair regulations, the strengthening of human capital accumulation, and mitigating risks associated with data. The delegate from Cameroon cautioned against

[9] Ms. Anita Gurumurthy, Founding Member and Executive Director, IT for Change, India.

[10] Representatives from Romania, the Philippines, the United States of America, Switzerland, Paraguay, Djibouti, Cuba, South Africa, Camerron. Brazil. Peru, Türkiye, The Gambia.

[11] Representatives from Peru, Egypt, Cameroon, Burundi, Paraguay, The Gambia, Portugal, United States of America, Brazil, Austria, Switzerland, Cuba, Egypt, and Burundi.

[12] Representatives from Cameroon, Philippines, and Türkiye.

mishandling data, leading to challenges like the technology gap, monopolies, and human rights threats. The risks associated with indiscriminate data collection and use of personal data, as well as the potential exacerbation of data-related asymmetries and biases, were also highlighted[13]. Apart from issues such as privacy concerns and data security, the delegate from Paraguay underlined connectivity issues that her country faces as a landlocked developing nation. The delegate from Egypt disagreed that the human rights and democracy should be examined when looking at data for development in the Commission as she does not believe that they are within the mandate of the Commission. She also expressed reservations about the creation of unified taxonomies and common governance frameworks, suggesting that a one-size-fits-all strategy may not be suitable.

15. The need for increased international cooperation and capacity building were highlighted by several delegates[14]. The delegate from Cameroon advocated for increased international cooperation within the realms of ethical AI guidelines, technology transfers, and nurturing local innovation through capacity building and knowledge sharing. The delegate from South Africa deemed international cooperation and partnerships as crucial for building and strengthening the data ecosystems in developing countries. The delegate from Switzerland expressed support for free data flow and called for collaborative national and international efforts to establish trustworthy data governance. Delegates[15] also encouraged the CSTD to provide technical assistance and requested insights on policies that developing countries can adopt to ensure accurate data collection for development objectives.

16. A participant[16] discussed the adoption of data-enabled technologies for sustainable development from business and policy perspectives. From a policy standpoint, he advised policymakers to clarify the utility of data-enabled technologies by categorizing them into data collection, data analysis, and data transfer, fostering balanced development strategies. He also suggested creating a governance structure for emerging technologies.

17. Another participant[17] emphasized the significance of data in driving innovation and development in a digital economy. While algorithms play a crucial role in analysis and decision-making, data analysis is the key to solving complex challenges. Data, unlike algorithms, reflects diverse realities and enables tailored solutions to specific global development challenges. He highlighted an important policy consideration for governments: the importance of releasing micro-level public administration data for research and informed decision-making, while balancing personal privacy rights with societal benefits.

18. The breakout session focused on exploring issues related to the ethical and equitable use of data for sustainable development, global data governance, and the contribution of digital platforms to sustainable development. Participants exchanged their views on the universal and meaningful connectivity, actionable measures to promote the adoption and use of data-enabled technologies, the impacts of data on social empowerment and engagement at the local level, and the necessity of establishing a new international body or entity to govern data-driven technologies.

V. Theme 2: Global Cooperation on Science, Technology, and Innovation for Development

19. The session was moderated by the Chair of the CSTD[18] with the CSTD Secretariat[19] presenting the issues paper, which explores ways for improving STI cooperation at the global and regional levels. The paper highlighted how increased cooperation is key in scaling up the impact of existing experiences on key development challenges, especially for

[13] Representative from Brazil.
[14] Representatives from the Philippines, Switzerland, Portugal, Cuba, South Africa, Peru and UNESCO.
[15] Representatives from The Gambia, Peru, Burundi
[16] Professor Omid Maghazei, University of Bath.
[17] Professor Christian Peukert, University of Lausanne.
[18] Ms. Ana Cristina das Neves, Portugal.
[19] Mr. Antonio Vezzani, UNCTAD.

developing countries. It summarized the status of global STI cooperation through the frame of four elements utilizing a series of examples focusing on the lessons learned and gaps in global STI cooperation in need of strengthening. The paper also recommended that member States, the international community and the CSTD center around six main areas of action, which include 1) Reinforce the efforts toward building an inclusive global STI agenda; 2) Foster investment in STI and public-private partnerships; 3) Strengthen research networks and collaboration among different actors; and 4) Promote technology and knowledge transfer.

20. The first panellist[20] discussed the experience of CERN as a point of departure to examine the role of basic science and research infrastructures in facilitating international collaboration in STI. In particular, the panellist provided an overview of models for collaboration in STI stressing the importance of fostering the mobility of researchers and technical personnel, supporting public-private partnerships, and facilitating knowledge transfer. She added that CERN is committed to education and training at all levels. The panellist highlighted the crucial role that open science and data sharing play in generating knowledge as a common good to support global inclusive development. In conclusion, she presented the core values driving equitable innovation: collaboration, openness, and excellence.

21. The second panellist[21] highlighted the key role of networks and communities of practice in creating trustful and long-lasting relationships. The panellist recognized increasingly rapid advancements and geopolitical tensions as challenges for of a fragmented landscape in global STI development. She argued that existing STI initiatives in developed countries can be expanded to include low- and middle-income countries or taken as examples to design cooperative STI funding schemes at the global level. At the same time, she warned about potential issues associated with legal regulation, such as the creation of long-term rigidity, and with the volatility of public-private partnerships. Finally, the panellist suggested that the CSTD could contribute by connecting public and private stakeholders, and by coordinating the process to guarantee its transparency.

22. The third panellist [22] emphasized that achieving the 2030 Agenda requires revisiting and improving the way developed countries and international partnerships work with the Global South to find common solutions to current global challenges. The panellist said that CGIAR has long reflected on how to improve its engagement with partners to ensure that its STI activities are inclusive, demand-driven and aligned with national and regional priorities. To respond to these needs, CGIAR has adopted key principles for successful collaboration with the Global South**.** These include shared ownership, result-orientation, transparency and accountability, integrity, calculated risks, and co-learning.

23. The last panellist[23] focused his intervention on how the growing securitization of international scientific cooperation offers both opportunities and challenges to developing countries. On the one hand, the panellist discussed the drivers pushing to restrict and regulate international scientific cooperation, and the increasing framing of today's global challenges in terms of security threats. On the other hand, he discussed the demand drivers for keeping the international science system open and the related policy options, including the role of shared values and experiences, as well as economies of scale and scope to accelerate innovation and favour knowledge spillovers. Finally, the panellist recommended aligning innovation strategies at all levels, supporting transdisciplinary research, building reciprocity and equitable partnerships, to attract private funding in key areas such as green technologies.

[20] Ms. Charlotte Lindberg Warakaulle, Director for International Relations, CERN.

[21] Ms. Federica Bicchi, Associate Professor of International Relations, London School of Economics.

[22] Mr. Javier Mateo-Vega, Global Director, Partnerships & Communications – Alliance and Senior Director, Partnerships Stewardship, Innovation and Intelligence, CGIAR.

[23] Mr. Mario Cervantes, Senior Economist, Committee for Scientific and Technological Policy, Science and Technology Policy Division, Directorate for Science, Technology and Innovation, OECD.

24. During the interactive discussions, many delegates[24] presented their bilateral and multilateral partnerships in STI, aiming at deepening collaboration, improving productivity, resilience, and sustainable development. The Philippines has engaged in the ASEAN Committee on STI, Asia-Pacific Economic Cooperation (APEC), and the International Atomic Energy Agency. China launched an International S&T Cooperation Program at a Belt and Road Conference on Science and Technology Exchange. Cuba highlighted the Havana Declaration, which was recently adopted by the Heads of States and Governments of the Group of 77 and China and emphasizes the importance of South-South and triangular cooperation in STI. Portugal discussed the successful partnership with a set of leading American Universities and activities through the Foundation for Science and Technology. Peru has actively participated in programs such as APEC's Policy Partnership for STI and Horizon Europe. The United States of America presented domestic examples of the National Science Foundation in addressing social, geographic, and economic inequalities, proposing to share their lessons learned with low- and middle-income countries. The Gambia discussed their collaboration with UNCTAD, UN Technology Bank, UNESCO, WIPO, and more. The Russian Federation highlighted potential collaborations with ASEAN, the Commonwealth of Independent States, the Eurasian Economic Union and the growing STI tracks within the Shanghai Cooperation Organization and the BRICS. Türkiye shared their STI projects in collaboration with the EU, UNDP, World Bank, and other international organizations.

25. Many delegates[25] highlighted the role of STI in addressing global challenges and recognized the role played by the CSTD in facilitating dialogue and knowledge exchange among member States, while stressing the importance of global cooperation, knowledge transfer, alignment of local and international communities, and private and public sectors for the success and progress of STI. Some delegates[26] called for the setting of clear objectives, effective coordination, strategic planning, and adequate and sustained funding.

26. Concerning the areas that require increased efforts, some delegates[27] recognized that increased priority should be given to the coordination and connectivity of research projects and scientific research tools, digitalization and innovation in micro, small and medium enterprises and mobility of researchers and qualified personnel. Science, technology, engineering, and mathematics (STEM) subjects and projects has been recognized as crucial to promote the green economy. Other delegates[28] underlined the omnipresence of global challenges such as climate change, health, energy, food, and water security. One delegate[29] pointed the audience to the widening of the data divide that requires international cooperation, and another delegate[30] to the persistence of gender bias and discrimination.

27. As a new initiative on international cooperation in STI for development, the delegates from the Philippines and the United States informed the participants that the two countries would co-organize, in partnership with UNCTAD, a physical workshop on Harnessing STI for Disaster Risk Reduction in Manila, the Philippines on 29 February and 1 March, 2024. The expected output of the workshop is the list of at least three policy recommendations on harnessing STI for disaster risk reduction. All CSTD members are invited to participate. The STI's role in building resilient communities was discussed at the 22nd annual session of the Commission in May 2019, and the resultant resolution (E/RES/2019/254) recommended member States to "design and implement science, technology and innovation policies and other relevant policies to make them responsive to building resilient communities".

[24] Representatives of The Philippines, China, Cuba, Portugal, Peru, United States of America, The Gambia, Russian Federation and Türkiye.

[25] Representatives of The Philippines, China, Tanzania, Portugal, Peru, United States of America, The Gambia, Russian Federation, United Kingdom, Türkiye, Romania, and Paraguay.

[26] Representatives of The Philippines, Cuba, Portugal, Peru, The Gambia, and Paraguay.

[27] Representatives of the Philippines, China, Tanzania, The Gambia, United Kingdom, and Romania.

[28] Representatives of China, Cuba, Portugal, United States of America, The Gambia, Paraguay, and Turkey.

[29] Representative of Peru.

[30] Representative of Romania.

28. During the breakout session, participants exchanged their views on a common international STI agenda. The focus on technology sovereignty and the interests of specific countries can hamper the set-up of a common international STI agenda. Instead, how to put together the comparative advantages (e.g. technology versus resources) of countries on an equitable basis can be a more useful guiding principle. Additionally, methods to foster STI cooperation were evaluated. Lastly, proposals for the CSTD process, including follow-ups of topics from the previous years and from regional STI assessment and consensus-building exercises were presented.

VI. Progress made in the implementation of and follow-up to WSIS outcomes at the regional and international levels

29. The session was moderated by the Vice-Chair of the CSTD[31] who underscored that WSIS's mission is especially relevant in today's world marked by geopolitical instability, conflicts, energy crises, the Covid-19 impact, and climate challenges. He informed the participants that the CSTD had been mandated by ECOSOC to collect inputs from member States and other stakeholders for the WSIS+20 Review and to hold discussions at the 27th and 28th CSTD. Thereafter the CSTD should submit a report, through ECOSOC, to the General Assembly for its WSIS+20 review in 2025. To fulfil this mandate on WSIS+20, the CSTD has adopted a roadmap at its 26th annual session, which includes input collection through questionnaire and open consultation at regional and global levels. The CSTD secretariat circulated a questionnaire in September 2023 in collaboration with ITU, UNESCO and UNDP. The moderator celebrated the launch of the CSTD open consultation at the 18th Internet Governance Forum (IGF) in Kyoto, Japan, and was impressed by the enthusiastic attendance of multi- stakeholders and their views and thoughts. These include: a) the WSIS outcome documents were about information and communication technologies in general, not just about the internet; b) while internet connections have grown, the "algorithm society" has led to fragmentation; c) rapid technological development and accompanied emerging issues, such as AI implications, or data governance call for enhanced cooperation among countries; and d) there is a big potential for the CSTD to lead such enhanced cooperation.

30. The introductory speaker[32] began by appreciating the great interest shown by the WSIS stakeholders at the first open consultation of the CSTD on WSIS+20 Review. He underscored the importance of focusing on three distinct dimensions when conducting the review: first, reflecting on the progress made since the previous summit; second, analysing the transformation of the information society over the past decade; and third, considering future opportunities and policy challenges. The speaker also outlined six critical areas for consideration in the WSIS+20 review: a) addressing digital inequalities, with a specific emphasis on improving both connectivity and the quality of access, especially in developing countries and among marginalized groups; b) assessing the environmental impact of digital technologies and promoting sustainability; c) integrating digital development with other international goals, recognizing their interdependence; d) examining evolving governance structures for digital technologies and the influence of powerful data corporations; e) the imperative for new international norms and standards to adapt to the rapidly changing digital landscape; and f) a thorough reassessment of multi-stakeholder engagement, with a focus on identifying weaknesses and enhancing the involvement of other sectors in discussions about the digital economy.

31. The first panellist[33] delved into the evolving landscape of WSIS and the importance of the upcoming WSIS+20 Review within the evolving context of the information society, which led to substantial regulatory changes in the past 20 years. The speaker reflected on the achievements of WSIS, which encompassed the establishment of a conceptual framework for the information society, the creation of the WSIS action lines, and the

[31] Mr. Peter Major, Vice Chair of the CSTD.

[32] Mr. David Souter, Managing Director, ICT Development Associates.

[33] Mr. Wolfgang Kleinwächter, Professor Emeritus for International Communication Policy and Regulation, Department for Media and Information Studies, University of Aarhus, Denmark.

evolving understanding of internet governance. He then discussed imminent challenges such as the digital divide. Addressing these challenges requires, among other things, building upon existing achievements and institutions and innovative regulation. The panellist also called for the strengthening of principles governing multi-stakeholder collaboration, and he concluded by outlining a forward-looking path, with an emphasis on closing the gaps in implementing the WSIS outcomes and integrating the SDG, environmental and WSIS processes.

32. The second panellist[34] presented the pivotal role of the Internet Corporation for Assigned Names and Numbers (ICANN) in managing the global internet's technical infrastructure. She emphasised ICANN's 25-year history as a global, not-for-profit partnership devoted to upholding the internet's stability, security, and interoperability and clarified that ICANN's focus is on technical identifiers, like domain names, rather than internet content. Dedicated to safeguarding the global public interest, it operates within a multi-stakeholder model, involving global participation in policy-making. Preserving the internet's technical foundation is crucial to maintaining its worldwide interoperability and prevent fragmentation. In conclusion, she emphasized the internet's adaptability, innovation, and commitment to universal acceptance that ensures the internet remains a vital human right and a reliable resource for future generations.

33. The third panellist[35] expressed his concern that the trend of significant investments in expanding internet access during the Covid-19 pandemic was now being reversed, resulting in growing disparities between rural and urban areas. The panellist argued cultivating digital literacy and awareness should be met with the same urgency and focus. These efforts are not only vital for building the capacity needed for sustainable development but also for safeguarding people's rights. Engaging a wider range of communities in this discourse is crucial because the real essence of the solution lies in national and regional initiatives that directly involve individuals seeking to benefit from improved internet literacy and digital development. He concluded by proposing that redirecting efforts toward enhancing internet access, rather than bureaucratic measures, should be the primary focus.

34. The fourth panellist[36] provided an overview of the WSIS+20 Review process and its preparatory phases that will be led by a coalition of UN bodies, including CSTD, ITU, UNESCO, UNDP and UN Regional Economic Commissions. The WSIS+20 review will take a multistakeholder approach aimed at tackling the opportunities and challenges presented by the contemporary information society. The panellist emphasized that the review should seek to enhance digital cooperation and shape the future of WSIS beyond 2025. To achieve these goals, a series of summits and events will be organized, along with the implementation of a CSTD questionnaire and an open consultation process. During these activities, stakeholders will have the opportunity to contribute their experiences, perspectives, and priorities for the twenty-year WSIS review. This comprehensive process is being overseen and coordinated by the CSTD and ITU, ensuring effective collaboration and a well-structured approach.

35. The final panellist[37] shared the outcomes of the IGF annual meeting in Kyoto, highlighting key takeaways from the event. The meeting attracted over 6,000 participants, representing 92 per cent of the United Nations member States. Notably, nearly half of the participants represented developing countries, underscoring the global reach and inclusivity of the event. Moreover, a broad spectrum of high-level attendees delved into a diverse range of topics and the largest number of participants were from the private sector. Looking ahead, the panellist informed the participants that the 19th annual IGF meeting in 2024 will be hosted by the Kingdom of Saudi Arabia.

36. During the interactive discussion, a delegate from Portugal raised concerns about the confusion that outsiders may face when trying to understand the roles and mandates of the

[34] Ms. Sally Costerton, the Interim President and CEO, ICANN.
[35] Mr. Gbenga Sesan, Executive Director, Paradigm Initiative, Nigeria.
[36] Mr. Vladimir Stankovic, Program Officer, International Telecommunications Union.
[37] Mr. Chengetai Masango, Head of Office, Secretariat of Internet Governance Forum.

CSTD and ITU in the WSIS process. It seems that there will be two high-level meetings – one in ITU in 2024 and the other in the UN General Assembly in 2025 - and two questionnaires related to the WSIS+20 Review – one by the CSTD and the other by the ITU. They further contributed to the above-mentioned confusion. The moderator responded that he believed the ITU Council had agreed on holding a high-level event on WSIS+20 in the ITU, as it did for the WSIS+10 review, which preceded the CSTD's review on WSIS+10. He asked the representative from the ITU who was on the panel[38] to further clarify. The panellist affirmed that ITU's work on WSIS+20 is based on ITU's mandate and is different from the General Assembly's review of WSIS+20. The high-level event on WSIS+20 in the ITU would be held during the ITU's WSIS Forum in 2024, hence the questionnaire by ITU was for that purpose and the questions are mostly on the process. This questionnaire is different from the CSTD questionnaire in partnership with ITU, UNESCO and UNDP. ITU is cooperating closely with CSTD on the WSIS+20 review and will continue doing so.

37. The delegate from the Russian Federation expressed support for the WSIS process, while cautioning that its primary focus should be on internet governance. The delegate emphasized the necessity of keeping politicization at bay within the information society to ensure an equitable implementation. A panellist[39] commented that each State has the right to decide on its internet policy. He also emphasized the significance of ICANN's neutrality and its stance against political influence in decisions related to internet governance. A delegate from Japan stressed the IGF's unique and essential role in the realm of internet governance and appreciated its multi-stakeholder approach. He believed that the record attendance at the 18th IGF demonstrated a strong support to the multi-stakeholder model in respect of internet governance.

38. A delegate from the United Kingdom acknowledged the tremendous changes that have taken place since 2003, underscoring the need to look ahead. He emphasized his country's support to the WSIS and underscored his desire for the WSIS process to continue and evolve. Advising not to overemphasize the participation of heads of state in WSIS 2024, he urged continued dialogue on the action lines. A delegate from the Netherlands suggested the need to revisit and reintroduce action lines that can be integrated with the SDGs. A delegate from Canada raised the question of integrating the WSIS action lines with the SDGs in light of the increasing relevance of digitalization in the 21st century. He emphasized that when the WSIS was created in 2003, it did not include digitalization which has become evident in 2023 as we transition into a digitally enabled global society.

39. A panellist[40] commented that the Geneva Action Plan relied on an assumption of how technology looked then. It did not include everything. He added that had the SDGs been in place in 2003, the Action Lines would have been created in line with them. Another panellist[41] noted that the text of the WSIS Action Lines was crafted in 2003, reflecting the knowledge and imagination of the negotiators at that time. He emphasized that although they may seem limiting, the text offers ample flexibility for creative interpretation. Using the example of the Action Lines on cybersecurity, he argued that while it could seem outdated, they still provide a good basis for formulating policy recommendations. He also urged against waiting for a silver bullet solution and advocated for taking incremental steps in the right direction, rather than a large one. The third panellist[42] highlighted the ongoing efforts related to the follow-up and implementation of the WSIS process. He encouraged all those who have been involved in WSIS implementation to provide their insights through questionnaires, facilitating the collection of valuable information.

40. The delegate from Portugal drew attention to the fact that the Geneva Declaration of Principles and Plan of Action remain unfulfilled, emphasizing the critical role of the CSTD and its multistakeholder approach in advancing the process. A delegate from Cuba affirmed that the Geneva Declaration of Principles still hold considerable importance, guiding the

[38] Mr. Vladimir Stankovic.
[39] Mr. Wolfgang Kleinwächter.
[40] Mr. David Souter.
[41] Mr. Wolfgang Kleinwächterk.
[42] Mr. Vladimir Stankovic.

actions and commitments of nations, while the participant from IT for Change, which is a civil society, emphasized the importance of representing people at the margins and called for the rearticulation of a new generation of rights, moving beyond aspirational values.

41. A delegate from the Netherlands expressed his country's commitment to bridging the technological divide by actively engaging in platforms that fosters digital cooperation with partner countries in various regions, emphasizing the significance of capacity building. The delegate from Brazil underlined his country's dedication to building an inclusive and people-centred information society. He also emphasized the importance of strengthening international cooperation to harmonize the international arena and the WSIS process to avoid duplication of efforts. The delegate from Cuba pointed out that there remain challenges in ensuring effective implementation, particularly in promoting ICT for nations with the most significant needs, and she expressed hope for guidance from the CSTD concerning WSIS implementation.

42. The delegate from Canada posed a question about the advice to governments as they navigate the transformative period, specifically in the realms of data and AI governance. In response, the introductory speaker[43] highlighted the environmental impact of digitalization and urged governments to adopt a forward-thinking approach that is open to new ideas, as the future may demand a wholly new agenda. He cautioned against clinging to old ways.

43. A delegate from Brazil raised a question about the need for a panel on artificial intelligence, similar to the Intergovernmental Panel on Climate Change (IPCC), to discuss the impacts of digital technologies. In response, the introductory speaker[44] pondered whether new institutional frameworks could transcend political barriers. He acknowledged that the success of frameworks like the IPCC was thanks to their ability to reach beyond politics, secure adequate funding, and rely on scientific expertise. Nevertheless, he expressed openness to embracing new institutional structures.

44. Another panellist[45] suggested understanding the internet world as a layered system, where each layer can have its own governance mechanism. There are the technical layer, application layer, and now a new layer of AI. The new layer would not substitute the other layers but add to them, which makes the policy process more complex. He then proposed that the ongoing policy development in AI should continue to be through a multi-stakeholder approach, guided by the previously agreed principles on internet governance.

45. A delegate from Portugal and the participant from the OECD emphasized the importance of conceptualizing the distinction between the information and the digital society. The delegate from Portugal proposed that a simpler and more encompassing concept, such as internet governance, would be more effective in addressing the complexities due to use of various terms such as digital governance and artificial intelligence governance. The representative from the OECD observed that across human history, there have been continual efforts to ensure information accessibility. While digitalization has facilitated the global information exchange, it should be regarded as separated from the concept of the information society.

VII. Main messages for consideration by the 27th Commission

46. The following findings and suggestions on the two priority themes were highlighted at the panel meeting and put forward for consideration by CSTD at its twenty-seventh session.

[43] Mr. David Souter.
[44] Mr. David Souter.
[45] Mr. Wolfgang Kleinwächterk.

A. Theme 1: Data for Development

1. Main findings

47. The immediacy of the climate change crisis affords us limited time. Data, when properly used, can guide us to understand, monitor, and predict climate patterns, energy consumption, greenhouse gas emissions, and a plethora of other factors vital to combating climate change. Therefore, a more robust and effective utilization of data is integral in the fight against global warming. Meanwhile, as we are racing against time in implementing the 2030 Agenda, it becomes imperative to put in place robust policies and regulatory frameworks that ensure data governance which is conducive to maximize the data value while ensuring an inclusive and equitable distribution of gains from data. Such measures could include enhancing data literacy, strengthening domestic capacities, including quality data infrastructures, for data collection, processing, analysis and management, and establishing fair data sharing agreements at the international level. These initiatives should aim to create an environment where data flows benefit all parties involved and contribute genuinely to sustainable development. This requires a concerted effort from governments, international organizations, the private sector, academia, technical communities, and the civil society, acknowledging the significance of data in the current era and its potential role in shaping the future of sustainable development.

2. Suggestions

48. Member States may wish to consider the following courses of action:

(a) Prioritize the education and training of their citizens in data literacy. A population skilled in understanding, analyzing, and interpreting data can more effectively engage in innovation;

(b) Engage the public in decision-making processes related to data governance. Public consultations can provide valuable insights and foster trust;

(c) Regularly audit data practices to ensure adherence to standards, protocols, and ethical considerations. External, third-party audits can provide unbiased insights into the effectiveness and integrity of data management practices;

(d) Allocate resources and funding for research in emerging data technologies so as not to miss out on the developmental potential of data-driven innovations;

(e) Establish or maintain data governance regulations through a balanced combination of hard law and soft law mechanisms, and ensure that all stakeholder groups are active and empowered to participate in data governance;

(f) Address the concentration of infrastructural power in data markets through national and international policy mechanisms;

(g) Formulate comprehensive policies that ensure data’s security, its ethical use, and robust cybersecurity.

49. The international community may wish to consider the following suggestions:

(a) Eliminate all barriers that prevent free and open access to taxpayer-funded scientific knowledge, which is essential for achieving the SDGs. Given the inadequacy of current frameworks for open access to research findings and scientific data, humanity is not fully equipped to utilize research data and science in combating climate change and achieving the SDGs;

(b) Reduce the technological divide facing developing nations, for example, by enhancing the UN Technology Facilitation Mechanism for technology and skill transfers;

(c) Strengthen the institutional and human capacities of national statistical and data systems in developing countries, as well as other data producers and users, through investment, funding, training, partnerships and technical cooperation.

B. Theme 2: Global Cooperation in Science, Technology and Innovation for Development

1. Main findings

50. Science, technology, and innovation offer transformative solutions that can accelerate progress towards an inclusive, sustainable, and resilient world. Yet the opportunities and benefits brought by technological advancement are not distributed equally, with most of them being captured by developed countries, as reflected by the significant concentration of knowledge creation in terms of patents and scientific publications. The growing technological complexity, the fast pace of technological change and the massive impact of recent waves of innovations call for a collaborative approach to STI; business as usual will not close but widen inequalities, making it more difficult to catch up for latecomers. What is urgently needed is to enhance international solidarity and cooperation, revitalize global partnerships, and give renewed impetus to open, inclusive and equitable collaboration mechanisms.

2. Suggestions

51. Member States may wish to consider the following suggestions:

(a) Formulate strategic plans for STI with clear, specific and measurable goals to seize the opportunities brought by technological advancement. The planning should reflect country's strengths and weaknesses in STI and highlight the connections (and missing links) between the national needs and objectives and the international STI agenda;

(b) Conduct assessments of strengths and weaknesses of countries' NIS, as well as technology assessment exercises, at regular intervals drawing experiences from regional and international foresight exercises. The results of these exercises should be shared with other countries to foster mutual learning and favour the creation of synergies on common issues and provide inputs for the strategic planning of international STI collaboration;

(c) Create the conditions for accessible, affordable and high-quality digital infrastructure that supports STI development. This involves bridging the digital divide within the country, engaging in international standards setting, and building a regulatory environment that ensures sound competition in the telecommunications sector;

(d) Reinforce the efforts to upgrade STI skills, as well as those required by the digital revolution (from mathematics and statistics to coding and data analytics) at all levels, including government officials for an effective design and implementation of STI policy;

(e) Mobilize domestic resources by facilitating co-funding schemes and cooperation involving the private sector, as well as target the attraction of foreign direct investments in knowledge intensive activities in specific areas of interest. Synergies between research and education, and industry and economic ministries could be leveraged to finance those STI efforts closer to commercial applications;

(f) Engage with key private actors of the innovation ecosystem and promote collaborations between the public and private entities to overcome the gap between science and technology and the introduction of innovations in the market. Affiliates of foreign companies can be leveraged to strengthen knowledge exchanges with international partners;

(g) Develop collaborative mechanisms to incentivize technology and knowledge transfer among universities, research institutions and the private sector, including at the international level. Priority could be given to the transition from basic to applied research and the application and diffusion of technologies and innovations in the economy.

52. The international community may wish to consider the following suggestions:

(a) Support the inclusion of developing countries in the international research networks both financially and providing assistance on how to participate and benefit from specific international settings. Regional mechanisms should put more efforts into mediating between national STI needs and challenges and opportunities at the global level;

(b) Cooperate to establish a mapping system to review and make sense of different technology foresight outcomes, also making use of existing regional mechanisms and in collaboration with relevant stakeholders;

(c) Support the establishment of monitoring, evaluation and accountability mechanisms to foster international STI collaboration through enhanced trust, transparency, inclusivity and directionality;

(d) Strengthen funding and technical assistance to support digital infrastructure and to upgrade STI and skills of developing countries. Capacity-building activities could include international training programmes, international mobility of researchers and public-private partnerships dedicated to specific areas (e.g., digital or entrepreneurial training) while emphasizing the empowerment of the disadvantaged groups;

(e) Increase the share of ODA dedicated to STI. Given the low base, even modest increases in budgetary allocations would offer a significant improvement in the support of STI in developing countries, providing the means to finance a strengthened international cooperation in STI. Funding can be also channelled to support the exchange of technical personnel between private and public institutions at the international level;

(f) Support the participation of researchers from developing countries in international research networks (including through mobility schemes) and the organization of international scientific events in developing countries;

(g) Explore ways to guarantee that the transfer of technologies from the private sector will benefit the development of STI capabilities and originate business ideas for innovation in the receiving country.

53. The Commission is invited to consider taking the following steps:

(a) Support coordination among different international bodies active in STI (e.g., OECD, UNESCO and CERN) and facilitate the sharing of the respective STI agendas and initiatives to address the needs and issues common to different countries, thereby building consensus on a shared vision and objectives to guide global STI development;

(b) Strengthen its role in coordinating different technology foresight approaches within international organizations and favour the convergence to a common understanding of long-term issues. The Commission could also leverage regional organizations, through consultations on technology assessment exercises to foster the converge of priority themes/needs. This will support the efforts in providing directionality to technological development and building consensus on future policies that take into account the specific challenges and opportunities of countries with different STI strengths and at different stages of development;

(c) Advocate increasing efforts in promoting the development of capabilities related to STEM subjects in developing countries and remove obstacles (e.g., via supporting administrative and regulatory agreements) limiting the international mobility of researchers;

(d) Explore the potential for innovative financing models, public-private partnerships, open-source and open-science approaches and other resources to strengthen the position of developing countries in collaborative STI projects and initiatives;

(e) Enhance collaboration with institutions providing project finance and resources to ensure that STI initiatives are supported by adequate and sustained funding;

(f) Partner with existing collaborating STI schemes (e.g., Horizon Europe) to extend them to include developing countries and design global collaborative schemes to pool resources from the existing fragmented experiences;

(g) Facilitate the exchange not only of success stories but also failures to identify key challenges, foster mutual learning and guarantee an effective design of technology transfer projects;

(h) Establish a dialogue with organizations monitoring technology transfer projects (e.g., WTO under article 66.2) aiming to define common reporting standards and

enable the collection of structured and harmonized information to support the systematic analysis of mechanisms for knowledge transfer.