

Commission on Science and Technology for Development

Report on the twenty-fourth session (17–21 May 2021)

Economic and Social Council Official Records, 2021 Supplement No. 11



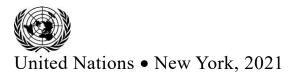
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Note

Symbols of United Nations documents are composed of letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

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Summary

At its twenty-third session,^{*a*} the Commission on Science and Technology for Development discussed how to harness science, technology and innovation to accelerate progress on the Sustainable Development Goals and to address the coronavirus disease (COVID-19). The Commission also considered the following priority themes: "Harnessing rapid technological change for inclusive and sustainable development" and "Exploring space technologies for sustainable development and the benefits of international research collaboration in this context". In addition, it reviewed the 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.

During the high-level segment on the role of science, technology and innovation in a sustainable and resilient recovery from the COVID-19 pandemic, participants recognized the instrumental role of science, technology and innovation in combating the COVID-19 pandemic and the contribution of digital technologies to maintaining economic and social activities during lockdowns. Policymakers shared some of the science, technology and innovation policy measures they had taken to support a sustainable and resilient recovery from the crisis. Such policies focused on education and the upgrading of skills, digital infrastructure and connectivity, regulatory frameworks for digital health, and supporting local innovation and indigenous technologies. Participants noted with concern the unequal access of countries to the benefits of science, technology and innovation in the context of the COVID-19 pandemic and the persisting digital divides that could create new inequalities and exacerbate existing ones.

Ministers and other high-level speakers reaffirmed the importance of solidarity and the need to support research and development and innovation activities as well as skills development. They called for concrete actions to enhance international cooperation and multilateralism and to ensure coordinated policy responses in the area of science, technology and innovation to fight the ongoing pandemic and cope with similar future crises. The international community has a critical role to play in ensuring equal access to science, technology and innovation in health care and other areas of the Sustainable Development Goals, especially by encouraging knowledge transfer and open science, but also by reconsidering intellectual property rights to ensure inclusive access to new technologies. There was a call for the Commission to continue its efforts to promote the use of science, technology and innovation for development. For example, the Commission could provide guidance on ways to operationalize a United Nations-backed database on open-source technologies in support of the 2030 Agenda for Sustainable Development.

In considering the priority theme "Using science, technology and innovation to close the gap on Sustainable Development Goal 3 on good health and well-being", participants discussed how science, technology and innovation tools and frontier technologies contributed to health care around the world, including in the context of the COVID-19 pandemic. Member States highlighted common bottlenecks in healthcare innovation such as inadequate skills, low research and development capacities, and the lack of infrastructure, investment and resilience. Participants agreed that the pandemic had exposed weaknesses in the science-policy interface and significant inequalities in countries' science, technology and innovation capacities and their access to knowledge and technologies. Participants also highlighted the importance of continuing efforts to treat diseases such as HIV/AIDS or neglected tropical diseases despite the pandemic, since they disproportionately affected people in developing countries. Speakers re-emphasized the fundamental need to ensure equitable access to the benefits of science, technology and innovation in health care during and beyond the COVID-19 pandemic.

Participants of the session on the priority theme "Harnessing blockchain for sustainable development: prospects and challenges" acknowledged that the emerging uses of blockchain could represent breakthroughs in accelerating progress towards the Sustainable Development Goals in areas such as land titles, remittances, identity systems, climate change and financial inclusion. Participants agreed that there were also challenges and constraints, including cost per transaction, interoperability, privacy and confidentiality and insufficient regulations and infrastructure. Speakers and representatives of Member States shared their national experiences and strategies for harnessing blockchain technologies for development and emphasized the need for a collaborative, multi-stakeholder approach.

In reviewing the progress made in implementing and following up on the outcomes of the World Summit on the Information Society, speakers and participants shared various initiatives and activities. Participants highlighted the challenges in the current information society, such as the digital divide, cybersecurity, misinformation and disinformation, as well as the central role information and communications technology (ICT) has played during the COVID-19 pandemic in supporting learning and health care and facilitating remote work and conferences. Speakers and delegates stressed the importance of multi-stakeholder, digital cooperation in achieving the vision of the World Summit on the Information Society.

During the session on applying a gender lens to science, technology and innovation policies to deliver Sustainable Development Goal 5, participants noted the continuing gender gap in science, technology and innovation fields, including the gender divide in science, technology, engineering and mathematics education and in access to and use of ICT. They highlighted the need to spark girls' interest from as early as primary school in participating in science, technology, engineering and mathematics education in the future. It would be useful to have diverse teams responsible for the design of new and emerging technologies in order to include input from women and thus avoid gender biases. Participants suggested that Governments could put in place legal requirements and strong policies that supported and empowered women to enter all sectors, especially sectors related to science, technology, engineering and mathematics. Apart from upskilling women and girls through education and training, there was a need to generate better data disaggregated by gender across countries and sectors. Such data could be used by countries to explore new ways to achieve systemic change towards a more gender-equal science, technology and innovation ecosystem at the national level.

During the presentation of reports on science, technology and innovation policy reviews and the interactive discussion that followed, participants discussed the outcomes of the science, technology and innovation policy reviews undertaken in the Dominican Republic, Uganda and Zambia with assistance from the United Nations Conference on Trade and Development (UNCTAD). Participants shared their national experiences of the activities aimed at addressing the challenges identified by the reviews. It was recommended that the level of science, technology and innovation development be included as an indicator in measuring a country's economic and social development.

The Commission adopted two draft resolutions under silence procedure, one entitled "Science, technology and innovation for development", and the other "Assessment of the progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society." The Commission also adopted under silence procedure five draft decisions, according to which the Council would extend the mandate of the Gender Advisory Board for a further five years, extend the arrangements for the participation of non-State stakeholders in the work of the Commission until 2025, and take note of the report of the Commission on its twenty-fourth session and approve the provisional agenda and documentation for its twenty-fifth session.

The Commission selected the following as priority themes for consideration at its twenty-fifth session: "Industry 4.0 for inclusive development" and "Science, technology and innovation for sustainable urban development in a post-coronavirus disease (COVID-19) world".

Further information on the session of the Commission is available at https://unctad.org/topic/commission-on-science-and-technology-for-development.

^{*a*} Owing to the COVID-19 pandemic and limitations on in-person meetings and international travel, the twenty-fourth session of the Commission on Science and Technology for Development was held as a virtual meeting.

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Chapter I

Matters calling for action by the Economic and Social Council or brought to its attention

A. Draft resolutions for adoption by the Council

1. The Commission on Science and Technology for Development recommends to the Economic and Social Council the adoption of the following draft resolutions:

Draft resolution I Assessment of the progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society

The Economic and Social Council,

Recalling the outcome documents of the World Summit on the Information Society,¹

Recalling also its resolution 2006/46 of 28 July 2006 on the follow-up to the World Summit and review of the Commission on Science and Technology for Development and the mandate that it gave to the Commission,

Recalling further its resolution 2020/12 of 17 July 2020 on the assessment of the progress made in the implementation of and follow-up to the outcomes of the World Summit,

Recalling General Assembly resolution 70/1 of 25 September 2015, entitled "Transforming our world: the 2030 Agenda for Sustainable Development",

Recalling also General Assembly resolution 70/125 of 16 December 2015, entitled "Outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society", in which the Assembly reaffirmed the World Summit vision of a people-centred, inclusive and development-oriented information society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life, premised on the purposes and principles of the Charter of the United Nations and respecting fully and upholding the Universal Declaration of Human Rights,² and assessed progress made to date, identified gaps and challenges and made recommendations for the future,

Recalling further General Assembly resolution 75/202 of 21 December 2020 on information and communications technologies for sustainable development, in which the Assembly recognized the important role of information and communications technologies for attaining the Sustainable Development Goals and for a sustainable, inclusive and resilient recovery from the coronavirus disease (COVID-19) pandemic, and called upon all stakeholders in the information and communications technologies sector, including Governments and the United Nations system, to fully consider the health and socioeconomic impacts of the COVID-19 pandemic as they strengthen

¹ See A/C.2/59/3 and A/60/687.

² General Assembly resolution 217 A (III).

their efforts to bridge the digital divides within and between developed and developing countries, with particular attention to the poorest and most vulnerable, as well as women and girls, and to ensuring affordable and reliable connectivity, the promotion of digital access and digital inclusion, and the expansion of accessible and inclusive distance-learning solutions and digital health services,

Taking note with satisfaction of the report of the Secretary-General on the progress made in the implementation of and follow-up to the outcomes of the World Summit at the regional and international levels,³

Expressing its appreciation to the acting Secretary-General of the United Nations Conference on Trade and Development for her role in helping to ensure completion of the aforementioned report in a timely manner,

Taking stock: reviewing the implementation of the outcomes of the World Summit on the Information Society

1. Welcomes and urges the full implementation of General Assembly resolution 70/125;

2. *Welcomes* the constructive and diverse inputs from all stakeholders in the overall review of progress made in the implementation of the outcomes of the World Summit on the Information Society;

3. *Reaffirms its commitment* to the full implementation of the outcomes of the World Summit and the vision of the 10-year review of the World Summit beyond 2015;

4. *Reaffirms* the commitment made in General Assembly resolution 70/125 to close the digital divides between and within countries, including the gender digital divide, through efforts to improve connectivity, affordability, access to information and knowledge, multilingual content, digital skills and digital literacy, acknowledging specific challenges facing persons with disabilities and specific needs, and groups in vulnerable situations;

5. *Encourages* close alignment between the World Summit process and the 2030 Agenda for Sustainable Development, ⁴ as called for in General Assembly resolution 70/125, highlighting the cross-cutting contribution of information and communications technology to the Sustainable Development Goals and poverty eradication, and noting that access to information and communications technologies has also become a development indicator and aspiration in and of itself;

6. *Reaffirms* its understanding that the success of the 2030 Agenda will depend on increasing access to information and communications technology;

7. *Recognizes* that information and communications technology infrastructure is fundamental to achieving the goal of digital inclusion and that digital divides persist across income groups, age groups, geography and gender, and therefore recalls its commitment to the 2030 Agenda, target 9.c, which aims to significantly increase access to information and communications technology and strives to provide universal and affordable access to the Internet in least developed countries by 2020, and in this regard notes the importance of the Connect 2030 Agenda for global telecommunication/information and communication technology, including broadband, for sustainable development;

8. *Welcomes* the remarkable evolution and diffusion of information and communications technologies, underpinned by the contributions of both public and

³ A/76/64-E/2021/11.

⁴ General Assembly resolution 70/1.

private sectors, which have seen penetration into almost all corners of the globe, created new opportunities for social interaction, enabled new business models and contributed to economic growth and development in all other sectors, while noting the unique and emerging challenges related to their evolution and diffusion;

9. Notes with concern that there are still significant digital divides, such as between and within countries and between women and men, which need to be addressed through, among other actions, strengthened enabling policy environments and international cooperation to improve affordability, access, education, capacity-building, multilingualism, cultural preservation, investment and appropriate financing, acknowledges that a gender divide exists as part of the digital divides, and encourages all stakeholders to ensure the full participation of girls and women in the information society and women's access to new technologies, especially information and communications technologies for development;

10. *Encourages* the Commission on Science and Technology for Development to continue to give due consideration to the impact of key rapid technological changes on the achievement of the Sustainable Development Goals within the respective mandates and existing resources, in accordance with General Assembly resolution 75/202;

11. *Welcomes* the holding on 3 May 2021 of World Press Freedom Day, proclaimed by the General Assembly and led by the United Nations Educational, Scientific and Cultural Organization;

12. *Also welcomes* the holding of World Telecommunication and Information Society Day, celebrated annually on 17 May and led by the International Telecommunication Union;

13. Notes the ongoing implementation of the outcomes of the World Summit, emphasizing, in particular, its multi-stakeholder nature, the roles played in this regard by leading agencies as action line facilitators and the roles of the regional commissions, regional World Summit review initiatives and the United Nations Group on the Information Society, and expresses its appreciation for the role of the Commission on Science and Technology for Development in assisting the Economic and Social Council as the focal point in the system-wide follow-up to the World Summit;

14. *Recognizes* the value and principle of multi-stakeholder cooperation and engagement that have characterized the World Summit process since its inception and that are clearly recognized in the 2030 Agenda, and notes that many activities that support the objectives of the World Summit and the Sustainable Development Goals are being implemented by Governments, international organizations, the private sector, civil society, academic and technical communities and multi-stakeholder partnerships in their respective roles and responsibilities;

15. Underscores the importance of and encourages continued collaboration between the follow-up and review process of the World Summit and the Technology Facilitation Mechanism, including its multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals;

16. *Takes note* of the reports of many United Nations entities submitted as input for the elaboration of the annual report of the Secretary-General of the United Nations to the Commission on Science and Technology for Development and published on the website of the Commission as mandated in Council resolution 2007/8 of 25 July 2007, and recalls the importance of close coordination among the leading action line facilitators and with the secretariat of the Commission;

17. Notes the implementation of the outcomes of the World Summit at the regional level facilitated by the regional commissions, as observed in the report of the Secretary-General on the progress made in the implementation of and follow-up to the outcomes of the World Summit at the regional and international levels, including the steps taken in this respect, and emphasizes the need to continue to address issues of specific interest to each region, focusing on the challenges and obstacles that each may be facing with regard to the implementation of all goals and principles established by the World Summit, with particular attention to information and communications technology for development;

18. *Reiterates* the importance of maintaining a process of coordinating the multi-stakeholder implementation of the outcomes of the World Summit through effective tools, with the goal of encouraging collaboration and partnership among all stakeholders, including international organizations, exchanging information among action line facilitators and other stakeholders, identifying issues that need improvement and discussing the modalities of reporting on the overall implementation process;

19. *Encourages* all stakeholders to continue to contribute information to the stocktaking database maintained by the International Telecommunication Union on the implementation of the goals established by the World Summit, and invites United Nations entities to update information on their initiatives in the database;

20. *Highlights* the urgent need for the incorporation of the recommendations contained in the outcome documents of the World Summit into the revised guidelines for United Nations country teams on preparing the common country assessments and United Nations Sustainable Development Cooperation Frameworks, including the addition of an information and communications technology for development component, for which the United Nations Group on the Information Society has offered its assistance;

21. *Recalls* General Assembly resolution 60/252 of 27 March 2006, in which the Assembly requested the Council to oversee the system-wide follow-up to the outcomes of the Geneva and Tunis phases of the World Summit;

22. Also recalls that, in its resolution 70/125, the General Assembly called for continuation of the annual reports on the implementation of the outcomes of the World Summit, through the Commission on Science and Technology for Development, to the Council, and reaffirms the role of the Commission, as set forth in Council resolution 2006/46, in assisting the Council as the focal point in the system-wide follow-up, in particular the review and assessment of progress made in implementing the outcomes of the World Summit;

23. *Calls upon* all States, in building the information society, to take steps to avoid and to refrain from taking any unilateral measure not in accordance with international law and the Charter of the United Nations that impedes the full achievement of economic and social development by the population of the affected countries and that hinders their well-being;

24. Welcomes the fact that the rapid growth in access to mobile telephony and broadband since 2005 has meant that almost two thirds of the world's inhabitants should have access to information and communications technologies within their reach, 96.7 per cent of the world's population lives within reach of a mobile cellular network, with 8.2 billion mobile-cellular subscriptions, and 51.4 per cent of the world's population uses the Internet, in line with the World Summit targets; the value of this progress is enhanced by the advent of new electronic and mobile services and applications for health, agriculture, education, business, development, financial and

government services, civic participation and transactional services, which offer great potential for the development of the information society;

25. Notes with great concern that many developing countries lack affordable access to information and communications technologies and that, for the majority of the poor, the promise of science and technology, including information and communications technologies, remains unfulfilled, and emphasizes the need to effectively harness technology, including information and communications technologies, and promote digital literacy to bridge the digital and knowledge divides;

26. Recognizes that information and communications technologies present new opportunities and challenges and that there is a pressing need to address the major impediments that developing countries face in accessing the new technologies, such as an appropriate enabling environment, sufficient resources, infrastructure, education, capacity, investment and connectivity, as well as issues related to technology ownership, standards and flows, and in this regard calls upon all stakeholders to provide adequate resources, enhanced capacity-building and transfer of technology and knowledge to developing countries, particularly the least developed countries and landlocked countries, towards a digitally empowered society and knowledge economy;

27. Also recognizes the rapid growth in broadband access networks, especially in developed countries, and underscores the need to urgently address the growing digital divides in the availability, affordability, quality of access and use of broadband between and within high-, middle- and low-income countries and other regions, with special emphasis on supporting the least developed countries, small island developing States and Africa as a continent;

28. Further recognizes that the transition to a mobile-led communications environment is leading to significant changes in operators' business models and that it requires significant rethinking of the ways in which individuals and communities make use of networks and devices, of government strategies and of ways in which communications networks can be used to achieve development objectives;

29. *Recognizes* that, even with all the developments and the improvement observed in some respects, in numerous developing countries information and communications technologies and their applications are still not available to or affordable for the majority of people, particularly those living in rural areas;

30. Also recognizes that the number of Internet users is growing and that, in some instances, the digital divide and the knowledge divide are also changing in character, from a divide based on whether access is available to one based on the quality of access, information and skills that users can obtain and the value that they can derive therefrom, and recognizes in this regard that there is a need to prioritize the use of information and communications technologies through innovative approaches, including multi-stakeholder approaches, within national and regional development strategies;

31. *Emphasizes*, in this regard, the vital importance of multilingualism and local content in the information society, and urges all stakeholders to encourage the creation of, and access to, educational, cultural and scientific content online so as to promote quality of access and ensure that all people and cultures can express themselves and have access to the Internet in all languages, including indigenous languages;

32. *Recognizes* the importance of human capacity-building, an enabling environment and resilient information and communications technology infrastructure, as well as fostering multi-stakeholder partnerships, and assistance to countries in their

efforts to strengthen the enabling role of information and communications technology for the attainment of the Sustainable Development Goals;

33. Urges a continued focus on maximizing development gains from e-commerce, through the eTrade for All initiative, which provides a new approach to trade development through electronic exchanges by allowing developing countries to more easily navigate the supply of technical assistance for building capacity in e commerce readiness and by enabling donors to have a clear picture of the programmes that they could fund;

34. *Recognizes*, in this regard, that the United Nations Conference on Trade and Development has initiated and implemented rapid e-trade readiness assessments of least developed countries in cooperation with other donors and organizations in order to raise awareness of opportunities and challenges related to leveraging e-commerce in the least developed countries;

35. *Notes* the holding of the fourth session of the Intergovernmental Group of Experts on E-commerce and the Digital Economy, in Geneva from 14 to 16 October 2020;

36. Takes note of the global report of the Broadband Commission for Sustainable Development, entitled *The State of Broadband 2020: Tackling Digital Inequalities – A Decade for Action*, and notes with interest the continuous efforts of the Broadband Commission in promoting high-level advocacy for the establishment of an enabling environment for broadband connectivity, in particular through national broadband plans and public-private partnerships for ensuring that the development agenda challenges are met with appropriate impact and in conjunction with all stakeholders;

37. *Recalls* the launching by the Broadband Commission for Sustainable Development of the 2025 targets to support "connecting the other half" and to help to bring online the 3.8 billion of the world's people who are not connected to the Internet;

38. *Recognizes* that the digital economy and emerging technologies have enormous potential for social good, the implementation of World Summit outcomes and the achievement of the Sustainable Development Goals;

39. *Welcomes* the many initiatives of United Nations organizations that support the implementation of the World Summit action lines, and encourages all action line facilitators to continue to work towards implementation of the action lines;

40. *Also welcomes* the work of the Information for All Programme of the United Nations Educational, Scientific and Cultural Organization, which aims to assist Member States in formulating policies to bridge the digital divide and ensure equitable knowledge societies, and further welcomes the holding of Global Media and Information Literacy Week, from 24 to 31 October each year;

41. *Recognizes* the work of the International Telecommunication Union, including the holding of its Plenipotentiary Conference in Dubai, United Arab Emirates, from 29 October to 16 November 2018, at which the membership reaffirmed its commitment to the common vision of a connected world, and welcomes its work to support the deployment of broadband wireless networks in developing countries, including the training of local experts;

42. *Notes* that the eighteenth World Telecommunication/Information and Communications Technology Indicators Symposium will be held in Geneva in April 2022;

43. *Recognizes* the work of the Food and Agriculture Organization of the United Nations to promote digital inclusion in Africa and other regions to support poverty reduction and food security;

44. *Also recognizes* the work of the International Labour Organization on the impact on jobs caused by technological change;

45. *Further recognizes* the work of the Global Observatory for eHealth of the World Health Organization, including its consideration of how m-health, telehealth, electronic health records and e-learning can contribute to the goals of universal health coverage;

46. *Recognizes* the work of the United Nations Development Programme, including the publication of its Digital Strategy, which is aimed at applying the potential of digital technology to support the achievement of the Sustainable Development Goals;

47. *Recalls* the publication of the Secretary-General's strategy on new technologies on how the United Nations system will support the use of new technologies to accelerate the achievement of the 2030 Agenda and to facilitate their alignment with the values enshrined in the Charter, the Universal Declaration of Human Rights and the norms and standards of international law;

48. *Reiterates* the commitment to harnessing the potential of information and communications technologies to achieve the 2030 Agenda and other internationally agreed development goals, noting that they can accelerate progress across all 17 Sustainable Development Goals, accordingly urges all Governments, the private sector, civil society, international organizations, the technical and academic communities and all other relevant stakeholders to integrate information and communications technologies into their approaches to implementing the Goals, and requests United Nations system entities facilitating the World Summit action lines to review their reporting and workplans to support the implementation of the 2030 Agenda;

49. Notes with great concern the fact that women are 13 per cent less likely than men to make use of the Internet, and 47 per cent less likely to do so in the least developed countries, draws attention to the gender digital divide, which persists in women's access to and use of information and communications technologies, including in education, employment and other areas of economic and social development, and, in line with Sustainable Development Goal 5 on achieving gender equality and empowering all women and girls, calls upon Member States to adopt all appropriate measures, especially by significantly enhancing women's and girls' education and participation in information and communications technologies, as users, content creators, employees, entrepreneurs, innovators and leaders;

50. Notes the many initiatives targeted at closing the gender digital divide, including, among others, International Girls in ICT Day (International Telecommunication Union), the Global Partnership for Gender Equality in the Digital Age (the EQUALS initiative), the EQUALS in Tech Awards (International Telecommunication Union and United Nations Entity for Gender Equality and the Empowerment of Women), the eTrade for Women Network (United Nations Conference on Trade and Development), Gender-Sensitive Indicators for Media (United Nations Educational, Scientific and Cultural Organization), the Global Survey on Gender and Media (United Nations Educational, Scientific and Cultural Organization), the Broadband Commission Working Group on Broadband and Gender, the Best Practice Forum on Gender and Access of the Internet Governance Forum, the work being done in the World Summit on the Information

Society Forum on gender issues and the work of the World Bank in a number of countries promoting opportunities for women and girls in information and communications technologies, as well as the work of many other stakeholders on this issue;

51. *Reaffirms* the commitment to pay particular attention to the unique and emerging information and communications technology challenges facing all countries, in particular developing countries, as envisaged in the relevant paragraphs of General Assembly resolution 70/125;

52. Notes that, while a solid foundation for capacity-building in information and communications technology has been laid in many areas with regard to building the information society, there is still a need for continuing efforts to address the ongoing challenges, especially for developing countries and the least developed countries, and draws attention to the positive impact of broadened capacity development that involves institutions, organizations and entities dealing with information and communications technologies and Internet governance issues;

53. *Recognizes* the need to focus on capacity development policies and sustainable support to further enhance the impact of activities and initiatives at the national and local levels aimed at providing advice, services and support, with a view to building an inclusive, people-centred and development-oriented information society;

54. Notes that topics continue to emerge, such as e-environment applications and the contribution of information and communications technologies to early warning, mitigating climate change, social networking, cultural and linguistic diversity, virtualization and cloud computing and services, mobile Internet and mobile-based services, community networks, cybersecurity, the gender gap, the protection of privacy and freedom of expression as defined in articles 17 and 19 of the International Covenant on Civil and Political Rights⁵ and the empowerment and protection, especially against cyberexploitation and abuse, of vulnerable groups of society, in particular children and young people;

55. *Reaffirms* that, in the outcome document on the overall review of the implementation of the World Summit action lines, the General Assembly called for the World Summit on the Information Society Forum to be held annually,⁶ and recognizes the value of the Forum in enhancing cooperation, partnership, innovation and the exchange of experiences and good practices by all stakeholders in information and communications technologies for sustainable development;

56. Notes the holding of the World Summit on the Information Society Forum 2020, hosted by the International Telecommunication Union and jointly organized by the Union, the United Nations Educational, Scientific and Cultural Organization, the United Nations Development Programme and the United Nations Conference on Trade and Development from 7 to 10 September 2020, under the theme "Fostering digital transformation and global partnerships: World Summit on the Information Society action lines for achieving the Sustainable Development Goals", also notes the holding of the World Summit on the Information Society Forum 2021 from 17 to 21 May 2021, under the theme "Information and communications technologies for Inclusive, resilient and sustainable societies and economies: World Summit on the Information Society action lines for achieving the Sustainable Development Goals" and further notes the open consultation process, which aims to ensure wide participation in and broad ownership of the Forum;

⁵ See General Assembly resolution 2200 A (XXI), annex.

⁶ See General Assembly resolution 70/125.

57. *Encourages* action line facilitators to use the Geneva Plan of Action⁷ as the framework for identifying practical measures to use information and communications technologies to help to achieve the 2030 Agenda, noting the World Summit on the Information Society-Sustainable Development Goals Matrix, developed by United Nations agencies;

58. *Encourages* World Summit action line facilitators to ensure close alignment with the 2030 Agenda when considering new work to implement the outcomes of the World Summit, according to their existing mandates and resources;

59. *Reiterates* the importance of the call by the General Assembly for all stakeholders to integrate information and communications technologies into approaches to implementing the Sustainable Development Goals and its request to United Nations entities facilitating the World Summit action lines to review their reporting and workplans to support implementation of the 2030 Agenda;

Internet governance

60. *Reaffirms* that the outcomes of the World Summit related to Internet governance, namely, the process towards enhanced cooperation and the convening of the Internet Governance Forum, are to be pursued by the Secretary-General through two distinct processes, and recognizes that the two processes may be complementary;

61. Also reaffirms paragraphs 34 to 37 and 67 to 72 of the Tunis Agenda for the Information Society;⁸

62. *Further reaffirms* paragraphs 55 to 65 of General Assembly resolution 70/125;

Enhanced cooperation

63. *Recognizes* the importance of enhanced cooperation in the future, to enable Governments, on an equal footing, to carry out their roles and responsibilities in international public policy issues pertaining to the Internet, but not in the day-to-day technical and operational matters that do not have an impact on international public policy issues;

64. Notes the work of the Working Group on Enhanced Cooperation, established by the Chair of the Commission on Science and Technology for Development as requested by the General Assembly in its resolution 70/125, to develop recommendations on how to further implement enhanced cooperation as envisioned in the Tunis Agenda, and also notes that the Working Group ensured the full involvement of Governments and other relevant stakeholders, in particular from developing countries, taking into account all their diverse views and expertise;

65. Also notes that the Working Group held five meetings between September 2016 and January 2018, at which it discussed inputs from Member States and other stakeholders, as stipulated by the General Assembly in its resolution 70/125;

66. *Takes note* of the report of the Chair of the Working Group, ⁹ which includes references to the full texts of all proposals and contributions, and expresses its gratitude to the Chair and all participants who submitted inputs and contributed to the work of the Working Group;

67. *Welcomes* the good progress made by the Working Group in many areas and the fact that consensus seemed to emerge on some issues, while significant

⁷ See A/C.2/59/3, annex.

⁸ See A/60/687.

⁹ See E/CN.16/2018/CRP.3.

divergence of views on a number of other issues persisted, and in that regard regrets that the Working Group could not find agreement on recommendations on how to further implement enhanced cooperation as envisioned in the Tunis Agenda;

Internet Governance Forum

68. *Recognizes* the importance of the Internet Governance Forum and its mandate as a forum for multi-stakeholder dialogue on various matters, as reflected in paragraph 72 of the Tunis Agenda, including discussion on public policy issues related to key elements of Internet governance;

69. *Recalls* the decision of the General Assembly, in its resolution 70/125, to extend the mandate of the Internet Governance Forum for a further 10 years, during which time the Forum should continue to show progress on working modalities and the participation of relevant stakeholders from developing countries;

70. *Recognizes* that national and regional Internet Governance Forum initiatives have emerged, taking place in all regions and addressing Internet governance issues of relevance and priority to the organizing country or region;

71. *Recalls* General Assembly resolution 70/125, in which the Assembly called upon the Commission on Science and Technology for Development, within its regular reporting, to give due consideration to fulfilment of the recommendations contained in the report of the Working Group on Improvements to the Internet Governance Forum of the Commission;¹⁰

72. *Notes* the holding of the fifteenth meeting of the Internet Governance Forum, organized online from 2 to 17 November 2020, under the theme "Internet for human resilience and solidarity";

73. *Welcomes* the holding of the sixteenth meeting of the Internet Governance Forum, to be hosted by the Government of Poland in Katowice from 6 to 10 December 2021, and notes that, in the preparatory process for the meeting, recommendations contained in the report of the Working Group on Improvements to the Internet Governance Forum are being taken into consideration;

74. *Also welcomes*, in that context, the continuous progress made with regard to the intersessional work of the Internet Governance Forum in the different modalities of connecting and enabling the next billion online, dynamic coalitions and best practice forums, as well as the contributions being made by both national and regional Internet governance forums;

The road ahead

75. *Calls upon* United Nations entities to continue to actively cooperate in the implementation of and follow-up to the outcomes of the World Summit through the United Nations system, to take the necessary steps and commit to a people-centred, inclusive and development-oriented information society and to catalyse the attainment of the internationally agreed development goals, including those contained in the 2030 Agenda;

76. *Calls upon* all stakeholders to keep the goal of bridging the digital divides, in their different forms, an area of priority concern, to put into effect sound strategies that contribute to the development of e-government and to continue to focus on pro poor information and communications technology policies and applications, including access to broadband at the grass-roots level, including through participative

¹⁰ A/67/65-E/2012/48 and A/67/65/Corr.1-E/2012/48/Corr.1.

models, with a view to narrowing the digital divides among and within countries towards building information and knowledge societies;

77. Urges all stakeholders to prioritize the development of innovative approaches that will stimulate the provision of universal access to affordable broadband infrastructure for developing countries and the use of relevant broadband services in order to ensure the development of an inclusive, development-oriented and people-centred information society, and to minimize the digital divides;

78. *Calls upon* all stakeholders to promote an enabling policy environment for investment and to foster public-private cooperation and partnership for sustainable investment in information and communications technology infrastructure, applications and services, content and digital skills, with the aim of ensuring the meaningful connectivity needed to advance the Sustainable Development Goals;

79. *Calls upon* international and regional organizations to continue to assess and report on a regular basis on the universal accessibility of nations to information and communications technologies, with the aim of creating equitable opportunities for the growth of the information and communications technology sectors of developing countries;

80. Urges all countries to make concrete efforts to fulfil their commitments under the Addis Ababa Action Agenda of the Third International Conference on Financing for Development;¹¹

81. *Reiterates* the importance of information and communications technology indicators in open data format as a monitoring and evaluation tool for measuring the digital divide among countries and within societies and in informing decision makers when formulating policies and strategies for social, cultural and economic development, emphasizes the importance of the standardization and harmonization of reliable and regularly updated indicators, and stresses the value of gender-disaggregated data to contribute to the bridging of the digital gender divide;

82. *Acknowledges* the importance of digital measurement and monitoring tools that support the deployment and measurement of the Sustainable Development Goals;

83. *Reiterates* the importance of sharing best practices at all levels, and, while recognizing excellence in the implementation of the projects and initiatives that further the goals of the World Summit, encourages all stakeholders to nominate their projects for the annual World Summit prizes as an integral part of the World Summit stocktaking process, while taking note of the report on the World Summit success stories;

84. *Calls upon* United Nations organizations and other relevant organizations and forums, in accordance with the outcomes of the World Summit, to periodically review the methodologies for information and communications technology indicators, taking into account different levels of development and national circumstances, and therefore:

(a) Encourages Member States to collect relevant data at the national level on information and communications technologies, to share information about country case studies and to collaborate with other countries in capacity-building exchange programmes;

(b) Encourages United Nations organizations and other relevant organizations and forums to promote assessment of the impact of information and communications technologies on sustainable development;

¹¹ General Assembly resolution 69/313, annex.

(c) Notes with appreciation the work of the Partnership on Measuring Information and Communications Technology for Development and the *Measuring Digital Development* series, which provides information on recent trends and statistics on access to and the affordability of information and communications technologies and the evolution of the information and knowledge societies worldwide, including the Information and Communications Technology Development Index;

(d) Encourages the Partnership on Measuring Information and Communications Technology for Development to continue the follow-up on the relevant decisions of the Statistical Commission on information and communications technology statistics for the purposes of producing high-quality and timely information and communications technology statistics and of leveraging the potential benefits of using big data for official statistics;

85. *Invites* the international community to make voluntary contributions to the special trust fund established by the United Nations Conference on Trade and Development to support the review and assessment work of the Commission on Science and Technology for Development regarding follow-up to the World Summit, while acknowledging with appreciation the financial support provided by the Governments of Finland, Switzerland and the United States of America to this fund;

86. *Recalls* the proposal in General Assembly resolution 70/125 that the Assembly hold a high-level meeting on the overall review of the implementation of the outcomes of the World Summit in 2025;

87. *Takes note with appreciation* of the report of the Secretary-General and the related discussion of the Commission on Science and Technology for Development at its twenty-fourth session;

88. *Emphasizes* the importance of promoting an inclusive information society, with particular attention to bridging the digital and broadband divides, taking into account the considerations of developing countries, gender and culture, as well as youth and other underrepresented groups;

89. *Calls for* continued dialogue and work on the implementation of enhanced cooperation as envisaged in the Tunis Agenda;

90. *Requests* the Secretary-General to submit to the Commission on Science and Technology for Development, on a yearly basis, a report on the implementation of the recommendations contained in the present resolution as well as in the other Council resolutions on the assessment of the quantitative and qualitative progress made in the implementation of and follow-up to the outcomes of the World Summit.

Draft resolution II Science, technology and innovation for development

The Economic and Social Council,

Recognizing the role of the Commission on Science and Technology for Development as the United Nations torch-bearer for science, technology and innovation for development, and as the United Nations focal point for science, technology and innovation for development, in analysing how science, technology and innovation, including information and communications technologies, serve as enablers of the 2030 Agenda for Sustainable Development¹ by acting as a forum for strategic planning, sharing lessons learned and best practices, providing foresight about critical trends in science, technology and innovation in key sectors of the economy, the environment and society, and drawing attention to new and emerging technologies,

Recognizing also the critical role and contribution of science, technology and innovation in building and maintaining national competitiveness in the global economy, addressing global challenges and realizing sustainable development,

Recognizing further the seminal role that information and communications technologies play in promoting and empowering science, technology and innovation as enablers of development,

Recalling the 2005 World Summit Outcome² and General Assembly resolution 70/125 of 16 December 2015, entitled "Outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society", in which it was recognized that science and technology, including information and communications technologies, are vital for the achievement of the internationally agreed development goals, and reaffirming the commitments contained therein,

Recalling also the entry into force, on 4 November 2016, of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change,³

Recalling further that the United Nations Conference on Trade and Development is the secretariat of the Commission,

Recognizing that the General Assembly, in its resolution 74/229 of 19 December 2019 on science, technology and innovation for development, encouraged the United Nations Conference on Trade and Development to continue to undertake science, technology and innovation policy reviews, with a view to assisting developing countries in identifying the measures that are needed to integrate science, technology and innovation their national development strategies and ensuring that such policies and programmes are supportive of national development agendas,

Recalling Economic and Social Council decision 2015/242 of 22 July 2015 providing for the extension, until 2020, of the mandate of the Gender Advisory Board of the Commission, as well as General Assembly resolutions 70/132 of 17 December 2015 and 70/213 and 70/219 of 22 December 2015 addressing, respectively, the barriers to equal access for women and girls to science and technology and the integration of a gender perspective into development policies and programmes,

Recalling also the agreed conclusions of the Commission on the Status of Women on women's economic empowerment in the changing world of work, adopted

¹ General Assembly resolution 70/1.

² General Assembly resolution 60/1.

³ See FCCC/CP/2015/10/Add.1, decision 1/CP.21, annex.

by the Commission at its sixty-first session,⁴ in which it, inter alia, highlighted the need for managing technological and digital change for women's economic empowerment, particularly to strengthen the capacities of developing countries, so as to enable women to leverage science and technology for economic empowerment in the changing world of work,

Recalling the outcome document of the forum entitled "Investment in women and girls in science for inclusive green growth", held in New York on 11 and 12 February 2019 to commemorate the International Day of Women and Girls in Science,⁵

Recalling also the work of the Commission on Science and Technology for Development at the workshop on applying a gender lens to science, technology and innovation, held in Vienna on 18 January 2019,

Taking note of the importance for science, technology and innovation development policies and programmes to address various aspects of the digital divides, particularly the digital gender divide, as addressed by the EQUALS global partnership and the #eSkills4Girls initiative of the Group of 20,

Encouraging initiatives that promote the role of women in science, technology and innovation in developing countries, including the L'Oréal-UNESCO For Women in Science Awards, the Organization for Women in Science for the Developing World Early Career Fellowships for women and the African Union Kwame Nkrumah Awards for Scientific Excellence for women,

Recognizing that capabilities, such as basic education and science, technology, engineering and mathematics, design, management and entrepreneurial skills, are central for effective innovation, but are unevenly distributed across countries, and that the availability, accessibility and affordability of quality education in science, technology and mathematics at the primary, secondary and tertiary levels are essential and should be promoted, prioritized and coordinated, in order to create a social environment conducive to the promotion of science, technology and innovation,

Recalling General Assembly resolution 70/1 of 25 September 2015, entitled "Transforming our world: the 2030 Agenda for Sustainable Development", in which the Assembly adopted a comprehensive, far-reaching and people-centred set of universal and transformative Sustainable Development Goals and targets,

Recognizing the instrumental role of science, technology and innovation and information and communications technologies in the achievement of a number of Sustainable Development Goals, and highlighting the role of science, technology and innovation, along with information and communications technologies, as an enabler of the 2030 Agenda to continue to address global challenges,

Recalling General Assembly resolution 69/313 of 27 July 2015 on the Addis Ababa Action Agenda of the Third International Conference on Financing for Development, and recalling also the establishment of the Technology Facilitation Mechanism,

Highlighting the contribution that the Commission on Science and Technology for Development can make to the Technology Facilitation Mechanism, bearing in mind its mandate to foster multi-stakeholder collaboration and partnerships through the sharing of information, experiences, best practices and policy advice among Member States, civil society, the private sector, the scientific community, United Nations entities and other relevant stakeholders for achieving Sustainable Development Goals supported by science, technology and innovation,

⁴ Official Records of the Economic and Social Council, 2017, Supplement No. 7 (E/2017/27), chap. I, sect. A.

⁵ A/73/798, annex I.

Recalling that in its resolution 72/228 of 20 December 2017, the General Assembly encouraged the Commission to promote, in the spirit of the 2030 Agenda and the Addis Ababa Action Agenda, international cooperation in the field of science and technology for development,

Recalling also that in the same resolution, the General Assembly encouraged the Commission to discuss and explore innovative financing models as a means of attracting new stakeholders, innovators and sources of investment capital for science, technology, engineering and innovation-based solutions, in collaboration with other organizations, where appropriate,

Noting that rapid technological change can contribute to the faster achievement of the 2030 Agenda by improving real incomes, enabling faster and wider deployment of novel solutions to economic, social and environmental obstacles, supporting more inclusive forms of participation in social and economic life, replacing environmentally costly modes of production with more sustainable ones and giving policymakers powerful tools to design and plan development interventions,

Noting also that new technologies create new jobs and development opportunities, thus increasing the demand for digital skills and competencies, and underlining the importance of building digital skills and competencies so that societies can adapt to and benefit from technological changes,

Recalling General Assembly resolutions 72/242 of 22 December 2017 and 73/17 of 26 November 2018, in which the Assembly requested the Technology Facilitation Mechanism and the Commission, through the Economic and Social Council, to give due consideration to the impact of key rapid technological changes on the achievement of the Sustainable Development Goals within their respective mandates and existing resources,

Welcoming the work of the Commission on its two current priority themes, "Using science, technology and innovation to close the gap on Sustainable Development Goal 3 on good health and well-being" and "Harnessing blockchain for sustainable development: prospects and challenges",

Recalling the framework for national science, technology and innovation policy reviews that has been developed by the United Nations Conference on Trade and Development to assist countries in better aligning science, technology and innovation policies with the 2030 Agenda and the Sustainable Development Goals,⁶

Recognizing the need for innovation approaches that respond to the needs of poor, grass-roots and marginalized communities in developing and developed countries, while protecting their personal data from misuse and respecting the ownership of personal data, that involve them in innovation processes and that embed capacity-building in the areas of science, technology and innovation as a crucial component of national development plans, inter alia, through collaboration between the relevant ministries and regulatory bodies,

Recognizing also the importance of data protection and privacy in the context of science and technology for development,

Recognizing further that technology foresight and assessment exercises, including gender-sensitive and environmentally sensitive technologies, could help policymakers and stakeholders in the implementation of the 2030 Agenda through the identification of challenges and opportunities that can be addressed strategically, and that technology trends should be analysed, keeping in view the wider socioeconomic context,

⁶ United Nations Conference on Trade and Development, document UNCTAD/DTL/STICT/2019/4.

Recognizing that well-developed innovation and digital ecosystems⁷ play a fundamental role in the effective digital development and facilitation of science, technology and innovation,

Recognizing also the increased regional integration efforts across the world and the associated regional dimension of science, technology and innovation issues,

Recalling the outcome document of the United Nations Conference on Sustainable Development, held in Rio de Janeiro, Brazil, from 20 to 22 June 2012, entitled "The future we want",⁸ including the principles referred to therein,

Recognizing the need to mobilize and scale up financing for innovation, especially in developing countries, in support of the Sustainable Development Goals,

Recognizing also that people around the world are affected by shocks, from economic crises to health emergencies, from social conflicts and war to disasters caused by natural hazards, and that these shocks have a severe impact on the progress towards achieving sustainable development,

Recalling that in its resolution 74/306 of 11 September 2020, the General Assembly called upon Member States and all relevant stakeholders to promote research and capacity-building initiatives, as well as to enhance cooperation on and access to science, innovation, technologies, technical assistance and knowledge-sharing, including through improved coordination among existing mechanisms, especially with developing countries, in a collaborative, coordinated and transparent manner and on mutually agreed terms in response to the coronavirus disease (COVID-19) pandemic and towards advancing the Sustainable Development Goals,

Recognizing the contribution of science, technology and innovation in building resilient communities by empowering and giving a voice to people, including those most vulnerable, through, among others, extending access to education and health, monitoring environmental and social risks, connecting people, enabling early warning systems, driving economic diversification, and economic development, while considering negative effects on the environment,

Noting the significant achievements and continuing potential contribution of science, technology and innovation and information and communications technologies to human welfare, economic prosperity and employment,

Noting also that science, technology and innovation policies must be aligned to address the three dimensions of sustainable development, specifically, economic development, social progress and environmental protection,

Taking into consideration that traditional knowledge can be a basis for technological development and the sustainable management and use of natural resources,

Recognizing that citizen science can enrich research, vastly expand data collection, encourage citizens to take an interest in and help to monitor the natural world around them, and encourage popular interest in science and scientific observation,

Encouraging the design and implementation of public policies that address the impact of rapid technological change on the achievement of the Sustainable Development Goals,

Noting that the success of using technology and innovation policies at the national level is facilitated by, among other things, creating policy environments that enable education and research institutions, businesses and industry to innovate, invest

⁷ The digital ecosystem involves components such as technological infrastructure, data

infrastructure, financial infrastructure, institutional infrastructure and human infrastructure.

⁸ General Assembly resolution 66/288, annex.

in and transform science, technology and innovation into employment and economic growth, incorporating all interrelated elements, including knowledge transfer,

Noting also various ongoing and future initiatives related to science, technology and innovation to explore important issues associated with the Sustainable Development Goals,

Recommends the following for consideration by national Governments, the Commission on Science and Technology for Development and the United Nations Conference on Trade and Development:

(a) Governments, individually and collectively, are encouraged to take into account the findings of the Commission and to consider taking the following actions:

(i) To closely link science, technology, innovation and strategies of sustainable development by prominently featuring capacity-building in information and communications technologies and science, technology and innovation in national development planning;

(ii) To promote local innovation capabilities for inclusive and sustainable economic development by bringing together local scientific, vocational and engineering knowledge, mobilizing resources from multiple channels, improving core information and communications technology and supporting infrastructure development, including smart infrastructure, through collaboration with and among national programmes;

(iii) To encourage and support the science, technology and innovation efforts leading to the development of infrastructure and policies that support the global expansion of information and communications technology infrastructure, products and services, including broadband Internet access, to all people, particularly women, girls and youth, and persons with special needs and from remote and rural communities, catalysing multi-stakeholder efforts to bring 1.5 billion new Internet users online by 2020 and endeavouring to improve the affordability of such products and services;

(iv) To undertake systemic research, including gender-sensitive aspects, for foresight exercises, on new trends in science, technology and innovation, and information and communications technologies and their impact on development, particularly in the context of the 2030 Agenda for Sustainable Development;

(v) To work, with input from a variety of stakeholders, including appropriate United Nations agencies and all relevant entities and forums, such as the Commission and the multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals, to formulate, adopt and implement science, technology and innovation policies aimed at contributing to the implementation of the Goals;

(vi) To continue giving due consideration to the impact of key rapid technological changes on the achievement of the Sustainable Development Goals within their respective mandates and existent resources, in accordance with General Assembly resolutions 72/242 and 73/17;

(vii) To use strategic foresight exercises to identify potential gaps in education for the medium and long terms and address such gaps with a policy mix, including the promotion of gender-responsive science, technology, engineering and mathematics education, vocational training and digital and data literacy;

(viii) To use strategic foresight as a process to encourage structured debate among all stakeholders, including representatives of government, science, industry and civil society and the private sector, particularly small and mediumsized enterprises, towards creating a shared understanding of long-term issues, such as the changing nature of work and building consensus on future policies, and to help to meet current and emerging demands for competence and adaptation to change;

(ix) To incorporate the provision of digital competencies, including, but not limited to, entrepreneurship and complementary soft skills, in formal education curricula and lifelong learning initiatives, while taking into consideration best practices, local contexts and needs, and ensuring that education is technologyneutral;

(x) To address the implications of fundamental changes in the digital economy for labour markets;

(xi) To undertake strategic foresight initiatives on global and regional challenges at regular intervals and cooperate towards the establishment of a mapping system to review and share technology foresight outcomes, including pilot projects, with other Member States, making use of existing regional mechanisms, and in collaboration with relevant stakeholders;

(xii) To conduct technology assessment and foresight exercises as a process to encourage structured debate among all stakeholders towards creating a shared understanding of the implications of rapid technological change;

(xiii) To encourage the review of progress on integrating science, technology and innovation into the achievement of the Sustainable Development Goals;

(xiv) To conduct assessments, including of gender-sensitive aspects, of national innovation systems, including digital ecosystems, drawing from foresight exercises, at regular intervals, to identify weaknesses in the systems and make effective policy interventions to strengthen their weaker components, and share outcomes with other Member States, and, on a voluntary basis, to provide financial support and expertise towards the implementation of the framework for national science, technology and innovation policy reviews in interested developing countries;

(xv) To recognize the need to promote the functional dynamics of innovation systems and other relevant methodologies based on diversified policy instruments to support science, technology and innovation development priorities, in order to strengthen the coherence of such systems for sustainable development;

(xvi) To encourage digital natives to play a key role in a community-based approach, including gender-responsive approaches, to science, technology and innovation capacity-building, and facilitate the use of information and communications technologies in the context of the 2030 Agenda;

(xvii) To put in place policies that support the development of digital ecosystems, bearing in mind the potential of emerging digital technologies to leapfrog existing technologies for development, that are inclusive and take into account the socioeconomic and political context of countries and attract and support private investment and innovation, particularly encouraging the development of local content and entrepreneurship and making available disaggregated data sources for science, technology and innovation;

(xviii) To implement initiatives and programmes that encourage and facilitate sustainable investment and participation in the digital economy;

(xix) To collaborate with all relevant stakeholders, promote the application of information and communications technologies in all sectors, improve environmental sustainability, encourage the creation of suitable facilities to recycle and dispose of e-waste and promote sustainable consumption and production patterns;

(xx) To promote science, technology, engineering and mathematics education and statistical literacy, particularly among female students, while also recognizing the importance of complementary soft skills, such as entrepreneurship, by encouraging mentoring and supporting other efforts to attract and retain women and girls in those fields, as well as applying a gender lens when developing and implementing policies that harness science, technology and innovation;

(xxi) To support the policies and activities of developing countries in the fields of science and technology through North-South as well as South-South cooperation, as complementary to but not substituting for each other, by encouraging financial and technical assistance, capacity-building, technology transfer on mutually agreed terms and conditions and technical training programmes or courses;

(xxii)To encourage countries to progressively increase the rate of generation of high-quality skilled human resources at all levels by providing an environment for building a critical mass of human resource capacity, harnessing and effectively participating in the application of science, technology and innovation for value addition activities, solving problems and enhancing human welfare;

(xxiii) To increase support for research and development activities on rapid technological change and ensure the coherence of science, technology and innovation policies and strategies on rapid technological change with the broader national development agenda;

(xxiv) To consider engaging in an inclusive global discourse about all aspects of rapid technological change and its impact on sustainable development;

(xxv) To design and implement science, technology and innovation policies and other relevant policies to make them responsive to building resilient communities;

(xxvi) To support policies that increase financial inclusion and deepen the sources of financing and direct investments towards innovations that address the Sustainable Development Goals;

(xxvii) To encourage the inclusiveness of innovation, especially with regard to local communities, women and youth, to ensure that the scaling and diffusion of new technologies are inclusive and do not create further divides;

(xxviii) To support the Technology Bank for the Least Developed Countries as a mechanism to improve the scientific research and innovation base of least developed countries, promote networking among researchers and research institutions, help least developed countries to gain access to and utilize critical technologies, draw together bilateral initiatives and support by multilateral institutions and the private sector and implement projects that contribute to the use of science, technology and innovation for economic development in least developed countries;

(b) The Commission is encouraged:

(i) To continue its role as a torch-bearer for science, technology and innovation and to provide high-level advice to the Economic and Social Council and the General Assembly on relevant science, technology, engineering and innovation issues, and in this regard to contribute to informing the high-level thematic debate on the topic of the impact of rapid technological change on the achievement of the Sustainable Development Goals and targets, to be convened by the President of the General Assembly at its seventy-fourth session, and to the discussion of progress made in the implementation of Assembly resolution 73/17 that will be held at its seventy-fifth session;

(ii) To help to articulate the important role of information and communications technologies and science, technology and innovation as enablers in the 2030

Agenda by acting as a forum for strategic planning, providing foresight about critical trends in science, technology and innovation in key sectors of the economy and drawing attention to new and emerging technologies;

(iii) To consider how its work aligns with, feeds into and complements other international forums on science, technology and innovation and efforts supporting the implementation of the 2030 Agenda;

(iv) To raise awareness and facilitate networking and partnerships among various technology foresight organizations and networks, in collaboration with other stakeholders;

(v) To promote, in the spirit of the 2030 Agenda and the Addis Ababa Action Agenda of the Third International Conference on Financing for Development,⁹ international cooperation in the field of science and technology for development, including capacity-building and technology transfer on mutually agreed terms and conditions;

(vi) To raise awareness among policymakers about the process of innovation and to identify particular opportunities for developing countries to benefit from such innovation, with special attention being placed on new trends in innovation that can offer novel possibilities for developing countries;

(vii) To support multi-stakeholder collaboration in policy learning capacitybuilding and technology development;

(viii) To support efforts to build capacity to develop, use and deploy new and existing technologies in developing countries, particularly the least developed countries, small island developing States and landlocked developing countries;

(ix) To proactively strengthen and revitalize global science, technology and innovation partnerships for sustainable development, which would entail the engagement of the Commission in (a) translating technology foresight into elaborating the scope of specific international projects for targeted research, technology development and deployment and initiatives for building human resource capacity for science, technology and innovation; and (b) exploring innovative financing models and other resources contributing to enhancing the capacities of developing countries in collaborative projects and initiatives in science, technology and innovation;

(x) To explore ways and means of conducting international technology assessments and foresight exercises on existing, new and emerging technologies and their implications for sustainable development and building resilient communities, including discussions about models of governance for new areas of scientific and technological development;

(xi) To support countries in their efforts to identify future trends in terms of capacity-building needs, including through foresight exercises;

(xii) To discuss and explore innovative financing models, such as impact investment, as a means to attract new stakeholders, innovators and sources of investment capital for science, technology, engineering and innovation-based solutions, in collaboration with other organizations, where appropriate;

(xiii) To promote capacity-building and cooperation in research and development, in collaboration with relevant institutions, including appropriate United Nations agencies, working to facilitate the strengthening of innovation systems that support innovators, particularly in developing countries, to boost their efforts to contribute to the achievement of sustainable development;

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⁹ General Assembly resolution 69/313, annex.

(xiv) To provide a forum for sharing not only success stories and best practices, but also failures and key challenges and learning from the results of foresight exercises, successful local innovation models, case studies and experience on the use of science, technology and engineering for innovation, including the application of new emerging technologies, in symbiotic relationship with information and communications technologies, for inclusive and sustainable development, and to share findings with all relevant United Nations entities, including through the Technology Facilitation Mechanism and its multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals;

(xv) To continue to play an active role in creating awareness of the potential contribution of science, technology and innovation to the 2030 Agenda through substantive inputs, as appropriate, to relevant processes and bodies of the United Nations, and to share findings and good practices on science, technology and innovation among Member States and beyond;

(xvi) To highlight the importance of the work of the Commission related to the implementation of and follow-up to the areas of information and communications technologies and science, technology and innovation related to the Sustainable Development Goals, with the Chair of the Commission to report at appropriate reviews and meetings of the Economic and Social Council, the high-level political forum on sustainable development and other relevant forums;

(xvii) To strengthen and deepen collaboration between the Commission on Science and Technology for Development and the Commission on the Status of Women, including sharing good practices and lessons learned in integrating a gender perspective into science, technology and innovation policymaking and implementation, and, in this context, to follow up on the work done by the Commission on Science and Technology for Development at the workshop on applying a gender lens to science, technology and innovation, held in Vienna on 18 January 2019;

(xviii) To play an active role in creating awareness of the Technology Bank for the Least Developed Countries;

(c) The United Nations Conference on Trade and Development is encouraged:

(i) To seek funding proactively for the expansion of science, technology and innovation policy reviews, with an emphasis on the critical role of information and communications technologies in empowering science, technology and innovation and engineering capacity-building and utilization, and the implementation of the recommendations on those reviews, as appropriate, in close cooperation with United Nations agencies and international organizations;

(ii) To look into the feasibility of including elements of strategic foresight and digital ecosystem assessment in policy reviews of science, technology and innovation and information and communications technologies, possibly by including a chapter dedicated to these themes;

(iii) To implement as widely as possible its framework for national science, technology and innovation policy reviews in order to integrate the Sustainable Development Goals, including a specific focus on bottom-of-the-pyramid approaches to innovation, and on social inclusion;

(iv) To plan for periodic updates on progress made in countries for which science, technology and innovation policy reviews have been performed and to invite those countries to report to the Commission on Science and Technology for Development on progress made, lessons learned and challenges encountered in implementing recommendations;

(v) To request the Gender Advisory Board of the Commission to provide inputs to the policy deliberations and documentation of the Commission, to report on progress at the annual sessions of the Commission and to better integrate gender perspectives into science, technology and innovation policy reviews;

(vi) To also request the Gender Advisory Board of the Commission to develop proposals for an updated work programme and report thereon at the twenty-fifth annual session of the Commission;

(vii) To encourage Governments to use the Technology Bank for the Least Developed Countries as a mechanism to support science, technology and innovation in least developed countries and to assist least developed countries to further develop their own technologies.

B. Draft decision for adoption by the Council

2. The Commission also recommends to the Economic and Social Council the adoption of the following draft decisions:

Draft decision I Extension of the mandate of the Gender Advisory Board of the Commission on Science and Technology for Development

The Economic and Social Council decides to extend the mandate of the Gender Advisory Board of the Commission on Science and Technology for Development for a further five years, beginning on 1 January 2021, in order to allow it to complete its programme of work within the extrabudgetary resources allocated for this purpose.

Draft decision II

Participation of non-governmental organizations and civil society entities in the work of the Commission on Science and Technology for Development

The Economic and Social Council, recalling its resolution 2006/46 of 28 July 2006 and its decisions 2008/217 of 18 July 2008, 2010/226 of 19 July 2010, 2011/236 of 26 July 2011 and 2015/243 of 22 July 2015, and recognizing the need to maximize the meaningful participation of and contributions by civil society in the work of the Commission on Science and Technology for Development:

(a) Acknowledges that the Commission on Science and Technology for Development had benefited from the participation of non-governmental organizations and civil society entities in its work;

(b) Decides, on an exceptional basis and without prejudice to the established rules of procedure of the functional commissions of the Economic and Social Council, to extend to non-governmental organizations and civil society entities that are not in consultative status with the Council but that received accreditation to the World Summit on the Information Society an invitation to participate in the work of the Commission until 2025;

(c) Urges that voluntary contributions be made in order to provide the maximum possible assistance for the participation of non-governmental organizations and civil society entities from developing countries and to ensure the balanced representation of such organizations and entities, including in the panels of the Commission;

(d) Invites the Committee on Non-Governmental Organizations to consider as expeditiously as possible the applications of such organizations and entities, in accordance with the rules of procedure of the Council;

(e) Decides that, while using the multi-stakeholder approach effectively, the intergovernmental nature of the Commission should be preserved;

(f) Also decides that every effort should be made by the Commission, in collaboration with relevant United Nations bodies and other interested parties, to mobilize and ensure the meaningful and effective participation, including by providing assistance on a voluntary basis, of all stakeholders from developing countries, including non-governmental organizations, small and medium-sized enterprises, industry associations and development actors.

Draft decision III Participation of academic and technical entities in the work of the Commission on Science and Technology for Development

The Economic and Social Council, recalling its resolution 2006/46 of 28 July 2006 and its decisions 2008/218 of 18 July 2008, 2010/227 of 19 July 2010, 2011/237 of 26 July 2011 and 2015/244 of 22 July 2015, recognizing the need to maximize the meaningful participation of and contributions by academic and technical entities in the work of the Commission on Science and Technology for Development, and having reviewed the current modalities for the participation of such entities:

(a) Acknowledges that the Commission on Science and Technology for Development had benefited from the participation of academic and technical entities in its work;

(b) Decides to extend the current arrangements for the participation of academic and technical entities in the work of the Commission until 2025;

(c) Also decides that, while using the multi-stakeholder approach effectively, the intergovernmental nature of the Commission should be preserved;

(d) Further decides that every effort should be made by the Commission, in collaboration with relevant United Nations bodies and other interested parties, to mobilize and ensure the meaningful and effective participation, including by providing assistance on a voluntary basis, of all stakeholders from developing countries, including non-governmental organizations, small and medium-sized enterprises, industry associations and development actors.

Draft decision IV Participation of business sector entities, including the private sector, in the work of the Commission on Science and Technology for Development

The Economic and Social Council, recalling its resolution 2006/46 of 28 July 2006 and its decisions 2007/216 of 26 April 2007, 2010/228 of 19 July 2010, 2011/238 of 26 July 2011 and 2015/245 of 22 July 2015, recognizing the need to maximize the meaningful participation of and contributions by business sector entities, including the private sector, in the work of the Commission on Science and Technology for Development, and having reviewed the current modalities for the participation of such entities:

(a) Acknowledges that the Commission on Science and Technology for Development had benefited from the participation of business sector entities, including the private sector, in its work;

(b) Decides to extend the current arrangements for the participation of business sector entities, including the private sector, in the work of the Commission until 2025;

(c) Also decides that, while using the multi-stakeholder approach effectively, the intergovernmental nature of the Commission should be preserved;

(d) Further decides that every effort should be made by the Commission, in collaboration with relevant United Nations bodies and other interested parties, to mobilize and ensure the meaningful and effective participation, including by providing assistance on a voluntary basis, of all stakeholders from developing countries, including non-governmental organizations, small and medium-sized enterprises, industry associations and development actors.

Draft decision V Report of the Commission on Science and Technology for Development on its twenty-fourth session and provisional agenda and documentation for the twenty-fifth session of the Commission

The Economic and Social Council:

(a) Takes note of the report of the Commission on Science and Technology for Development on its twenty-fourth session;¹

(b) Approves the provisional agenda and documentation for the twenty-fifth session of the Commission as set out below:

- 1. Adoption of the agenda and other organizational matters.
- 2. 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.

Documentation

Report of the Secretary-General

- 3. Science and technology for development: priority themes:
 - (a) Industry 4.0 for inclusive development;

Documentation

Report of the Secretary-General

(b) Science, technology and innovation for sustainable urban development in a post-coronavirus disease (COVID-19) world.

Documentation

Report of the Secretary-General

4. Presentation of reports on science, technology and innovation policy reviews.

¹ Official Records of the Economic and Social Council, 2021, Supplement No. 11 (E/2021/31).

- 5. Election of the Chair and other officers for the twenty-sixth session of the Commission.
- 6. Provisional agenda and documentation for the twenty-sixth session of the Commission.
- 7. Adoption of the report of the Commission on its twenty-fifth session.

Chapter II

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

Action taken by the Commission

Assessment of the progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society

3. The draft resolution entitled "Assessment of the progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society", submitted by the Chair on the basis of informal consultations, was circulated to members of the Commission in an informal paper in English only for adoption under silence procedure, in accordance with Council decision 2021/213 entitled "Procedure for taking decisions of the sessional bodies and subsidiary organs of the Economic and Social Council during the coronavirus disease (COVID-19) pandemic at the 2021 session of the Council". The Commission was informed that the draft resolution contained no programme budget implications.

4. At the virtual meeting held on 21 May 2021, a statement was made by the Chair, announcing that the Commission had adopted the draft resolution under a silence procedure that ended on Friday, 7 May 2021, and had recommended it to the Council for adoption (see chap. I, sect. A, draft resolution I).

Chapter III Science and technology for development

Priority themes:

- (a) Using science, technology and innovation to close the gap on Sustainable Development Goal 3 on good health and well-being;
- (b) Harnessing blockchain for sustainable development: prospects and challenges

Action taken by the Commission

Science, technology and innovation for development

5. The draft resolution entitled "Science, technology and innovation for development", submitted by the Chair on the basis of informal consultations, was circulated to members of the Commission in an informal paper in English only for adoption under silence procedure, in accordance with Council decision 2021/213. The Commission was informed that the draft resolution contained no programme budget implications.

6. At the virtual meeting held on 21 May 2021, a statement was made by the Chair, in which he announced that the Commission had adopted the draft resolution under a silence procedure that ended on Friday, 7 May 2021, and had recommended it to the Council for adoption (see chap. I, sect. A, draft resolution II).

Chapter IV

Presentation of reports on science, technology and innovation policy reviews

7. The Commission considered agenda item 4 at its 5th virtual meeting, on 21 May 2021. The Commission did not take any action on the reports.

8. At its twenty-fifth session, the Commission will hear presentations on the science, technology and innovation policy reviews implemented by the United Nations Conference on Trade and Development (UNCTAD) in 2021.

Chapter V

Election of the Chair and other officers for the twenty-fifth session of the Commission

9. Nominations for the Chair and other officers for the twenty-fifth session of the Commission were considered under silence procedure, in accordance with Council decision 2021/213.

10. The Commission elected, under a silence procedure that ended on 21 May 2021, the following officers for its twenty-fifth session:

Vice-Chairs:

Muhammadou M. O. Kah (Gambia) Peter Major (Hungary) Ana Cristina Amoroso das Neves (Portugal)

11. The Commission postponed the election of the Chair from the Asia-Pacific States and the Vice-Chair from the Latin American and Caribbean States.

12. The Commission also postponed the appointment of the Rapporteur, from among the Vice-Chairs, until its twenty-fifth session.

Chapter VI

Provisional agenda and documentation for the twenty-fifth session of the Commission

13. An informal paper containing the draft provisional agenda and documentation for the twenty-fifth session was circulated to members of the Commission. The approval process was carried out under a silence procedure that ended on 7 May 2021 and was in accordance with Council decision 2021/213.

14. The Commission approved the provisional agenda and documentation for its twenty-fifth session and recommended it to the Council for adoption (see chap. I, sect. B).

Chapter VII Adoption of the report of the Commission on its twenty-fourth session

15. The Commission recommended to the Council that it take note of the report of the Commission on its twenty-fourth session, through a draft decision adopted under a silence procedure that ended on 7 May 2021 and was in accordance with Council decision 2020/213 (see chap. I, sect. B).

Chapter VIII Organization of the session

A. Work of the session

16. Pursuant to Council decision 2021/213, and taking into account the prevailing conditions relating to COVID-19 on the working arrangements for the 2021 session of the Council and the available technological and procedural solutions in the interim period, the Commission held its twenty-fourth session in a virtual format from 17 to 21 May 2021. The Commission held five virtual meetings (see annex II).

B. Election of officers

17. The Commission elected the following member to the Bureau of its twenty-fourth session under a silence procedure that ended on 4 May 2021 and was in accordance with Council decision 2021/213:

Vice-Chair:

Alfredo Suescum (Panama)

C. Agenda and organization of work

18. Based on guidance provided by the Council, the twenty-fourth session of the Commission was held in the form of a virtual meeting from 17 to 21 May 2021. Therefore, there was no formal adoption of the agenda for the session.

D. Documentation

19. The list of documents before the Commission at its twenty-fourth session is contained in annex I to the present report.

Annex I

List of documents before the Commission at its twenty-fourth session

Document symbol	Agenda item	Title or description
E/CN.16/2021/1	1	Provisional annotated agenda and organization of work
A/76/64-E/2021/11	2	Report of the Secretary-General on the 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
E/CN.16/2021/2	3 (a)	Report of the Secretary-General on using science, technology and innovation to close the gap on Sustainable Development Goal 3, good health and well-being
E/CN.16/2021/3	3 (b)	Report of the Secretary-General on harnessing blockchain for sustainable development: prospects and challenges
E/CN.16/2021/CRP.1 ^a	3	Report on the intersessional panel meeting (18–22 January 2021)
E/CN.16/2021/INF.1		List of participants

 ${}^a \ {\rm Available \ at \ https://unctad.org/system/files/official-document/ecn162021crp1_en.pdf.}$

Annex II

Virtual meetings held during the twenty-fourth session

1. The 1st meeting of the session, on 17 May 2021, was opened by the Chair of the Commission, Peter Major (Hungary).

2. At the same meeting, statements were made by the following: acting Secretary-General, United Nations Conference on Trade and Development (UNCTAD), Isabelle Durant; President of the Economic and Social Council and Permanent Representative of Pakistan to the United Nations in New York, Munir Akram; Deputy Secretary-General of the United Nations and Chair of the United Nations Sustainable Development Group, Amina J. Mohammed; and Secretary-General of the International Telecommunication Union, Houlin Zhao.

3. The Commission held a high-level round table on the role of science, technology and innovation in a sustainable and resilient recovery from the coronavirus disease (COVID-19) pandemic, which was moderated by the Vice-Chair of the Commission (Panama). The Director of the Division on Technology and Logistics, UNCTAD, gave a presentation on innovation with equity, focusing on the UNCTAD report entitled *Technology and Innovation Report 2021*. Remarks were made by the Co-Chair of the sixth multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals and Permanent Representative of Latvia to the United Nations in New York, Andrejs Pildegovičs.

4. The round table discussion was followed by a ministerial discussion, with the participation of the following: Vice-President for Science and Technology, Islamic Republic of Iran, Sorena Sattari; Minister of Economy, Afghanistan, Karima Hamed Faryabi; Minister of Tertiary Education, Research, Science and Technology, Botswana, Douglas Letsholathebe; Minister of Science and Technology, Philippines, Fortunato T. de la Peña; and Minister of Higher Education, Science, Research and Innovation, Thailand, Anek Laothamatas.

5. Statements were made by the representatives of Japan, Finland and the Philippines.

6. The list of participants for the session is contained in document E/CN.16/2021/INF.1.

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 (agenda item 2)

7. At its 4th virtual meeting, on 20 May, the Commission considered agenda item 2. It had before it the report of the Secretary-General on the 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 (A/76/64-E/2021/11).

8. At the same meeting, the Commission held a high-level round table, which was moderated by the Chair.

9. The Director of the Division on Technology and Logistics, UNCTAD, introduced the report of the Secretary-General.

10. Keynote remarks were made by the President of the General Assembly, Volkan Bozkir. Presentations were made by the following: Deputy Secretary-General, International Telecommunication Union, Malcolm Johnson; Vice-President and Chief Internet Evangelist, Google, Vinton G. Cerf; Head of secretariat, Multi-stakeholder Advisory Group, Internet Governance Forum, Chengetai Masango; and Senior Vice-President for a Strong Internet, Internet Society, Joseph Hall. 11. The Commission held a general discussion and heard statements by the following: Minister of State for Media and Data, United Kingdom of Great Britain and Northern Ireland, John Whittingdale; Minister of Higher Education, Science and Technology, Dominican Republic, Franklin García Fermín; Minister of Communications and Information Technology, Egypt, Amr Talaat; Deputy State Secretary for the European Union and International Affairs, Hungary, Mihály Bárány; Assistant Minister of Communications and Informations and Information Technology, Saudi Arabia, Munir M. Eldesouki. It also heard statements by the representatives of Paraguay, the Russian Federation and Cuba and the observer for Qatar.

12. A statement was also made by a representative of the Fund for the Development of the Indigenous Peoples of Latin America and the Caribbean.

Science and technology for development (agenda item 3)

Priority themes:

(a) Using science, technology and innovation to close the gap on Sustainable Development Goal 3 on good health and well-being;

(b) Harnessing blockchain for sustainable development: prospects and challenges

13. At its 2nd virtual meeting, on 18 May, the Commission considered agenda item 3 (a). It had before it the report of the Secretary-General on using science, technology and innovation to close the gap on Sustainable Development Goal 3, good health and well-being (E/CN.16/2021/2).

14. At the same meeting, the Commission held a high-level round table on the priority theme "Using science, technology and innovation to close the gap on Sustainable Development Goal 3 on good health and well-being". The discussion was moderated by the Vice-Chair (China).

15. The Director of the Division on Technology and Logistics, UNCTAD, introduced the report of the Secretary-General.

16. Presentations were made by the following: Director, Special Programme for Research and Training in Tropical Diseases, World Health Organization, John Reeder; Professor in Clinical Epidemiology, Columbia University, Associate Scientific Director, Centre for the AIDS Programme of Research in South Africa, and Co-Chair, United Nations 10-Member Group to support the Technology Facilitation Mechanism, Quarraisha Abdool Karim; Professor, Federal University of Rio de Janeiro, Brazil, José E. Cassiolato; and Physician, Board Chair, Women in Global Health, and United Nations Young Leader for the Sustainable Development Goals, Dr. Joannie Marlene Bewa.

17. The Commission held a general discussion and heard statements by the following: Minister of Information and Communication Infrastructure, Gambia, Ebrima Sillah; Minister of Science and Technology, Philippines, Fortunato T. de la Peña; Federal Minister for Science and Technology, Pakistan, Shibli Faraz; Ambassador and Permanent Representative of Nepal to the United Nations Office and other international organizations in Geneva, Mani Prasad Bhattarai. It also heard statements by the representatives of the Russian Federation, Cuba, Paraguay and Brazil, the observer for India and the representative of the International Atomic Energy Agency.

18. At its 3rd virtual meeting, on 19 May, the Commission considered agenda item 3 (b). It had before it the report of the Secretary-General on harnessing blockchain for sustainable development: prospects and challenges (E/CN.16/2021/3).

19. At the same meeting, the Commission held a high-level round table on the priority theme "Harnessing blockchain for sustainable development: prospects and challenges". The discussion was moderated by the Vice-Chair (Austria).

20. The Head of the Science, Technology and Information and Communications Technology Branch, Division on Technology and Logistics, UNCTAD, introduced the report of the Secretary-General.

21. Presentations were made by the following: Executive Chair, Blockchain Research Institute, Canada, Don Tapscott; Director for the Digital Transformation, Directorate-General for Communications Networks, Content and Technology, European Commission, Gerard de Graaf; Deputy Director, Cloud and Big Data Institute, China Academy of Information and Communications Technology, China, Kai Wei; Chief Executive Officer, Global Blockchain Business Council, Switzerland, Sandra Ro; Director, Office of Strategic Planning, Coordination and Quality Monitoring, United Nations Industrial Development Organization, Ayumi Fujino; and Founder, Blockchain Nigeria User Group, and Adviser, Kinesis Money, Chuta Chimezie.

22. The Commission held a general discussion and heard statements by the following: Minister of Tertiary Education, Research, Science and Technology, Botswana, Douglas Letsholathebe; Cabinet Secretary, Ministry of Information and Communications Technology, Innovation and Youth Affairs, Kenya, Joseph Mucheru; Deputy Minister for Industry and Technology, Turkey, Mehmet Fatih Kacir; and the representatives of the United States of America, Latvia, the United Kingdom of Great Britain and Northern Ireland and South Africa.

Presentation of reports on science, technology and innovation policy reviews (agenda item 4)

23. At its 5th virtual meeting, on 21 May, the Commission considered agenda item 4.

24. The Commission held a high-level panel on applying a gender lens to science, technology and innovation policies to deliver Sustainable Development Goal 5. The discussion was moderated by the Chair.

25. The Head of the Science, Technology and Information and Communications Technology Branch, Division on Technology and Logistics, UNCTAD, gave a presentation on the secretariat's work with regard to applying the gender lens to science, technology and innovation policies. After the presentation, keynote addresses were delivered by the following: Minister of Science, Technology and Innovation, Colombia, Mabel Torres; and Minister for Women's Affairs, Dominican Republic, Mayra Jiménez.

26. Presentations were made by the following: Secretary-General, Gender Balance Council, United Arab Emirates, Shamsa Saleh; and Ambassador for Innovation, Finland, Jarmo Sareva. In the general discussion, a statement was also made by a representative of the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women).

27. At the same meeting, the Commission considered the reports on science, technology and innovation policy reviews of the Dominican Republic, Uganda and Zambia. The Head of the Science, Technology and Information and Communications Technology Branch, Division on Technology and Logistics, UNCTAD, presented the outcome of these reviews.

28. Presentations were made by the following: Vice Minister of Science and Technology, Dominican Republic, Genaro Rodríguez Martínez; Permanent Secretary, Ministry of Science, Technology and Innovation, Uganda, David Obong; and Permanent Secretary, Ministry of Higher Education, Zambia, Kayula Siame.

