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Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals

Note by the Secretariat

The President of the Economic and Social Council has the honour to transmit to the High-level Political Forum on Sustainable Development the Co-Chairs' summary of the Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals, held in person on 6 and 7 May 2026, and additional side events held on 5 May. The Co-Chairs of the Forum, H.E. Mr. Chola Milambo, Permanent Representative of the Republic of Zambia to the United Nations, and H.E. Mr. Gregor W. Koessler, Permanent Representative of Austria to the United Nations, were appointed by the President of the Council. This summary is circulated pursuant to paragraph 123 of the Addis Ababa Action Agenda (GA resolution 69/313) and paragraph 70 of the 2030 Agenda for Sustainable Development (resolution 70/1).

I. Introduction

1. This summary represents a reflection of the broad discussions that took place during the 2026 session of the Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum).[1] It brings together views articulated through both formal and informal statements provided by representatives of Governments, the United Nations system and diverse stakeholders. The views presented do not necessarily represent opinions held or endorsed by the Co-Chairs of the STI Forum or the Governments that they represent.

2. Pursuant to General Assembly resolution 70/1, on 6 and 7 May 2026, the President of the Economic and Social Council, H.E. Mr. Lok Bahadur Thapa, convened the 11th annual STI Forum – one component of the Technology Facilitation Mechanism (TFM). The Forum is a platform provided to enhance cooperation in science, technology and innovation (STI) around thematic areas pertaining to the implementation of the Sustainable Development Goals (SDGs). It facilitates knowledge sharing, networking, and the establishment of multi-stakeholder partnerships. It also identifies technology needs and gaps, promotes scientific cooperation, innovation, and capacity-building, and examines the impact of rapid technological change on sustainable development.

3. H.E. Mr. Chola Milambo, Permanent Representative of the Republic of Zambia to the United Nations, and H.E. Mr. Gregor W. Koessler, Permanent Representative of Austria to the United Nations, co-chaired the Forum. The Forum was jointly organized by the United Nations Inter-agency Task Team on Science, Technology and Innovation for the Sustainable Development Goals (IATT)[2], coordinated by the United Nations Department of Economic and Social Affairs (UNDESA) and United Nations Trade and Development (UNCTAD), as well as by the UN Group of Ten High-level Representatives of the Civil Society, Private Sector and Scientific Community to Promote Science, Technology and Innovation for the SDGs (10-Member-Group)[3], appointed by the Secretary-General and serviced by DESA. The 10-Member-Group, inter alia, substantively led the thematic sessions and overall guidance and drafted targeted science-policy briefs to support the Forum deliberations.

4. The Forum was held in person at United Nations Headquarters in New York. This year's theme was *"Transformative, equitable and coordinated science, technology and innovation for the 2030 Agenda and a sustainable future for all"*.

5. A high-level opening session with two keynote speakers set the stage followed by a Ministerial segment and three thematic sessions to support progress across the SDGs with a focus on Goals 6 (clean water and sanitation), 7 (affordable and clean energy), 9 (industry, innovation and infrastructure), 11 (sustainable cities and communities), and 17 (means of implementation, partnerships for the goals) which are under review at the July 2026 session of the High-Level Political Forum (HLPF) on Sustainable Development.

6. The Forum was well attended by scientists, innovators, technology specialists, entrepreneurs, innovators, and by representatives of governments, UN system, academia, civil society, youth and private sector. The Ministerial segment saw 34 speakers, which was a significant increase from previous years reflecting growing Member State interest in STI for the SDGs. 10 young innovators selected from 924 global applications were featured at the Forum, demonstrating the power of

[1] https://sdgs.un.org/tfm/STIForum2026
[2] https://sdgs.un.org/tfm/interagency-task-team
[3] https://sdgs.un.org/tfm/ten-member-group

grassroots innovation. 60 selected innovations were detailed in a special publication on SDG solutions. The 10-Member-Group provided science-policy briefs to raise attention among policy makers of the latest emerging issues in support of the Forum's thematic deliberations. The official programme of the Forum featured 55 named speakers, and numerous more spoke in 65 side events. There were 420 registered stakeholder participants in addition to more than one hundred Member States representatives and thousands of participants listening-in online via UN WebTV.

II. Highlights of the STI Forum

A. High-level opening

7. The opening of the Forum set the scene for the deliberations of the STI Forum. It featured statements by H.E. Mr. Lok Bahadur Thapa, President of the Economic and Social Council; the Under-Secretary-General for Economic and Social Affairs, represented by Ms. Bjørg Sandkjær, Assistant Secretary-General for Policy Coordination, United Nations Department of Economic and Social Affairs, and by the two Co-chairs of the Forum.

8. High-level opening statements stressed the urgent need to harness STI as practical and inclusive tools for accelerating SDG progress in the years leading to 2030. While rapid advances in AI, digital technologies and scientific innovation offer major opportunities, widening digital and innovation divides threaten to leave many countries behind. Speakers called for greater investment in digital infrastructure, connectivity, skills, and enabling policy environments. The Forum was recognized as an important platform for strengthening the science-policy nexus and translating global commitments into action through inclusive, multilateral, and human rights-based approaches to technology governance and sustainable development.

9. Two keynote speakers challenged the Forum to think more deeply about inclusion and sustainability:

10. Prof. Rita Orji of Dalhousie University in Canada, reminded us that the central question surrounding AI is not only how powerful it is, but who it is designed for. Her intervention highlighted the risks of technological systems being developed without sufficient attention to local realities, infrastructure constraints and unequal access. The message was clear: developing countries must not only adopt technology but actively shape innovation pathways and governance frameworks.

11. Prof. Helmut Habersack of the University of Natural Resources and Life Sciences in Austria and UNESCO Chair on Integrated River Research and Management reminded us of the growing fragility of global water systems and the importance of scientific cooperation in addressing climate-related risks. His remarks reinforced that water security underpins nearly every dimension of sustainable development and that stronger international collaboration, scientific observation and evidence-based governance are increasingly essential to develop resilient water solutions.

B. Ministerial session on harnessing science and technology for the effective delivery of sustainable, resilient, and innovative solutions

12. A Ministerial session was held under the overall theme of "*Strengthening the science-policy nexus to drive sustainable development*", with the following Member States and political group engaging in the general debate: Armenia, Austria, Azerbaijan (on behalf of a group of States), Bangladesh (on behalf of Least developed Countries), Belarus, Cambodia, China, Colombia, Cyprus, Ecuador, Ethiopia, European Union, Kenya, Lesotho, Morocco, Namibia, Oman, Peru,

the Philippines, Russian Federation, Rwanda (on behalf of LLDCs), Saudi Arabia, Senegal, Slovenia, South Africa, Sudan, Tunisia, Uganda, United Arab Emirates, Uruguay (on behalf of the Group of 77 and China), and Zambia.

13. The Forum also heard remarks by the two Forum co-chairs, a report on the 28th session of the Commission on Science and Technology for Development by Mr. Xian Zhang, Chair of the 29th session, and a report on the TFM by Ms. Bjørg Sandkjaer, Assistant Secretary-General for Policy Coordination, UNDESA. In addition to reports on ambitious national STI policies and initiatives, the following priority actions emerged.

14. STI are indispensable for achieving the SDGs. Stronger science-policy linkages, evidence-based policymaking and integrated national development strategies aligned with the SDGs are essential for translating innovation into tangible development outcomes. National STI4SDG roadmaps, digital transformation strategies, investments in research infrastructure and innovation ecosystems, and the application of frontier technologies can be important drivers of implementation across sectors.

15. Persistent technological divides remain major obstacles to sustainable development and require urgent action. Expanding affordable and meaningful connectivity, reliable electricity, digital public infrastructure and access to data and computing capacity is essential, particularly for developing countries, LDCs, LLDCs, SIDS, rural communities and marginalized groups. Efforts to close these divides should include support for women, youth and micro, small and medium-sized enterprises to participate fully in digital economies and innovation ecosystems.

16. AI and other emerging technologies should be governed through inclusive, transparent and human-centred frameworks grounded in multilateralism, ethics and sustainable development. International cooperation is needed to ensure equitable participation of developing countries in global AI governance and to prevent technological concentration and widening inequalities. National AI strategies, digital literacy, cybersecurity, data governance and safeguards for human rights are critical components of responsible digital transformation.

17. Greater investment in STI ecosystems is needed. Public and private financing should be expanded for research and development, climate technologies, digital infrastructure, renewable energy, venture capital and innovation systems. Tech transfer, concessional financing, official development assistance and support for regional research centres, engineering hubs and high-performance computing infrastructure remain important for strengthening capacities.

18. Education, skills development and human capital investment are essential foundations for sustainable STI systems. It is important to strengthen STEM education, digital literacy, lifelong learning and support for researchers, innovators and entrepreneurs to build capacities for digital and green transitions. Inclusive policies that empower women, youth and local innovators, together with stronger university partnerships and knowledge-sharing networks, can help foster resilient innovation ecosystems grounded in local realities and indigenous knowledge.

19. International cooperation, multilateralism and partnerships remain essential for scaling STI solutions and ensuring equitable access to emerging technologies. North–South, South–South and triangular cooperation can facilitate tech transfer, collaborative research, capacity-building and knowledge exchange. Platforms such as the Technology Facilitation Mechanism and the STI Forum play an important role in strengthening coordination, fostering dialogue and supporting

implementation through partnerships involving governments, academia, the private sector, civil society and local communities.

20. STI should be applied in ways that are human-centred, inclusive and environmentally sustainable to advance the SDGs under review, particularly those related to water and sanitation, affordable and clean energy, sustainable industrialization, resilient infrastructure and sustainable cities. Digital tools, geospatial technologies, renewable energy systems, smart water management, climate-smart agriculture and sustainable urban planning can support resilience, improve service delivery and strengthen sustainability outcomes. STI policies and investments should therefore be aligned with local priorities, biodiversity protection, climate action and the principle of leaving no one behind.

C. Thematic discussions

21. A major part of the Forum consisted of "deep-dive" discussions in three thematic sessions comprising five subthemes related to the SDGs under review, key elements of which are summarized in this section with a focus on recommendations and solutions.

Transforming water systems with science, technology and innovation

22. The thematic session on "*Transforming water systems with science, technology and innovation*" explored how STI can accelerate progress toward sustainable water and sanitation systems and contribute to preparations for the 2026 United Nations Water Conference. The session was structured in two complementary panels: the first focused on advances in STI for sustainable water systems and SDG 6, including emerging technologies, monitoring systems, and water governance; the second examined water infrastructure, service delivery, and urban innovation under SDGs 9 and 11, with particular attention to climate resilience, digital technologies, financing, and the role of cities and SIDS as platforms for scaling innovative solutions.

23. Water is foundational to health, food systems, energy security, climate resilience, ecosystems, and economic development, yet progress on SDG 6 remains significantly off track. 2.2 billion people still lack access to safely managed drinking water, and 3.4 billion lack access to safely managed sanitation services, while climate change, pollution, overextraction, deforestation, and unsustainable land use are intensifying pressure on both surface and groundwater systems. The global water crisis is no longer only a question of water availability, but also of governance, equity, financing, institutional capacity, and the sustainable management of the entire hydrological cycle.

24. The first panel examined emerging scientific insights and technological innovations that could accelerate progress toward sustainable water systems. Advances in hydrological science, satellite monitoring, geospatial technologies, AI, smart sensors, desalination, wastewater treatment, and nature-based approaches were highlighted as important tools for addressing water scarcity and improving water governance.

25. Earth observation systems and integrated digital infrastructures can support water mapping, drought and flood forecasting, groundwater monitoring, pollution detection, climate adaptation planning, early warning systems, and evidence-based decision-making. The importance of open, interoperable, and internationally coordinated data systems was underscored.

26. Innovative approaches to climate adaptation and water security include nature-based and decentralized solutions such as solar-powered wetland wastewater treatment systems using locally available materials, water-retaining alginate beads for agriculture, and biological purification

systems capable of treating contaminated water at the community level. Such locally adapted and low-cost innovations can support vulnerable communities while reducing pollution, improving sanitation, supporting irrigation, and strengthening resilience to climate variability.

27. Climate change is placing growing pressure on hydrological systems. Rising temperatures are altering rainfall patterns, increasing evaporation, intensifying droughts and floods, accelerating glacier loss, and disrupting atmospheric moisture flows. Water-related tipping points associated with climate change are major concerns, particularly in regions already experiencing water scarcity and ecosystem degradation. Climate adaptation strategies must integrate water governance, land management, ecosystem protection, and sustainable agriculture.

28. Strong attention was given to the water-food-energy-climate nexus and the importance of integrated water management. Agriculture accounts for roughly 70 per cent of global freshwater withdrawals, and improved irrigation efficiency could substantially reduce pressure on water systems. At the same time, some technologies, including low-cost solar irrigation, may accelerate groundwater depletion if governance systems are weak. All technological solutions should therefore be assessed for their environmental, social, and economic trade-offs.

29. Governance emerged as a central theme throughout the first panel. Technological innovation alone cannot resolve water challenges without strong institutions, equitable allocation systems, robust regulation, and coordinated international cooperation. Fragmented governance, weak institutional capacity, insufficient financing, and limited implementation mechanisms remain major barriers to achieving SDG 6. Key concerns include inequitable water allocation systems, the privatization of water access, and the difficulties governments face in reclaiming water resources during periods of drought due to existing permit and concession arrangements.

30. Equity and inclusion are essential dimensions of sustainable water governance. Water technologies should be affordable, accessible, and designed to reduce rather than deepen inequalities. Water governance should incorporate the perspectives of vulnerable communities, women, youth, indigenous peoples, and informal settlements. Gender-responsive approaches are critical, as access to safe water and sanitation remains closely linked to public health, livelihoods, and social equity.

31. Financing, capacity-building, and international cooperation are essential for scaling water innovations, including blended finance, infrastructure investment, support for local innovation ecosystems, and South-South cooperation. Financing strategies should avoid unsustainable debt burdens and support both large-scale infrastructure and community-based solutions. Capacity-building for local authorities, water managers, scientists, and engineers remains critical for effective implementation and maintenance.

32. The second panel focused on water infrastructure, service delivery, and urban innovation, particularly in the context of SDGs 9 and 11. Cities can serve as platforms for testing, scaling, and governing innovative water solutions. Water systems should be integrated into broader urban planning, industrial development, climate adaptation, and public service delivery frameworks. Circular water systems, wastewater reuse, resource recovery, and modular and digital approaches to water management are promising pathways for improving urban resilience and sustainability.

33. SIDS face unique water security challenges, including limited freshwater resources, dependence on desalination, extreme vulnerability to climate change, and high infrastructure costs.

Real-time monitoring systems, space-based observation technologies, and integrated data systems can support the management of rainfall, groundwater, and water demand across geographically dispersed territories. SIDS can also serve as "living laboratories" for innovative water governance and climate resilience strategies that may become increasingly relevant for coastal cities.

34. Digital infrastructure and AI systems have a growing environmental footprint. In particular, the rapid expansion of data centres is increasing water and energy demand. Future digital infrastructure should be designed in ways that avoid competition with local communities for drinking water and instead support circular and resource-efficient approaches, including the reuse of treated wastewater.

35. The importance of science advice, institutional learning, and policy coordination was emphasized during the second panel. Cities and local governments need stronger capacities to test innovations, interpret scientific evidence, and translate data into actionable policy decisions. Pilot projects should support long-term institutional learning rather than function as isolated demonstrations. Stronger science-policy interfaces are needed to guide innovation toward public value, inclusion, and sustainability.

36. International cooperation and multilateral action are critical for addressing transboundary and global water challenges. Data-sharing frameworks, regional cooperation mechanisms, international scientific partnerships, and coordinated governance approaches are important enablers of sustainable water management. Preparations for the 2026 United Nations Water Conference should strengthen alignment between STI initiatives and global water governance processes.

37. Across both panels, there was broad agreement that STI are indispensable for achieving sustainable water and sanitation systems, but that technology alone will not be sufficient - it will require integrated governance, sustained financing, strong institutions, inclusive participation, and the translation of scientific knowledge into practical implementation.

Powering sustainable development through clean energy technologies for affordable, reliable, sustainable and modern energy for all

38. The thematic session on "*Powering sustainable development through clean energy technologies for affordable, reliable, sustainable and modern energy for all*" examined how STI can accelerate the deployment of clean energy systems at scale to close access gaps, support sustainable industrialization, and advance resilient, equitable and sustainable energy transitions. The session was structured in two complementary panels: the first focused on scaling affordable and clean energy technologies for inclusive development under SDG 7, particularly in Sub-Saharan Africa, while the second addressed innovation in energy infrastructure, industry, and cities under SDGs 9 and 11, including urban systems, construction materials, digital infrastructure, and integrated planning.

39. Energy lies at the heart of sustainable development and is closely linked to progress across multiple SDGs, including climate action, industrialization, food systems, water systems, sustainable cities, and economic growth. Despite advances in renewable energy deployment, 666 million people still lack access to electricity, and 2.1 billion people continue to lack access to clean cooking solutions. Global energy systems remain heavily dependent on fossil fuels, while growing energy demand from digital technologies, data centres, AI, and urbanization is creating additional pressures on infrastructure and electricity systems.

40. The first panel focused on scaling affordable and clean energy technologies for inclusive development. Decentralized renewable energy systems, mini-grids, rooftop solar technologies, renewable energy hubs, and waste-to-energy approaches can expand access to electricity while supporting healthcare, education, local industries, agriculture, and digital connectivity. Sustainable energy transitions require local scientific and institutional capacities, workforce training, and integrated planning across energy, food, water, transport, urban, and digital systems. Universities, research centres, and innovation ecosystems are important actors in adapting technologies to local conditions and supporting long-term resilience.

41. Energy systems should not be treated as isolated assets but connected with agriculture, industry, transport, water systems, public services, and urban planning. Integrated approaches can generate co-benefits across sectors. Future transitions require coordinated planning across energy, food, water, climate, infrastructure, and digital systems.

42. Science diplomacy, international cooperation, and standardization are increasingly important for scaling emerging clean energy technologies. Smart grids, advanced batteries, and integrated mobility-energy systems require common standards, interoperability frameworks, and coordinated governance to move from demonstration projects to large-scale deployment.

43. Public financing alone will not be sufficient to achieve the large-scale transformations required for the SDGs. Blended finance, concessional financing, climate finance, and stronger multilateral support are needed to mobilize investment and strengthen technical and regulatory capacity in developing countries. Integrated modelling, digital tools, and AI-based systems can support investment planning, infrastructure development, and more equitable transition pathways.

44. Inequalities across countries and regions persist in global energy systems and investment flows. Access issues, insufficient infrastructure, institutional fragility, affordability constraints, and limited financing continue to slow progress, especially in Sub-Saharan Africa. Energy transitions should be designed to support inclusive development, decent work, gender equality, and opportunities for vulnerable and marginalized communities.

45. Gender-responsive and community-centered approaches are essential for equitable energy transitions. Women are disproportionately affected by energy poverty, particularly through reliance on traditional cooking methods and unpaid household labour. Priorities include supporting women-led enterprises, vocational training, and integrating gender perspectives into energy planning and innovation systems. Community-driven and locally adapted solutions can reduce time poverty, improve livelihoods, and strengthen resilience.

46. The second panel focused on innovation in energy infrastructure, industry, and cities. Designing clean energy transitions requires understanding how cities, infrastructure systems, buildings, transport systems, and industrial activities are evolving. Rapid urbanization, informal settlements, increasing cooling demand, digital infrastructure, and future construction needs are reshaping global energy demand patterns.

47. Earth observation, satellite imaging, remote sensing, and spatial intelligence tools are important instruments for urban energy planning and sustainable infrastructure development. Satellite data can support analysis of urban growth, infrastructure gaps, climate exposure, vegetation loss, flooding risks, construction patterns, and future material demand. Combining such

data with infrastructure, energy access, and environmental information can improve planning, investment targeting, resilience strategies, and SDG monitoring, particularly in data-poor contexts.

48. Construction materials and the built environment are critical dimensions of the energy transition. Cement remains one of the most widely used materials globally and is associated with significant carbon emissions. Improving material efficiency, developing lower-carbon production methods, promoting more efficient building practices, and strengthening planning systems are essential to avoid locking in high-carbon infrastructure. Future demand for construction materials is expected to grow most rapidly in developing countries, particularly in Africa and South Asia, making early investment in low-carbon tech and local production systems especially important.

49. Integrated planning across urban development, infrastructure systems, industrialization, housing, transport, and climate adaptation is essential. Compact urban development, efficient buildings, low-carbon materials, passive cooling systems, rooftop solar tech, and improved public transport can contribute simultaneously to sustainability, resilience, affordability, and lower emissions. Planning should combine top-down strategies with bottom-up and community-based approaches that reflect local realities and priorities.

50. AI, data centres, and digital systems present both opportunities and challenges for sustainable energy transitions. While growing digital infrastructure is increasing electricity demand and risking deeper inequalities, smart grids, AI-enabled forecasting, industrial energy management systems, and digitalized energy systems can improve efficiency and accelerate renewable energy integration. International standards, interoperability frameworks, and open-access systems remain important for scaling innovation and reducing fragmentation.

51. Across both panels, there was broad agreement that achieving SDG 7 and advancing sustainable energy transitions will require coordinated action across technology, finance, governance, industry, and infrastructure systems. STI can accelerate the deployment of affordable and clean energy systems, but technological progress alone will not be sufficient. Progress will depend on inclusive financing, strong institutions, integrated planning, international cooperation, open access to knowledge and data, and sustained investment in local capacity and innovation ecosystems.

Shaping the future of science, technology and innovation for sustainable development in times of uncertainty and change

52. The session on "*Shaping the future of science, technology and innovation for sustainable development in times of uncertainty and change*" examined how STI systems can better anticipate and respond to systemic risks, geopolitical tensions, technological disruption, and widening inequalities while advancing sustainable development. The session was structured around two complementary themes: strengthening international STI cooperation for the SDGs, including trust in science, governance, research systems, and capacity-building; and advancing action on emerging STI issues in the age of AI, including governance, access, inclusion, infrastructure, and international cooperation.

53. STI remain central to addressing global challenges and accelerating progress toward the SDGs, but STI systems are operating under increasing pressure from geopolitical fragmentation, climate risks, economic disruption, misinformation, declining trust in institutions, and intensifying technological competition. Many of the world's most pressing challenges, including climate

change, pandemics, biodiversity loss, and emerging technologies, are inherently global and cannot be addressed effectively through isolated national approaches.

54. International scientific cooperation remains essential for delivering global public goods and strengthening resilience. Science diplomacy can help sustain cooperation across geopolitical divides, support evidence-based policymaking, and build trust that extends beyond political cycles. Scientific collaboration was identified as one of the few forces capable of strengthening international cooperation out of practical necessity, particularly in areas such as climate systems, public health, biodiversity, and technology governance.

55. The session highlighted major shifts in the global geography of science and research. Low- and middle-income countries are expanding scientific capacity at unprecedented rates, with rapid growth in scientific publications, research institutions, and numbers of researchers. More than half of SDG-related scientific publications now include authors from low- and middle-income countries, demonstrating growing capacity to generate locally relevant solutions while participating in global scientific collaboration.

56. Capacity-building efforts over several decades are producing measurable results. Investments in universities, national laboratories, technical training, and international scientific exchange have enabled many developing countries to strengthen their research ecosystems and contribute more actively to global scientific production. At the same time, gaps remain in basic research capacity, research financing, scientific infrastructure, and participation in international scientific governance mechanisms.

57. Basic research remains indispensable. Foundational scientific discoveries often become the basis for transformative technologies many decades later. Maintaining an appropriate balance between basic and applied research is essential, as long-term scientific capacity provides the foundation for responding to future challenges that are not yet fully understood.

58. International STI governance systems have not fully adapted to the changing global distribution of scientific capacity. Low- and middle-income countries continue to face underrepresentation in global scientific advisory systems, editorial boards, multilateral research structures, and governance processes. More equitable participation in international scientific governance is necessary to reflect the evolving realities of global science and ensure broader inclusion in decision-making.

59. Science is increasingly viewed not only as a global public good but also as a strategic national asset. The distinction between basic science and applied technology is becoming less clear, particularly in emerging fields such as AI, quantum technologies, biotechnology, and advanced computing. Governments are increasingly linking scientific research to national competitiveness, security, industrial policy, and geopolitical influence, creating tensions between openness, collaboration, and protection of strategic technologies.

60. International collaboration remains indispensable despite growing technological competition and security concerns. Scientific progress depends on global interaction across the full research cycle, including data-sharing, peer review, publishing, and joint research. Greater cooperation is needed not only among scientists but also among policy experts in order to align governance systems, reduce fragmentation, and support interoperable international approaches.

61. Trust emerged as a central theme throughout the session. Public trust in science, institutions, and governance systems is under increasing strain from misinformation, political polarization, inequitable access to technology, and perceptions that innovation benefits only a limited number of actors. Rebuilding trust requires stronger scientific integrity, transparency, open science, accountability, public engagement, and more inclusive participation in scientific and technological systems.

62. STI systems should become more inclusive, open, equitable, and responsive to societal needs. Scientific knowledge should be treated as a shared global resource that supports cooperation, sustainability, and human development. Open science, stronger science-policy interfaces, and wider participation by youth, women, civil society, and developing countries are essential for ensuring that innovation systems reflect diverse realities and priorities.

63. Education and human capital development are critical foundations for resilient STI systems. Strong STEM education systems, digital skills, technical training, and support for teachers are essential for enabling countries to participate effectively. Young people will play a central role in shaping future STI systems and should be empowered not only to use technology but also to develop and govern it.

64. AI is rapidly becoming a foundational technology with broad implications for science, industry, governance, development, and public services. Governance systems capable of responding to both the opportunities and risks associated with AI are increasingly important. AI systems can improve productivity, accelerate scientific discovery, strengthen public service delivery, and support SDG implementation, but they also risk amplifying inequality, exclusion, misinformation, and concentration of power.

65. Access to AI infrastructure, computing power, connectivity, energy systems, and digital skills remains highly unequal across countries and regions. More than two billion people remain offline, while AI infrastructure, data centres, and computing power remain concentrated in a small number of countries and companies. Structural barriers, including affordability, digital infrastructure, institutional readiness, and access to cloud services and digital payment systems, continue to limit the ability of many developing countries to benefit fully from AI.

66. AI can either reduce or deepen global inequalities depending on how it is governed and deployed. Open-access and open-resource AI models can help broaden participation and support wider diffusion of technological capabilities, while closed systems risk concentrating benefits among a limited number of actors. Greater international cooperation, shared infrastructure models, and inclusive governance frameworks are needed to ensure that AI contributes to sustainable development and equitable access to innovation.

67. Governance systems are struggling to keep pace with rapid technological change. This gap creates risks of fragmented regulatory systems, inconsistent standards, over-securitization, and restrictions on scientific collaboration. Interoperable governance and stronger international coordination are necessary to reduce fragmentation while protecting safety, human rights, and public interest.

68. AI governance should focus not only on risk management but also on enabling inclusive and practical implementation. Countries require stronger institutional capacity, integrated strategies, regulatory readiness, procurement systems, and implementation mechanisms. Effective

governance requires coordination across ministries, sectors, and institutions rather than isolated approaches confined to individual agencies.

69. AI systems amplify the strengths and weaknesses of the systems into which they are introduced. AI alone cannot solve sustainability challenges without reliable institutions, trusted governance systems, data, financing, infrastructure, and capacity. Technological readiness without institutional readiness risks widening inequalities and weakening trust.

70. Integrated systems thinking is essential for addressing complex sustainability challenges. Many barriers to SDG implementation are not caused by lack of innovation but by fragmented governance, financing systems, sectoral silos, and insufficient coordination. Sustainable development requires stronger integration across energy, water, health, food systems, infrastructure, education, digital systems, and industrial policy.

71. The session highlighted the importance of translating STI discussions into practical implementation and broader public engagement. Many people may not recognize the SDGs as a framework, but they recognize the real-world challenges the SDGs seek to address, such as clean water, affordable energy, climate resilience, public health, and education. STI systems and multilateral processes should therefore communicate more clearly through practical societal challenges and tangible outcomes.

72. International cooperation on AI governance should become more inclusive, action-oriented, and connected across existing initiatives. Preparations for the first global dialogue on AI governance emphasized the importance of creating a multistakeholder platform that reflects different regional realities, development levels, policy approaches, and institutional capacities. Greater coherence and exchange of best practices across global AI governance initiatives were identified as priorities.

73. Across both themes, there was broad agreement that shaping the future of STI for sustainable development will require stronger international cooperation, more equitable participation in science and technology systems, renewed trust in institutions, and governance systems capable of keeping pace with rapid technological change.

D. Special events and side events, young innovators, and written contributions to the Forum

Special events and side events

74. On 5 May 2026, a Joint General Assembly–Economic and Social Council Special Meeting on "*From Digital Inclusion to Innovation: Advancing Science, Technology and Youth Entrepreneurship for Development*" examined how STI can support inclusive development, particularly in developing countries. Discussions focused on digital divides, AI governance, STI capacity-building, youth entrepreneurship, financing, and innovation ecosystems, while emphasizing the importance of empowering young people with digital skills, infrastructure, partnerships, and access to finance to drive sustainable development and inclusive economic transformation.

75. In addition, the Forum featured a total of 65 side events across different formats: 16 in-person side events, 11 off-site side events, and 38 virtual side events. Organizers included 25 UN Member States and one regional group; 18 UN entities and 4 other intergovernmental organizations; 40

universities, research labs and organized STI communities; and 32 other civil society and private sector stakeholders.

76. The side events addressed a broad range of STI issues linked to the SDGs, including AI governance, digital public infrastructure, clean energy, water security, climate resilience, agriculture, advanced manufacturing, youth entrepreneurship, public sector innovation, health systems, space technologies and sustainable cities. Discussions focused on practical implementation of STI solutions, innovation ecosystems, science-policy interfaces, local capacity-building, and responsible governance of emerging technologies. The side events reflected strong multistakeholder engagement involving Member States, UN entities, academia, civil society, youth, and the private sector.

Young innovators featured at the Forum

77. Ten outstanding innovators from around the world were selected by the 10-Member-Group to showcase their solutions at the STI Forum, following a highly competitive Call for Innovations organized by DESA in collaboration with Engineering for Change, the Major Group of Children and Youth, and the American Society of Mechanical Engineers (ASME) Innovation Showcase. The call received 924 applications spanning every continent, especially from Africa. A compilation of 60 innovations was presented in the form of a book.

78. The featured innovations demonstrated practical STI solutions for the SDGs. Here's a brief account of these concrete solutions by young innovators:

79. The Solar Sheet from Argentina is a lightweight, plug-and-play solar solution using recycled polymers to reduce installation costs and embodied carbon while expanding affordable renewable energy access for industrial sectors and rural communities.

80. AquaSentinel from China is a bio-inspired AI-powered robotic system using neural networks and bionic fins to detect leaks and trace pollution in reservoirs without disturbing toxic sediment, providing safer and lower-cost water monitoring solutions.

81. SustainabilityReports from the Netherlands is a global open-access digital platform providing free access to corporate sustainability reports, helping researchers, NGOs, and students overcome barriers to sustainability data and reporting.

82. Charcops Wetlands from Ghana transforms agricultural waste into biochar used in solar-powered wetland systems that treat household wastewater for safe irrigation reuse while improving soil health and supporting climate resilience.

83. SmartPod Water-Retaining Alginate Beads from South Africa are biodegradable hydrogels that absorb and gradually release water to crop roots, helping smallholder farmers reduce water loss and maintain yields in drought-prone areas.

84. Plstka from Egypt is an AI-powered waste management platform combining a gamified recycling application with a digital system designed to optimize waste collection and recycling supply chains.

85. SORA Health Intelligence Room from Kenya is an AI-driven climate and health platform that combines weather forecasting, flood modelling, and hydrological analysis to provide early warnings for disease outbreaks and support resilient urban planning.

86. Yaaka E-Waste Recycling Plant from Zambia is the country's first formal electronic waste recycling facility, supporting structured collection, material recovery, public awareness, pollution reduction, and circular economy practices.

87. RE-HUB (Renewable Energy Hub) Model from Nigeria converts electronic waste into affordable solar energy solutions through local hubs that combine e-waste collection, battery refurbishment, and solar deployment for underserved communities.

88. BioDrop from Peru transforms citrus waste into biocoagulants capable of removing heavy metals from industrial wastewater, reducing treatment costs while supporting ecosystem restoration and circular economy approaches in mining-affected watersheds.

Science-policy briefs

89. The 10-Member Group provided 8 science-policy briefs in support of STI Forum deliberations on water systems, energy transitions, sustainable trade, urbanization, governance, and the future of the SDGs. The briefs emphasized that achieving the SDGs requires integrated systems approaches, stronger science-policy interfaces, inclusive governance, and accelerated implementation of STI solutions, while highlighting the growing interconnections between climate change, digitalization, urbanization, water insecurity, energy systems, and inequality.

90. Several briefs focused on water security and governance challenges, stressing that progress on SDG 6 remains far off track globally, particularly in Africa and SIDS. Key recommendations included expanding climate-smart water management systems, strengthening data and monitoring systems, improving wastewater treatment and recycling, investing in local technical capacity, and ensuring that AI-enabled water systems incorporate transparency, equity, and community participation.

91. One policy brief argued that renewable energy deployment alone will not stabilize the climate unless governments also address entrenched fossil fuel "lock-ins" linked to infrastructure, finance, labour markets, politics, and consumer behaviour. Recommendations included phasing out fossil fuel subsidies, supporting just transitions, repurposing infrastructure, and aligning investment systems with climate goals.

92. Another brief examined partnerships for sustainable trade under SDG 17 and called for global trade systems to operate within socially equitable and environmentally sustainable boundaries through stronger international cooperation, circular economy approaches, sustainable production and consumption, and fairer trade relations.

93. Several briefs emphasized implementation-oriented STI governance and international cooperation. One brief highlighted the need to move beyond STI roadmaps toward deployable and trusted systems through "implementation-led science diplomacy", including trusted technology packages, flagship implementation projects, and smaller "minilateral" partnerships to accelerate deployment and learning.

94. The briefs also highlighted the importance of remote sensing, Earth observation, and integrated data systems for SDG monitoring and sustainable urbanization. Recommendations included integrating geospatial analysis into urban planning and SDG 11 monitoring to support more resilient, equitable, and low-carbon development.

95. One brief examined ideas development agendas beyond 2030 and called for stronger evidence-based review of SDG implementation, more resilient and adaptive governance systems, and broader participation by governments, academia, civil society, and the private sector in shaping future sustainable development frameworks.

III. Recommendations for consideration

96. The Forum highlighted many practical examples and proposed recommendations for action by Governments, the UN system, scientists, academia, civil society, and the private sector. The following may be considered, in addition to the wider range of issues outlined in section II above.

A. General and thematic recommendations

97. The STI Forum reaffirmed the central role of STI in advancing the SDGs amid growing geopolitical tensions, climate risks, inequalities, and rapid technological change. Technological innovation alone is insufficient and should be accompanied by inclusive governance, equitable financing, strong institutions, capacity building and skills development, evidence-based policymaking, and integrated approaches across interconnected water, energy, food, climate, urban, and digital systems.

98. Greater efforts are needed to close digital, scientific, and innovation divides, particularly in LDCs, LLDCs and SIDS, while strengthening international scientific cooperation on climate change, biodiversity loss, pandemics, water insecurity, and emerging technologies. Developing countries should actively shape innovation pathways and governance frameworks based on local realities and priorities.

99. There is an urgent need to strengthen international scientific cooperation to address shared global challenges, including climate change, biodiversity loss, pandemics, water insecurity, and the governance of emerging technologies. Scientific cooperation, scientific integrity, and trust in science remain essential foundations for multilateral action and evidence-based policymaking.

100. Water security should be addressed through integrated and science-based approaches covering the full water cycle, including groundwater, atmospheric moisture flows, ecosystems, land use, and urban systems. Stronger investment is needed in hydrological science, AI-enabled monitoring systems, remote sensing, desalination technologies, wastewater reuse, modular infrastructure, and nature-based solutions, alongside improved governance, financing, infrastructure, and institutional capacity.

101. Accelerating the energy transition requires not only infrastructure deployment but also investment in local capacities, stronger institutions, blended finance, and integrated planning across energy, industry, transport, food, water, and urban systems. Decentralized renewable energy systems, mini-grids, storage technologies, digital energy platforms, low-carbon infrastructure, and sustainable urban planning can contribute to more resilient, inclusive, and sustainable development pathways.

102. Construction materials and the built environment should be recognized as critical dimensions of the energy transition. Greater efforts are needed to improve material efficiency, develop lower-carbon production methods, and promote sustainable building practices in order to avoid locking in high-carbon infrastructure. Early investment will be particularly important in Africa and South Asia where demand for construction materials is expected to grow rapidly.

103. AI governance should remain inclusive, trustworthy, human-centered, and aligned with sustainable development principles. While AI offers transformative opportunities across sectors including health, agriculture, climate adaptation, energy systems, and scientific research, governance frameworks should also address risks related to inequality, exclusion, concentration of power, misinformation, and uneven access to data and digital infrastructure.

104. It is important to invest in local research and innovation ecosystems, education systems, scientific mobility, digital infrastructure, and institutional capacity-building. Sustainable STI systems depend on long-term support for local capacities, especially in low- and middle-income countries, to ensure meaningful participation in global science and technology systems.

105. Inclusion should remain central to STI policymaking and implementation. Women and girls, youth, LDCs, LLDCs SIDS, and communities in vulnerable situations should be fully included in STI development, governance, and deployment processes. Local innovation ecosystems and locally grounded solutions responding directly to community needs should receive greater support.

106. Multilateral cooperation remains indispensable for addressing interconnected global challenges. Participants stressed the importance of building bridges across sectors, disciplines, institutions, and regions, while strengthening cooperation on digital governance, AI governance, water security, and sustainable development implementation processes, including preparations for the 2026 UN Water Conference.

B. Recommendations for the Technology Facilitation Mechanism

107. The Technology Facilitation Mechanism (TFM) should continue strengthening its role as a multistakeholder, "delivering as one" UN platform for dialogue, knowledge-sharing, partnership-building, and support for STI implementation aligned with the SDGs.

108. The TFM should further support international scientific cooperation, evidence-based policymaking, and inclusive STI governance, while strengthening connections between scientists, policymakers, innovators, civil society, youth, and other stakeholders.

109. Capacity-building, support for local innovation ecosystems, and strengthening scientific and digital infrastructure in developing countries should remain central priorities for the TFM, particularly for LDCs, LLDCs and SIDS.

110. The TFM should continue supporting discussions and cooperation on emerging technologies, including AI governance and digital cooperation, while promoting inclusive, human-centered, and sustainable approaches to technological development and deployment.