Seventy-sixth session
Agenda item 22 (a)
Globalization and interdependence: science, technology
and innovation for sustainable development

Resolution adopted by the General Assembly on 17 December 2021
[on the report of the Second Committee (A/76/534/Add.1, para. 7)]

76/213. Science, technology and innovation for sustainable development

The General Assembly,

Reaffirming its resolution 70/1 of 25 September 2015, entitled “Transforming our world: the 2030 Agenda for Sustainable Development”, in which it adopted a comprehensive, far-reaching and people-centred set of universal and transformative Sustainable Development Goals and targets, its commitment to working tirelessly for the full implementation of the Agenda by 2030, its recognition that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development, its commitment to achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced and integrated manner, and to building upon the achievements of the Millennium Development Goals and seeking to address their unfinished business,

Reaffirming also its resolution 69/313 of 27 July 2015 on the Addis Ababa Action Agenda of the Third International Conference on Financing for Development, which is an integral part of the 2030 Agenda for Sustainable Development, supports and complements it, helps to contextualize its means of implementation targets with concrete policies and actions, and reaffirms the strong political commitment to address the challenge of financing and creating an enabling environment at all levels for sustainable development in the spirit of global partnership and solidarity,

Reaffirming the Paris Agreement\(^1\) and its early entry into force, encouraging all its parties to fully implement the Agreement, and parties to the United Nations Framework Convention on Climate Change\(^2\) that have not yet done so to deposit their

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\(^1\) Adopted under the UNFCCC in FCCC/CP/2015/10/Add.1, decision 1/CP.21.

instruments of ratification, acceptance, approval or accession, where appropriate, as soon as possible,

_Recalling_ its resolution 74/229 of 19 December 2019 on science, technology and innovation for development and its previous resolutions on the issue,³

_Taking note_ of Economic and Social Council resolution 2021/29 of 22 July 2021 on science, technology and innovation for development and previous Council resolutions on the issue,⁴ and taking note also of Council resolution 2021/30 of 22 July 2021 on open-source technologies for sustainable development,

_Recalling_ its resolution 75/316 of 17 August 2021 on the impact of rapid technological change on the achievement of the Sustainable Development Goals and targets,

_Recalling also_ the World Summit on the Information Society and its outcomes,⁵ as well as other relevant intergovernmentally agreed outcomes,

_Taking note_ of the reports of the Commission on Science and Technology for Development on its fourteenth to twenty-fourth sessions,⁶

_Taking note also_ of the report of the Secretary-General,⁷

_Taking note further_ of the work of the United Nations System Chief Executives Board for Coordination on the impact of new and emerging technologies and on promoting innovation to accelerate the achievement of the Sustainable Development Goals,

_Recognizing_ that science, technology and innovation, including environmentally sound technologies and information and communications technologies, are critical in the pursuit of sustainable development and are one of the key means of implementation of the intergovernmentally agreed development outcomes, including the 2030 Agenda and its Sustainable Development Goals,

_Notting_ that the 2019 _Global Sustainable Development Report_ identifies science, technology and innovation as one of the levers for transformation to accelerate progress in achieving the Sustainable Development Goals, and that its strategic deployment has the potential to resolve and minimize trade-offs among the Goals and targets, and recognizes that technology transfer to developing countries on mutually agreed terms will be critical to scale up and accelerate the implementation of the 2030 Agenda,

_Taking note_ of the June 2019 report of the Secretary-General’s High-level Panel on Digital Cooperation entitled “The age of digital interdependence”, and the May 2020 report of the Secretary-General entitled “Road Map for Digital Cooperation”, and of the high-level thematic debate on digital cooperation and connectivity convened by the President of the General Assembly at its seventy-fifth session on

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³ Resolutions 58/200, 59/220, 60/205, 61/207, 62/201, 64/212, 66/211, 68/220, 70/213 and 72/228.
⁵ See A/C.2/59/3 and A/60/687.
⁷ A/76/236.
27 April 2021, as well as the establishment of the Office of the Secretary-General’s Envoy on Technology,

*Emphasizing* that science, technology and innovation play a key role in accelerating the pace of economic diversification and transformation, improving productivity and competitiveness, as well as enabling the full participation of developing countries in the global economy,

*Reaffirming* that the creation, development and diffusion of new innovations and technologies and associated know-how, including the transfer of technology on mutually agreed terms, are powerful drivers of economic growth and sustainable development,

*Underscoring* that rapid technological change brings enormous opportunities to accelerate progress towards the Sustainable Development Goals, while it also poses new challenges, including perpetuating divides within and between countries,

*Noting* that the coronavirus disease (COVID-19) pandemic has accelerated technological change, having sped up the adoption of digital tools in many areas of life, from work to leisure, bringing with it new opportunities such as, inter alia, the adoption of digital tools for remote work and the acceleration of digitalization in developing countries, while further underscoring that rapid technological change of this sort, in the context of the existing inequalities with regard to digital infrastructure and access to digital technologies between developed and developing countries, carries the risk of entrenching and exacerbating digital divides, as well as acknowledging the importance of investment in science, technology and innovation as a key component of post-pandemic recovery packages, reaffirming that the same rights that people have offline must also be protected online, emphasizing that adaptation to rapid technological change should be considered not only as a function of sustainable development and the spreading of information and communications technologies, but also with respect to the realization of all human rights and fundamental freedoms, and noting in this regard multilateral and regional initiatives aimed at promoting social prosperity through inclusive participation and growth across the digital economy including, inter alia, the establishment of the Digital Cooperation Organization in 2020,

*Recognizing* that new technologies increase the demand for digital skills and competencies and that, at the same time, developing countries are experiencing higher numbers of young people entering the labour market and a widening gap between their knowledge, skills and abilities and those sought by employers, and expressing concern that the share of women in specialist information and communications technology occupations remains low, especially in developing countries,

*Recognizing also* that education, training and capacity-building in science, technology and innovation can provide new skills and so widen employment opportunities, while addressing market needs,

*Calling upon* the international community and all stakeholders to support efforts by developing countries to provide opportunities for science, technology, engineering and mathematics education and research for all, including youth and women, and particularly in the emerging technologies, and to provide suitable working conditions in order to prevent brain drain,

*Recognizing* that innovation, such as pro-poor, inclusive, grass-roots and social innovation that seeks to solve problems, is not always addressed by markets,

*Recognizing also* the importance of utilizing science, technology and innovation in a manner relevant to specific national and local situations and needs,
Recognizing further the importance of data protection and privacy, in particular for developing countries in the context of science and technology for development, especially regarding the adoption of new technologies,

Taking note of the Technology and Innovation Report 2021 of the United Nations Conference on Trade and Development, which examines the possibility that frontier technologies can widen existing inequalities and create new ones, and taking note also of the Digital Economy Report 2021 of the United Nations Conference on Trade and Development, which examines the role of growing cross-border data flows and its role for development,

Recognizing that realizing gender equality and the empowerment of women and girls will make a crucial contribution to progress across all of the Sustainable Development Goals and targets, and recognizing also that there is a need to ensure full and equal access to and participation in science, technology and innovation for women of all ages, as well as to target science, technology and innovation strategies to address women’s empowerment and inequalities, including the gender digital divide,

Recalling the agreed conclusions of the Commission on the Status of Women on women’s economic empowerment in the changing world of work, adopted at its sixty-first session, which, 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 entrepreneurship and economic empowerment in the changing world of work and to support women’s access, throughout their life cycle, to skills development and decent work in new and emerging fields by expanding the scope of education and training opportunities in, inter alia, science, technology, engineering and mathematics, information and communications technology and digital fluency, and to enhance women’s and, as appropriate, girls’ participation as users, content creators, employees, entrepreneurs, innovators and leaders,

Expressing concern that many developing countries still face serious challenges in building their national science, technology and innovation base, lack affordable access to information and communications technologies, and that, for the poor, the promise of science, technology and innovation remains unfulfilled,

Taking note with appreciation of the United Nations Technology Innovation Labs, in their efforts to facilitate and stimulate innovation for the implementation of the 2030 Agenda,

Recognizing that science, technology and innovation cooperation and collaboration with, as well as foreign direct investment in and trade with and among, developing countries, as well as international support, are fundamental to enhancing developing countries’ ability to benefit from technological advances and to produce, nurture, access, comprehend, select, adapt and use science, technology and innovation knowledge,

Recognizing also the importance of supporting policies and activities of developing countries in the fields of science, technology and innovation through North-South, South-South and triangular cooperation in the areas of financial and technical assistance, capacity-building and technology transfer on mutually agreed terms,

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

Welcoming the increase in official development assistance targeting the development of science, technology and innovation capacities in developing countries in the past two decades, however, remaining concerned that official development assistance for science, technology and innovation capacities directed to the least developed countries, landlocked developing countries, small island developing States and African countries has remained at about the same levels for the past decade,

Recognizing the central role that the Commission on Science and Technology for Development plays, as the United Nations focal point for science, technology and innovation for sustainable development, in analysing how science, technology and innovation, including information and communications technologies, serve as enablers of the 2030 Agenda 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 emerging and disruptive technologies,

Reaffirming the need to enhance the science, technology and innovation programmes of the relevant entities of the United Nations system, and in this regard recalling the mandate of the Technology Facilitation Mechanism on science, technology and innovation for the achievement of the Sustainable Development Goals to promote coordination, coherence and cooperation within the United Nations system,

Recognizing the need to strengthen the collaboration and exchange between policymakers and scientific and technological communities,

Welcoming the convening of the first to sixth annual multi-stakeholder forums on science, technology and innovation for the Sustainable Development Goals, noting with appreciation the ongoing work of the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals, including the Global Pilot Programme on Science, Technology and Innovation for the Sustainable Development Goals Road Maps (STI for SDGs road maps), and noting the expanded operationalization of the 2030 Connect online platform, as the three components of the Technology Facilitation Mechanism, that can help to advance the 2030 Agenda,

Noting the ongoing efforts of the World Intellectual Property Organization to assist Member States in establishing intellectual property strategies and national ecosystems that promote innovation and creativity and support the flow of knowledge and technical expertise,

Noting also the existing efforts and contributions of the regional economic commissions on science, technology and innovation for sustainable development,

Recalling the importance of supporting the African Union’s Agenda 2063, as well as its 10-year plan of action, as a strategic framework for ensuring a positive socioeconomic transformation in Africa within the next 50 years, and its continental programme embedded in the resolutions of the General Assembly on the New Partnership for Africa’s Development and regional initiatives, and in this context noting the Declaration of Sharm el-Sheikh, adopted by the African Union in October 2019, which commits to work towards an integrated and inclusive Digital Society and Economy in Africa that improves the quality of life of Africa’s citizens, as well as the Science, Technology and Innovation Strategy for Africa 2024 of the African Union,
Reiterating the pledge that no one will be left behind, reaffirming the recognition that the dignity of the human person is fundamental, and the wish to see the Goals and targets met for all nations and peoples and for all segments of society, and recommitting to endeavour to reach the furthest behind first,

Noting with great concern the severe negative impact on human health, safety and well-being caused by the coronavirus disease (COVID-19) pandemic, as well as the severe disruption to societies and economies and the devastating impact on lives and livelihoods, and that the poorest and most vulnerable are the hardest hit by the pandemic, reaffirming the ambition to get back on track to achieve the Sustainable Development Goals by designing and implementing sustainable and inclusive recovery strategies to accelerate progress towards the full implementation of the 2030 Agenda for Sustainable Development and to help to reduce the risk of and build resilience to future shocks, crises and pandemics, including by strengthening health systems and achieving universal health coverage, and recognizing that equitable and timely access for all to safe, quality, effective and affordable COVID-19 vaccines, therapeutics and diagnostics are an essential part of a global response based on unity, solidarity, renewed multilateral cooperation and the principle of leaving no one behind,

1. Reaffirms its commitments made in the Addis Ababa Action Agenda of the Third International Conference on Financing for Development\(^9\) on, inter alia, science, technology and innovation, as an important action area for sustainable development;

2. Also reaffirms its commitment to continue promoting the use of science, technology and innovation in facilitating efforts to address global challenges, such as efforts to eradicate poverty; achieve food security and nutrition; increase agricultural productivity; enhance access to affordable, reliable, sustainable and modern energy for all; fight diseases; improve education; protect the environment and address climate change;

3. Further reaffirms its commitment to the actions agreed upon by the least developed countries and development partners on science, technology and innovation, as outlined in paragraphs 52 and 53 of the Programme of Action for the Least Developed Countries for the Decade 2011–2020,\(^10\) and looks forward to the Fifth United Nations Conference on the Least Developed Countries, to be held in Doha, Qatar, from 23 to 27 January 2022;

4. Notes the central role of Governments, with active contribution from stakeholders from the private sector, civil society, academia and research institutions, in creating and supporting an enabling environment at all levels, including enabling regulatory and governance frameworks, in accordance with national priorities, to nurture science, innovation, entrepreneurship and the dissemination of knowledge and technologies that is on mutually agreed terms, particularly to micro-, small and medium-sized enterprises, as well as industrial diversification and value added to commodities;

5. Underscores the need to adopt science, technology and innovation strategies as integral elements of national sustainable development plans and strategies that help to strengthen knowledge-sharing on mutually agreed terms and collaboration and scale up investment in science, technology, engineering and mathematics education, and enhance technical, vocational and tertiary education and training;

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\(^9\) Resolution 69/313, annex.
6. **Recognizes** the importance of addressing the gap in capabilities across and between countries, sectors and segments of society so that all parts of society, especially people in vulnerable situations and the poor, can adapt and benefit from technological changes;

7. **Also recognizes** the importance of the creation of a conducive environment that attracts and supports private investment, entrepreneurship and corporate social responsibility, including an efficient, adequate, balanced and effective intellectual property framework, while encouraging access to science, technology and innovation by developing countries;

8. **Encourages** Member States to strengthen and foster investment in research and development for environmentally sound technologies and to promote the involvement of the business and financial sectors in the development of those technologies, and invites the international community to support those efforts;

9. **Encourages** all stakeholders in an effort to prepare for existing and future opportunities and challenges presented by technological change, including the fourth industrial revolution, among others, to explore ways and means of conducting inclusive national, regional and international technology assessment and foresight exercises on existing, new and emerging technologies to help to evaluate their development potential and mitigate possible negative effects and risks;

10. **Requests** the Technology Facilitation Mechanism and the Commission on Science and Technology for Development, through the Economic and Social Council, to continue to consider, in a coordinated manner within their respective mandates and existing resources, the impact of rapid technological changes and frontier technologies on the achievement of the Sustainable Development Goals and targets, and to align this endeavour with the follow-up cycle of the high-level political forum on sustainable development in order to support the efforts of all countries towards the attainment of the Goals, including through forging partnerships with other relevant stakeholders, organizations, initiatives and forums, such as the Partnership in Action on STI for SDGs Road Maps, initiated by the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals, and the dissemination of advances and best practices to facilitate cooperation towards this end;

11. **Encourages** Member States, individually and collectively, to support policies that increase financial inclusion, including through making use of financial technology, with a view to deepening and diversifying the sources of financing and of direct investments towards science, technology and innovations that address the Sustainable Development Goals;\(^\text{11}\)

12. **Also encourages** Member States 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 information and communications technology and supporting infrastructure development;

13. **Further encourages** Member States to promote digital inclusion and literacy and to consider incorporating digital competencies into the education system, with a special focus on encouraging girls and enhancing digital skills and competences development, including through investment in digital qualification, specialization in digital technologies, digital infrastructure, public policies and institutional development and multi-stakeholder and international collaboration;

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\(^{11}\) See resolution 70/1.
14. **Underlines** that addressing barriers to equal access for women and girls to science, technology and innovation requires a systematic, comprehensive, integrated, sustainable, multidisciplinary and multisectoral approach, and in this regard urges Member States to mainstream a gender perspective in legislation, policies and programmes, and encourages efforts to mentor, attract and retain women and girls in science, technology, engineering and mathematics education and research and to support women in leveraging science and technology for entrepreneurship and economic empowerment in the changing world of work;

15. **Emphasizes** the importance of the participation of women and girls in science, technology and innovation, and further encourages the United Nations development system to support efforts to reduce gender disparity in these areas, with the cooperation of Member States and international collaborative research organizations;

16. **Notes** the importance of facilitating access to and sharing accessible and assistive technologies, through the transfer of technology on mutually agreed terms and other actions, to advance disability-inclusive development, ensure accessibility for persons with disabilities and promote their empowerment;

17. **Also notes** the critical role of science, technology and innovation in building resilience to, combating and recovering from the COVID-19 pandemic, including in the development of safe and effective COVID-19 vaccines at remarkable speed using breakthrough technologies, and in this regard recognizes the importance of initiatives such as the COVID-19 Vaccine Global Access (COVAX) Facility, the vaccines pillar of the Access to COVID-19 Tools Accelerator supported by the World Health Organization and global partners, and other relevant initiatives aimed at speeding up the search for safe and effective tests, treatments and vaccines for all countries, while remaining concerned, however, at the continued need to expand equitable access to diagnostics, treatments, vaccines and other health technologies for the COVID-19 pandemic, and in this regard calls upon Member States, the United Nations, the private sector and other relevant stakeholders to continue to initiate, implement and support effective measures to strengthen international cooperation and action towards strengthening health systems, universal health coverage and health infrastructures and promote increased access to affordable, safe, effective and quality medicines, including generics, vaccines, diagnostics and health technologies, reaffirming the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) as amended, and also reaffirming the 2001 World Trade Organization Doha Declaration on the TRIPS Agreement and Public Health, which recognizes that intellectual property rights should be interpreted and implemented in a manner supportive of the right of Member States to protect public health and, in particular, to promote access to medicines for all, and notes the need for appropriate incentives in the development of new health products;

18. **Encourages** efforts to increase the availability of data to support the measurement of national innovation systems (such as the existing Global Innovation Index) and empirical research on innovation and development to assist policymakers in designing and implementing innovation strategies in order to measure the impact of digital technologies for sustainable development;

19. **Emphasizes** the need to effectively harness technology to bridge the digital divides within countries and between developed and developing countries;

20. **Encourages** enhanced capacity-building support for developing countries in order to generate the use of high-quality, timely and reliable disaggregated data, and also encourages international cooperation, including through technical and financial support, to strengthen the capacity of national statistical systems;
21. Also encourages existing arrangements and the further promotion of international, regional, subregional and interregional joint multi-stakeholder research and development projects, as well as training programmes and university-to-university collaborations where feasible, by mobilizing scientific and research development resources, facilities and equipment;

22. Calls upon Member States and the United Nations development system, and encourages other stakeholders, as appropriate, to continue to initiate, implement and support measures to improve the level of participation of scientists and engineers from developing countries in international collaborative research, science, technology and innovation projects;

23. Also calls upon Member States and the United Nations development system, and encourages other stakeholders, as appropriate, to continue to strengthen their support for the different science, technology and innovation partnerships with developing countries in primary, secondary and higher education, vocational education and continuing education; business opportunities for the private sector; science, technology and innovation infrastructure; and science, technology and innovation advice for developing countries;

24. Requests the Commission on Science and Technology for Development to continue to assist the Economic and Social Council as the focal point in the system-wide follow-up to the outcomes of the World Summit on the Information Society and to continue its science, technology and innovation activities;

25. Encourages the Commission on Science and Technology for Development to discuss and explore innovative financing models, such as impact investment, 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;

26. Encourages the United Nations Conference on Trade and Development, in collaboration with relevant partners, such as the World Intellectual Property Organization, the International Telecommunication Union, the United Nations Educational, Scientific and Cultural Organization and the United Nations University, to continue to undertake science, technology and innovation policy reviews, with a view to assisting developing countries, upon request, in identifying the measures needed to integrate science, technology and innovation policies into their national development strategies and ensuring that they are supportive of national development agendas, as appropriate, and in this regard takes note of the new science, technology and innovation policy review framework developed by the United Nations Conference on Trade and Development;

27. Emphasizes the importance of better coordination and coherence among existing mechanisms, including the Technology Facilitation Mechanism, United Nations agencies and international organizations in providing support to Member States in the field of science, technology and innovation directed towards development priorities and needs;

28. Invites the Commission on Science and Technology for Development and the Technology Facilitation Mechanism to strengthen synergies and mutually reinforce their work on science, technology and innovation, and invites the Secretariat to coordinate the dates of their meetings in order to avoid overlap and to ensure coherence and coordination between both entities;

29. Continues to encourage the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals to further refine and update its mapping of science, technology and innovation activities in the United Nations system with a view to guiding further efforts at collaboration and
capacity-building and formulating coherent advice for Member States advancing national science, technology and innovation frameworks within the 2030 Agenda, including through developing the Global Pilot Programme on Science, Technology and Innovation for Sustainable Development Goals Road Maps;

30. *Reiterates its call for* voluntary contributions for resources from both the private and the public sectors to support the full operationalization of all components of the Technology Facilitation Mechanism;

31. *Encourages* the World Intellectual Property Organization to continue to undertake technical support activities, including helping countries to design, develop and implement national intellectual property and innovation strategies aligned with their development strategies;

32. *Welcomes* the operationalization of the Technology Bank for the Least Developed Countries, and calls upon Member States and other stakeholders to provide voluntary funding to the trust fund of the Technology Bank so that it can pursue its objectives in the area of science, technology and innovation for the least developed countries;

33. *Continues to encourage* the United Nations system to take an active role in forging a closer link with national science advisory bodies to optimally leverage science, technology and innovation for the Sustainable Development Goals, and looks forward to receiving updates and outcomes of the actions through the report of the Commission on Science and Technology for Development;

34. *Calls upon* the United Nations funds and programmes and the specialized agencies, at the request of Member States, to support, as appropriate, technical and scientific cooperation and North-South, South-South, triangular, regional and international cooperation on access to science, technology, innovation and knowledge-sharing, on mutually agreed terms;

35. *Reiterates its call for* continued collaboration between United Nations entities and other international organizations, civil society and the private sector in implementing the outcomes of the World Summit on the Information Society;

36. *Reaffirms* the commitment at the very heart of the 2030 Agenda to leave no one behind and commit to taking more tangible steps to support people in vulnerable situations and the most vulnerable countries and to reach the furthest behind first;

37. *Requests* the Secretary-General to submit to the General Assembly at its seventy-eighth session a report on the implementation of the present resolution and recommendations for future follow-up, including lessons learned in integrating science, technology and innovation policies into national development strategies as well as concrete recommendations in supporting the implementation of the 2030 Agenda, and decides to include in the provisional agenda of its seventy-eighth session, under the item entitled “Globalization and interdependence”, the sub-item entitled “Science, technology and innovation for sustainable development”.

*54th plenary meeting*

*17 December 2021*