



Economic Commission for Africa

African Science, Technology and Innovation Forum

Third session

Brazzaville, Republic of Congo, 25-26 February 2021

Building Forward Better: Towards a Resilient and Green Africa to Achieve the 2030 Agenda and Agenda 2063

I. Background and mandate

1. The 2030 Agenda for Sustainable Development established the collaborative Multi-Stakeholder Science, Technology, and Innovation Forum for the Sustainable Development Goals (STI Forum) as part of the Technology Facilitation Mechanism (TFM). The TFM was established by the Addis Ababa Action Agenda and was launched by the 2030 Agenda for Sustainable Development to support the implementation of the Sustainable Development Goals. The global Forum is organized by the United Nations Inter-Agency Task Team (IATT) on Science, Technology and Innovation for the Sustainable Development Goals, with the support of a 10-member group appointed by the United Nations Secretary-General drawn from the private sector, scientific community and civil society.¹

2. The global Multi-Stakeholder STI Forum is convened once a year to “discuss science, technology and innovation cooperation around thematic areas for the implementation of the Sustainable Development Goals, congregating all relevant stakeholders to actively contribute in their area of expertise”, as well as to “provide a venue for facilitating interaction, matchmaking and the establishment of networks between relevant stakeholders and multi-stakeholder partnerships in order to identify and examine technology needs and gaps, including with regard to scientific cooperation, innovation and capacity-building”.² All these measures are expected to help facilitate the development, transfer and dissemination of relevant technologies for the Sustainable Development Goals.

3. The African Science, Technology and Innovation Forum was established by the Conference of Ministers, in its resolution 960 (LI) of 15 May 2018, calling on the

¹ A/RES/70/1.

² Ibid., para. 70.

Economic Commission for Africa (ECA), in collaboration with the African Union Commission and other partners, to take all steps necessary to organize on a regular basis a multi-stakeholder forum on science, technology and innovation as an input into the work of the Africa Regional Forum on Sustainable Development and the Multi-stakeholder Science, Technology and Innovation Forum for the Sustainable Development Goals.

4. The first African Science, Technology and Innovation Forum was held in Marrakech, Morocco, on 16 April 2019, in collaboration with the Department of Science and Innovation, South Africa. The Forum generated a number of key messages calling on countries to address:

- (a) Inadequate hard and soft STI infrastructure;
- (b) Inadequate investment by African countries in STI;
- (c) The importance of harnessing the innovative spirit of Africa's youth;
- (d) The development of relevant and realistic STI policies and strategies; and
- (e) Promotion of Intra-African STI collaboration as essential.

5. It also identified cross-cutting issues and called on countries to consider (a) promoting local solutions for local challenges, (b) encouraging intra-Africa trade and competitiveness, (c) enhancing private sector participation and intellectual property protection, (d) promoting peace and security, (e) empowering youths and women, and (f) facilitating regional collaborations in STI.

6. The second Forum was held on 24 February 2020 in Victoria Falls, Zimbabwe, and was hosted by the Ministry of Higher Education, Science and Technology Development of Zimbabwe and co-organized with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Department of Science and Innovation, South Africa. The Forum was also supported by the African Union Commission and UN Department for Economic and Social Affairs (DESA)

7. Over 800 delegates, representing African Members States, the United Nations agencies, academia, civil society, the youth, marginalized groups, people with disabilities and the private sector, were in attendance. The Forum was presided over by the Minister of Higher and Tertiary Education, Innovation, Science and Technology, Professor Amon Murwira, Zimbabwe, who was also the host of the STI Forum 2020.

8. A Youth Innovation Bootcamp was organized by the Ministry of Higher and Tertiary Education, Innovation, Science and Technology with the support of the United Nations Educational, Scientific and Cultural Organization – Southern African Regional Office. The Bootcamp attracted about 250 participants from universities, colleges of education and polytechnics from all administrative provinces of Zimbabwe as well as primary schools that were exposed to innovative technologies such as rapid prototyping using 3D technology, robotics, artificial intelligence, and were introduced to entrepreneurship.

9. The Second Regional Science, Technology and Innovation Forum 2020 made the following key messages:

- a) Build capacity in the basic sciences and engineering guided by national heritage, priorities and comparative geographical advantages in order for

Africa to take full advantage of the opportunities offered by emerging technologies.

- b) Significantly scale up investments in R&D, universities and research centres;
- c) Align the critical skills at country level to effectively respond to a future that is increasingly driven by STI.
- d) Establish innovation hubs, incubators and common equipment centres that serve both industry and academia.
- e) Develop a strategy that co-implements the Fourth Industrial Revolution while taking advantage of established technologies in order to catch-up and meet the aspirations of the 2030 Agenda and Agenda 2063.
- f) Strengthen collaborations and partnerships at a continental and regional level by supporting regional networks and capacity building initiatives.
- g) Draw lessons from the experiences of other regions to make significant inclusive and sustainable development gains.
- h) Adopt and promote renewable energy technologies in order mitigate the impact climate change, create jobs and promote well-being.
- i) Redesign the curricula of higher education, by putting an emphasis on an education system that produces goods and services.

II. Key actions and Progress in Meetings the 2020 Messages

10. While many of the messages were aimed at Member States, ECA, UNESCO and the Department of Science and Innovation of Republic of South Africa mobilized several partners and resources to meet some of the aspirations of the first and second STI Forums.

Here we highlight a few selected initiatives that were designed and implemented in 2020:

(i) Supporting Member States to develop a critical mass of skilled workers to meet their development aspirations and participate effectively in the Fourth Industrial Revolution, ECA and its advisory board on STI launched three generic curriculums to support African universities quickly design, refine and run undergraduate and postgraduate programmes in emerging technologies. These include generic curriculums in artificial intelligence; nanotechnology and material sciences; and pharmaceutical chemistry and manufacturing.

(ii) ECA organized the first Innovation and Investment Forum with a focus on COVID-19 in June 2020; and the first Africa Nanotechnology Research and Innovation Forum 2020 in December 2020. The Forums brought to researchers, innovators, investors and policy makers to build networks, industrial alliances and collaborations among the key stakeholders of the Triple Helix of academia-industry-government. More importantly, ECA is supporting four teams financially and technically to move their research from the laboratory to the market.

(iii) ECA and its partners are also undertaking a comprehensive review of science, technology and innovation performance with a special focus on emerging technologies and healthcare technologies, given the on-going COVID-19 global pandemic. This also takes into consideration the African Union-led High-Level Panel on Emerging Technologies and NEPAD-led African Science, Technology and Innovation Indicators (ASTII) initiative.

(iv) In terms of promoting innovation and entrepreneurship among the youth, ECA and its partners hosted the first virtual two-weeks long Youth Bootcamp on Innovation

for COVID-19 with student participants from 38 countries in June 2020. ECA, ITU and partners also hosted a month-long female student coding event that engaged over 3000 young women from across the continent to learn modern ways of coding to build their ICT capacities.

(v) The UN Interagency Task Team on Science, Technology and Innovation (IATT), comprising all UN entities, , launched in 2020 the [Guidebook](#) for the development of STI roadmaps for the SDGs and engaged countries in piloting the approach and methodology elaborated in the Guidebook. i Five pilot countries (Ethiopia, Ghana, India, Kenya and Serbia) are participating in the Global Pilot Programme on STI Roadmaps for SDGs launched at the HLPF in 2019. Furthermore, the UN-IATT conducted pilot online training workshops in November and December 2020, to build national capacity on STI in order to help achieve the Sustainable Development Goals (SDGs).

(vi) UNESCO has been preparing an international standard-setting instrument on Open Science that would encourage and build scientific cooperation for the good of all humanity more than ever before. The first draft of the UNESCO Recommendation was developed through an extensive and inclusive consultative process and is currently under revision on the basis of comments received from Member States by 31 December 2020. The implementation of the future UNESCO Recommendation on Open Sciences relies on awareness raising, capacity building and development of the necessary infrastructure for Open Science.

The third Africa Regional STI Forum will be held on 28 February to 1 March 2021, in a hybrid format in Brazzaville, Republic of Congo. The Forum is co-organized with the United Nations Educational, Scientific and Cultural Organization (UNESCO), in collaboration with the African Union Commission and the Department of Science and Innovation, South Africa.

The Forum is designed to meet both the global and continental mandates. As noted above, it will serve as a platform for exploring and facilitating interactions, matchmaking, cooperation and partnerships among the relevant stakeholders, in order to drive technology development and transfer, and create regional innovation networks for co-learning and co-creation, and for sharing of experiences between and among multi-stakeholders. Further, it will also provide a platform to identify and examine technology needs and institutional voids and gaps that should be addressed to enable African countries to fully harness and deploy science, technology and innovation to accelerate the achievement of the Sustainable Development Goals.

These include scientific cooperation, innovation and capacity-building, as well as facilitation of the development, transfer and dissemination of relevant technologies for the Sustainable Development Goals. The Forum will showcase efforts that the public and private sector as well as individuals deploy to accelerate the achievement of Sustainable Development Goals, as well as how technologies, especially technologies developed in Africa, can contribute to the achievement of the Sustainable Development Goals and Agenda 2063.

Focus of the third Africa Regional Science, Technology and Innovation Forum (Goals 1, 2, 3, 8, 10, 12, 13, 16 and 17)

The third African Science, Technology and Innovation Forum will draw lessons from the first and second Africa Regional Science, Technology and Innovation Forums, and the

organizational and structural aspects of the Multi-stakeholder Science, Technology, and Innovation Forum for the Sustainable Development Goals. In this regard, the third African Science, Technology and Innovation Forum will be held over a two-day period before the commencement of Africa Regional Forum on Sustainable Development, and will mobilize member States, business leaders, academia and civil society to contribute fully and benefit from its proceedings.

The third ARSTI Forum will differ from that of the first and second STI Forums as it will not focus on how STI in general contribute to the individual Goals under review but rather on select key STI-related actions and areas that can help Africa accelerate the pace and scale for meeting the selected Goals under review from an African perspective. In other words, the third STI Forum will focus on four key areas selected from calls of the first and second STI Forums, STISA-2024 and necessitated by the COVID-19 global pandemic, which are:

- **STI Policy Design, Implementation and Evaluation for the Sustainable Development Goals**
- **Leveraging emerging technologies for sustainable developed**
- **Healthcare technologies for improved healthcare outcomes in Africa**
- **Research and Innovation Funding in Africa**

Objective of the Science, Technology and Innovation Forum

The overall objective of the third African Science, Technology and Innovation Forum is to conduct a regional follow-up and review of progress made, in order to identify potential mechanisms and measures that countries can deploy to scale up actions, facilitate peer learning and advance transformative solutions to accelerate implementation of the Sustainable Development Goals and the goals of Agenda 2063. These include:

- (a) Conduct a regional follow-up to, and review of, the implementation of the key messages and measures recommended at the previous Forum;
- (b) Provide a platform for peer learning and sharing experiences, approaches, good practices and lessons learned, in order to accelerate the realization of the aspiration of 2030 Agenda for Sustainable Development and Agenda 2063 of the African Union;
- (c) Identify the technological opportunities, gaps and challenges as well as the institutional voids that can help drive innovation and development; and
- (d) Identify actionable mechanisms for collaboration and matchmaking, to strengthen regional and international partnerships and investments in science, technology and innovation, to accelerate implementation of the two agendas within the decade 2020–2030.

Theme of the third African Science, Technology and Innovation Forum

The theme of the third African Science, Technology and Innovation Forum is drawn from the theme of the seventh session of the Regional Forum: ***“Building forward better: towards a resilient and green Africa to achieve the 2030 Agenda and Agenda 2063”***. The Theme is aligned with the High-Level Political Forum theme for 2021: ***“Sustainable and resilient recovery from the COVID-19 pandemic that promotes the economic, social and***

environmental dimensions of sustainable development: building an inclusive and effective path for the achievement of the 2030 Agenda in the context of the decade of action and delivery for sustainable development.”

17. The seventh Africa Regional Forum on Sustainable Development will undertake a review of the following Sustainable Development Goals: Goal 1 (End extreme poverty), Goal 2 (Zero hunger), Goal 3 (Good health and well-being), Goal 8 (Decent work and economic growth), Goal 10 (Reduced inequalities), Goal 12 (Responsible consumption and production), Goal 13 (Climate action), Goal 16 (Peace, justice and strong institutions): and Goal 17 (Partnerships for sustainable development).

II. Format of the third African Science, Technology and Innovation Forum

18. The third African Science, Technology and Innovation Forum will comprise the following activities, high-level policy dialogues, panel discussions and showcasing events:

(a) *High-level policy dialogues:* At least four high-level policy dialogues comprising Senior Governments, ministers, heads of United Nations agencies, and chief executive officers of firms, as well as vice chancellors of universities and heads of research and technology organizations, will be organized. The interactive high-level policy dialogues will focus on broad and cross-cutting issues and strategic direction, including opportunities and transformative levers, partnerships, commitments, actions and other measures to accelerate implementation.

(b) *Panel session to assess progress on the 2030 Agenda and Agenda 2063:* At least five sessions (on People, Prosperity, Planet, Peace, and Partnerships) will be held to assess progress and contribution of STI in the progress so far registered, and actions needed to amplify the impact of STI in meeting the Sustainable Development Goals. All panel sessions are organized in a town hall fashion without PowerPoint presentations, to encourage free discussions to take place.

(c) *Special sessions:* There are several special sessions and events that are intended to inform the Forum organized by partners and ECA. One of these is the Youth Bootcamp on emerging technologies and innovations to COVID-19

(d) *Review and adoption of key messages of the Forum:* During this part of the Forum, all stakeholders will review, propose amendments to and adopt the key messages aimed at accelerating implementation and to be submitted to the Africa Regional Forum on Sustainable Development 2021 and to inform the Inter-Agency Task Team on Science, Technology and Innovation for the Sustainable Development Goals as well as the Multi-stakeholder STI Forum.

III. Expected outputs

19. The meeting will generate the following key outputs:

(a) A report of the African Science, Technology and Innovation Forum that will inform the Africa Regional Forum on Sustainable Development and the Multi-Stakeholder STI Forum;

- (b) Outcome documents of special sessions and events such as the Youth Bootcamp; and
- (c) A general guide for implementing a regional innovation platform for facilitating technology transfer and collaboration.

IV. Expected outcomes

20. The third African Science, Technology and Innovation Forum is consciously designed to foster collaborations, diffusion of technology and innovation, and scale-up policy and operational efforts needed to accelerate the contribution of STI to meet the 2030 Agenda for Sustainable Development. Specifically, the following will be the key tangible and intangible outcomes:

- (a) A report of key outcomes that could guide Member States, the private sector and non-State actors to improve their STI policies and amplify the impact of STI on measures to accelerate the achievement of the two agendas.
- (b) Strategies to improve funding mechanisms for R&D, innovation and entrepreneurship identified and documented to help Member States build sound scientific, technological and innovation foundation.
- (c) A regional platform for exchanging information on funding, innovations and institutions launched to accelerate technology transfer, collaboration and co-creation among key STI partners in Africa.

V. Participants

21. The meeting will be attended by representatives of:

All 54 African Member States of the United Nations, the African Union Commission, African Development Bank, regional economic communities, civil society, business and industry organizations, academia and research institutions, agencies and organizations of the United Nations system, and other international agencies and organizations, as well as all development partners.

VI. Working languages

22. The meeting will be conducted in English and French, with simultaneous interpretation in both languages.

VII. Dates and venue

23. The third African Science, Technology and Innovation Forum will be held in Brazzaville, Republic of Congo, 25 and 26 February 2021.

VIII. Contacts

For enquiries, please contact: