



Economic Commission for Africa
Sixth African Science, Technology and Innovation Forum
Addis Ababa (hybrid), 21 and 22 April 2024

Venue: UN Conference Centre (Banquet Hall)

Effective delivery of innovative science and technology solutions to reinforce the 2030 Agenda for Sustainable Development and Agenda 2063: The Africa We Want, of the African Union and eradicate poverty in Africa

Draft programme of work

Sunday, 21 April

8.30–9 a.m. **Registration**

9–10 a.m. **Opening session**

Moderator: Acting Director, Technology, Climate Change and Natural Resources Management Division, Economic Commission for Africa (ECA),
Nassim Oulmane

Welcoming remarks:

- Assistant Director-General for Natural Sciences, United Nations Educational, Scientific and Cultural Organization (UNESCO), **Lidia Arthur Brito**
- African Union Commissioner for Education, Science, Technology and Innovation, **Mohamed Belhocine (TBC)**
- Ambassador, Delegation of the European Union to the African Union and ECA, **Javier Niño Pérez**
- Deputy Executive Secretary, Economic Commission for Africa, **Antonio Pedro**

Keynote addresses:

Chair: Minister of Innovation and Technology, Ethiopia, **Belete Molla**

10–10.15 a.m. Coffee break

10.15–11.30 a.m. **High-level panel on advancing science, technology and innovation strategies and policies for industrial development: Experiences and emerging trends**

Science, technology and innovation are key drivers of industrial development and technology industries are growing rapidly. Several African countries are emerging as producers and exporters of knowledge intensive products. Among others, production and exports of automotives, medical devices, processed foods, electrical and electronics, and horticulture, among others are rising.

This session will look at national and regional experiences to identify actions and innovative solutions, policies and strategies that have propelled some Africa countries to rapidly grow their knowledge intensive industries. It will also address some of the emerging opportunities and challenges, such as increased integration in the global supply chain, growing of regional value chains and regional trade. It may also address ways of mobilizing and strengthening educational, research and development institutions to build the intellectual assets that current and future industries need to grow and compete.

Moderator: Assistant Director-General for Natural Sciences, UNESCO,

Ms Lidia Brito,

Panellists:

- Minister of Higher Education, Scientific Research and Technological Innovation, Republic of the Congo, **Hon. Prof. Delphine Edith Emmanuel**
- Minister of Higher Learning and Scientific Research of the Islamic Republic of Mauritania, **H.E Niang Mamoudou,**
- Deputy Minister for Higher and Tertiary Education, Innovation, Science and Technology Development, Zimbabwe, **Hon Simelisizwe Sibanda**
- Minister of Technical and Higher Education, Sierra Leone. **Hon. Dr Haja Ramatulai Wurie**
- Minister of Investment, Entrepreneurship and Industry, Seychelles, **Devika Sumitra Kathrina Vidot**
- Deputy Director, Science, Technology and Innovation (STI) Directorate, Ministry of Environment, Science, Technology & Innovation, Ghana, **Nashiru Salifu**
- Deputy Executive Secretary (Programme Support), ECA, **Antonio Pedro**

General discussion

11.30 a.m.–1 p.m. **High-level panel on scaling up innovative solutions for big data and artificial intelligence for shared prosperity**

Artificial Intelligence (AI) and big data holds immense potential for creating new sources of economic and social development, and for addressing numerous environmental concerns. With a rapidly growing youthful population, increasing connectivity, and a burgeoning tech ecosystem, the continent seems to possess most of the elements needed to harness AI and data science for significant economic and social impact.

However, with limited resources (i.e. human, technology, financial, networks etc), this session will address among others specific segments and applications of AI and data science likely to create the most economic and social benefits in Africa now and in the future; measures needed to ensure the use and benefits of AI and big data science are inclusive and equitable; and areas where investment in AI and data science research, development, commercialization and entrepreneurial talent must be directed. It may also recommend advantages of pursuing different collaboration partners within and outside Africa. Finally, how can Africa ensure the technologies are used for good?

Moderator: Chief, Technology and Innovation Section, ECA, **Mactar Seck**

Panellists:

- Minister of Post, Telecommunications and Digital Economy of Comoros, Hon. **Mr Kamalidini Souef**,
- State Minister of Information and Communications Technology and Digital Economy, Ethiopia, **Hon. Dr. Yeshurun Alemayehu**.
- Government Affairs and Public Policy, **Public Affairs Manager**, Google SSA, **Alex Nyingi**
- ABSA, Data Science, and Associate Professor of Computer Science, University of Pretoria, South Africa, **Dr. Moses Thiga**, (online)
- Assistant Teaching Professor, Carnegie Mellon University Africa, Rwanda, **Jesse Thornburg** (online)

General discussion

1–2 p.m. **Lunch break**

2–4 p.m. **High-level panel on platforms and solutions for harnessing global knowledge to fast-track the attainment of the Sustainable Development Goals**

All countries rely on knowledge developed by others to catch-up, remain competitive or retain their leadership positions. Countries access the knowledge developed by others in many ways that include purchase of machinery and systems, attracting foreign technology firms, hiring of experts, collaboration in research, exchange of staff and students, establishment of research and development units in technology hubs or regions, and so forth. In theory, all countries should be actively pursuing global knowledge and technologies to meet their development goals. However, technology is neither free to access nor accessible and countries may actively discourage acquisition of technology.

This session will explore and offer concrete examples of ways in which Africa can acquire and use global knowledge to meet the sustainable development goals, overcome poverty and hunger among others. In particular, the panel will look at how Africa can mobilize its diaspora; collective network of embassies and consulates, growing pool of international students as well as multinationals to identify new and emerging trends, access technologies and grow their start-ups. To what extent is Africa using the global platforms such as G7, G20 and indeed, the UN and AU to lobby for access to specific technologies for development such as those needed to address climate change, energy transition, health and pharmaceutical, strengthen institutions?

Moderator: Officer-in-Charge, Private Sector Development and Finance Division, ECA, **Robert Lisinge**

Panellists:

- Chief Executive Officer, Green Chemical Solutions, United States, **Dr. Yonas Gizaw**
- Executive Director, Uganda Industrial Research Institute, Uganda, **Prof. Charles Kwesiga**

- Acting Head, Research, Innovation Ecosystems and Entrepreneurship Education Office, and Focal Point, Origin Research and Innovation Lab Physical Hub of East Africa, Dedan Kimathi University of Technology, Kenya, **Prof. Ndirangu Kioni**
- Professor of Science, Technology and Society, Massachusetts Institute of Technology, United States, **Prof. Clapperton Chakanetsa Mavhunga (online)**
- Researcher, Chinese Academy of Science and Technology for Development, China, **Li Ruijie**
- Morocco representative

General discussion

4–4.15 p.m. Coffee break

4.15–6 p.m. **Parallel sessions**

Venue: Parallel session [Banquet Hall]

(a) Leveraging scientific freedom to foster Africa’s STI agenda / launch of the UNESCO report “African Perspectives on Scientific Freedom: Insights from Policy and Practice in Six Countries”

Moderator:

Ângela Melo, Director for Research, Ethics and Inclusion, Social and Human Sciences, UNESCO

Panellists:

- Scientific Research Advisor to the Minister of Higher Education, Scientific Research and Technological Innovation, Republic of the Congo, **Dr Gabin Dimitri Ngantso**
- Deputy Director, Science, Technology and Innovation (STI) Directorate, Ministry of Environment, Science, Technology & Innovation, Ghana, **Nashiru Salifu**
- Vice-Chancellor *a.i.*, University of Cape Town, South Africa, **Prof. Daya Reddy**
- Senior Research Advisor, Embassy of Sweden, Ethiopia, **Dr Amina Jama Mahmud**
- Quantitative Economist & R&D and Innovation Indicators Specialist, African Union Development Agency (AUDA-NEPAD), **Lukovi Seke**

General discussion

Venue: Parallel session b [Conference Room 4]

(b) Policy dialogue on building inclusive, effective and accountable institutions in the fields of science, technology and innovation (Goal 16) for integrated climate action (Goal 13) in Africa

Evidence suggests that interdisciplinary, diverse and inclusive teams tend to be high performing, more creative and innovative than those that are not. Therefore, building inclusive and effective institutions that blend groups and individuals from different backgrounds and disciplines with different perspectives, thinking, problem-solving skills can enable them to solve complex challenges effectively and efficiently. However, building and managing institutions that are diverse (i.e. by gender, ethnicity, age, disciplines, etc) and are inclusive (i.e. active involvement, engagement, etc) requires deliberate efforts to transform existing practices and traditions. Africa may need such institutions to effectively and efficiently address the challenges posed by climate change.

This session will look at how Africa can build inclusive, effective and accountable STI institutions that can tackle the challenges posed by climate change. How can our traditional hierarchical institutions be transformed to create open spaces for debating, sharing views, asking questions and for continuous searching for solutions to climate change? How and where should Africa direct its human capital development, and investment in R&D, innovation, entrepreneurship and industry to make major contributions in addressing climate change to achieve sustainable development? What are the emerging practices, evidence and solutions that can be scaled up in Africa?

Moderator: Inter-regional advisor, UNECA, Frank Rutabingwa,

Panellists:

- Future Earth Africa Hub Leadership Centre, University of Pretoria, **Dr. Daniel Nyanganyura.**
- CEO - Research and Community Engagement Affairs, Ministry of Education, Ethiopia, **Dr. Solomon Benor,**
- President, African Materials Research Society, Senegal, **Professor Balla Diop Ngom**
- Director, Science and Technology Policy Research Institute, Ghana, **Dr. Wilhemina Quaye**
- Senior Environmental Affairs Officer, TCND, ECA, **Linus Mofor**
- Research and Policy Officer, South Africa Climate Action Network, **Moliehi Mafantiri**

General discussion

Venue: Parallel session c [Conference Room 5]

(c) High-level policy dialogue on building capacity in science, technology and innovation to eradicate poverty (Goal 1) and hunger (Goal 2)

Africa is in danger of not meeting the hunger and poverty targets of both the 2030 Agenda and Agenda 2063. As of 2022, 546 million people in Africa were poor; about 283 million were malnourished by 2023; and about 55 million children were stunted as of 2022. Africa's target to end hunger by 2024 in the Malabo Declaration will certainly be missed. Science, technology and innovation can help address some of the root causes such as climate change, low productivity, lack of food storage and limited food processing opportunities that could increase access to affordable quality and nutritious food.

This session will explore elements that have kept both the number of poor and hungry people in Africa high; measures to address food availability, accessibility and businesses that create real paying jobs to create wealth; the potential rise of agro-processing industries as well as inputs (e.g. fertilizer, animal feed, energy producers) in reducing production costs and diversifying exports among other policy measures. It will also address the importance of human capital development, knowledge and innovation in meeting both goals.

Moderator: Coordinator, African Materials Research Society, **Samuel Chigome**

Panellists:

- Minister of Agriculture, Ethiopia, **Hon. Ato Girma Amente**
- Minister of Planning and Development, Ethiopia, **Hon. Dr Fitsum Assefa Adela**
- Director, Multilateral Cooperation and Africa, Department of Science and Innovation, South Africa, **Mandry Ntshani**
- Government Affairs and Public Policy, Public Affairs Manager, Google SSA, **Alex Nyingi**
- Senior Private Development Sector Specialist, world bank, **Alejandro Espinosa-Wang,**
- President, State University of New York Polytechnic Institute, United States, and Founder, African Materials Research Society, **Prof. Winston Oluwole Soboyejo virtual**
- Director AU Global Office and Representative to the AUC and UNECA, WFP, Dr **Hameed Nuru**
- Director of East and Southern Africa, IFAD, **Ms. Sara Mbago-Bhunu (Virtual)**
- Director for East and Southern Africa, UNFPA, **Ms. Lydia Zigomo (virtual)**
- SDG Integration Advisor for the African Region, UNDP, **Dr Frederick Mugisha**

Monday, 22 April

Venue: Banquet Hall

9–10 a.m. **Policy dialogue on using the African Continental Free Trade Area as a springboard for the development of science, technology and innovation.**

The AfCFTA can bridge the investment gap in science, technology and innovation, utilize STI to stimulate economic growth and knowledge diffusion, both at structural as well as sectoral levels. Science and technology is essential in bridging the existing gaps in the fragmentation of the continent's markets, facilitate investment and stimulate industrialization. To increase intra-African trade sustainably, industrial capacity must be increased in order to manufacture the commodities and services that would be traded through the AfCFTA.

The policy dialogue will address, among others, the role science and innovation is or should play in the operational phase of the AfCFTA; determine what policy interventions are required, especially at regional and national levels to unlock the opportunities presented by the operationalization phase for STI; and unpack at a practical level how different aspects of the operationalization phase may be monitored.

Moderator: Director Africa Multilateral Cooperation, Department of Science and Innovation, South Africa **Ms Mandry Ntshani**

Panellists:

- South African Research Chair in Industrial Development, University of Johannesburg, South Africa, **Professor Fiona Tregenna (Online)**
- Trade Attaché (Counsellor) and Senior Trade Negotiator to the AfCFTA, Embassy of the Republic of Angola in Accra, Ghana, **Mr Rui Livramento (Online)**
- Head, Science, Technology and Innovation Policy and Partnerships, African Academy of Sciences, Kenya, **Nkem Khumbah**
- Portfolio Manager, Technology Innovation Agency, South Africa, **Dr Tozamile Rubuluza**
- Chief Scientific Officer, Tokabio, South Africa, **Dr Phiyani Lebea**

General discussion

10–11 a.m. **Leveraging the International Decade of Sciences for Sustainable Development to promote science, technology and innovation in Africa**

The United Nations General Assembly declared 2024-2033 as the International Decade of Sciences for Sustainable Development, as a global initiative to mobilize action towards harnessing the full potential of science for sustainable development. The Decade presents a unique opportunity to accelerate progress in STI in Africa and promote inclusive development across the continent.

The session will discuss strategies for strengthening STI education, training, and research infrastructure in Africa to build a skilled workforce and promote

knowledge creation and dissemination; explore initiatives to support the growth of innovation ecosystems in Africa, including incubators, accelerators, and technology parks, to foster entrepreneurship, technology transfer, and collaboration between academia, industry, and government; identify priority areas for STI intervention to address key societal challenges in Africa, such as healthcare, agriculture, energy, and environmental sustainability and discuss innovative solutions and partnerships to drive impact at scale; examine the role of digital technologies, including artificial intelligence, big data, and blockchain in accelerating STI and promoting inclusive development in Africa; and discuss strategies for harnessing the potential of digital innovation

Moderator: Chief of Basic Sciences, Research Innovation, and Engineering Section, Natural Sciences Sector, UNESCO, **Ms Amal Kasry**

Keynote speaker:

President of UNESCO General Conference, **H.E. Amb. Simona-Mirela Miculescu**

Panelists:

- Assistant Director-General for Natural Sciences (UNESCO), **Lidia Brito**
- Executive Director, African Academy of Science, Kenya, **Dr Peggy Oti-Boateng (online)**
- Chinese Academy of Science and Technology for Development, Secretariat, International Research and Training Center for Science and Technology Strategy under the Auspices of UNESCO (CISTRAT), **Dr. Yang Jing**
- Manager, Emerging Markets Public Affairs, Google, **Alex Nyingi**
- Director, Future Africa and Strategic Advisor on Transdisciplinarity and Global Knowledge Networks, University of Pretoria (tbc), **Heide Hackmann (online)**
- Member of the Steering Group of the Earth-Humanity Coalition, **Lesley Green**
- Professor of Earth Politics, Faculty of Humanities, University of Cape Town, **Prof. Lesley Green**
- Scientific Research Advisor to the Minister of Higher Education, Scientific Research and Technological Innovation, Republic of the Congo, **Gabin Dimitri Ngantso**, (tentative)

General Discussion

11–11.15 a.m. Coffee break

Venue: Banquet Hall

11.15 a.m.–1 p.m. **High-Level Panel on the Year of Education of the African Union: making education the great equalizer**

The potential of education to serve as an equalizer depends on many factors such as access to quality educational institutions and materials. It is common that schools within walking distance of each other have very different learning environments (i.e. teachers, facilities, time spent in class etc) which influence the learning outcomes. Some children in rural areas and poorer neighbourhoods may arrive at school hungry

or have no access to energy, digital tools and adult support at home which in turn undermine performance, among others. This session will address how to ensure education empowers every child and adult with the tools they need to transform their own lives and meet their aspirations realistically.

Among others, the panel will address measure to transform the education sector in Africa to meet its current and future development needs; enhance the learning outcomes of students, apprentices and mentees; and to reduce the growing numbers of unemployed doctors, nurses, engineers, teachers etc. It may also look at the policies, strategies, and innovative mechanisms for increased participation of the community, civil society, and industry in the education system to address some of the bottlenecks (e.g. reduced funding, lack of laboratories and other facilities) and ways to improve the learner's experience.

Moderator: Director, Strategic Planning, Oversight and Results Division, ECA, **Said Adejumobi**

Panellists:

- Deputy Minister for Higher and Tertiary Education, Innovation, Science and Technology Development, Zimbabwe, **Hon Simelisizwe Sibanda**
- Director of UNESCO IICBA, Addis Ababa, Ethiopia, **Quentin Wodon**,
- Director, Human Capital, Youth and Skills Development, African Development Bank, **Dr Martha Phiri**,
- Chief Executive Officer, Universities Fund, Kenya, and Chair, ECA Alliance for Entrepreneurial Universities in Africa, **Geoffrey Monari**
- Associate Researcher, Chinese Academy of Science and Technology for Development, China, **Tian Nianping**
- Founder CEO, Gamers Territory, South Africa, **Mr Tshepiso Malema**,
- CEO and cofounder of Debo Engineering, Jimma University, **Jermia Bayisa Lulu**.
- Director of the UNESCO Multisectoral Regional Office for West Africa, **Dimitri Sanga**

General discussion

1–2 p.m. Lunch break

Venue: Banquet Hall

2:00 – 4.30 p.m. **Partnership in Action: Closing Funding Gaps to Accelerate Sustainable Development, the African Union-European Union Innovation Agenda**

2:00 - 2:05 p.m. **Opening of the Session**

- Co-chair: EU Delegation to the African Union, **Dr Laurent Bochereau**,

2:05 - 2:15 p.m. **General scene-setting: The AU-EU Innovation Agenda**

- Commissioner for Education, Science, Technology & Innovation, African Union Commission, **H.E. Prof Mohamed Belhocine**,

2:15 – 2:45p.m. **Subsession 1: How can STI4SDGs roadmaps help to mobilise and effectively guide STI investments decisions towards the most pressing SDGs?**

Introduction: Team Leader, Joint Research Centre, European Commission, **Dr Angela Sarcina**,

- Assistant Director-General for Natural Sciences, United Nations Educational, Scientific and Cultural Organization (UNESCO), **Ms Lidia Arthur Brito**,

- **Director** Science and Technology Policy Research Institute, Republic of Ghana, **Dr. Wilhemina Quaye**
- Head of Science, Technology Development and Outreach Department at National Council for Science and Technology (NCST), Republic of Rwanda, **Mr Louis Sibomana,**
- Director General, Division of Science, Technology and Innovation, Ministry of Investment, Entrepreneurship and Industry, Republic of Seychelles, **Ms Cynthia Alexander**
- Director of the Transformative Innovation Africa Hub (TIAH), University of Pretoria; Director of the Africa Transformative Innovation Policy Consortium (TIPC) at the University of Sussex Science Policy Research Unit (SPRU), **Mr Daniel Chux**

Moderator: Scientific Affairs Officer, United Nations Economic Commission for Africa (UNECA), **Dr Victor Konde,**

02:45 – 03:00 p.m. Additional interventions and debate

03:00 – 03:30 p.m. **Subsession 2: How can the Innovation-Agenda help innovators access finance and grow their activities faster and in a more sustainable way?**

Introduction: Director for Africa Multilateral Cooperation at the Department of Science and Innovation, Republic of South Africa, **Ms Mandry Ntshani,**

- Officer at ENRICH in Africa, **Ms Mélanie Mwangi.**
- Founder of Angular Creative Labs, **Mr Thato Kasongo,**
- Founder of Mawejje Creations, **Mr Dimma Mawejje Muhammed,**
- Founder of YEWGlobal & ELO Petroleum, **Ms Edma Lawer,**
- Founder and CEO minoHealth AI Labs, karaAgro AI, Runmila AI Institute, Gudra AI Studio, **Mr Darlington Akogo**
- Co-founder of BACE Group, **Ms Charlette N’Guessan,**

Moderator: Expert for GMES & Africa Program African Union Commission, **Dr Taibou Ba,**

03:30 – 03:45 p.m. Additional interventions and debate

03:45 – 04:10 p.m. **Subsession 3: How can innovation funders mobilise the AU-EU Innovation Agenda to identify bankable and truly innovative projects?**

Introduction: Director of Science Technology and Innovation in the National Council for Scientific Research and Technologies (CNRST), the People's Democratic Republic of Algeria, **Prof Mokhtar Sellami,**

- Founder of VC4A, **Mr Ben White,**
- Advisor on Economic Integration, Office of the Secretary, General of the African Continental Free Trade Area, Dr Francis Mangeni
- Country Director to Ethiopia and AU, KfW Development Bank, **Mr Jonas Dylla**
- Co-Founder of Villgro Africa, **Dr Robert Karanja,**

Moderator: Science Counsellor at the Swedish Embassy in Addis, **Dr Amina Jama,**

04:10 – 04:25 p.m. Additional interventions and debate on guiding question

04:25 – 04:30 p.m. **Closing of the session: Key messages and takeaways**
Expert for GMES & Africa Program African Union Commission, **Dr Taibou Ba,** and AUDA-NEPAD, **Mr Lukovi Seke,**

4.30–4.45 p.m. Coffee break

4.45–6 p.m. **Closing of the session**

Statements:

- Director of UNESCO Liaison Office to African Union and UNECA and Representative to Ethiopia, **Rita Bissoonauth**
- Acting Director, Technology, Climate Change and Natural Resources Management Division, ECA, **Nassim Oulmane**
- Minister of Innovation and Technology, Ethiopia, **Belete Molla**