

## **9<sup>th</sup> Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals**

**9-10 May 2024**

**Trusteeship Council Chamber (venue for all official sessions of the Forum)**

**United Nations Headquarters, New York**

*“Science, technology and innovation for reinforcing the 2030 Agenda and eradicating poverty in times of multiple crises: the effective delivery of sustainable, resilient and innovative solutions”*

### **Programme**

Status: 9 May 2024

#### **Thursday, 9 May 2024**

##### **Welcome and Opening**

(10:00 – 10:35)

##### **Opening Remarks**

- H.E. Ms. Paula Narvaez, President of ECOSOC
- H.E. Mr. Dennis Francis, President of the General Assembly

##### **Keynote speakers**

- Mr. Selwin Hart, Special Adviser to the Secretary-General on Climate Action and Just Transition
- Dr. Daniela Braga, Founder and CEO of Defined.ai

##### **Ministerial session under the theme “Harnessing science and technology for the effective delivery of sustainable, resilient, and innovative solutions”**

(10:35 – 11:45)

The 10-Member-Group will present a brief framing/guiding note on the theme of the Forum for consideration by speakers. The list of Ministerial speakers will include the chair of the UN Commission on Science and Technology for Development who will report on the outcomes of the Commission’s 26<sup>th</sup> session.

##### **Chaired by Forum co-chairs:**

- Her Excellency Inga Rhonda King, Ambassador and Permanent Representative of Saint Vincent and the Grenadines to the United Nations, Co-Chair of the 2024 STI Forum
- Her Excellency Christina Markus Lassen, Ambassador and Permanent Representative of Denmark to the United Nations, Co-Chair of the 2024 STI Forum

##### **Guiding questions**

- *What lessons have we learned about harnessing STI to enable SDG progress?*

- *What should we do differently in the second half of 2030 Agenda implementation to enable STI solutions to drive transformation?*
- *What are some promising country experiences and practices that can inform the way forward?*

Including statements by:

- Mr. Li Junhua, United Nations Under-Secretary-General for Economic and Social Affairs
- H.E. Mr. Muhammadou M.O., Kah, Chair, UN Commission on Science and Technology for Development
- Ms. Joyeeta Gupta, Co-chair, Secretary General's 10-Member-Group of High-level Representatives of Scientific Community, Civil Society and Private Sector

Statements by Ministers

## **Thematic session 1. More and more effective funding and capacity for SDG related research and innovation in all regions (SDG17)**

(11:45 – 13:00)

This session will explore the status of global research cooperation and funding - especially in the Global South – for the achievement of the SDGs. It will bring together key public and private funders of research and development (R&D) and other key R&D actors. Following a global status overview, specific cases of R&D cooperation and funding will be discussed, including cases of global and regional cooperation across borders and academic disciplines. These cases will illustrate how important international arrangements have become for global R&D and how indispensable they are for an effective response for achieving the SDGs. A conversation among key R&D funders and key R&D actors from public and private sectors will explore best practices and new ideas on how to better share knowledge, improve the current funding systems, and to strengthen collaboration and build new partnerships. The session is expected to identify high-impact actions based on lessons learnt.

Guiding questions:

- *How can incentives be designed to increase funding levels and increase the effectiveness of SDG-related research and innovation in all regions?*
- *What steps can be taken to build capacity for generating and using STI for sustainable transformations?*
- *How can the Technology Facilitation Mechanism be strengthened to contribute to advances in STI for the SDGs?*

Chaired by Her Excellency Inga Rhonda King, Ambassador and Permanent Representative of Saint Vincent and the Grenadines to the United Nations, Co-Chair of the 2024 STI Forum

Innovators lightning talk (selected winners of UN innovation competition)

- Ms. Daniela Carvajalino Tobon, Wingu (*digital platform for municipal services*)
- Mr. David Oluwajomiloju Idunnuoluwa, Bboxx (*innovative solutions to democratize access to vehicle ownership and electric mobility*) (**video**)

Moderator:

- Mr. Carlos Henrique Brito Cruz OBE, Senior Vice-President, Research Networks, Elsevier; and Co-chair, Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector

Panel

- Mr. Tanaka Akihiko, President, Japan International Cooperation Agency, Japan
- Mr. Alejandro Adem, President, Natural Sciences and Engineering Research Council, Canada, and Chair, Global Research Council
- Ms. Thandi Mgwebi, Group Executive, National Research Foundation, South Africa

- Mr. Li Jinghai, President of the International Panel of Mesoscience, Academician of the Chinese Academy of Sciences and of TWAS, Research Fellow, Institute of Chinese Academy of Sciences Process Engineering, China.

High-level respondents:

- Ms. Maria Leptin, President, European Research Council, Brussels, Belgium
- Ms. Heide Hackmann, Director, Future Africa, University of Pretoria, South Africa
- Mr. Antonio Garcia Zaballo, Lead Specialist Telecommunications - Broadband Platform Coordinator, Inter-American Development Bank

Interactive discussion

## **Thematic session 2. Strengthening scientific cooperation, technology and knowledge sharing and accelerating innovation for integrated climate action (SDG13)**

(15:00 – 16:30)

Climate action – SDG13 – lies at the heart of solutions to tackling today's interconnected crises of nature, biodiversity, pollution but also inequality, poverty, and development. Addressing the climate emergency and its interlinkages to other crises requires transitions in energy, agrifood, mobility, and other key sectors in ways that are just and leave no one behind. Science, technology, and innovation (STI) play critical roles in these transformations. This session explores the role of STI in accelerating integrated climate action and synergistic solutions. It also addresses the role of important approaches such as open science that can contribute to ensuring that no one is left behind. The session brings together leading experts in this field to shed light on what it takes to unlock ambitious STI policies, approaches, and initiatives that can help leverage knowledge, innovation, and technological solutions towards a net-zero and climate-resilient future.

Guiding questions:

- *How can the open sharing of climate data and knowledge be improved?*
- *What can be done to facilitate the transfer of environmentally sound technologies to developing countries?*
- *What can be done to accelerate climate-relevant innovation for transformation in developing countries?*
- *How can siloes be broken at all levels to ensure integrated STI approaches to climate mitigation and adaptation?*
- *What cases can be highlighted to illustrate the potential of open science and inclusive approaches to STI for climate action?*

Chaired by:

- Her Excellency Christina Markus Lassen, Ambassador and Permanent Representative of Denmark to the United Nations, Co-Chair of the 2024 STI Forum;
- Her Excellency Inga Rhonda King, Ambassador and Permanent Representative of Saint Vincent and the Grenadines to the United Nations, Co-Chair of the 2024 STI Forum

Innovators lightning talk (selected winners of UN innovation competition)

- Mr. Matia Ategeka, Uganda spiral water wheel pump (*hydraulic machine designed to pump water using the energy from flowing water sources*) (**video**)
- Mr. Julian Krueger, JK Engineering (*solar ice block machine*)

Moderator:

- Mr. Keywan Riahi, Director, Energy, Climate and Environment Program, International Institute for Applied Systems Analysis, Austria; and Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector

Panel:

- Ms. Karen Scrivener, Professor, Laboratory of Construction Materials, Ecole Polytechnique Fédérale de Lausanne, Switzerland; founder Nanocem; and Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector
- Mr. Haozhe (Henry) Zhao, Director, ESG Management and Sustainability at Everpower Energy Inc. and the Founder and CEO of Quakers Capital
- Ms. Iana Aranda, Senior Director, Engineering for Sustainable Development Department, the American Society of Mechanical Engineers (ASME)
- Ms. Elisabeth Gilmore, Carleton University, Canada, and Peace Research Institute Oslo, Norway

High-level respondents:

- Mr. Sanghyup Lee, President of National Institute of Green Technology, Republic of Korea.
- Mr. Tshilidzi Marwala, Rector, United Nations University, South Africa
- Mr. Deodat Maharaj, Managing Director, UN Technology Bank for the Least Developed Countries, Turkey

Interactive discussion

### **Thematic session 3. Bridging the science, technology and innovation divides to eradicate poverty and end hunger (SDGs 1 and 2)**

(16:30 – 18:00)

Despite efforts, progress towards SDG 1 and SDG 2 has been insufficient to meet the goals set in the 2030 Agenda for Sustainable Development. The situation has worsened since the COVID-19 pandemic struck in 2019 and recovery has been uneven. Science, technology and innovation can give an important contribution to reversing this trend and accelerating progress. Questions of poverty, food security and nutrition are particularly intertwined in the lives of rural, indigenous and local communities, including small-scale producers and family farmers, forest-dependent people, and fishers. Hence, ability to fully benefit from science, technologies and innovations can be particularly transformative for them. This session will consider what promising research and technologies, including affordable and open-source technologies and innovations, can be employed to rapidly reverse increases in poverty and hunger and to address synergies and trade-offs with other SDGs. The session will highlight the causes of poverty and food insecurity including unemployment, social exclusion, and high vulnerability of populations to climate change impacts and disasters.

Guiding questions:

- *What promising research and technologies, including affordable and open-source technologies, can be employed to rapidly reverse increases in poverty and hunger and address trade-offs with other SDGs?*
- *How can STI in these areas be adapted to local socio-economic environments with different risk factors and engage with local knowledge?*
- *What are some promising cases of STI for poverty eradication and food security that can be considered in other contexts?*

Chaired by Her Excellency Christina Markus Lassen, Ambassador and Permanent Representative of Denmark to the United Nations, Co-Chair of the 2024 STI Forum

Presentation on the Science and Innovation Forum 2023:

- Mr. Qu Dongyu, Director General, Food and Agriculture Organization of the United Nations,

Innovators lightning talk (selected winners of UN innovation competition)

- Ms. Miraal Kabir, Safi (*accessible milk pasteurization tool*)
- Mr. Alper Can Tilev, Ampersand (*clean and affordable transportation solutions*)

Moderator:

- Mr. Vladimir Crnojević, Founder and Director of BioSense Institute; Professor in Computer Science, University of Novi Sad, Serbia; and Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector

Panel:

- Ms. Lady Marième Jamme, Chief Sustainability Officer & Founder, iamtheCODE Foundation UK
- Mr. Arlan Peters, Head of Sustainability for Novonosis North America
- Ms. Motoko Kotani, Executive Vice President for Research, Professor and Principal Investigator, Advanced Institute for Materials Research & Mathematics Institute, Tohoku University, Japan; and Vice President, International Science Council; and Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector
- Mr. Patrick Caron, Vice-Chair, CGIAR System Board; President of Agropolis International, French Agricultural Research Centre for International Development (CIRAD), France

High-level respondents:

- Mr. Alessandro Rainoldi, Head of Territorial Development Unit, Joint Research Centre, European Commission
- Mr. Uttaran Dutta, Associate Professor, Arizona State University, USA

Interactive discussion

### **Showcase of Innovations for SDG 1, 2, 13, 16, and 17.**

18:15 – 19:30, Sputnik Lounge

The STI Forum co-chairs invite participants to a reception and event to showcase innovations in local communities and beyond. A particular focus will be highlighting innovations that address multiple SDGs (the in-focus SDGs 1, 2, 13, 16 and 17) and/or that address the needs of vulnerable communities. Innovators will describe their cutting-edge initiatives and share insights from their experience implementing development solutions. They will discuss opportunities for these new technologies to accelerate sustainable and inclusive recovery from the pandemic towards a brighter future. The reception will also feature a WIPO/ITU Exhibition: "She in STI: Women breaking barriers"

Toasts by:

- Her Excellency Christina Markus Lassen, Ambassador and Permanent Representative of Denmark to the United Nations, Co-Chair of the 2024 STI Forum
- Her Excellency Inga Rhonda King, Ambassador and Permanent Representative of Saint Vincent and the Grenadines to the United Nations, Co-Chair of the 2024 STI Forum
- Mr. Li Junhua, United Nations Under-Secretary-General for Economic and Social Affairs
- Selected innovators – introduced by Ms. Iana Aranda, Senior Director, Engineering for Sustainable Development Department, the American Society of Mechanical Engineers (ASME)

**Friday, 10 May 2024**

## **Thematic session 4: Building ecosystems for science, technology and innovation to drive economic growth and sustainable development in Small Island Developing States**

(10:00 – 11:30)

The session will take stock of the current state of STI for the SDGs in Small Island Developing States (SIDS). SIDS challenges, including their small and undiversified economies, distance from large markets and trade routes, and extreme vulnerability to exogenous shocks, especially natural disasters and climate change, are well known. SIDS policymakers and other stakeholders have also been pointing out, for many years, that their lack of high-quality disaggregated data undermines SIDS development progress. This session will shine new light on these challenges but will focus more heavily on SIDS strengths and opportunities in the STI arena, including in disaster risk reduction, renewable energy, health, marine science and fisheries, and governance-related technology, among others. Partnerships are central to strengthening the STI ecosystem, and this session will also spotlight successful North-South, South-South and especially SIDS-SIDS STI partnerships.

Guiding questions:

- *What challenges and opportunities do SIDS face in accessing and employing STI to accelerate economic growth and ensure sustainable development?*
- *How can STI roadmaps and other investments in institutions and capacity help to address these impediments?*
- *What cases can be highlighted showing the power of STI for SIDS' implementation of the SDGs?*

Chaired by Her Excellency Inga Rhonda King, Ambassador and Permanent Representative of Saint Vincent and the Grenadines to the United Nations, Co-Chair of the 2024 STI Forum

Innovators lightning talk (selected winners of UN innovation competition)

- Ms. Katrina Coy, Union Island Environmental Alliance (*biodiversity and climate action*)
- Mr. Peter Pedersen, open-seneca (*low-cost mobile air quality sensor networks*)

Moderator:

- Mr. Xavier Estico, Founder of the Seychelles Centre for Innovation, and Sustainable Development, Seychelles; and Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector

Panel

- Ms. Carol Roach, Deputy Director, Department of Transformation and Digitization, Ministry of Economic Affairs, Bahamas; and Chair, Multistakeholder Advisory Group, United Nations Internet Governance Forum
- Ms. Isaurinda Baptista, Dean, Dean School of Agricultural Sciences and Technologies, Technical University of the Atlantic, Cabo Verde
- Mr. Kyung Ryul Park, Assistant Professor, Graduate School of Science & Technology Policy Office, Korea Advanced Institute of Science & Technology (KAIST), Republic of Korea
- Ms. Petal Punalall-Jetoo, former Secretary, Caribbean Academy of Sciences (representing International Science Council)

High-level respondents

- Ms. Rabab Fatima, Under Secretary-General and High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States delivered by Ms. Miniva Chibuye, Sustainable Development Officer, OHRLLS

Interactive discussions



## Thematic session 5: Harnessing the power of digital innovation for sustainable peace and resilience in the context of climate change (SDG 16)

(11:30 – 13:00)

SDG 16 is about promoting peaceful and inclusive societies, providing access to justice for all and building effective, accountable and inclusive institutions at all levels. In today's world, climate change impacts are already exacerbating competition over natural resources, undermining livelihoods, and contributing to forced displacement, increasing the risk of social tensions, instability, and conflict. Digital innovation and artificial intelligence can provide novel solutions for enhancing peace and resilience, for example through enhancing early-warning systems for natural hazards; improving analysis of converging risks; highlighting response options, including nature-based solutions; improving resource optimization and responses to humanitarian crises or through better understanding of migration patterns. This session will highlight some of the new opportunities and also assess their related social, environmental and ethical challenges.

Guiding questions:

- *How to harness science and technology to make progress on SDG16 to “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”?*
- *What institutional changes are needed to increase the use of science and evidence for more inclusive and responsive policymaking in support of sustainable development?*
- *How can trust in science be strengthened while countering misinformation in ways that contribute to justice, peace and inclusion?*
- *How can digital transformation be leveraged for integrated climate and conflict-sensitive policy-making?*
- *What are some promising cases of leveraging science and technology for environmental conservation and climate adaption in support of peace, justice and inclusion?*

Chaired by Her Excellency Christina Markus Lassen, Ambassador and Permanent Representative of Denmark to the United Nations, Co-Chair of the 2024 STI Forum

Innovators lightning talk (selected winners of UN innovation competition)

- Mr. Simon Tichutab Onilimor, Information Ghana (*interactive tool to enhance local access to information*)
- Ms. Careen Joel Mwakitalu, No Taka Tanzania (*geospatial technology to collect climate data and predict human mobility*)

Moderator:

- Ms. Joyeeta Gupta, Professor of Environment and Development, Faculty of Social and Behavioral Sciences, University of Amsterdam; and Professor on Sustainability, IHE Delft Institute for Water Education; and Co-chair, Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector

Panel:

- Mr. Tshiamo Motshegwa, Director African Open Science Platform, National Research Foundation, South Africa
- Mr. Rune Lund, Director, cBrain East Africa, Denmark
- Ms. Maria João Sousa, Executive Director, Climate Change AI, Portugal
- Mr. Henrik Carlsen, Senior Research Fellow, Stockholm Environment Institute, Sweden

High-level respondents:

- Mr. Guo Huadong, Director General, International Research Center of Big Data for the SDGs, Chinese Academy of Science, China
- Ms. Dima Al-Khatib, Director of the United Nations Office for South-South Cooperation (UNOSSC)

## Thematic session 6. Advancing sustainable development with women-centered science and technology solutions

(15:00 – 16:20)

This session brings together two important accelerators for sustainable development: gender equality and science, technology and innovation (STI). It delves into the successes and challenges of diverse initiatives from governments, international organizations, business and civil society in forging innovative *solutions to advance sustainable development and promote gender equality*. These include women-led initiatives for sustainable development, as well as solutions that specifically target obstacles faced by women and girls. Stakeholders will present their success stories and share their perspectives on gender and STI in times of multiple crises. How to enhance women's roles in decision-making and peaceful governance and how to foster and strengthen global partnership in policy making for women and girls in STEM will also be discussed.

Guiding questions:

- *What are key challenges to and opportunities for integrating a gender perspective into STI policies to effectively address socio-economic development challenges?*
- *How can resources be directed toward research and innovation that address gender divides?*
- *How can STI initiatives also address interlinkages and intersectionalities of exclusion related to age, ability, ethnicity and others?*
- *What are some promising cases where a gender lens has been applied to connect women with innovative SDG solutions crafted with, by and for women?*

Chaired by Her Excellency Christina Markus Lassen, Ambassador and Permanent Representative of Denmark to the United Nations, Co-Chair of the 2024 STI Forum

Innovators lightning talk (selected winners of UN innovation competition)

- Ms. Upsana Jain, Unnati (*solar-powered machine for reeling silk yarn*)
- Mr. Jeremiah Daniel Su, Burn Design Lab (*clean shea roaster*)

Moderator:

- Ms. Aree Moon, President, Korea Foundation for Women in Science, Engineering and Technology; and Vice President, The Korean Academy of Science and Technology, Republic of Korea; Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector

Panel

- Ms. Jayshree Seth, Corporate Scientist and Chief Science Advocate at 3M, USA
- HRH Princess Nisreen El-Hashemite, Executive Director, The Royal Academy of Science International Trust, New York
- Ms. Olubukola Oluranti Babalola, Vice President of the Organization for Women in Science for the Developing World; Fellow of The World Academy of Sciences, Nigeria
- Ms. Stephanie Sassman, Portfolio Leader, Women's Health and Co-Lead, Diversity & Inclusion Team in Global Product Strategy, Genentech, USA

High-level respondents:

- H.E. Ms. Jelena Begović, Minister of Science, Technological Development and Innovation, Serbia
- Ms. Doreen Bogdan-Martin, Secretary-General, International Telecommunication Union (ITU)
- Ms. Natalia Bayona, Executive Director, World Tourism Organization (UN Tourism)



## Thematic session 7. STI partnerships for accelerating structural transformation in African countries, Least Developed Countries and Landlocked Developing Countries

(16:20 – 17:45)

According to the [2023 Global Sustainable Development Report](#) (GSDR), the current global landscape of science, technology, and innovation—including investments, human and institutional capacity, and enabling policy environments—is very unbalanced between the Global North and Global South, with Least Developed Countries (LDCs), Landlocked Developing Countries (LLDCs) and many African countries suffering the greatest shortfalls. The GSDR cites a recent [UNESCO study](#) showing that per capita national spending on research and development in high-income countries was 65 times higher than in lower-middle-income and low-income countries. At the same time, there is enormous potential for expansion of the STI ecosystem in these countries, driven in part by their young populations (60% of today's population of Africa is under 25). Robust, creative science partnerships that engage the Global North and South, will be important, as will investments and initiatives that discourage “brain drain” and reward practitioner-academic hybrid careers. The current session will explore these issues and other building blocks of a vibrant STI ecosystems in LDCs, LLDCs, and the African continent.

Guiding questions:

- How can STI contribute to structural transformation in African countries, LDCs and LLDCs?
- How can partnerships improve connectivity and enable digitalization?
- What key gaps need to be addressed to scale up STI in these areas and how can national, regional, and international institutions contribute?
- What are some promising cases that show how partnerships can strengthen the links between STI and SDG achievement in countries in special situations?

Chaired by Her Excellency Inga Rhonda King, Ambassador and Permanent Representative of Saint Vincent and the Grenadines to the United Nations, Co-Chair of the 2024 STI Forum

Moderator:

- Ms. Catherine Ngila, Executive Director, African Foundation for Women & Youth in Education, Sciences, Technology and Innovation, Kenya; former Executive Director, African Academy of Sciences; and Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector

Panel:

- Mr. Parfait Eloundou-Enyegue, Professor, Department of Global Development, Cornell University
- Mr. Souknilanh Keola, Senior Economist, ERIA (Economic Research Institute for ASEAN and East Asia), Research Fellow, Institute for Developing Economics (IDE), Japan External Trade Organization (JETRO)
- Mr. Magnus Andersson, Associate Professor of Economic Geography, Department for Urban Studies, Malmö University, Sweden; and Secretary-General's Group of Ten High-level Representatives of Scientific Community, Civil Society and Private Sector
- Ms. Roya Mahboob, CEO of the Afghan Citadel Software Company, Afghanistan
- Ms. Anushiya Shrestha, Research Director, South Asia Institute of Advanced Studies, Kathmandu (**video**)

High-level respondents:

- H.E. Mr. Kabir Sherali, Minister of Industry and New Technologies, Republic of Tajikistan
- Mr. Angel González Sanz, Chief, Technology, Innovation and Knowledge Development Branch, Division on Technology and Logistics, UNCTAD
- Mr. K. N. Gunalan, Chair WFEO UN Relations Committee, Senior Vice President AECOM, President Atlas Initiative Representative of WFEO

Interactive discussion

## Closing session

(17:45 – 18:00)

Chaired by Her Excellency Ms. Paula Narvaez, President of ECOSOC

- Mr. Carlos Henrique Brito Cruz, Co-chair, Secretary General's 10-Member-Group of High-level Representatives of Scientific Community, Civil Society and Private Sector
- Her Excellency Christina Markus Lassen, Ambassador and Permanent Representative of Denmark to the United Nations, Co-Chair of the 2024 STI Forum
- Her Excellency Inga Rhonda King, Ambassador and Permanent Representative of Saint Vincent and the Grenadines to the United Nations, Co-Chair of the 2024 STI Forum