Workshop on building capacity and scaling up STI actions and adoption of countries' STI4SDGs Roadmaps in Africa

Oct. 12-13, 2023

Roundtable 7: Youth initiatives and stakeholder mapping in science, technology and innovation

Co-organizers: Major Group for Children and Youth Science-Policy Interface Platform and World Food Forum

Friday, Oct. 13th, 14:30-15:30 PM, CR6 UN ECA Conference Room, Addis Ababa, Ethiopia

Focus of the session

This year's special event 'STI in Africa Day' during the UN's Science Technology and Innovation Forum highlighted the 'need for empowering youth and women, and for providing sustained people-centred investments to foster an innovative workforce to drive innovation, entrepreneurship and sustainable development'.

Africa has one of the world's youngest populations, with over 60% of its population under the age of 25. As of 2021, Africa was home to 1.3 billion people, and this number is expected to double by 2050. However, it faces high levels of youth unemployment and underemployment, with over 20% of African youth being unemployed. Where inadequate job opportunities and skills mismatches contribute to this issue.

UNESCO's 2021 'Engineering for sustainable development: delivering on the Sustainable Development Goals' Report highlights important regional trends particularly in engineering for the African continent.

The use of digital finance and local assembly of products like cars, TVs, and phones showcases Africa's industrial potential. Africa's wealth in resources requires strong government support, robust ICT, local manufacturing, energy, and transport for successful industrialization. Rapid urbanisation and population growth demand significant infrastructure investments. The Fourth Industrial Revolution is emerging in Africa, but rural areas lag behind in electrical and electronic advancements of the Second and Third Revolutions. Critical elements of this revolution, like digital platforms, remain underdeveloped in Africa. Young engineers and architects are vital for growth-focused infrastructure design.

Many African nations struggle to provide quality education and skills development for their youth, limiting access to higher education and vocational training. Africa has a substantial demand for STEM professionals, but concerns persist about aligning engineering education standards with local and international criteria. South Africa is the sole regional signatory to the International Engineering Alliance (IEA), covering both education and mobility agreements. While it might appear that more engineers can boost GDP, the reality is that greater investment in engineering is essential for driving economic growth and creating job opportunities for engineers. Several African countries have fewer than 150 engineers per 100,000 people.

A recent report led by South Africa's UNDP Accelerator Lab 'Making the Invisible Visible, Informal Innovation in South Africa', developed in collaboration with Utrech University, SARCHi, University of Johannesburg, and MIT Management Sloan School; centred on harnessing local ingenuity and examining the practical dynamics of informal innovation and entrepreneurship in Africa.

Findings show that **in South Africa, around 2.5% of adults, roughly 1 million individuals, engaged in leisure-time innovation in the past three years.** Approximately 13% of the population is involved in informal innovation, closely associated with DIY practices. Innovation is more common among wealthier, highly educated individuals in affluent areas, who often share innovations freely. In contrast, lower-income and less-educated groups, including township residents, innovate out of necessity, aiming to generate income.

South Africa has a high rate of informal innovation dissemination, with 33% involving collaboration, exceeding global averages. More than 50% of innovations are directly shared, and over 10% are commercialised, surpassing the usual 25% and 5% rates. Despite higher diffusion, additional investment is needed for further improvement.

Distinct innovation policies are required to tackle fundamental issues. The informal innovation and business sector differs significantly from the formal sector, focusing on everyday problems like access to basic innovation tools, vending locations, and microfinance, as opposed to the more complex innovation challenges faced by formal businesses. **Policy interventions in the informal sector include supporting makerspaces to provide access to innovation tools, ensuring universal internet access, and maintaining a robust physical infrastructure, including reliable access to electricity.**

In preparation for the 2023 ECOSOC Youth Forum, the paper "Key Takeaways from the Youth & the SDGs Online Consultation" synthesises youth perspectives and recommendations for achieving the 2030 Agenda. The recommendations include:

- **Youth-led Innovation Hubs:** Survey participants call for youth-led innovation hubs, both physical and virtual, tailored to community needs. These hubs foster collaboration, support dialogue, and spur innovation.
- **Investment in Non-formal Education**: To enrich creative thinking, the youth advocate for increased investment in non-formal education to build foundational skills.
- **Leveraging Technology and Digital Skills**: The use of technology to track and analyse SDG program data is crucial, as is the creation of a centralised database for connecting young individuals with support.
- **Catalyzing Youth Entrepreneurship:** Promoting youth entrepreneurship through seed funding, mentorship, and support is a key theme in the survey responses.

Objectives

The session will highlight the pivotal role of youth and talent in deploying, developing, and disseminating technologies for the SDGs, with a specific focus on partnerships and stakeholder engagement. It will explore how the STI for Africa Coalition can effectively tap into youth's innate ability to self-organise and advocate for a more sustainable future. The discussion will also delve into enhancing and establishing various financial mechanisms to support young innovators, youth-led organisations, and initiatives aimed at equipping the workforce with essential skills.

Furthermore, the panel will centre on empowering and elevating young individuals driving grassroots change through innovation and entrepreneurship. It will illustrate strategies for strengthening the ecosystem nurturing these talents and ensuring their meaningful contribution to SDG achievement. By deepening our understanding of how partnerships, stakeholder engagement, and financial support facilitate the growth of these endeavours, the panel seeks to provide actionable insights and concrete strategies for harnessing youth's potential and advancing the SDGs in Africa.

Questions

- Can you share a specific instance where you or your organization benefited from a funding model or mechanism for deploying a science, technology, or innovation project?
- When it comes to STI for sustainable development in Africa, what exciting ideas do you have for their application? What youth-led initiatives do you think matter most, and what are your personal priorities for getting young people involved in STI policy discussions?
- How can we boost the active involvement of young people, especially those from marginalized communities, in STI projects and evaluations, even at the local level?
- How can young people and youth groups, both close to home and around the world, partner with local, national, and regional governments and organizations to drive transformation and secure support for youth in STI?
- In what ways can we mobilize young individuals to engage with technology, develop their careers, participate in global projects, strengthen roadmap implementation, and fuel innovation?
- In your experience, what aspects of existing funding models or mechanisms for science, technology, and innovation projects do you think need improvement?

Moderation and Discussion Guidance

The moderator, speakers and discussants will be seated in the inner row of the table with microphone on each seat.

In short opening remarks, the moderator will begin the panel by introducing the subject with a few messages and highlighting the questions for discussion as contained in the session concept notes. The introduction should be limited to 3 minutes.

The moderator will introduce the speakers/keynotes/high-level respondents and guide a conversation among them. In a first round, speakers/keynotes/high-level respondents will make their remarks (maximum of 5 minutes each) which should be aimed at answering questions for discussion.

Speakers' remarks should be informal, focused and frank. They should avoid long descriptions of issues or policies, and not be excessively technical. Rather, they should identify the key challenges, lessons learnt and their policy implications. Most importantly, they are encouraged to present their top three recommendations for action by the United Nations system, governments, businesses, scientists, civil society, and others. They can also present one or two issues warranting further reflection.

If time permits, the moderator may ask follow-up questions and focus them on the special areas of expertise and experience of the speakers/high-level respondents. speakers/high-level respondents can also react to each other. The moderator will ensure equal time allocation and participation by all.

The moderator will then open the floor to discussants for comments and questions from the floor (maximum of two minutes each for the first intervention and one minute for each additional following intervention).

Interventions can take the form of comments, or questions to the panel or to identified speakers. The moderator can direct such questions accordingly.

The moderator may decide to allow a brief discussion after two or three interventions by discussants. He/she may ask speakers/high-level respondents to make remarks related to one another and to react to specific questions from the discussants.

The moderator will then open the floor to audience for comments and questions from the floor. Audience will need to first introduce herself or himself before making two minutes or less intervention. Time permits, questions posted in Zoom chat from the online participants can be read by the moderator and commented by the speakers/high-level respondents.

Some five minutes before concluding the session, the moderator will pass the floor back to the panellists for concluding remarks of one minute each. S/he should highlight a few key messages from the discussions at the end.