Youth Innovators Design Bootcamp 2021

Research, Innovation and Entrepreneurship Opportunities of Emerging Technologies
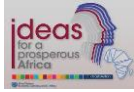
22– 26 February 2021

Closing date for applications: 17 February 2021

Background

The United Nations Economic Commission for Africa and its partners are pleased to invite youths from all walks of life to the Second Bootcamp of the Africa Regional Science, Technology and Innovation Forum 2021. The second Africa Regional Science, Technology and Innovation Forum Bootcamp will expose youths to different approaches to address community and global challenges, using the latest advancements in the fourth industrial revolution technologies with a special focus on artificial intelligence, nanotechnology and health technologies.

The first Africa Regional Science, Technology and Innovation Forum Bootcamp was organized by UNESCO Regional Office for Southern Africa (UNESCO ROSA) and the Government of Zimbabwe through the Ministry of Higher and Tertiary Education, Innovation, Science and technology Development (MHTEISTD) with the participation of ECA. Since 2012, ECA and its partner universities, research institutes and government agencies have organized the annual Innovators Competition and Design School for Biomedical Engineering solutions – commonly referred to as the Innovators Summer School. The first was in Uganda in 2012, Kenya in 2013, Tanzania in 2014, Ethiopia in 2015,Egypt in 2016, Kenya in 2017, Italy in 2018, Uganda in 2019 and Malawi 2020 is still pending due to COVID-19.

Notwithstanding the new realities imposed by COVID-19, ECA, UNESCO and the Government of South Africa organized the two-week Innovators Design School with a focus

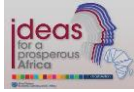**Overview of the Youth Innovation Bootcamp on Emerging Technologies**

The role of technology and innovation in achieving global goals such as those contained in United Nations Agenda 2030 and African Union Agenda 2063 cannot be overstated. Emerging technologies offer significant advantages. First, emerging technologies tend to grow rapidly, resulting in reduction in costs and multiple opportunities. Currently, AI processing power is doubling in about every 4 months and the high competition in AI is likely to drive costs down. Similarly, the cost of sequencing a human genome fail from $100 million in 2001 to $10 million in 2007, $10,000 in 2014 and $1,000 in 2020. Falling costs provide Africa with unique opportunities to exploit emerging technologies without the corresponding huge investment in infrastructure, provided the skills to decipher the information and use the results to generate innovative products is built. The genetic map of the COVID-19, for example, was published in January 2020 and made available for free to the rest of the world. The skills and knowledge needed to use that information to design testing kits and vaccines is required if the opportunities have to be realized.

Second, emerging technologies are pervasive or universal with applications almost all aspects of life. For instance, nanotechnology and AI are finding uses in all aspects of lives – from agriculture to climate change, health to transport. These aspects of emerging technologies present three major opportunities: a) emerging technologies could be applied in areas that are underserved in developing countries (e.g. inclusive access to financial, education and health services for the poor); b) present multiple opportunities that may not be in direct competition with incumbent technology firms or countries (e.g. mobile money that is transformative in poorer countries but not in richer ones) and c) the legal and regulatory systems are not well established which enable co-learning and co-innovation (e.g. nanotechnology in medicines, cosmetics, paints, renewables, electronics etc where the standards are still being developed but the products are already on the market). As such, emerging technologies open up new technological niches that may be of low interest to technology owners or have higher development impacts for poorer countries (the case with mobile money in developing countries but has less impact in developed countries with numerous cost-effective payment and saving options on the go).

The Focus of the Bootcamp and possible questions to be answered:

This bootcamp will focus on three major areas with broad applications. Your applications to participate may include at least one of the following areas:

   a) *Artificial Intelligence (AI) for Africa's Future*

AI promises to transform all aspect of life. From your perspective, provide at least one application of AI that could help Africa to accelerate the achievement of at least one of the SDGs of 2030 Agenda for Sustainable Development and its corresponding African Union Agenda 2063.

b) *A nanotechnology Future for Africa*

Nanotechnology is perhaps one of the most pervasive technologies with endless possible applications and huge impacts (e.g. in health, electronics, renewables and agriculture) and in miniaturization of products. What are your possible applications or innovative solutions that employee nanotechnology to meet any of the SDGs?

c) *Health Technologies for Africa's Wellbeing*

COVID-19 has highlighted the potential of African youths to design and produce innovative and cost-effective solutions to meet health needs. What is (or are) your health technological innovations that can help Africa meet diagnostic and treatment needs of future health pandemics?

Participation:

The bootcamp is open to all youths up to the age of 30 that may or may not be in colleges and universities across Africa, including those in innovation hubs or in employment are welcome. Participants might be supported by partners abroad as well as professionals in research centres, innovation hubs, universities and institutes as well as government and business leaders. They will be welcome to serve as talent scouts, mentors, coaches and guest lecturers.

Why should you participate?

Besides the opportunities to meet business and government leaders, the top 10 innovations selected will be profiled on the ECA and partners' websites; and the top 5 category will be given the opportunity to convince and get the support of judges, governments, investors and potential partners and collaborators.

Where to apply:

For registration, find the form at https://www.uneca.org/afstif2021
The preliminary programme is available at https://www.uneca.org/afstif2021

Submission deadline: 17:00 hrs East African Time of 18 February 2021.

For more further questions: Mr. Asfaw Yitna at yitna@un.org