



United Nations  
Economic Commission for Africa

## **The ECA Innovation and Investment Forum Series**

**On**

**The Theme**

**Promoting Entrepreneurship through Education for  
a Stronger Recovery**

***Theme: The future of the entrepreneurial university***

**Dates:** 02 to 04 November 2022

**Venue:** UNCC, Addis Ababa, Ethiopia

## 1. Introduction

The entrepreneurial university is at the heart of the technology and innovation driven global economy. As the COVID-19 pandemic has demonstrated, all the vaccines based on mRNA-technology include a university partners or knowledge generated by university research teams and universities served as the main infrastructure for testing, monitoring, and tracking of COVID-19 virus spread and its genetic mutations. The increased reliance on science, technology, and innovation to meet emerging economic, social, and environmental challenges has placed new demands on universities to produce not only new knowledge and scientific talent but also inventors, innovators, and entrepreneurs as well as businesses.

These developments have also transformed university management, operations, and performance. Several universities have adopted entrepreneurship strategies, established innovation hubs and technology transfer offices in a bid to foster the newer entrepreneurial mission, in addition to those of teaching and research. Similarly, universities are not only assessed on how they performed their academic duties but also on the outcomes and impacts of their research and entrepreneurial activities.

There is increasing demand by policymakers and societies at large on universities to strategically invest in R&D and commercialization of research that contribute industrial and social development. Therefore, research mission of universities is now expected and prioritized as university R&D budgets have grown. In the United States, the entire higher education sector spent about \$83 billion on R&D with 19 universities spending over a \$1 billion in R&D in 2019 alone. It is therefore expected that questions on outcomes and impacts of such investments would arise.

In developed countries, the private sectors funds account for most of the R&D expenditure. Among the OECD countries, industry accounts for about 63% as source of funding for R&D while government accounts for 24%. In terms of performance, industry accounts for 72% of expenditure followed by higher education sector (16%), government (9%) – collectively accounting for 97% of R&D spending. In Africa, like other developing regions, industry accounts for less than 20% of R&D expenditure by performance (except South Africa at 46%) and universities and the government accounting for over a third each. Countries such as Ethiopia and Botswana estimate that their gross expenditure on R&D performed by universities was at 74% and 51%, respectively. African universities are thus pivotal in the African R&D system. While African universities are unlikely to compete with peers in R&D intensity, they are likely to compete on entrepreneurship.

The first generation of entrepreneurial universities focussed largely on commercializing research discoveries by scientists (largely R&D outputs). The second generation of entrepreneurial universities broaden the mission to include promotion of entrepreneurship internally and externally. Internally, entrepreneurial activities have become more diffused across disciplines and the entire university (i.e., entrepreneurship is taught, nurtured and supported). African universities with a large population of youths with limited employment opportunities can promote entrepreneurship internally and externally beyond commercialization of R&D outputs. Several African universities already host some of the best start-up hubs, accelerators and incubators of technologies and businesses.

Similarly, emerging technologies and innovation models present African universities with unique opportunities to advance teaching, research and entrepreneurship missions in ways that were not possible a few decades ago. Today, teaching, research and entrepreneurship promotion can be offered virtually to more clients cost-effectively. And the growth and wide interest in open science (i.e., an approach to diffuse scientific knowledge from academia, industry and public sector immediately through digital and collaborative technologies)<sup>1</sup> and open innovation (i.e., a model that encourages opening up the innovation systems of entities to benefit from the global knowledge)<sup>2</sup> can help African universities with limited R&D budgets advance teaching, research and entrepreneurship missions of the university.

## 2. Advancing the entrepreneurial university model in Africa

While there is no one-size-fits-all model of an entrepreneurial universities, Africa faces many challenges that can benefit from the massive intellectual, financial and network resources of universities to find sustainable solutions. This was clearly spelled out in the outcome document of the Africa Regional Science, Technology and Innovation Forum 2020 held in Victoria Falls, Zimbabwe in February 2020. One of the resolutions called for the transformation of African universities to become producers of goods and services.

To meet that call, ECA and with the support various governments supported surveys to assess the readiness of universities in Algeria, Ghana, Egypt, Ethiopia, Kenya, Rwanda and South Africa in terms of promotion and diffusion of the entrepreneurship mission. This activity was supported by various rounds of consultative meetings at national and continental level to share experiences and discuss the findings, which were well received by university and government officials. In March 2022, ECA, the Government of Rwanda and their partner countries and UN agencies launched the Alliance of Entrepreneurial Universities in Africa (AEU) during the Africa Regional Science, Technology and Innovation Forum 2022.

The overall goal of the Alliance is to **encourage universities to promote, nurture and drive entrepreneurship and business development within the institution, in the region and beyond**. Specifically, the Alliance promotes entrepreneurial initiatives of its members; sharing of experiences in entrepreneurship teaching, learning and research; encouraging excellence and competition in specific aspects relevant to entrepreneurship; and forging strategic partnerships with the local and international communities encourage collaborations in entrepreneurship development. The Alliance encourages member countries to set local networks to support the African Alliance in promoting entrepreneurial universities.

## 3. The Theme and Objectives of the Forum

### 3.1. The theme

---

<sup>1</sup> Elliott KC, Resnik DB. Making Open Science Work for Science and Society. *Environ Health Perspect.* 2019 Jul;127(7):75002. doi: 10.1289/EHP4808. Epub 2019 Jul 29. PMID: 31353949; PMCID: PMC6792383.

<sup>2</sup> Leydesdorff, L., Ivanova, I. "Open innovation" and "triple helix" models of innovation: can synergy in innovation systems be measured?. *J. open innov.* 2, 11 (2016). <https://doi.org/10.1186/s40852-016-0039-7>

As Africa slowly recovers from the impact of the COVID-19 pandemic, it faces the challenges posed by the fighting in Ukraine that threatens to drive energy and food prices beyond the reach of populations that were already energy and food insecure. Soaring energy prices will have a major impact on all sectors – from agriculture and transport – with consequences on Africa’s ability to meet the Agenda 2063 and sustainable development goals (SDGs). All these come at a time when Africa is grappling high debt burdens and climate change impacts that are affecting the entire continent. Against this backdrop, the Forum’s theme is entitled **“Promoting Entrepreneurship through Education for a Stronger Recovery”**. Universities are well placed to provide the knowledge, skills, talent and mindset needed to address complex challenges.

Universities will need to reposition themselves to become both partners of and go-to-institutions for industry and government entities seeking long term partnership to address new and emerging challenges, provide solutions to current ones and anticipate problems and prepare for them before they emerge. This will require a strategic rethink of how university research is planned, entrepreneurship is promoted and engagement with external partners organized and managed. As such, a subtheme of the Forum is entitled *“The future of the entrepreneurial university”* in Africa.

### **3.2. Objectives of the Forum**

The overall objective of the Forum is to **encourage universities to promote, nurture and drive entrepreneurship and business development in teaching, research and outreach**. Specifically, the Forum will seek to:

- a) Advance the sharing of experiences and lessons in building a broad-based entrepreneurial culture that cuts across disciplines and sectors
- b) Showcase excellence in promotion of entrepreneurship through education and its outcomes and impacts
- c) Stimulate the forging of strategic partnerships among members and with industry and government to address new and emerging challenges
- d) Encourage collaborations in research on building innovation and entrepreneurship support ecosystems internally and externally to meet national, regional and global development aspirations.

## **4. Structure of the Forum**

**To meet the above objectives, the Forum will be composed of three main activities**

### **4.1. Keynote addresses:**

Keynote addresses will bring both African and regional perspectives on entrepreneurial universities, their organization and management, evolution overtime and their place in the national innovation system. Keynote addresses will highlight areas where African universities will be needed to promote research, development, innovation and entrepreneurship to ensure Africa is not left behind.

#### **4.2. Policy dialogues and discussions**

Policy dialogues and discussions will focus on specific subjects on core aspects of entrepreneurial universities and their current and future development. The discussions will also include the presentations of the research on entrepreneurial universities in Algeria, Ethiopia, Ghana, Kenya, Rwanda and South Africa. Another set of discussion will focus on technology development and transfer in Africa supported by research cases of Ethiopia, Ghana, Kenya, Morocco, Rwanda and South Africa.

#### **4.3. Showcasing and exhibitions**

The Forum will also provide space for exhibitions, demonstrations and showcasing of technologies, enterprises and unique business models developed by student, researchers and teams linked to universities. Furthermore, universities could showcase their unique entrepreneurship support processes, mechanisms, infrastructure and investment as well as strategies and governance arrangement.

### **5. Format**

The Forum will offer both physical and virtual participation (hybrid format). In addition, there will be three competitions: a) for student entrepreneurs, b) for university support infrastructure for innovators and entrepreneurs and c) for entrepreneurial universities that are intended to showcase some of the best practices and outcomes. In addition, a Facebook and YouTube channel will be offer participants the opportunities to pitch, showcase and share short audiovisual exhibitions of their work, facilities, processes and services.

### **6. Participants:**

The Forum is open to all member States of the United Nations with a special focus on leaders of industries, technology investors, university managers, heads of incubators and innovation hubs, students and researchers from R&D institutions. It will also bring members and supporters of the Alliance of Entrepreneurial Universities (AIU) in Africa and beyond.

### **7. Venue:**

United Nations Conference Centre, Addis Ababa, Ethiopia

### **8. Contacts:**

- Asfaw Yitna at [yitna@un.org](mailto:yitna@un.org)
- Gedion Workneh at [workneh@un.org](mailto:workneh@un.org)