

A background image showing two men in a meeting, with a red overlay. The man on the left is pointing at a laptop screen, and the man on the right is looking at the screen. There is a coffee cup on the table in front of them.

# The Entrepreneurship Ecosystem Matrix

**Define, Develop, Diagnose!**

# Outline



The EED Framework

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The Interactive Framework

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HEI Enablers

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HEI Activities

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EE Aspirations

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## ▼ How to use guide

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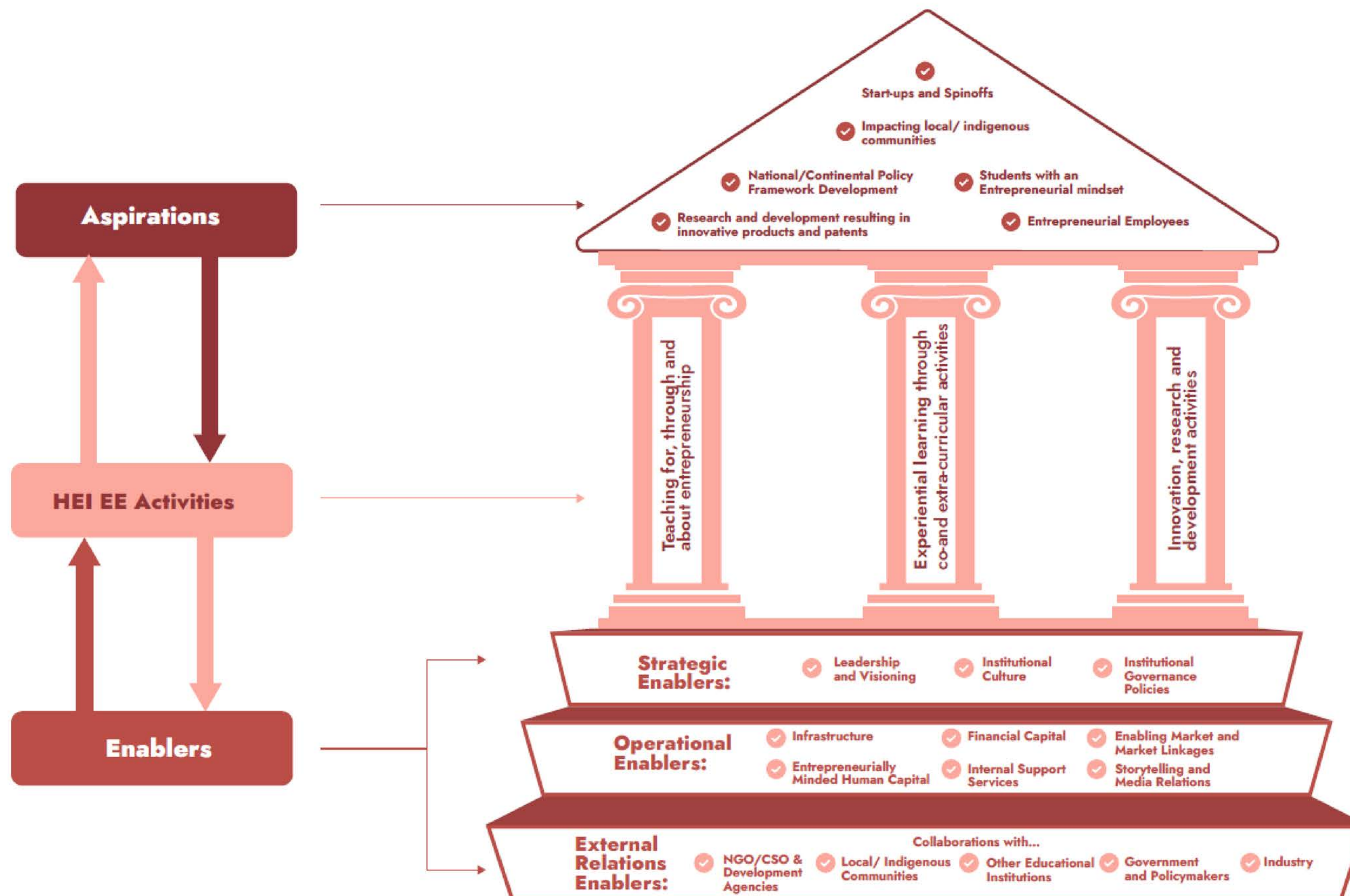
This serves as a guide for the higher ed entrepreneurship ecosystem matrix, developed as part of the Education Collaboratives thought leadership project on active entrepreneurship ecosystems in higher educational institutions across sub-Saharan Africa, which can be read [here](#).

For stakeholders interested in a quick peak at the framework developed to aid them to describe, design, and diagnose their entrepreneurship ecosystems, this guide presents the following:

1. The Open System Model inspires the framework and looks at the entrepreneurship ecosystem within an HEI as an open system within the larger HEI. It considers the **inputs** (dubbed **enablers**: the resources that need to come together to create an active entrepreneurship ecosystem). It also captures the **transformations** (dubbed activities, which are the **activities** undertaken by the actors within and outside the ecosystem), and the **goals** (described as the **aspirations** of the HEI where their entrepreneurship ecosystem is concerned).
2. An **interactive version of the framework** is then provided to help the reader navigate the indicators of the various enablers, activities, and aspirations curated from an extensive desk study, and validated empirically with a wide range of players within the ecosystems on the continent.

This document thus serves as an informative piece for users of the e-playbook and other ecosystem actors.

# ▼ EED Framework





# ▼ The Interactive EED Framework

## EE ASPIRATIONS

Start-ups and Spinoffs

Students with Entrepreneurial Mindset

National / Continental Policy Framework Development.

Impacting Local/ Indigenous Communities.

Research and Development Resulting in Innovative Products and Patents.

Entrepreneurial Employees

## HEI ACTIVITIES

Core-Curricular activities: Teaching for, through & about Entrepreneurship

Experiential Learning through Co- and Extra Curricular-Related Activities

Innovation, Research & Development Activity

## EE ENABLERS

Leadership and Visioning

Institutional Culture

Institutional Governance Policies

Strategic Enablers

Infrastructure

Enabling Markets and Market Linkages

Financial Capital

Entrepreneurially minded Human Capital

Internal Support Services

Storytelling and Media Relations

Operational Enablers

Collaborations with Industry

Collaborations with the Local/Indigenous Communities

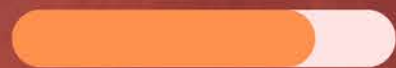
Collaborations with other Educational Institutions

Collaborations with NGO/CSO & Development Agencies

Collaborations with Government and Policymakers

External Relations Enablers

# HEI Enablers



**Metrics and Indicators**





# Institutional Culture

Metrics	Indicators
<b>Collaborative Culture</b>	HEI showing evidence of valuing teamwork, having systems that promote consensus and stakeholders benefiting from cordial working relationships.
<b>Innovative Culture</b>	Evidence of a work environment that is creative, entrepreneurial, and innovative
<b>Supportive Culture</b>	Evidence of the availability and access to essential help or support
<b>Learning Culture</b>	Evidence of the promotion of formal sharing through institutional based processes and lifelong learning through social practices
<b>Employee Involvement Culture</b>	Evidence of a friendly working environment
<b>Bureaucratic Culture</b>	Evidence of procedures, rules and policies, continuous monitoring, administering, coordinating and enforcing defined rules



# ▼ Leadership and Visioning

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Metrics	Indicators
Entrepreneurship Strategy Articulation	The existence of a clear vision and strategy document
Supportive Policy	Evidence of HEI's willingness and ability to support, interpret and implement supportive policy
Social Legitimacy	Evidence of the HEI gaining (perceived) legitimacy in the sociological sense
Infrastructural and Resource Support	Evidence of the commitment and provision of the needed resource and infrastructure



# Institutional Governance Policies



Metrics	Indicators
Participation	Evidence of participatory activities across all institutional platforms and services
The Rule of Law	Evidence of institutional law and sanctions within institutions
Transparency	Evidence of transparent operations
Responsiveness	Evidence of response to corporate principles and health
Consensus Oriented	Evidence of stakeholder involvement
Equity and Inclusiveness	Evidence of equal treatment across all segments of the HEI
Effectiveness and Efficiency	Evidence of competent human resources and systems across the HEI
Accountability	Evidence of clarity of responsibilities and functions across all segments of the HEI
Quality of Education	Evidence of quality education and its attending supporting facilities



# ▼ Internal Support Services

Metrics	Indicators
Professional Services- Skills	Evidence of the availability, quality, appropriateness and adequacy of mentors
Support from Departments and Other Set-ups Within the HEI	Evidence of availability and quality support from the institution’s administrators, academic and research departments)
Business/ Enterprise Development Centres	Evidence of the availability to adequate and quality hubs, incubators and centres





# ▼ Enabling Markets

Metrics	Indicators
Local/ Business Networks	Evidence of a market segment, customer base, consumer feedback mechanism, market share and accessibility to target market
Multinational Corporations as Customers	Evidence of institutional reputation and factors that promote multinational collaborations
Availability of Early Adopters	Evidence of, access to, and potential growth opportunities for early adopters
Reference Customers	Evidence of a system that allows reference customers and feedback for growth



# Government and Policymakers



Metrics	Indicators
Regulation Framework Incentives/Extent of the Regulation	Evidence to monitor, certify, incentivise and access to the indirect ecosystem actors
Venture-friendly Legislation/Forms of Regulations Used	Evidence and access to a clear roadmap for compliance
Financial Support	Evidence of collaborations and jump-start fund to aid early-stage businesses





# ▼ Collaboration with NGO/CSO and Development Agencies

Metrics	Indicators
Business associations	Evidence of the developmental agencies engaging and collaborating with HEIs
Conferences	The existence of avenues created by the developmental agencies for HEI entrepreneurship ecosystems to dialogue, obtain customer feedback, negotiate, and to formulate their goals
Entrepreneurship Promotions	Evidence of developmental organisations engaging in policy discussion and formulations that promotes entrepreneurship
Socio-Cultural Mechanism	Evidence of the developmental agencies having trust and societal tolerance while engaging the HEI entrepreneurship ecosystem in collaborations towards educating the society on gender equality related matters
Social-Economic Mechanism	Evidence of the developmental agencies engaging the HEI entrepreneurship ecosystem towards community based economic development and transformations)
Institutional Capacity	Evidence of HEI, its EE and development agency having human resources with the requisite skills
Governance Environment	Evidence of collaborative work between HEIs and NGOs/CSOs to operationalise laws and policies within their ecosystems)



# Infrastructure



Metrics	Indicators
Telecommunication	Evidence of technological devices that are easy to use and compatible
Transportation	Evidence of a reliable, effective and convenient transportation network
Facilities	Evidence of access to requisite facilities and its associated databases to support HEI activities





## ▼ EE Collaboration with Industry

Metrics	Indicators
<b>Relational capability</b>	Evidence of exchange of requisite skills and resources including knowledge sharing, financial resources, capabilities, skills, and technological resources between the HEI and various actors and industries
<b>Relational Collaboration</b>	Evidence of collaborations/ networks with various stakeholders that possess dynamic capabilities and the capacity to purposefully create, extend, or modify the HEI and its EE's
<b>Relational strength</b>	Evidence of quantifiable property that characterise the relationship with collaborators and partners as well as the HEI and its EEs

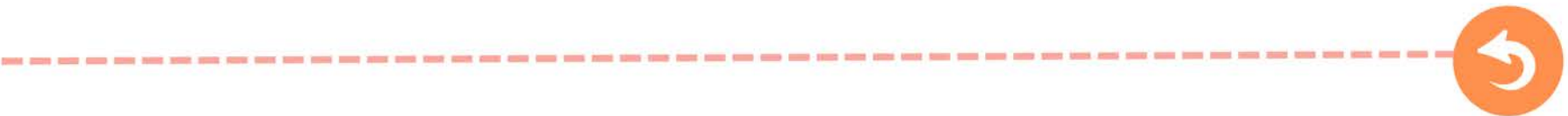


## ▼ Collaborations with other Educational Institutions

Metrics	Indicators
Resource-based collaborations	Evidence of requisite skills and resources including knowledge sharing, financial resources, capabilities, skills, and technological resources
Relational Collaboration	Evidence of HEI relating and being visible to other HEIs
Cost based collaborations	Evidence of collaborations that allows the EE of the HEI to reduce their costs of operations including technological costs, research and development costs, operational costs and the transaction costs based on these collaborations



# Entrepreneurially Minded Human Capital



Metrics	Indicators
Knowledge	Evidence of the management of explicit and tactic knowledge creation, accumulation, utilisation, storage and dissemination within the EE of the HEI
Technical Talent	Evidence of appropriate experts for technical, scientific and professional fields within the EE of the HEI
Outsourcing	Evidence, procurement systems and equitable contracting process for experts within the EE of HEI
Entrepreneurial Company Experience	Evidence of structure that guarantees opportunities for staff, faculty and interns to relate to and learn from start-ups within the EE of HEI
Wisdom	Evidence of a sound management system that guarantees a high level of reasoning
Health	Evidence of support for good health and wellness among actors within the EE of the HEI
Entrepreneurially Oriented Staff	Evidence of staff that are entrepreneurially minded and are able to transfer these skills
Education	Evidence of continuous learning, training and developmental opportunities with the EE of the HEI



# ▼ Storytelling and Media Relations

Metrics	Indicators
Reputation Nationally	Evidence of the intentional use of appropriate channels for the engagement and development of HEI and their EE in national dialogues
Reputation Continentally and Globally	Evidence of the intentional use of appropriate channels for the engagement and development of HEI and their EE in continental and global dialogues
Visible successes	Evidence of personnel with the requisite experience to properly position stories that emanate from the EE
Impact measurement	Evidence of stories generated from the EE enhances the HEI's reputation and improves the interactions between HEIs



# ▼ Financial Capital



Metrics	Indicators
Private Equity	Evidence of the appropriate structures as well as access to capital investment
Investors	Evidence of investors and the associated processes and procedures for investor funding
Funding Support from the HEI	Evidence of funding support from the HEI specifically for the development and advancement of its EE



## ▼ The Local/ Indigenous Communities

Metrics	Indicators
<b>Networks</b>	Evidence of the HEI associating and supporting the development of their local EE and that of the community
<b>Internal Relations Among Members</b>	Evidence of HEI associating with its identified internal stakeholders
<b>External Relations Among Members</b>	Evidence of HEI supporting the identification of the needs of the local and other indigenous communities through research
<b>Density of networks</b>	Evidence of programs, systems and policies that support the development of entrepreneurs within the local/ indigenous community



A background image showing four students sitting on a grassy field. On the left, a woman with long braids and a man are looking at a laptop. On the right, a man with headphones and a woman with glasses are looking at another laptop. The image has a warm, orange-toned overlay.

# HEI Activities

**Metrics and Indicators**



# ▼ Core-Curriculum Related activities

Metrics	Indicators
Entrepreneurship Courses	Evidence of courses and programmes that students can enrol in as part of their degree requirements
Entrepreneurship Lectures	Evidence of entrepreneurship lecturers given at the HEI to foster and boost entrepreneurial efforts
Practical Entrepreneurship Exercises	Evidence of administering exercise that takes students experientially through the start-up process





# ▼ Co and Extra-Curriculum activities

Metrics	Indicators
Entrepreneurship Competitions	Evidence of entrepreneurship competitions that seek to harness the entrepreneurship skills of students
Entrepreneurship Training	Evidence of HEI engaging in entrepreneurship incubation programs, mentorships/internships, the existent of hubs, maker spaces and other training facilities that support students to start businesses



# ▼ Innovation, Research and Development



Metrics	Indicators
Collaborative Research	Evidence of collaborative research, seminars and conferences to learn and develop the practical skills to coach them on teaching skills
Quality of Publication	Evidence of published papers in journals and other relevant outlets
Project Outputs Developed and implemented	Evidence of innovations and products generated from projects within the institutions



A woman on the left, wearing a face mask and holding a clipboard, points at a large digital display. A man in the center, also wearing a face mask, holds a smartphone. The display shows an 'ANALYTICS SUMMARY' with various metrics and a 'GRAPHS & DETAILED ANALYSIS' section with multiple charts. The entire scene is overlaid with a semi-transparent red filter.

# EE's Aspirations

**Metrics and Indicators**



# ▼ Start-ups and Spinoffs

Metrics	Indicators
Academic Spin-offs	Evidence of the HEI having some ownership of companies originating from the HEI's teaching, learning and research activities
Graduate Start-ups	Evidence of new businesses started by graduates from the HEI
Revenue Generated by Start-ups and Spin-offs	Evidence of HEI generating revenue from the spin-offs and start-ups
Support for Start-ups and Spin-off	Evidence of intentionality within the EE's structuring - and programming to allow and support the creation and development of spin-off product and start-ups





# Entrepreneurial Mindset



Metrics	Indicators
<b>Entrepreneurial Cognition</b>	Evidence of knowledge in innovation business and the development and honing of the inert talents for effective decision-making involving opportunity evaluation, venture creation, and growth
<b>Entrepreneurial Behaviour</b>	Evidence of HEI students, graduates, faculty and staff members exhibiting an entrepreneurial attitude which includes the ability to rapidly sense, act, and mobilise in response to opportunities
<b>Entrepreneurial Emotions</b>	Evidence of emotionally stable students, faculty and staff members with an ability to deal with stress and risk associated issues



## ▼ IV. National/ Continental Policy Framework Development

Metrics	Indicators
<b>Collaborations with National/ Continental Agencies</b>	Evidence of HEI engaging in activities with national/ continental agencies to shape and develop policy centred on advancing entrepreneurship
<b>Research and Advocacy</b>	Evidence of HEI engaging in research and advocacy aimed at advancing national/ continental policies centred on entrepreneurship
<b>Social Legitimacy</b>	Evidence of the HEI gaining (perceived) legitimacy within its operating community to advance its contributions to national/ continental entrepreneurs dialogues





# ▼ Impacting Local / Indigenous Communities

Metrics	Indicators
Relation Collaboration	Evidence of HEI collaborating with local and indigenous communities for the mutual advancement and development of entrepreneurship
Resource-Based Collaboration	Evidence of HEI investment in the advancement of entrepreneurship by investing its resources into the community
Transfer of Knowledge	Evidence of HEI transferring entrepreneurship knowledge acquired with the local communities



# ▼ Research and Development Resulting in Innovative Products and Patents

Metrics	Indicators
Contribution to Knowledge	Evidence of the HEI significantly contributing to the body of knowledge through publication and citation metrics, as well as intellectual property development
Foster knowledge	Evidence of knowledge and best practices from research workshops and seminars and making informal contacts
Economic Impact	Evidence of economic returns generated by the HEI, either directly or indirectly, because of their research, developments, and innovative products





# ▼ Entrepreneurial Employees



Metrics	Indicators
Seeking Opportunities	Evidence of staff engaged in learning activities that open them up to new skills and knowledge that enhance the EE of the HEI
Entrepreneurship Experience	Evidence of staff having been exposed/worked in some entrepreneurial position either as a business owner themselves or in a startup environment
Competence	Evidence that the staff possess the requisite skills required to actively engage and develop an EE system required of an HEI