



**THE AFRICAN
ENTREPRENEURIAL
ECOSYSTEM INDEX**

DATA & METHODOLOGY

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**INNOVATION
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AGCAE
Allan Gray Centre for
Africa Entrepreneurship

What is the African Entrepreneurial Ecosystem Index?

The African Entrepreneurial Ecosystem Index provides information on the conditions for productive entrepreneurship in African countries. It does not provide information on entrepreneurship itself, which is the output of an entrepreneurial ecosystem. Entrepreneurial ecosystems are sets of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory. Productive entrepreneurship is defined as any entrepreneurial activity that creates value for the entrepreneur but also for the economy at large. The African Entrepreneurial Ecosystem Index consists of seven key challenge areas: governance, culture, support, human capital, finance, market access and infrastructure.

What data is the African Entrepreneurial Ecosystem Index built on?

The African Entrepreneurial Ecosystem Index is based on a large and detailed database of 20 indicators that provide information on the quality of the seven challenge areas of national entrepreneurial ecosystems in Africa. The indicators are based on credible data sources from public and private organisations, in Africa and globally. See table 1 for an overview of the data sources. While this database is not fully comprehensive, it does give a sense of the qualities of African Entrepreneurial Ecosystems. We are continually building out this database to draw better insights about entrepreneurial ecosystems.

How is the African Entrepreneurial Ecosystem Index constructed?



We have constructed the African Entrepreneurial Ecosystem Index to map the quality of national entrepreneurial ecosystems in Africa. An index is chosen because it provides a standardised and systematic method for comparing and summarising complex data or information into a single numerical value or score. The index is created to compare different units (countries) and a rank in terms of multiple features (challenge areas). Since one unit is stronger in one feature and the other in another feature, it is necessary to find a universal way to compare and summarise them in one index.

Based on existing academic and policy studies, an index comprising seven challenge areas is proposed.

The seven challenge areas of the entrepreneurial ecosystems can be quantified based on sub-indicators, and be given a comparable value. This is done by normalising the value of each element between 0 and 1: the frontier country within Africa has the highest value (1), and the country with the lowest performance has the lowest value (0). The advantage is that this allows us to compose an index value per challenge area and overall, and compare the 'strength' of different entrepreneurial ecosystems. The challenge areas of the index all get the same weight. The seven challenge areas are summed into one index value, with a maximum of 7 and a minimum of 0.

Further reading & learning

For more information on the computations and mathematical underpinning of the index please feel free to contact Dr. Phumlani Nkontwana (pnkontwana@sun.ac.za) and Erik Stam (e.stam@uu.nl).

For further reading on the challenge areas see [Nkontwana & Stam, 2023. "Entrepreneurial Ecosystems for the Africa we want."](#) Furthermore, on the [Ecosystem.build](#) platform you will find a wealth of information, papers, courses, methodologies, and tools to help you dive deeper in the world of entrepreneurial ecosystems. Be sure to check out the platform regularly for updates.

Table 1. African Entrepreneurial Ecosystem Index: empirical indicators

Dimension	Indicator	Description	Data source(s)	Year
Governance	RuleLaw	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	World Bank Worldwide Governance Indicators (World Justice Project Rule of Law Index)	2022
	Corrupt	Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.	World Bank Worldwide Governance Indicators (World Justice Project Rule of Law Index)	2022
	BusReg	The duration that business incorporation experts indicate is necessary for entrepreneurs to complete all procedures required to start and operate a business with minimum follow-up and no extra payments. It is calculated in calendar days. The time estimates of all procedures are added to calculate the total time required to start and operate a business, taking into account simultaneity of processes. It is assumed that the minimum time required for each procedure is one day, except for procedures that can be fully completed online, for which the time required is recorded as half a day.	World Bank Ease of Doing Business Project	2020
Culture	Trust	Most people can be trusted: Generally speaking, would you say that most people can be trusted or that you must be very careful in dealing with people?	Afrobarometer (World Value Study)	2021
Support	ProfNet	LinkedIn users by country [number of users per 1 million population]	World Population Review	2023
	Hubs	Membership Afrilabs: Innovation hubs that serve as physical co-working spaces and dedicated offices, offering comprehensive training and support in areas such as business, legalities, and finance to African entrepreneurs, innovators, developers, and young individuals. [number of members per 1 million population]	Afrilabs	2023
Finance	CredPriS	Domestic credit to private sector (% of GDP) refers to financial resources provided to the private sector by financial corporations, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for repayment. For some countries these claims include credit to public enterprises. The financial corporations include monetary authorities and deposit money banks, as well as other financial corporations where data are available (including corporations that do not accept transferable deposits but do incur such liabilities as time and savings deposits).	World Bank World Development Indicators	2022
	VC	Fundraising for African tech and digital startups, specifically venture capital equity and debt deals above \$200K (Late Seed (Seed+) to Growth stage equity & debt rounds) [total \$ invested, average per year, over last three years, per 1 million population]	Partech	2021-2023
	SMarCap	Stock Market Capitalization [total \$ stock market capitalization, average per year, over last three years, as share of GDP]	Own computation, based on information provided per stock market	2020-2022
Infrastructure	Elec	Access to stable electric power for household and business use [% of population]	World Bank	2021
	Road	Total road network includes motorways, highways, and main or national roads, secondary or regional roads, and all other roads in a country. A motorway is a road designed and built for motor traffic that separates the traffic flowing in opposite directions. [road kilometers, per 1 million population]	Logistics Cluster	2022

Dimension	Indicator	Description	Data source(s)	Year
	Inte	Individuals using the internet as % of the population - Internet users are individuals who have used the Internet (from any location) in the last 3 months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc. [% of population]	World Bank World Development Indicators	2021
Market access	HHInCap	Household final consumption expenditure per capita (private consumption per capita) is calculated using private consumption in constant 2015 prices and World Bank population estimates. Household final consumption expenditure is the market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses. Here, household consumption expenditure includes the expenditures of nonprofit institutions serving households, even when reported separately by the country. Data are in constant 2015 U.S. dollars.	World Bank World Development Indicators	2022
	GDP	Gross Domestic Product at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates.	World Bank World Development Indicators	2022
	Pop	Population	United Nations	2023
	ImpExp	Import plus Exports as share of GDP	World Bank	2022
Human capital	LifeExp	Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.	World Bank	2021
	LiteRat	Literacy rate is the percentage of people aged 15 and above who can both read and write with understanding a short simple statement about their everyday life.	UNESCO Institute for Statistics	Average 2013-2022
	Tert	The gross enrollment ratio represents the ratio of total enrollment, regardless of age, to the population corresponding to the official age group for a particular education level. Tertiary education typically requires the successful completion of secondary education as a minimum admission condition.	World Bank World Development Indicators	2018-2022
	RD	Gross domestic expenditures on research and development (R&D), expressed as a percent of GDP. They include both capital and current expenditures in the four main sectors: Business enterprise, Government, Higher education and Private non-profit. R&D covers basic research, applied research, and experimental development. Gross expenditure on R&D performed by business enterprise as a percentage of GDP	World Bank World Development Indicators	2010-2022