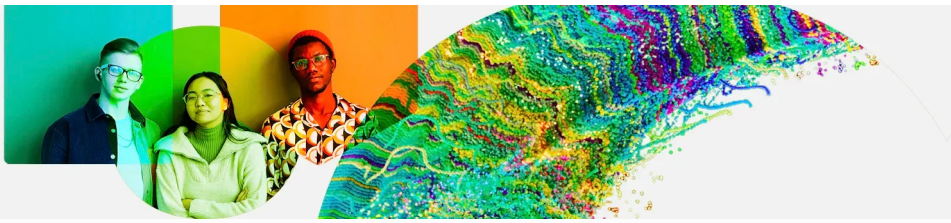
Global Innovation Index 2024



Mozambique ranking in the Global Innovation Index 2024

Mozambique ranks 128th among the 133 economies featured in the GII 2024.

The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.

Mozambique ranks 6th among the 10 low-income group economies.

Mozambique ranks 22nd among the 27 economies in Sub-Saharan Africa.

Mozambique GII Ranking (2020-2024)

The table shows the rankings of Mozambique over the past four years. Data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings. The statistical confidence interval for the ranking of Mozambique in the GII 2024 is between ranks 126 and 132.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	124th	122nd	125th
2021	122nd	122nd	118th
2022	123rd	123rd	119th
2023	126th	128th	124th
2024	128th	123rd	129th

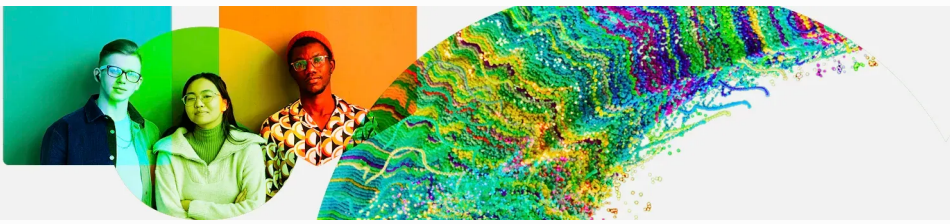
Mozambique performs worse in innovation outputs than innovation inputs in 2024.

This year **Mozambique ranks 123rd in innovation inputs.** This position is higher than last year.

Mozambique ranks 129th in innovation outputs. This position is lower than last year.

Mozambique has no clusters in the top 100 S&T clusters of the Global Innovation Index.

Global Innovation Index 2024



> Global Innovation Tracker

The Global Innovation Tracker 2024 shows what is the current state of innovation in Mozambique, how rapidly is technology being embraced and what are the resulting societal impacts.

For Mozambique, 2 indicators have improved in the short-term and 3 indicators have worsened.

Science and innovation investment

Scientific publications	R&D investments	Venture capital		International patent filings
		Deal numbers	Deal values	
▼ -8.9% 2022 - 2023	n/a	n/a	n/a	n/a
▲ 12.2% 2013 - 2023	▲ 3.9% 2006 - 2015	n/a	n/a	n/a

Technology adoption

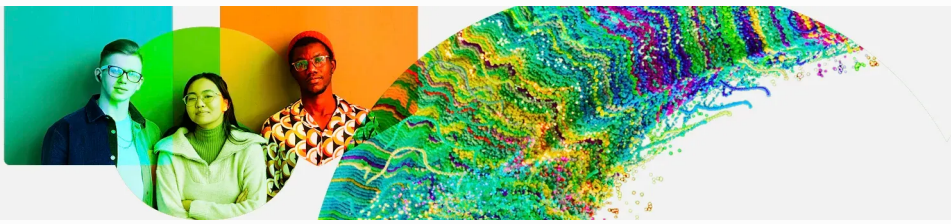
Safe sanitation	Connectivity		Robots	Electric vehicles
	Fixed broadband	5G		
n/a	▼ -4.1% 2021 - 2022	n/a	n/a	n/a
n/a	▲ 5% 2012 - 2022		n/a	n/a
n/a	0.2 per 100 inhabitants in 2022	5 per 100 inhabitants in 2022		n/a

Socioeconomic impact

Labor productivity	Life expectancy	Temperature change
▲ 3.6% 2022 - 2023	▲ 0.5% 2021 - 2022	▲ 1°C 2023
▲ 0.8% 2013 - 2023	▲ 0.7% 2012 - 2022	n/a
4,292 USD in 2023	59.6 years in 2022	

Notes: Not all indicators of the Global Innovation Tracker are used to calculate the Global Innovation Index. Long-term annual growth refers to the compound annual growth rate (CAGR) over the indicated period. For each variable, a one-year growth rate is set for the short run, and ten-year CAGR is set for the long run; time windows might differ when gaps exist in data availability. The end period corresponds to the most recent available observation, which may differ among countries. Temperature change is an exception: it indicates the change in degrees Celsius with respect to the average temperature in the country from 1951–1980. Figures are rounded.

Global Innovation Index 2024



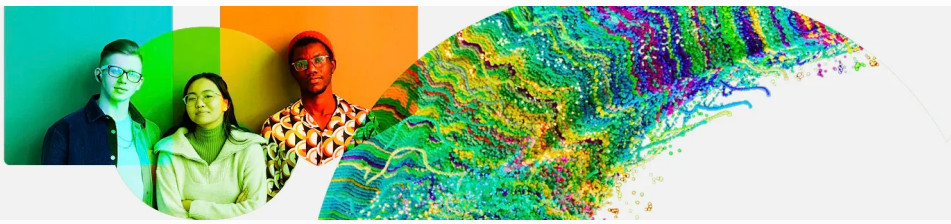
Expected vs. observed innovation performance

The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.

Relative to GDP, Mozambique's performance is at expectations for its level of development.

> Innovation overperformers relative to their economic development

Global Innovation Index 2024



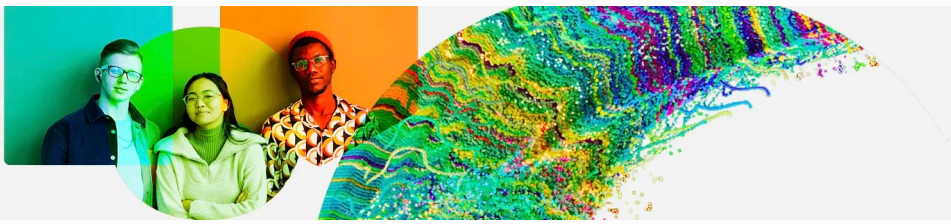
Effectively translating innovation investments into innovation outputs

The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

Mozambique produces less innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

Global Innovation Index 2024



Overview of Mozambique's rankings in the seven areas of the GII in 2024

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Mozambique are those that rank above the GII (shown in blue) and the weakest are those that rank below.

Highest rankings

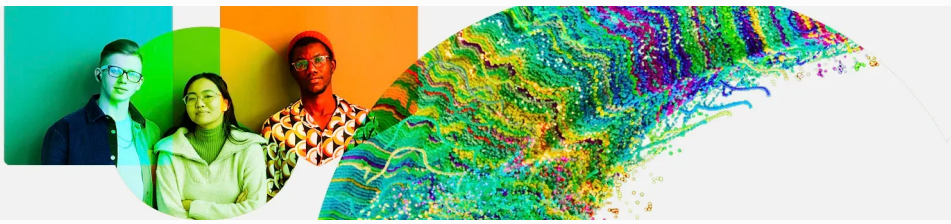
Mozambique ranks highest in Infrastructure (99th), Market sophistication (104th), Institutions (121st) and Human capital and research (122nd).

Lowest rankings

Mozambique ranks lowest in Knowledge and technology outputs (130th), Creative outputs, GII Index (128th) and Business sophistication (127th).

The full WIPO Intellectual Property Statistics profile for Mozambique can be found on this link.

Global Innovation Index 2024



Benchmark of Mozambique against other economy groupings for each of the seven areas of the GII Index

The charts shows the relative position of Mozambique (blue bar) against other economy groupings (grey bars), for each of the seven areas of the GII Index.

Low-Income economies

Mozambique performs above the low-income group average in Infrastructure, Market sophistication.

Sub-Saharan Africa

Mozambique performs above the regional average in Infrastructure, Market sophistication.

Institutions

- Top 10 | Score: 80.81
- Sub-Saharan Africa | Score: 37.83
- Low income | Score: 31.64
- Mozambique | Score: 22.44

Human capital and research

- Top 10 | Score: 61.30
- Sub-Saharan Africa | Score: 17.86
- Low income | Score: 15.48
- Mozambique | Score: 14.27

Infrastructure

- Top 10 | Score: 58.57
- Mozambique | Score: 28.77
- Sub-Saharan Africa | Score: 25.40
- Low income | Score: 20.65

Market sophistication

- Top 10 | Score: 62.12
- Mozambique | Score: 21.75
- Sub-Saharan Africa | Score: 18.79
- Low income | Score: 15.81

Business sophistication

- Top 10 | Score: 63.64
- Sub-Saharan Africa | Score: 18.73
- Low income | Score: 15.07
- Mozambique | Score: 13.34

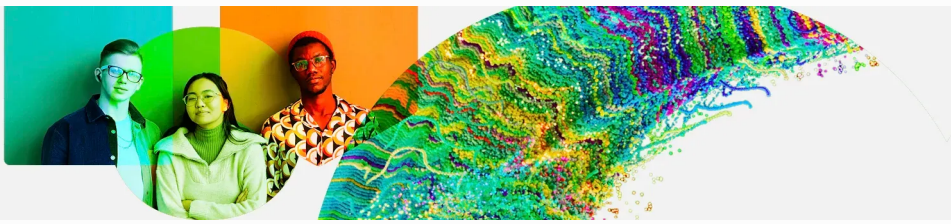
Knowledge and technology outputs

- Top 10 | Score: 57.29
- Sub-Saharan Africa | Score: 10.99
- Low income | Score: 10.02
- Mozambique | Score: 8.30

Creative outputs

- Top 10 | Score: 56.54
- Sub-Saharan Africa | Score: 10.35
- Low income | Score: 7.56
- Mozambique | Score: 3.90

Global Innovation Index 2024



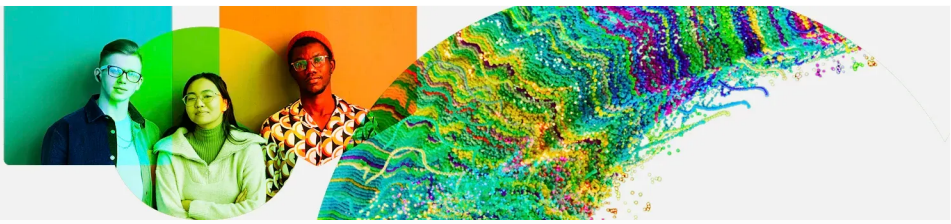
Innovation strengths and weaknesses in Mozambique

The table below gives an overview of the indicator strengths and weaknesses of Mozambique in the GII 2024.

Mozambique's main innovation strengths are **FDI net inflows, % GDP** (rank 5), **Expenditure on education, % GDP** (rank 6) and **Gross capital formation, % GDP** (rank 6).

Strengths			Weaknesses		
Rank	Code	Indicator name	Rank	Code	Indicator name
5	5.3.4	FDI net inflows, % GDP	121	5.3.1	Intellectual property payments, % total trade
6	2.1.1	Expenditure on education, % GDP	116	6.3.1	Intellectual property receipts, % total trade
6	3.2.3	Gross capital formation, % GDP	102	5.2.5	Patent families/bn PPP$ GDP
7	3.3.2	Low-carbon energy use, %	99	6.1.2	PCT patents by origin/bn PPP$ GDP
22	4.1.3	Loans from microfinance institutions, % GDP	85	4.1.1	Finance for startups and scaleups†
53	5.2.1	Public Research-Industry co-publications, %	75	7.1.3	Global brand value, top 5,000, % GDP
58	7.1.4	Industrial designs by origin/bn PPP$ GDP	75	2.3.4	QS university ranking, top 3*
70	5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	49	6.2.2	Unicorn valuation, % GDP
71	5.3.3	ICT services imports, % total trade	41	2.3.3	Global corporate R&D investors, top 3, mn USD
75	6.1.1	Patents by origin/bn PPP$ GDP			

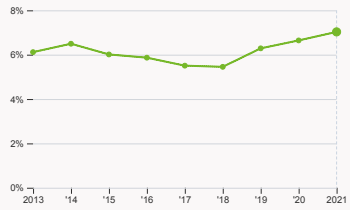
Global Innovation Index 2024



Mozambique's innovation system

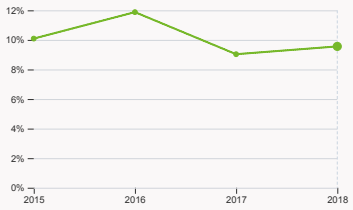
As far as practicable, the plots below present unscaled indicator data.

Innovation inputs in Mozambique



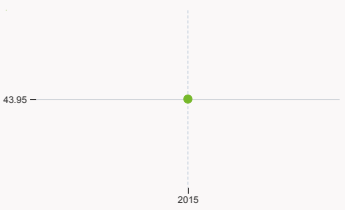
2.1.1 **Expenditure on education**

was equal to 7.03 % GDP in 2021, up by 0.38 percentage points from the year prior – and equivalent to an indicator rank of 6.



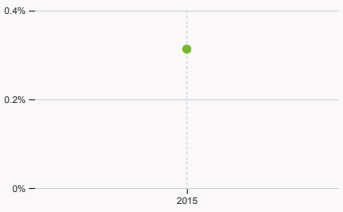
2.2.2 **Graduates in science and engineering**

was equal to 9.56 % of total graduates in 2018, up by 0.53 percentage points from the year prior – and equivalent to an indicator rank of 111.



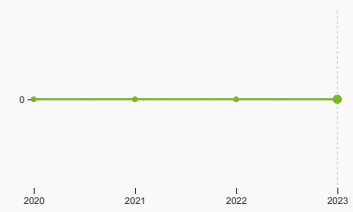
2.3.1 **Researchers**

was equal to 43.95 FTE per million population in 2015 – and equivalent to an indicator rank of 100.



2.3.2 **Gross expenditure on R&D**

was equal to 0.31 % GDP in 2015 – and equivalent to an indicator rank of 72.



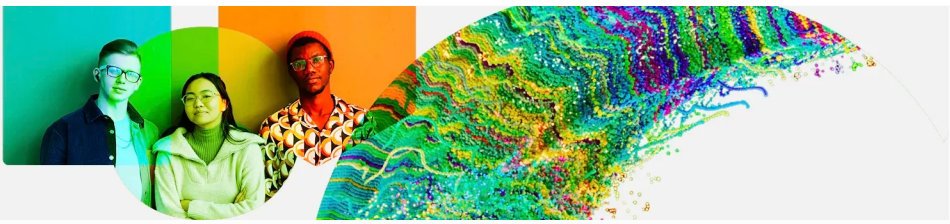
2.3.4 **QS university ranking**

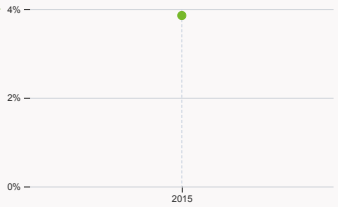
was equal to an average score of 0 for the top three universities in 2023 with no change from the year prior – and equivalent to an indicator rank of 75.

4.2.4 **VC received, value**

was equal to 1.5 thousand USD in 2020, up by 150% from the year prior – and equivalent to an indicator rank of NA.

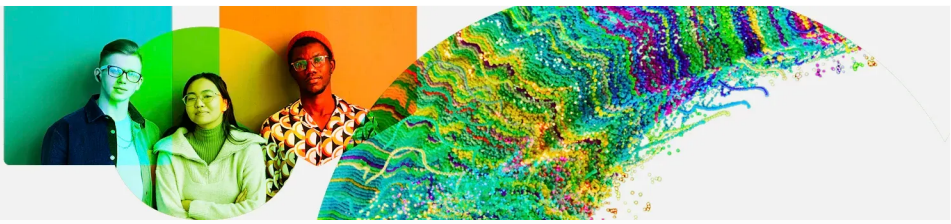
Global Innovation Index 2024





5.1.1 **Knowledge-intensive employment**
was equal to 3.85 % in 2015 – and equivalent to an indicator rank of 124.

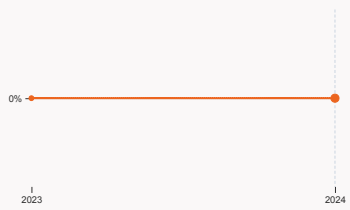
Global Innovation Index 2024



Innovation outputs in Mozambique

6.1.1 Patents by origin

was equal to 25 patents in 2022, down by 16.67% from the year prior – and equivalent to an indicator rank of 75.

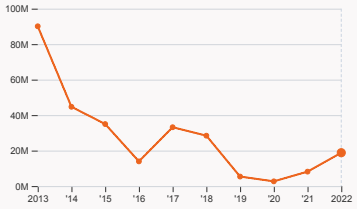


6.2.2 Unicorn valuation

was equal to 0 % GDP in 2024 with no change from the year prior – and equivalent to an indicator rank of 49.

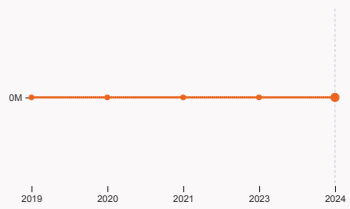
6.3.2 Production and export complexity

was equal to a score of -1.17 in 2021, up by 7.14% from the year prior – and equivalent to an indicator rank of 114.



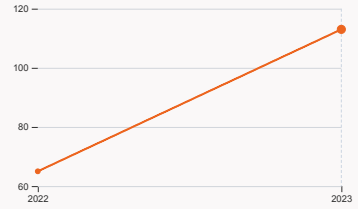
6.3.3 High-tech exports

was equal to 18.82 million USD in 2022, up by 130.92% from the year prior – and equivalent to an indicator rank of 115.



7.1.3 Global brand value

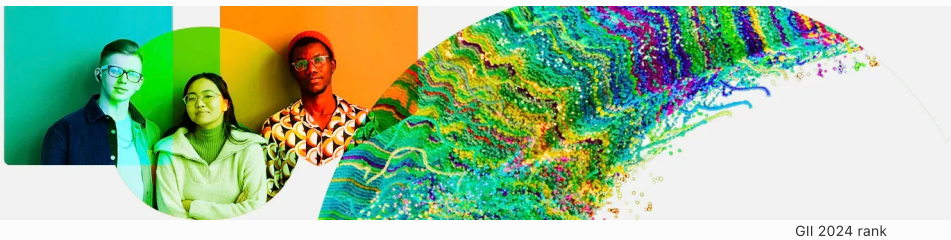
was equal to 0 million USD for the brands in the top 5,000 in 2024 with no change from the year prior – and equivalent to an indicator rank of 75.



7.3.3 Mobile app creation

was equal to 113 global downloads of mobile apps in 2023, up by 73.85% from the year prior – and equivalent to an indicator rank of 126.

Global Innovation Index 2024



Mozambique

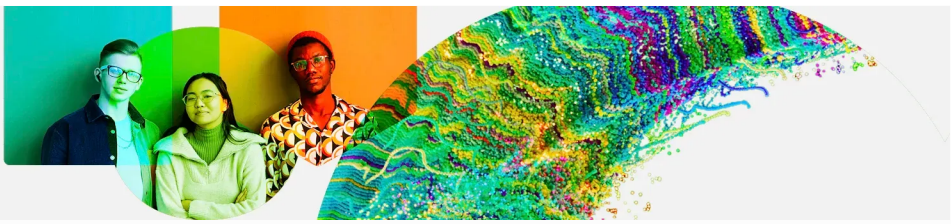
GII 2024 rank **128**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
129	123	Low	SSA	33.6	53.7	1,584.5

	Score / Value	Rank	
Institutions	**22.4**	**121**	
1.1 Institutional environment	**30.7**	**115**	
1.1.1 Operational stability for businesses*	36	117	
1.1.2 Government effectiveness*	25.3	112	
1.2 Regulatory environment	**18.7**	**117**	
1.2.1 Regulatory quality*	22.8	114	
1.2.2 Rule of law*	14.5	120	
1.3 Business environment	**18**	**121**	◇
1.3.1 Policy stability for doing business†	35.4	96	
1.3.2 Entrepreneurship policies and culture†	0.7	84	◇
Human capital and research	**14.3**	**122**	
2.1 Education	**39.8**	**[95]**	
2.1.1 Expenditure on education, % GDP	7	6	●◆
2.1.2 Government funding/pupil, secondary, % GDP/cap	n/a	n/a	
2.1.3 School life expectancy, years	10.4	102	
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil–teacher ratio, secondary	36.5	124	◇
2.2 Tertiary education	**1.6**	**126**	
2.2.1 Tertiary enrolment, % gross	7.3	120	
2.2.2 Graduates in science and engineering, %	9.6	111	◇
2.2.3 Tertiary inbound mobility, %	0.4	104	◇
2.3 Research and development (R&D)	**1.3**	**96**	
2.3.1 Researchers, FTE/mn pop.	44	100	
2.3.2 Gross expenditure on R&D, % GDP	0.3	72	
2.3.3 Global corporate R&D investors, top 3, mn USD	0	41	○◇
2.3.4 QS university ranking, top 3*	0	75	○◇
Infrastructure	**28.8**	**99**	◆
3.1 Information and communication technologies (ICTs)	**18.5**	**131**	
3.1.1 ICT access*	19.6	125	
3.1.2 ICT use*	8	124	
3.1.3 Government's online service*	28.9	125	
3.1.4 E-participation*	17.4	126	
3.2 General infrastructure	**39.9**	**36**	●◆
3.2.1 Electricity output, GWh/mn pop.	588	108	◆
3.2.2 Logistics performance*	n/a	n/a	
3.2.3 Gross capital formation, % GDP	39	6	●◆
3.3 Ecological sustainability	**27.9**	**42**	●◆
3.3.1 GDP/unit of energy use	3.6	124	◇
3.3.2 Low-carbon energy use, %	63.2	7	●◆
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.6	87	
Market sophistication	**21.7**	**104**	◆
4.1 Credit	**8.2**	**119**	
4.1.1 Finance for startups and scaleups†	0	85	○◇
4.1.2 Domestic credit to private sector, % GDP	21.3	113	
4.1.3 Loans from microfinance institutions, % GDP	1.8	22	●◆
4.2 Investment	**n/a**	**[n/a]**	
4.2.1 Market capitalization, % GDP	n/a	n/a	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	n/a	n/a	
4.2.3 VC recipients, deals/bn PPP$ GDP	n/a	n/a	
4.2.4 VC received, value, % GDP	n/a	n/a	
4.3 Trade, diversification and market scale	**35.3**	**109**	◆
4.3.1 Applied tariff rate, weighted avg., %	3.9	88	◆
4.3.2 Domestic industry diversification	n/a	n/a	
4.3.3 Domestic market scale, bn PPP$	53.7	109	

	Score / Value	Rank	
Business sophistication	**13.3**	**127**	
5.1 Knowledge workers	**5.7**	**131**	
5.1.1 Knowledge-intensive employment, %	3.9	124	
5.1.2 Firms offering formal training, %	20.7	79	
5.1.3 GERD performed by business, % GDP	0.001	92	
5.1.4 GERD financed by business, %	0.5	95	
5.1.5 Females employed w/advanced degrees, %	0.7	121	
5.2 Innovation linkages	**12.5**	**115**	
5.2.1 Public Research-Industry co-publications, %	1.7	53	●◆
5.2.2 University-industry R&D collaboration†	22.7	113	
5.2.3 State of cluster development†	15.7	124	
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.01	70	●◆
5.2.5 Patent families/bn PPP$ GDP	0	102	○◇
5.3 Knowledge absorption	**21.8**	**85**	
5.3.1 Intellectual property payments, % total trade	0	121	○◇
5.3.2 High-tech imports, % total trade	4.7	112	
5.3.3 ICT services imports, % total trade	1.1	71	●◆
5.3.4 FDI net inflows, % GDP	23	5	●◆
5.3.5 Research talent, % in businesses	0.3	86	
Knowledge and technology outputs	**8.3**	**130**	
6.1 Knowledge creation	**6.7**	**103**	
6.1.1 Patents by origin/bn PPP$ GDP	0.5	75	●◆
6.1.2 PCT patents by origin/bn PPP$ GDP	0	99	○◇
6.1.3 Utility models by origin/bn PPP$ GDP	0.07	57	
6.1.4 Scientific and technical articles/bn PPP$ GDP	8.4	79	
6.1.5 Citable documents H-index	4.9	102	
6.2 Knowledge impact	**14.5**	**124**	
6.2.1 Labor productivity growth, %	-0.3	104	
6.2.2 Unicorn valuation, % GDP	0	49	○◇
6.2.3 Software spending, % GDP	0.02	121	
6.2.4 High-tech manufacturing, %	n/a	n/a	
6.3 Knowledge diffusion	**3.7**	**125**	
6.3.1 Intellectual property receipts, % total trade	0	116	○◇
6.3.2 Production and export complexity	13.7	114	◇
6.3.3 High-tech exports, % total trade	0.1	115	
6.3.4 ICT services exports, % total trade	0.1	127	◇
6.3.5 ISO 9001 quality/bn PPP$ GDP	1.4	105	
Creative outputs	**3.9**	**128**	
7.1 Intangible assets	**6.7**	**108**	
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP$ GDP	14.7	100	
7.1.3 Global brand value, top 5,000, % GDP	0	75	○◇
7.1.4 Industrial designs by origin/bn PPP$ GDP	1.1	58	●◆
7.2 Creative goods and services	**0.3**	**[129]**	
7.2.1 Cultural and creative services exports, % total trade	n/a	n/a	
7.2.2 National feature films/mn pop. 15–69	n/a	n/a	
7.2.3 Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	0.03	117	
7.3 Online creativity	**1.9**	**128**	◇
7.3.1 Top-level domains (TLDs)/th pop. 15–69	0.08	128	
7.3.2 GitHub commits/mn pop. 15–69	0.4	124	
7.3.3 Mobile app creation/bn PPP$ GDP	5.4	126	◇

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question, 🕒 that the economy's data is outdated. Square brackets [ ] indicate the the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level; n/a represents missing values; a dash - indicates an indicator which is not relevant to this economy and thus not considered for DMC thresholds.



Data availability

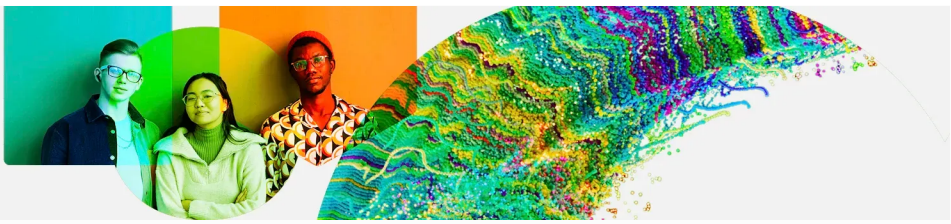
The following tables list indicators that are either missing or outdated for Mozambique.

Mozambique has missing data for thirteen indicators and outdated data for twenty two indicators.

Missing data for Mozambique

Code	Indicator name	Economy Year	Model Year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2020	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
3.2.2	Logistics performance*	n/a	2023	World Bank, Logistics Performance Index 2023 (https://lpi.worldbank.org/); and World Bank 2023, Connecting to Compete 2023: Trade Logistics in the Global Economy The Logistics Performance Index and its Indicators.
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank
4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP	n/a	2023	LSEG Data & Analytics; International Monetary Fund
4.2.3	VC recipients, deals/bn PPP$ GDP	n/a	2023	LSEG Data & Analytics; International Monetary Fund
4.2.4	VC received, value, % GDP	n/a	2023	LSEG Data & Analytics; International Monetary Fund
4.3.2	Domestic industry diversification	n/a	2021	United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database (INDSTAT) Rev.3 and 4
6.2.4	High-tech manufacturing, %	n/a	2021	United Nations Industrial Development Organization
7.1.1	Intangible asset intensity, top 15, %	n/a	2023	Brand Finance
7.2.1	Cultural and creative services exports, % total trade	n/a	2022	World Trade Organization Global Services Trade Data Hub
7.2.2	National feature films/mn pop. 15–69	n/a	2022	OMDIA; United Nations, World Population Prospects
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2023	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

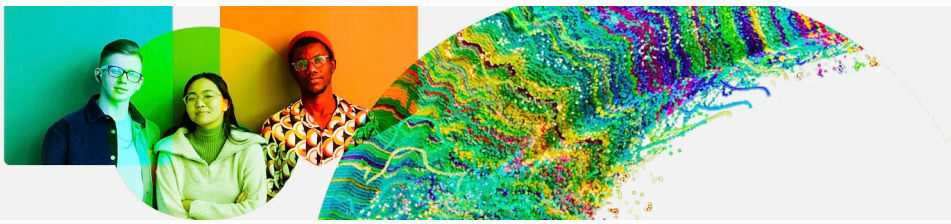
Global Innovation Index 2024



Outdated data for Mozambique

Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policy stability for doing business†	2019	2023	World Economic Forum, Executive Opinion Survey (EOS)
1.3.2	Entrepreneurship policies and culture†	2018	2023	Global Entrepreneurship Monitor
2.1.1	Expenditure on education, % GDP	2021	2022	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2017	2022	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2017	2022	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2019	2022	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2018	2021	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	2018	2022	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2015	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2015	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.1	Electricity output, GWh/mn pop.	2021	2022	International Energy Agency
4.1.1	Finance for startups and scaleups†	2018	2023	Global Entrepreneurship Monitor
5.1.1	Knowledge-intensive employment, %	2015	2022	International Labour Organization
5.1.2	Firms offering formal training, %	2018	2023	World Bank Enterprise Surveys
5.1.3	GERD performed by business, % GDP	2015	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by business, %	2015	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	Females employed w/advanced degrees, %	2015	2023	International Labour Organization
5.2.2	University-industry R&D collaboration†	2019	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.3	State of cluster development†	2019	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	2022	2023	LSEG Data & Analytics; International Monetary Fund
5.3.5	Research talent, % in businesses	2015	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.1.3	Utility models by origin/bn PPP$ GDP	2021	2022	World Intellectual Property Organization; International Monetary Fund

Global Innovation Index 2024



About the Global Innovation Index

- The Global Innovation Index (GII) is published by the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations.
- Recognizing that innovation is a key driver of economic development, the GII aims to provide an innovation ranking and rich analysis referencing around 130 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a "tool for action" for economies that incorporate the GII into their innovation agendas.

Source: Global Innovation Index Database, WIPO, 2024.

The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that include institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each consisting of three sub-pillars.