Global Innovation Index 2025

Guinea ranking in the Global Innovation Index 2025

Guinea ranks 133rd among the 139 economies featured in the GII 2025.

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.

Guinea ranks 35th among the 37 Lower middle-income group economies.

Guinea ranks 27th among the 32 economies in Sub-Saharan Africa.

Guinea GII Ranking (2020-2025)

The table shows the rankings of Guinea over the past six 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 Guinea in the GII 2025 is between ranks 127 and 136.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	130th	128th	122nd
2021	130th	130th	126th
2022	132nd	131st	128th
2023	128th	131st	119th
2024	n/a	n/a	n/a
2025	133rd	132nd	123rd

Guinea performs better in innovation outputs than innovation inputs in 2025.

This year Guinea ranks 132nd in innovation inputs.

Guinea ranks 123rd in innovation outputs.

Guinea has no clusters in the world's top innovation clusters of the Global Innovation Index.

Global Innovation Index 2025

> Global Innovation Tracker

The Global Innovation Tracker 2025 shows what is the current state of innovation in Guinea, how rapidly is technology being embraced and what are the resulting societal impacts.

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

Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▼ -5.2 % 2023 - 2024	n/a	▲ 50 % 2022 - 2023	n/a
Long term (annual growth)	▲ 8 % 2014 - 2024	n/a	n/a	n/a

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	n/a	▼ -11.8% 2021 - 2022	n/a	n/a	n/a
Long term (annual growth)	n/a	▲ 2.3% 2012 - 2022	n/a	n/a	n/a
Penetration	n/a	0.006 per 100 inhabitants in 2022	n/a	n/a	n/a

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	n/a	▲ 0.5 % 2022 - 2023	+ 1.6 °C 2024
Long term (annual growth)	n/a	▲ 0.6 % 2013 - 2023	+ 0.8 °C 2014
Level	n/a	60.7 years in 2023	n/a

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 countries. from 1951–1980. Figures are rounded.

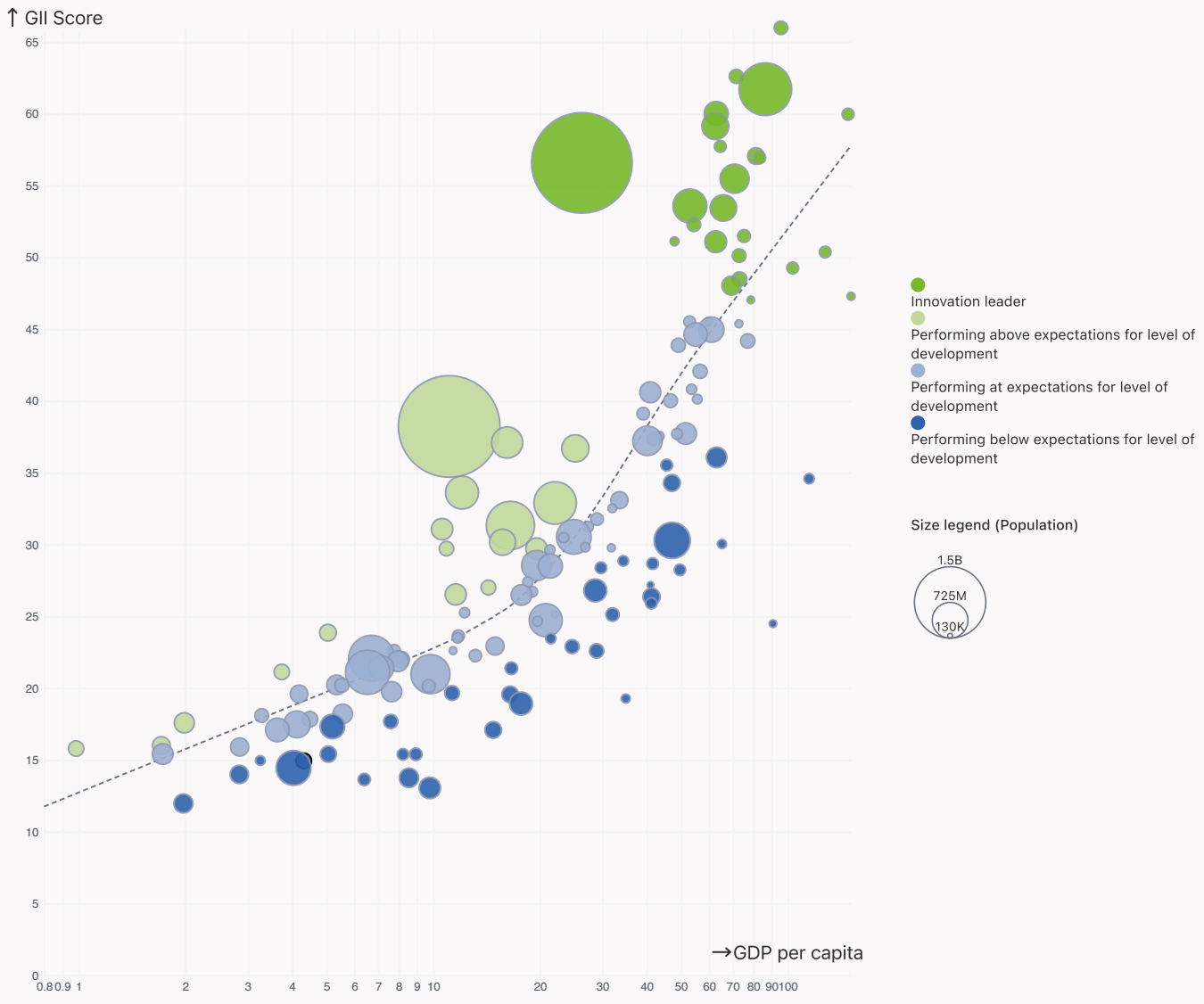
Global Innovation Index 2025

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 Guinea performs below expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2025

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.

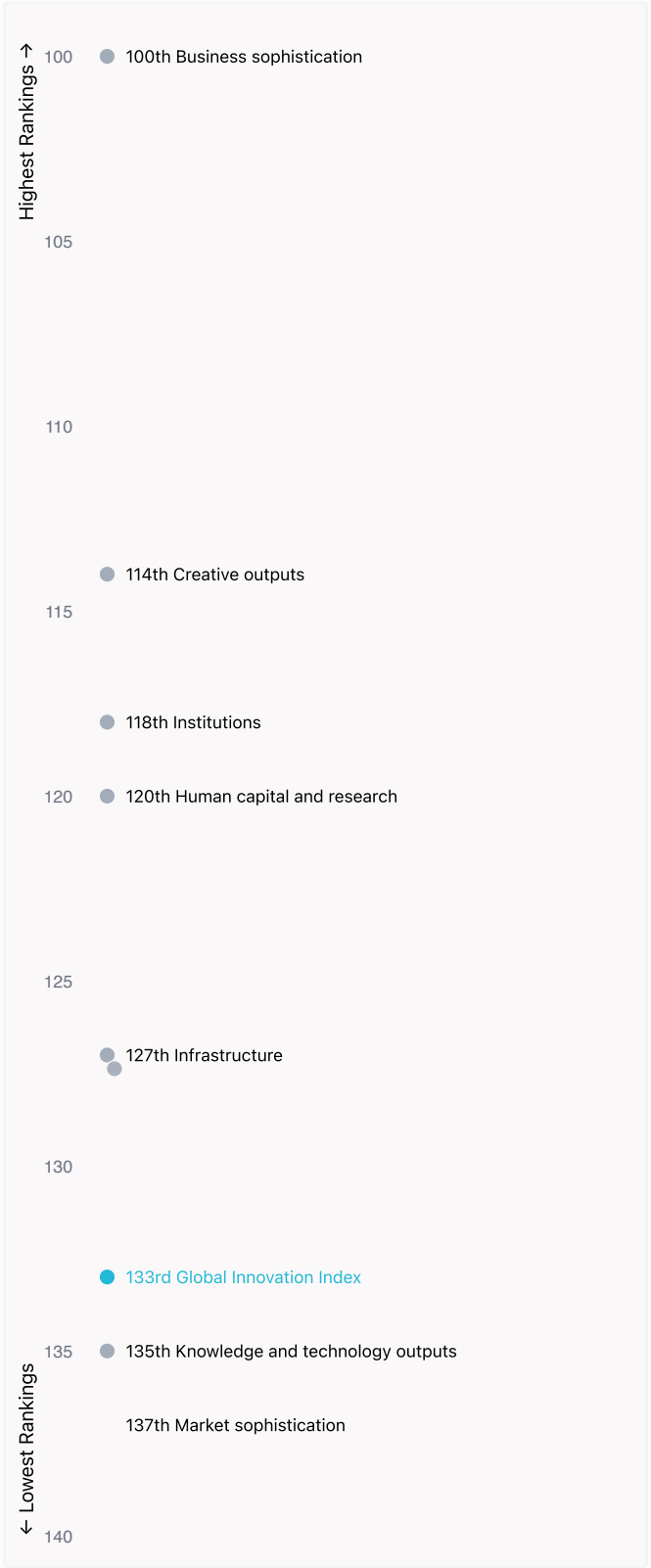
Guinea produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

Global Innovation Index 2025

Overview of Guinea's rankings in the seven areas of the GII in 2025

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



Highest Rankings

Guinea ranks highest in Business sophistication (100th), Creative outputs (114th), Institutions (118th) and Human capital and research (120th).

Lowest Rankings

Guinea ranks lowest in Market sophistication (137th), Knowledge and technology outputs (135th) and Infrastructure (127th).

The full WIPO Intellectual Property Statistics profile for Guinea can be found on https://www.wipo.int/edocs/statistics-country-profile/en/gn.pdf

Global Innovation Index 2025

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

Lower middle-income economies

Guinea performs below the Lower middle-income group average in all pillars.

Sub-Saharan Africa

Guinea performs below the regional average in all pillars.

Institutions

- Top 10 | Score: 78.63
- Sub-Saharan Africa | Score: 40.29
- Lower middle-income | Score: 37.2
- Guinea | Score: 29.41

Human capital and research

- Top 10 | Score: 59.30
- Lower middle-income | Score: 20.9
- Sub-Saharan Africa | Score: 18.06
- Guinea | Score: 17.29

Infrastructure

- Top 10 | Score: 61.36
- Lower middle-income | Score: 32.1
- Sub-Saharan Africa | Score: 27.58
- Guinea | Score: 24.05

Market sophistication

- Top 10 | Score: 61.82
- Lower middle-income | Score: 28.1
- Sub-Saharan Africa | Score: 22.67
- Guinea | Score: 12.36

Business sophistication

- Top 10 | Score: 59.10
- Lower middle-income | Score: 25.3
- Sub-Saharan Africa | Score: 25.36
- Guinea | Score: 23.68

Knowledge and technology outputs

- Top 10 | Score: 54.93
- Lower middle-income | Score: 15.4
- Sub-Saharan Africa | Score: 11.53
- Guinea | Score: 7.79

Creative outputs

- Top 10 | Score: 55.98
- Lower middle-income | Score: 13.8
- Sub-Saharan Africa | Score: 10.61
- Guinea | Score: 9.15

Global Innovation Index 2025

Innovation strengths and weaknesses in Guinea

The table below gives an overview of the indicator strengths and weaknesses of Guinea in the GII 2025.

Guinea's best-ranked innovation strengths are **Youth demographic dividend, %** (rank 16), **Labor productivity growth, %** (rank 21) and **Low-carbon energy use, %** (rank 32).

Strengths

Rank	Code	Indicator name
16	5.1.3	Youth demographic dividend, %
21	6.2.1	Labor productivity growth, %
32	3.3.2	Low-carbon energy use, %
48	5.3.3	ICT services imports, % total trade
51	5.3.4	FDI net inflows, % GDP
53	7.1.4	Industrial designs by origin/bn PPP$ GDP
62	2.2.2	Graduates in science and engineering, %
71	5.2.2	University–industry R&D collaboration[+]
85	4.2.2	Venture capital (VC) received, deal count/bn PPP$ GDP
90	1.3.1	Policy stability for doing business[+]

Weaknesses

Rank	Code	Indicator name
136	7.3.2	GitHub commits/mn pop. 15–69
131	5.3.1	Intellectual property payments, % total trade
128	6.3.2	Production and export complexity
127	6.3.1	Intellectual property receipts, % total trade
109	6.1.2	PCT patents by inventor origin/bn PPP$ GDP
100	5.2.5	Patent families/bn PPP$ GDP
80	2.3.4	QS university ranking, top 3*
75	6.1.3	Utility models by origin/bn PPP$ GDP
53	6.2.2	Unicorn valuation, % GDP
44	2.3.3	Global corporate R&D investors, top 3, mn USD

Global Innovation Index 2025

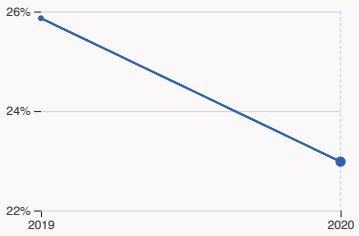
Guinea's innovation system

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

Innovation inputs in Guinea

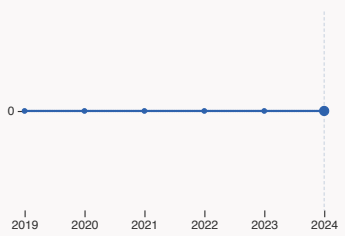
2.1.1 Expenditure on education

was equal to 1.72 % GDP in 2023, down by 0.28 percentage points from the year prior – and equivalent to an indicator rank of 132.



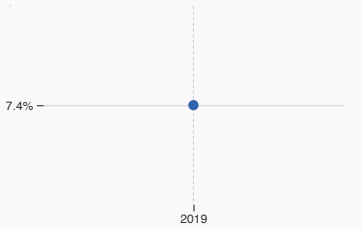
2.2.2 Graduates in science and engineering

was equal to 22.98 % of total graduates in 2020, down by 2.88 percentage points from the year prior – and equivalent to an indicator rank of 62.



2.3.4 QS university ranking

The country does not have any universities in the QS world universities ranking in 2024.



5.1.1 Knowledge-intensive employment

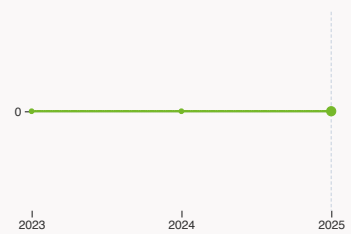
was equal to 7.4 % of total workforce in 2019 – and equivalent to an indicator rank of 108.

Global Innovation Index 2025

Innovation outputs in Guinea

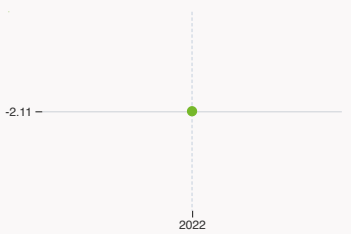
6.1.1 Patents by origin

was equal to 1 patent in 2023, down by 66.67% from the year prior – and equivalent to an indicator rank of 130.



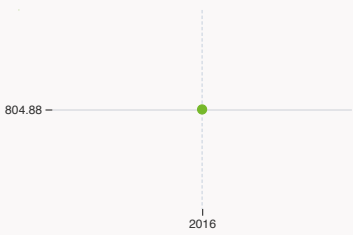
6.2.2 Unicorn valuation

The country does not have unicorns in 2025.



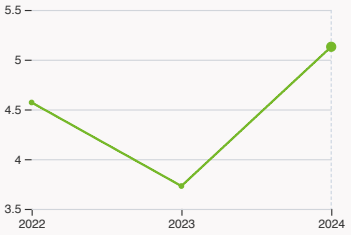
6.3.2 Production and export complexity

was equal to a score of -2.11 in 2022 – and equivalent to an indicator rank of 128.



6.3.3 High-tech exports

was equal to 804.88 thousands USD in 2016 – and equivalent to an indicator rank of 137.



7.3.3 Mobile app creation

was equal to 5.13 thousand global downloads of mobile apps in 2024, up by 37.53% from the year prior – and equivalent to an indicator rank of 128.

Guinea

GII 2025 rank **133**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
123	132	Lower middle	Sub-Saharan Africa	14.8	66.6	4,321.4

	Score / Value	Rank	
Institutions	**29.4**	**118**	
1.1 Institutional environment	**28.4**	**122**	
1.1.1 Operational stability for businesses*	36	122	
1.1.2 Government effectiveness*	20.8	125	
1.2 Regulatory environment	**23.6**	**129**	◇
1.2.1 Regulatory quality*	21.9	130	◇
1.2.2 Rule of law*	25.2	128	
1.3 Business environment	**36.3**	**[86]**	
1.3.1 Policy stability for doing business†	36.3	90	●
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	**17.3**	**[120]**	
2.1 Education	**29.4**	**[128]**	
2.1.1 Expenditure on education, % GDP	1.7	132	◇
2.1.2 Government funding/pupil, secondary, % GDP/cap	n/a	n/a	
2.1.3 School life expectancy, years	8.6	120	◇
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil–teacher ratio, secondary	22.5	108	
2.2 Tertiary education	**22.5**	**89**	
2.2.1 Tertiary enrolment, % gross	6.7	125	◇
2.2.2 Graduates in science and engineering, %	23	62	●
2.2.3 Tertiary inbound mobility, %	n/a	n/a	
2.3 Research and development (R&D)	**0**	**[124]**	
2.3.1 Researchers, FTE/mn pop.	n/a	n/a	
2.3.2 Gross expenditure on R&D, % GDP	n/a	n/a	
2.3.3 Global corporate R&D investors, top 3, mn USD	0	44	○ ◇
2.3.4 QS university ranking, top 3*	0	80	○ ◇
Infrastructure	**24**	**127**	◇
3.1 Information and communication technologies (ICTs)	**36.3**	**126**	◇
3.1.1 ICT access*	35.1	130	◇
3.1.2 ICT use*	n/a	n/a	
3.1.3 Government's online service*	37.5	108	
3.2 General infrastructure	**15.6**	**124**	
3.2.1 Electricity output, GWh/mn pop.	n/a	n/a	
3.2.2 Logistics performance*	18.2	90	
3.2.3 Gross capital formation, % GDP	15.9	122	◇
3.3 Ecological sustainability	**20.2**	**68**	
3.3.1 GDP/unit of energy use	n/a	n/a	
3.3.2 Low-carbon energy use, %	33	32	●
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.1	131	
Market sophistication	**12.4**	**137**	◇
4.1 Credit	**2.4**	**134**	◇
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	9.1	133	
4.1.3 Loans from microfinance institutions, % GDP	0.4	49	
4.2 Investment	**1.8**	**[103]**	
4.2.1 Market capitalization, % GDP	n/a	n/a	
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.04	85	●
4.2.3 Late-stage VC deal count, % global VC	n/a	n/a	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.03	93	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.01	97	
4.3 Trade, diversification and market scale	**32.9**	**131**	◇
4.3.1 Applied tariff rate, weighted avg., %	9.4	125	
4.3.2 Domestic industry diversification	n/a	n/a	
4.3.3 Domestic market scale, bn PPP$	66.6	108	

	Score / Value	Rank	
Business sophistication	**23.7**	**100**	
5.1 Knowledge workers	**34.2**	**[72]**	
5.1.1 Knowledge-intensive employment, %	7.4	108	
5.1.2 Females employed w/advanced degrees, %	2.2	106	
5.1.3 Youth demographic dividend, %	60.8	16	● ◆
5.1.4 GERD performed by business, % GDP	n/a	n/a	
5.1.5 GERD financed by business, %	n/a	n/a	
5.2 Innovation linkages	**18.2**	**96**	
5.2.1 Public research–industry co-publications, %	0.7	109	
5.2.2 University–industry R&D collaboration†	34.2	71	●
5.2.3 University industry & international engagement, top 5*	n/a	n/a	
5.2.4 State of cluster development†	33.6	97	
5.2.5 Patent families/bn PPP$ GDP	0	100	○ ◇
5.3 Knowledge absorption	**18.6**	**115**	
5.3.1 Intellectual property payments, % total trade	0	131	○ ◇
5.3.2 High-tech imports, % total trade	2.6	136	
5.3.3 ICT services imports, % total trade	1.8	48	●
5.3.4 FDI net inflows, % GDP	3.5	51	●
5.3.5 Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs	**7.8**	**135**	◇
6.1 Knowledge creation	**1**	**136**	
6.1.1 Patents by origin/bn PPP$ GDP	0.02	130	
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	0	109	○ ◇
6.1.3 Utility models by origin/bn PPP$ GDP	0	75	○ ◇
6.1.4 Scientific and technical articles/bn PPP$ GDP	1.7	132	
6.1.5 Citable documents H-index	2.1	130	
6.2 Knowledge impact	**21.9**	**84**	
6.2.1 Labor productivity growth, %	2.3	21	●
6.2.2 Unicorn valuation, % GDP	0	53	○ ◇
6.2.3 Software spending, % GDP	0.03	122	◇
6.2.4 High-tech manufacturing, %	n/a	n/a	
6.3 Knowledge diffusion	**0.5**	**138**	◇
6.3.1 Intellectual property receipts, % total trade	0	127	○ ◇
6.3.2 Production and export complexity	1.5	128	○ ◇
6.3.3 High-tech exports, % total trade	0.02	137	
6.3.4 ICT services exports, % total trade	0.09	137	
6.3.5 ISO 9001 quality/bn PPP$ GDP	0.2	137	
Creative outputs	**9.1**	**[114]**	
7.1 Intangible assets	**13.9**	**[89]**	
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP$ GDP	4.7	124	
7.1.3 Global brand value, top 5,000, % GDP	n/a	n/a	
7.1.4 Industrial designs by origin/bn PPP$ GDP	1.3	53	●
7.2 Creative goods and services	**1.1**	**[122]**	
7.2.1 Cultural and creative services exports, % total trade	0.1	98	
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	0.007	134	
7.3 Online creativity	**7.7**	**128**	◇
7.3.1 Top-level domains (TLDs)/th pop. 15–69	0.05	137	
7.3.2 GitHub commits/mn pop. 15–69	0.05	136	○
7.3.3 Mobile app creation/bn PPP$ GDP	23	128	◇

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.

Global Innovation Index 2025

Data Availability

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

Guinea has missing data for twenty two indicators and outdated data for nineteen indicators.

Missing data for Guinea

Code	Indicator name	Economy year	Model year*	Source
1.3.2	Entrepreneurship policies and culture†	n/a	2024	Global Entrepreneurship Monitor
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2021	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
2.2.3	Tertiary inbound mobility, %	n/a	2023	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.1.2	ICT use*	n/a	2023	World Intellectual Property Organization; based on International Telecommunication Union (ITU)
3.2.1	Electricity output, GWh/mn pop.	n/a	2023	International Energy Agency
3.3.1	GDP/unit of energy use	n/a	2022	International Energy Agency
4.1.1	Finance for startups and scaleups†	n/a	2024	Global Entrepreneurship Monitor
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank
4.2.3	Late-stage VC deal count, % global VC	n/a	2024	PitchBook Data, Inc.
4.3.2	Domestic industry diversification	n/a	2022	United Nations Industrial Development Organization (UNIDO)
5.1.4	GERD performed by business, % GDP	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	GERD financed by business, %	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.2.3	University industry & international engagement, top 5*	n/a	2025	Times Higher Education, World University Rankings 2025
5.3.5	Research talent, % in businesses	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing, %	n/a	2022	United Nations Industrial Development Organization (UNIDO)
7.1.1	Intangible asset intensity, top 15, %	n/a	2024	Brand Finance
7.1.3	Global brand value, top 5,000, % GDP	n/a	2025	Brand Finance; International Monetary Fund
7.2.2	National feature films/mn pop. 15–69	n/a	2023	OMDIA; United Nations, World Population Prospects

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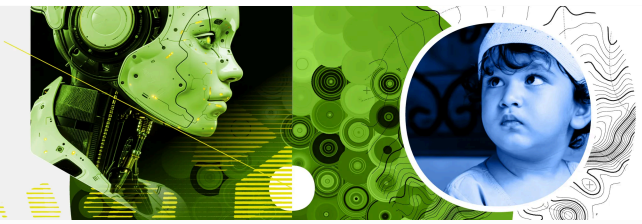


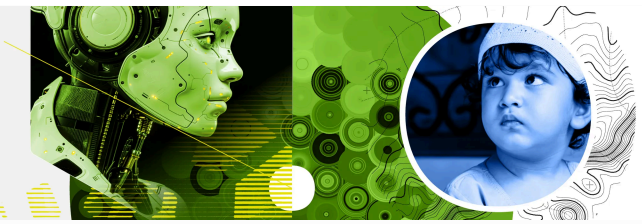
Code	Indicator name	Economy year	Model year*	Source
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2024	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

Outdated data for Guinea

Code	Indicator name	Economy year	Model year*	Source
1.3.1	Policy stability for doing business†	2020	2024	World Economic Forum, Executive Opinion Survey (EOS)
2.1.3	School life expectancy, years	2021	2023	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2021	2023	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2021	2023	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2020	2022	UNESCO Institute for Statistics; Eurostat; OECD
4.1.2	Domestic credit to private sector, % GDP	2021	2023	International Monetary Fund; World Bank and OECD GDP estimates
4.2.2	Venture capital (VC) received, deal count/bn PPP$ GDP	2023	2024	PitchBook Data, Inc.; International Monetary Fund
4.2.4	VC investors, deal count/bn PPP$ GDP	2023	2024	PitchBook Data, Inc.; International Monetary Fund
4.2.5	VC investor co-participation/bn PPP$ GDP	2023	2024	PitchBook Data, Inc.; International Monetary Fund
5.1.1	Knowledge-intensive employment, %	2019	2024	International Labour Organization
5.1.2	Females employed w/advanced degrees, %	2019	2024	International Labour Organization
5.2.2	University–industry R&D collaboration†	2020	2024	World Economic Forum, Executive Opinion Survey (EOS)
5.2.4	State of cluster development†	2020	2024	World Economic Forum, Executive Opinion Survey (EOS)
5.3.2	High-tech imports, % total trade	2016	2023	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development
6.1.3	Utility models by origin/bn PPP$ GDP	2021	2023	World Intellectual Property Organization; International Monetary Fund
6.3.1	Intellectual property receipts, % total trade	2022	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development
6.3.3	High-tech exports, % total trade	2016	2023	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development; Trade Data Monitor.

Global Innovation Index 2025



Code	Indicator name	Economy year	Model year*	Source
6.3.4	ICT services exports, % total trade	2022	2023	World Trade Organization and United Nations Conference on Trade and Development
7.2.4	Creative goods exports, % total trade	2016	2023	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development

*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

Global Innovation Index 2025

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 140 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.

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.