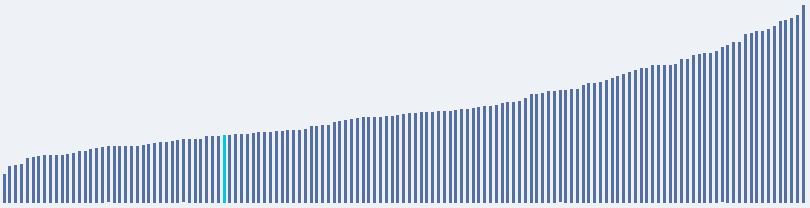
Global Innovation Index 2026



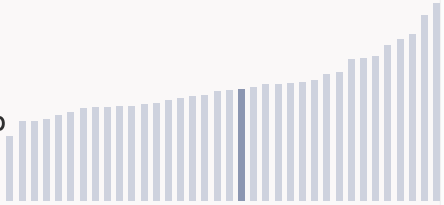
Ghana ranking in the Global Innovation Index 2026

Ghana ranks 101st among the 139 economies featured in the GII 2026.

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.



Ghana ranks 17th among the 36 Lower middle-income group economies.



Ghana ranks 7th among the 31 economies in Sub-Saharan Africa.

Ghana GII Ranking (2020-2026)

The table shows the rankings of Ghana over the past seven 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 Ghana in the GII 2026 is between ranks 96 and 113.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	108th	113rd	93rd
2021	112nd	114th	103rd
2022	95th	105th	88th
2023	99th	107th	85th
2024	101st	108th	94th
2025	101st	108th	93rd
2026	101st	103rd	91st

World's Top 100 Innovation Clusters

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

Ghana performs better in innovation outputs than innovation inputs in 2026.

This year **Ghana ranks 103rd in innovation inputs.** This position is higher than last year.

Ghana ranks 91st in innovation outputs. This position is higher than last year.

Global Innovation Index 2026



> Global Innovation Tracker

The Global Innovation Tracker 2026 shows what is the current state of innovation in Ghana, how rapidly is technology being embraced and what are the resulting societal impacts.

For Ghana, 7 indicators have improved in the short-term and 2 indicators have worsened.

Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▲ 8.2 % 2024 - 2025	▲ 5.6 % 2023 - 2024	▼ -33.3 % 2024 - 2025	▲ 500 % 2024 - 2025
Long term (annual growth)	▲ 14.9 % 2015 - 2025	▲ 4.4 % 2014 - 2024	▼ -9.7 % 2020 - 2025	▲ 19.6 % 2015 - 2025

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 3.5% 2023 - 2024	▲ 21.9% 2023 - 2024	n/a	n/a	n/a
Long term (annual growth)	▲ 4.4% 2014 - 2024	▲ 12.5% 2014 - 2024	n/a	n/a	n/a
Penetration	18.8 per 100 inhabitants in 2024	0.7 per 100 inhabitants in 2024	n/a	n/a	n/a

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 4.5 % 2024 - 2025	▲ 0.3 % 2023 - 2024	+ 1.3 °C 2025
Long term (annual growth)	▲ 3.1 % 2015 - 2025	▲ 0.4 % 2014 - 2024	+ 1.1 °C 2015
Level	20,531.8 USD in 2025	65.7 years in 2024	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 2026

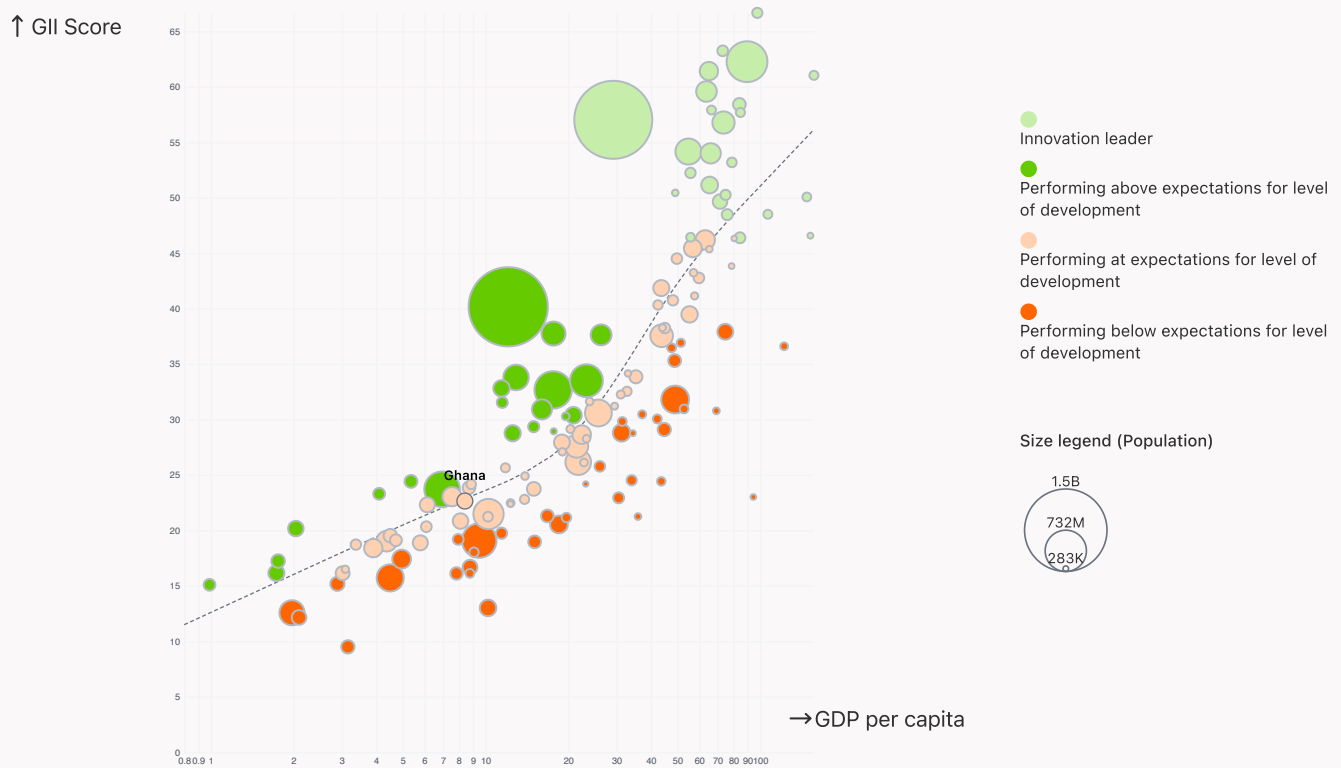


Expected vs. Observed Innovation Performance

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 Ghana performs at expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2026



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.

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

> Relationship between innovation inputs and outputs

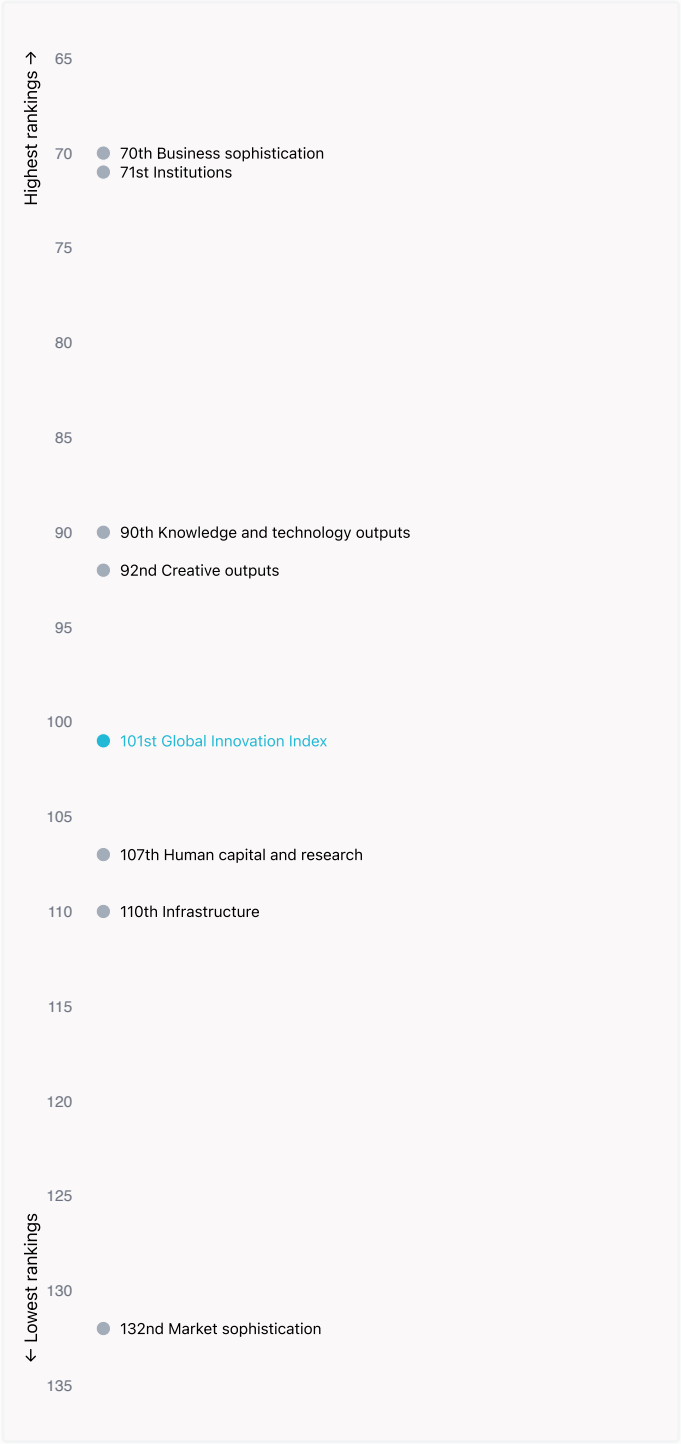


Global Innovation Index 2026



Overview of Ghana's rankings in the seven areas of the GII in 2026

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



Highest Rankings

Ghana ranks highest in Business sophistication (70th), Institutions (71st), Knowledge and technology outputs (90th) and Creative outputs (92nd).

Lowest Rankings

Ghana ranks lowest in Market sophistication (132nd), Infrastructure (110th) and Human capital and research (107th).

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

Global Innovation Index 2026



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

Lower middle-income economies

Ghana performs above the Lower middle-income group average in Institutions, Business sophistication, Creative outputs.

Sub-Saharan Africa

Ghana performs above the regional average in Institutions, Human capital and research, Infrastructure, Business sophistication, Knowledge and technology outputs, Creative outputs.

Institutions

- Top 10 | Score: 78.28
- Ghana | Score: 49.82
- Lower middle-income | Score: 39.43
- Sub-Saharan Africa | Score: 39.32

Human capital and research

- Top 10 | Score: 60.87
- Lower middle-income | Score: 24.06
- Ghana | Score: 21.18
- Sub-Saharan Africa | Score: 19.47

Infrastructure

- Top 10 | Score: 63.75
- Lower middle-income | Score: 35.49
- Ghana | Score: 33.00
- Sub-Saharan Africa | Score: 27.81

Market sophistication

- Top 10 | Score: 63.92
- Lower middle-income | Score: 29.66
- Sub-Saharan Africa | Score: 22.67
- Ghana | Score: 16.31

Business sophistication

- Top 10 | Score: 60.02
- Ghana | Score: 26.07
- Lower middle-income | Score: 23.29
- Sub-Saharan Africa | Score: 22.38

Knowledge and technology outputs

- Top 10 | Score: 55.83
- Lower middle-income | Score: 16.59
- Ghana | Score: 15.94
- Sub-Saharan Africa | Score: 12.13

Creative outputs

- Top 10 | Score: 55.45
- Ghana | Score: 16.02
- Lower middle-income | Score: 16.00
- Sub-Saharan Africa | Score: 12.01

Global Innovation Index 2026



Innovation strengths and weaknesses in Ghana

The table below gives an overview of the indicator strengths and weaknesses of Ghana in the GII 2026.

Ghana's best-ranked innovation strengths are **Cultural and creative services exports, % total trade** (rank 11), **Youth demographic dividend, %** (rank 26) and **Intellectual property payments, % total trade** (rank 26).

Strengths

Rank	Code	Indicator name
11	7.2.1	Cultural and creative services exports, % total trade
26	5.1.3	Youth demographic dividend, %
26	5.3.1	Intellectual property payments, % total trade
26	6.2.1	Labor productivity growth, %
30	6.2.2	Unicorn valuation, % GDP
32	3.3.1	GDP/unit of energy use
52	5.3.5	Greenfield R&D & high-tech FDI
57	7.1.4	Industrial designs by origin/bn PPP$ GDP
59	5.2.1	Public research–industry co-publications, %
61	1.2.2	Rule of law*
61	6.1.4	Scientific and technical articles/bn PPP$ GDP

Weaknesses

Rank	Code	Indicator name
46	2.3.3	Global corporate R&D investors, top 3, mn USD
78	7.1.1	Intangible asset intensity, top 15, %
98	5.2.5	Patent families/bn PPP$ GDP
119	6.3.2	Production and export complexity
124	4.1.2	Domestic credit to private sector, % GDP
127	7.2.4	Creative goods exports, % total trade
129	6.1.1	Patents by origin/bn PPP$ GDP
133	3.2.4	Gross capital formation, % GDP
133	7.1.2	Trademarks by origin/bn PPP$ GDP
135	6.2.3	Software spending, % GDP

Global Innovation Index 2026



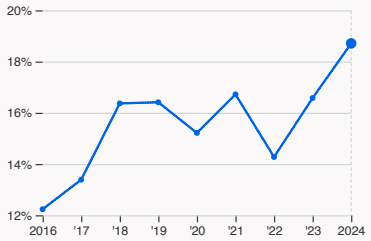
Ghana's innovation system

Innovation inputs in Ghana



2.1.1 Expenditure on education

was equal to 2.91 % GDP in 2022, down by 0.49 percentage points from the year prior – and equivalent to an indicator rank of 110.



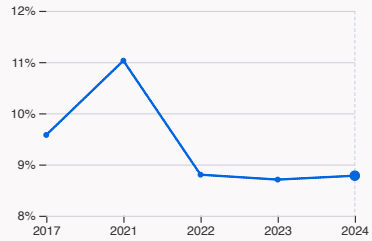
2.2.2 Graduates in science and engineering

was equal to 18.71 % of total graduates in 2024, up by 2.13 percentage points from the year prior – and equivalent to an indicator rank of 93.



2.3.4 QS university ranking

was equal to an average score of 6.73 for the top three universities in 2025, up by 673% from the year prior – and equivalent to an indicator rank of 80.



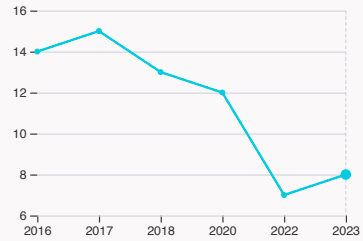
5.1.1 Knowledge-intensive employment

was equal to 8.78 % in 2024, up by 0.08 percentage points from the year prior – and equivalent to an indicator rank of 104.

Global Innovation Index 2026

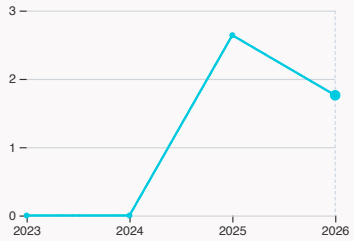


Innovation outputs in Ghana



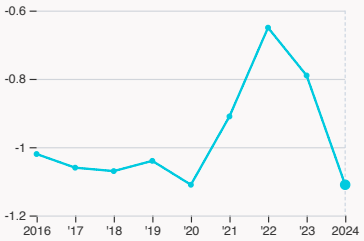
6.1.1 Patents by origin

was equal to 8 patents in 2023, up by 14.29% from the year prior – and equivalent to an indicator rank of 129.



6.2.2 Unicorn valuation

was equal to 1.76 % GDP in 2026, down by 33.33% from the year prior – and equivalent to an indicator rank of 30.



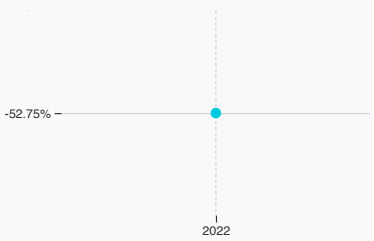
6.3.2 Production and export complexity

was equal to a score of -1.11 in 2024, down by 40.51% from the year prior – and equivalent to an indicator rank of 119.



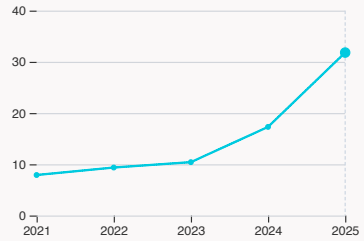
6.3.3 High-tech exports

was equal to 18.8 million USD in 2024, down by 21.76% from the year prior – and equivalent to an indicator rank of 126.



7.1.1 Intangible asset intensity, top 15

was equal to -52.75 % for the top 15 companies in 2022 – and equivalent to an indicator rank of 78.



7.3.3 Mobile app creation

was equal to 31.81 million global downloads of mobile apps in 2025, up by 83.87% from the year prior – and equivalent to an indicator rank of 101.



Ghana's innovation top performers

Disclaimer: This section contains only the top performers per country. For the complete list, please visit the GII Innovation Ecosystems and Data Explorer website.

Data not available for 2.3.3 Global corporate R&D investors, 5.3.5 Greenfield R&D and high-tech FDI and 7.1.3 Global brand value, top 5,000.

2.3.4 QS university ranking of Ghana's top universities

Rank	University	Score
851-900	UNIVERSITY OF GHANA	n/a
1201-1400	KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY	n/a

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/world-university-rankings).
Note: QS Quacquarelli Symonds Ltd annually assesses over 1,200 universities across the globe and scores them between [0,100]. Ranks can represent a single value 'x', a tie 'x=' or a range 'x-y'.

5.2.3 University industry and international engagement, top 5 universities

Rank	University	Score
1	UNIVERSITY OF GHANA	48.55
2	UNIVERSITY OF CAPE COAST	39.10
3	KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY	36.60

Source: Times Higher Education (THE), World University Rankings 2026 (https://www.timeshighereducation.com/world-university-rankings/2026/world-ranking).
Note: Rank corresponds to within economy ranks. The score is calculated as the average of the International Outlook score (encompassing international staff, students, and co-authorship) and the industry score (reflecting industry income and patent citations). The 2026 ranking corresponds to data from the academic year that ended in 2023.

6.2.2 Top Unicorn Companies in Ghana

Rank	Unicorn Company	Industry	Location	Valuation, bn USD
1	Chipper Cash	Financial Services		2.00

Source: CBInsights, Tracker - The Complete list of Unicorns Companies; Africa: The Big Deal; and PitchBook Data, Inc.
Note: The list is based on unicorns as of January 2026, covering nearly 2000 companies worldwide. For African countries, the dataset is supplemented with data from Africa: The Big Deal. PitchBook data is also used as a complementary source to enrich coverage.



7.1.1 Top 15 intangible-asset intensive companies in Ghana

Rank	Firm	Intensity, %
1	SCANCOM PLC	24.26
2	UNILEVER GHANA PLC	65.46
3	DIGICUT ADVERTISING & PRODUCTION LTD	42.62

Source: Brand Finance (https://brandirectory.com/reports/global-intangible-finance-tracker-gift/2025).
Note: Brand Finance only provides within economy ranks.

GII 2026 SPECIAL THEME

Deep science entrepreneurship in Ghana

The GII 2026 special theme examines deep science entrepreneurship — startups and spinouts built on scientific and engineering breakthroughs in fields such as advanced materials, energy, genomics, quantum technologies and synthetic biology, which take far longer and far more capital to reach the market than digital ventures do. Drawing on the Dealroom–WIPO Deep Science Startup Tracker, the tables below identify this economy's most valuable venture capital-backed deep science firms and, separately, those that originated in university or public research.

Top deep science startups in Ghana

Rank	Company	Industry	City	Founded	VC funding raised, mn USD	Valuation, bn USD
1	Yemaachi	Life Sciences	Accra	2020	3.1	0.01

Source: Dealroom–WIPO Deep Science Startup Tracker (https://www.wipo.int/en/web/global-innovation-index/2026/deep-science-innovation).

Ghana

GII 2026 rank **101**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
91	103	Lower middle	Sub-Saharan Africa	35.1	294.9	8,410.3

	Score / Value	Rank	
Institutions	**49.8**	**71**	
1.1 Institutional environment	**52.3**	**81**	
1.1.1 Operational stability for businesses*	60.5	84	
1.1.2 Government effectiveness*	44.1	78	◆
1.2 Regulatory environment	**49.2**	**67**	◆
1.2.1 Regulatory quality*	44.9	80	◆
1.2.2 Rule of law*	53.4	61	● ◆
1.3 Business environment	**47.9**	**[63]**	
1.3.1 Policy stability for doing business†	47.9	66	
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	**21.2**	**[107]**	
2.1 Education	**45**	**[95]**	
2.1.1 Expenditure on education, % GDP	2.9	110	
2.1.2 Government funding/pupil, secondary, % GDP/cap	n/a	n/a	
2.1.3 School life expectancy, years	11.7	96	
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil–teacher ratio, secondary	19.1	99	
2.2 Tertiary education	**15.2**	**112**	
2.2.1 Tertiary enrolment, % gross	21.3	104	
2.2.2 Graduates in science and engineering, %	18.7	93	
2.2.3 Tertiary inbound mobility, %	0.7	95	
2.3 Research and development (R&D)	**3.4**	**[87]**	
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	46	○ ◇
2.3.4 QS university ranking, top 3*	6.8	80	
Infrastructure	**33**	**110**	
3.1 Information and communication technologies (ICTs)	**63.7**	**95**	
3.1.1 ICT access*	68.8	94	
3.1.2 ICT use*	69.5	98	
3.1.3 Government online service*	52.9	86	
3.2 General infrastructure	**19.5**	**134**	◇
3.2.1 Electricity output, GWh/mn pop.	742.3	105	
3.2.2 Aviation import dwell time	5.4	104	
3.2.3 Logistics performance*	18.2	89	
3.2.4 Gross capital formation, % GDP	10.1	133	○ ◇
3.3 Ecological sustainability	**15.8**	**82**	
3.3.1 GDP/unit of energy use	17.4	32	●
3.3.2 Low-carbon energy use, %	8.3	84	
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.4	98	
Market sophistication	**16.3**	**132**	◇
4.1 Credit	**1.1**	**135**	◇
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	9	124	○ ◇
4.1.3 Loans from microfinance institutions, % GDP	0.1	55	
4.2 Investment	**2.8**	**96**	
4.2.1 Market capitalization, % GDP	8.6	75	
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.06	62	
4.2.3 Late-stage VC deal count, % global VC	0.02	60	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.03	89	
4.3 Trade, diversification and market scale	**45**	**119**	
4.3.1 Applied tariff rate, weighted avg., %	8.3	119	
4.3.2 Domestic industry diversification	n/a	n/a	
4.3.3 Domestic market scale, bn PPP$	294.9	66	

	Score / Value	Rank	
Business sophistication	**26.1**	**70**	
5.1 Knowledge workers	**32.2**	**[81]**	
5.1.1 Knowledge-intensive employment, %	8.8	104	
5.1.2 Females employed w/advanced degrees, %	3.5	102	
5.1.3 Youth demographic dividend, %	54.3	26	●
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	**23.9**	**69**	
5.2.1 Public research–industry co-publications, %	1.7	59	● ◆
5.2.2 University–industry R&D collaboration†	37.2	66	
5.2.3 University industry & international engagement, top 5*	19.1	70	
5.2.4 State of cluster development†	43.7	63	
5.2.5 Patent families/bn PPP$ GDP	0	98	○ ◇
5.3 Knowledge absorption	**22.1**	**69**	
5.3.1 Intellectual property payments, % total trade	1.5	26	● ◆
5.3.2 High-tech imports, % total trade	4	125	
5.3.3 ICT services imports, % total trade	0.8	103	
5.3.4 FDI net inflows, % GDP	1.9	86	
5.3.5 Greenfield R&D & high-tech FDI	1.3	52	● ◆
5.3.6 Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs	**15.9**	**90**	
6.1 Knowledge creation	**6.7**	**100**	
6.1.1 Patents by origin/bn PPP$ GDP	0.03	129	○
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	0.0008	105	
6.1.3 Utility models by origin/bn PPP$ GDP	0.01	71	
6.1.4 Scientific and technical articles/bn PPP$ GDP	14.4	61	●
6.1.5 Citable documents H-index	10.3	76	
6.2 Knowledge impact	**29.8**	**51**	
6.2.1 Labor productivity growth, %	3.2	26	●
6.2.2 Unicorn valuation, % GDP	1.8	30	● ◆
6.2.3 Software spending, % GDP	0.01	135	○ ◇
6.2.4 High-tech manufacturing, %	n/a	n/a	
6.3 Knowledge diffusion	**11.3**	**121**	
6.3.1 Intellectual property receipts, % total trade	0.1	63	
6.3.2 Production and export complexity	46.4	119	○
6.3.3 High-tech exports, % total trade	0.07	126	
6.3.4 ICT services exports, % total trade	0.5	106	
6.3.5 ISO 9001 quality/bn PPP$ GDP	0.7	122	
Creative outputs	**16**	**92**	
7.1 Intangible assets	**8.2**	**106**	
7.1.1 Intangible asset intensity, top 15, %	-52.8	78	○ ◇
7.1.2 Trademarks by origin/bn PPP$ GDP	2.5	133	○ ◇
7.1.3 Global brand value, top 5,000, % GDP	n/a	n/a	
7.1.4 Industrial designs by origin/bn PPP$ GDP	1.1	57	●
7.2 Creative goods and services	**25.9**	**[47]**	
7.2.1 Cultural and creative services exports, % total trade	2.4	11	● ◆
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	0.02	127	○
7.3 Online creativity	**21.8**	**102**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	0.2	121	
7.3.2 GitHub commits/mn pop. 15–69	3.1	101	
7.3.3 Mobile app creation/bn PPP$ GDP	62	101	

Notes: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question. 🕒 indicates that the economy's data are older than the base year. Square brackets [ ] indicate that 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. Examine the underlying data further via the GII Innovation Ecosystems & Data Explorer at https://www.wipo.int/gii-ranking/en.



Data Availability

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

Ghana has missing data for fourteen indicators and outdated data for five indicators.

Missing data for Ghana

Code	Indicator name	Economy year	Model year*	Source
1.3.2	Entrepreneurship policies and culture†	n/a	2025	Global Entrepreneurship Monitor
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2022	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
2.3.1	Researchers, FTE/mn pop.	n/a	2024	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	n/a	2024	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.1.1	Finance for startups and scaleups†	n/a	2025	Global Entrepreneurship Monitor
4.3.2	Domestic industry diversification	n/a	2023	United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database (INDSTAT), two-digit level of the International Standard Industrial Classification (ISIC) Revision 3 and Revision 4
5.1.4	GERD performed by business, % GDP	n/a	2024	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	GERD financed by business, %	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.6	Research talent, % in businesses	n/a	2024	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing, %	n/a	2023	United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database (INDSTAT), two-digit level of the International Standard Industrial Classification (ISIC) Revision 3 and Revision 4
7.1.3	Global brand value, top 5,000, % GDP	n/a	2026	Brand Finance; International Monetary Fund
7.2.2	National feature films/mn pop. 15–69	n/a	2024	OMDIA; United Nations, World Population Prospects
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2025	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).

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Outdated data for Ghana

Code	Indicator name	Economy year	Model year*	Source
2.1.1	Expenditure on education, % GDP	2022	2023	UNESCO Institute for Statistics
5.1.1	Knowledge-intensive employment, %	2024	2025	International Labour Organization
5.1.2	Females employed w/advanced degrees, %	2024	2025	International Labour Organization
6.1.1	Patents by origin/bn PPP$ GDP	2023	2024	World Intellectual Property Organization; International Monetary Fund
7.1.1	Intangible asset intensity, top 15, %	2022	2025	Brand Finance

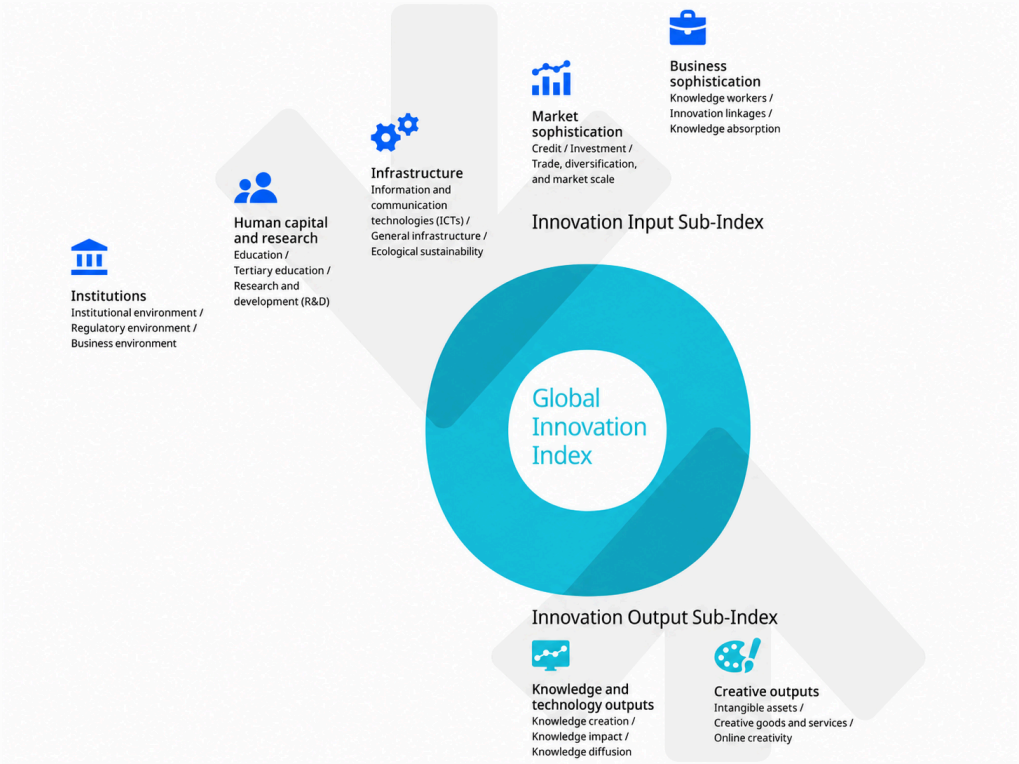
*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

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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.