

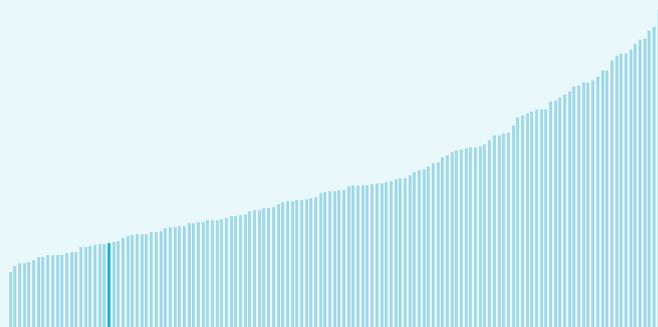
Global Innovation Index 2025



Benin ranking in the Global Innovation Index 2025

Benin ranks **118th** 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.



Benin ranks 27th among the 37 Lower middle-income group economies.



Benin ranks 16th among the 32 economies in Sub-Saharan Africa.



> Benin GII Ranking (2020-2025)

The table shows the rankings of Benin 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 Benin in the GII 2025 is between ranks 116 and 128.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	126th	116th	131st
2021	128th	113rd	132nd
2022	124th	107th	131st
2023	120th	108th	128th
2024	119th	109th	125th
2025	118th	111st	122nd

Benin performs worse in innovation outputs than innovation inputs in 2025.

This year Benin ranks 111st in innovation inputs. This position is lower than last year.

Benin ranks 122nd in innovation outputs. This position is higher than last year.

Benin 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 Benin, how rapidly is technology being embraced and what are the resulting societal impacts.



For Benin, 4 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	▲ 2.6 % 2023 - 2024	n/a	▼ -33.3 % 2023 - 2024	n/a
Long term (annual growth)	▲ 5.8 % 2014 - 2024	n/a	0 % 2020 - 2024	▼ -100 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 3.1% 2023 - 2024	▲ 14.5% 2022 - 2023	n/a	n/a	n/a
Long term (annual growth)	▲ 3.4% 2014 - 2024	▼ -5.5% 2013 - 2023	n/a	n/a	n/a
Penetration	16.4 per 100 inhabitants in 2024	0.2 per 100 inhabitants in 2023	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	▲ 0.3 % 2013 - 2023	+ 1.1 °C 2014
Level	n/a	60.8 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.

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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 Benin performs at expectations for its level of development.

> Innovation overperformers relative to their economic development



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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.



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

> Relationship between innovation inputs and outputs

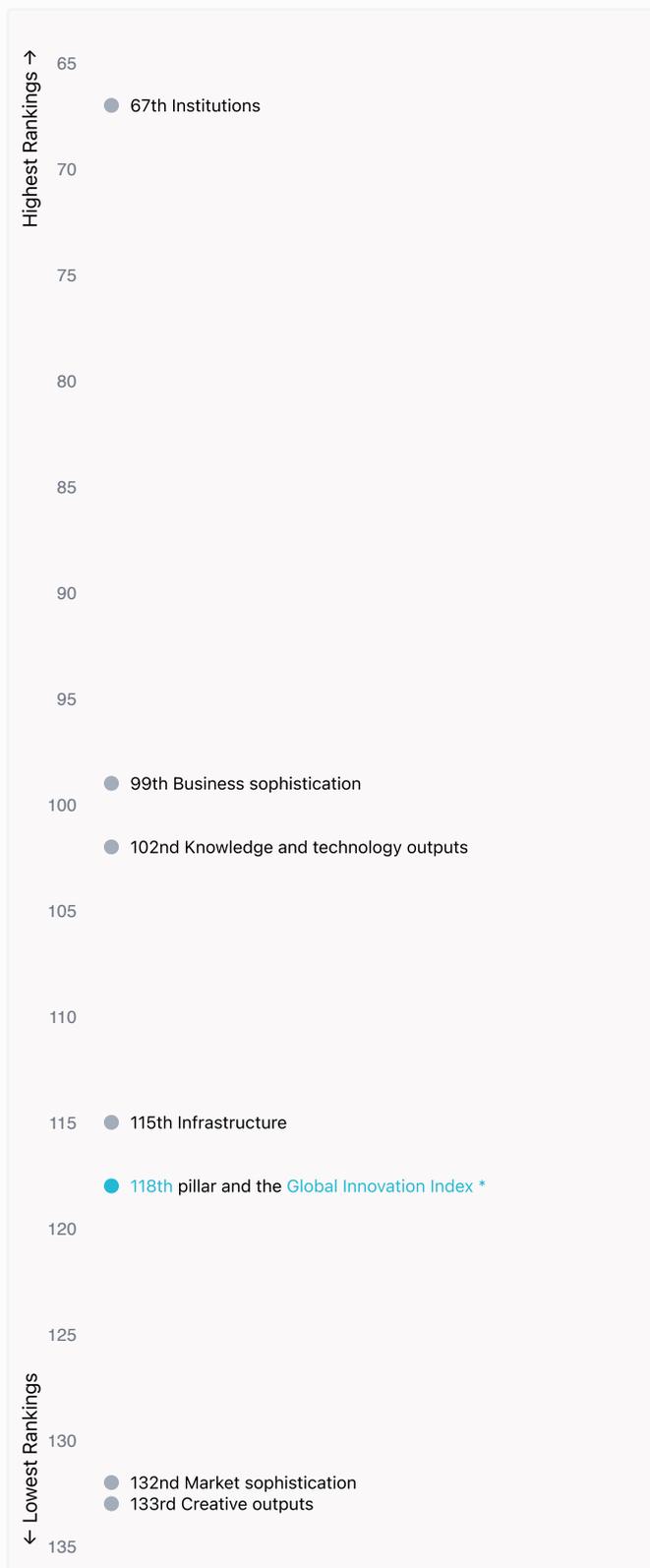


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Overview of Benin's rankings in the seven areas of the GII in 2025

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



Highest Rankings

Benin ranks highest in Institutions (67th), Business sophistication (99th), Knowledge and technology outputs (102nd) and Infrastructure (115th).



Lowest Rankings

Benin ranks lowest in Creative outputs (133rd), Market sophistication (132nd) and Human capital and research, GII Index (118th).

* Human capital and research



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

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



Lower middle-income economies

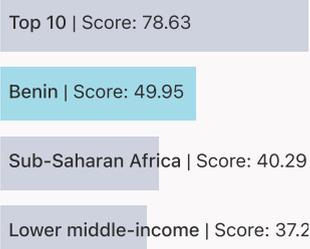
Benin performs above the Lower middle-income group average in Institutions.



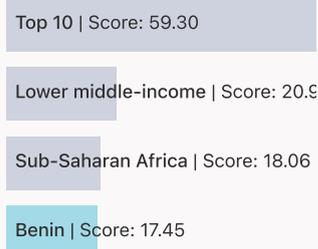
Sub-Saharan Africa

Benin performs above the regional average in Institutions, Infrastructure, Knowledge and technology outputs.

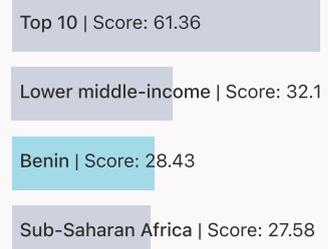
Institutions



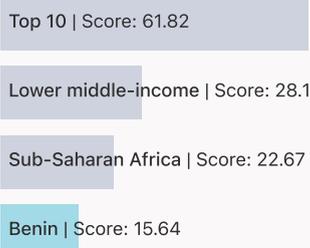
Human capital and research



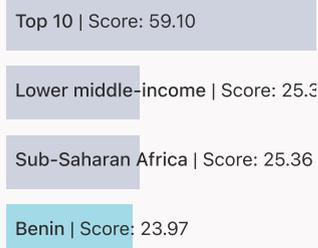
Infrastructure



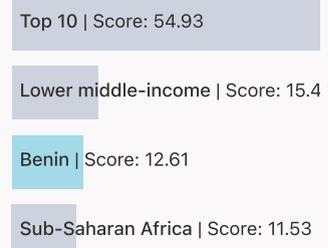
Market sophistication



Business sophistication



Knowledge and technology outputs



Creative outputs



Global Innovation Index 2025



Innovation strengths and weaknesses in Benin

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



Benin's best-ranked innovation strengths are **Gross capital formation, % GDP (rank 7)**, **Youth demographic dividend, % (rank 15)** and **Labor productivity growth, % (rank 17)**.

Strengths

Rank	Code	Indicator name
7	3.2.3	Gross capital formation, % GDP
15	5.1.3	Youth demographic dividend, %
17	6.2.1	Labor productivity growth, %
21	4.1.3	Loans from microfinance institutions, % GDP
34	5.3.3	ICT services imports, % total trade
35	1.3.1	Policy stability for doing business [†]
67	2.2.3	Tertiary inbound mobility, %
70	2.2.2	Graduates in science and engineering, %
75	5.2.4	State of cluster development [†]
76	6.1.1	Patents by origin/bn PPP\$ GDP

Weaknesses

Rank	Code	Indicator name
139	5.2.1	Public research–industry co-publications, %
133	6.3.3	High-tech exports, % total trade
128	3.2.1	Electricity output, GWh/mn pop.
109	6.1.2	PCT patents by inventor origin/bn PPP\$ GDP
100	5.2.5	Patent families/bn PPP\$ GDP
81	7.1.3	Global brand value, top 5,000, % 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

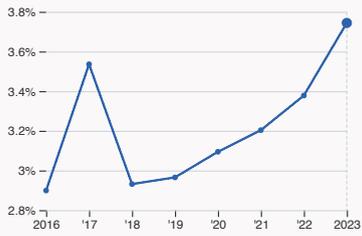
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Benin's innovation system

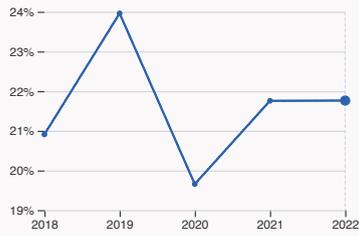
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Benin



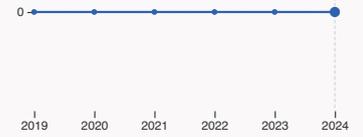
2.1.1 Expenditure on education

was equal to 3.74 % GDP in 2023, up by 0.37 percentage points from the year prior – and equivalent to an indicator rank of 88.



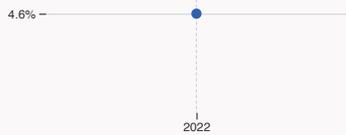
2.2.2 Graduates in science and engineering

was equal to 21.76 % of total graduates in 2022, up by 0.006 percentage points from the year prior – and equivalent to an indicator rank of 70.



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 4.64 % of total workforce in 2022 – and equivalent to an indicator rank of 114.

Global Innovation Index 2025



> Innovation outputs in Benin



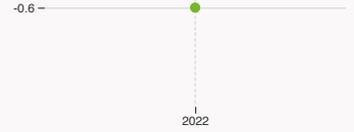
6.1.1 Patents by origin

was equal to 25 patents in 2023, up by 525% from the year prior – and equivalent to an indicator rank of 76.



6.2.2 Unicorn valuation

The country does not have unicorns in 2025.



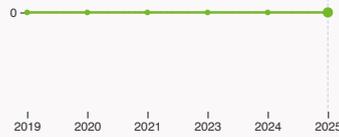
6.3.2 Production and export complexity

was equal to a score of -0.6 in 2022 – and equivalent to an indicator rank of 97.



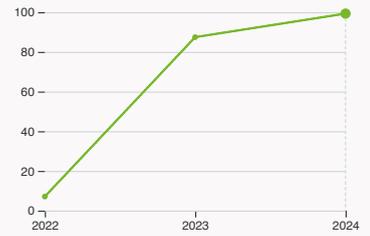
6.3.3 High-tech exports

was equal to 2.85 million USD in 2023, up by 18.26% from the year prior – and equivalent to an indicator rank of 133.



7.1.3 Global brand value, top 5,000

The country does not have any brands that make the top 5,000 ranking in 2025.



7.3.3 Mobile app creation

was equal to 99.31 thousand global downloads of mobile apps in 2024, up by 13.58% from the year prior – and equivalent to an indicator rank of 122.

Benin

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
122	111	Lower middle	Sub-Saharan Africa	14.5	63.5	4,500.6
			Score / Value Rank			
Institutions				50	67	◆
1.1 Institutional environment				44.8	90	
1.1.1 Operational stability for businesses*				52	93	
1.1.2 Government effectiveness*				37.7	85	
1.2 Regulatory environment				39.9	95	
1.2.1 Regulatory quality*				39.9	90	
1.2.2 Rule of law*				40	99	
1.3 Business environment				65.1	[26]	
1.3.1 Policy stability for doing business*				● 65.1	35	◆◆
1.3.2 Entrepreneurship policies and culture*				n/a	n/a	
Human capital and research				17.4	118	
2.1 Education				35.4	119	
2.1.1 Expenditure on education, % GDP				3.7	88	
2.1.2 Government funding/pupil, secondary, % GDP/cap				● 8.2	89	
2.1.3 School life expectancy, years				● 10	111	
2.1.4 PISA scales in reading, maths and science				n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary				● 16.2	87	
2.2 Tertiary education				17	105	
2.2.1 Tertiary enrolment, % gross				● 10.2	119	
2.2.2 Graduates in science and engineering, %				21.8	70	●
2.2.3 Tertiary inbound mobility, %				● 3.1	67	●
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				28.4	115	
3.1 Information and communication technologies (ICTs)				40	122	
3.1.1 ICT access*				42.2	129	◇
3.1.2 ICT use*				35.6	120	◇
3.1.3 Government's online service*				42.3	102	
3.2 General infrastructure				39.1	46	◆
3.2.1 Electricity output, GWh/mn pop.				● 74.9	128	○
3.2.2 Logistics performance*				36.4	65	
3.2.3 Gross capital formation, % GDP				38.2	7	◆◆
3.3 Ecological sustainability				6.1	131	◇
3.3.1 GDP/unit of energy use				8.7	90	
3.3.2 Low-carbon energy use, %				0.5	131	◇
3.3.3 ISO 14001 environment/bn PPP\$ GDP				0.2	122	
Market sophistication				15.6	132	◇
4.1 Credit				13.3	110	
4.1.1 Finance for startups and scaleups*				n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP				18.6	118	
4.1.3 Loans from microfinance institutions, % GDP				2.1	21	●
4.2 Investment				2.4	[93]	
4.2.1 Market capitalization, % GDP				n/a	n/a	
4.2.2 Venture capital (VC) received, deal count/bn PPP\$ GDP				0.03	95	
4.2.3 Late-stage VC deal count, % global VC				n/a	n/a	
4.2.4 VC investors, deal count/bn PPP\$ GDP				n/a	n/a	
4.2.5 VC investor co-participation/bn PPP\$ GDP				n/a	n/a	
4.3 Trade, diversification and market scale				31.2	132	◇
4.3.1 Applied tariff rate, weighted avg., %				9.8	126	◇
4.3.2 Domestic industry diversification				n/a	n/a	
4.3.3 Domestic market scale, bn PPP\$				63.5	110	
Business sophistication				24	99	
5.1 Knowledge workers				31.7	[93]	
5.1.1 Knowledge-intensive employment, %				● 4.6	114	◇
5.1.2 Females employed w/advanced degrees, %				● 1.1	116	◇
5.1.3 Youth demographic dividend, %				60.9	15	◆◆
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	97	
5.2.1 Public research-industry co-publications, %				0.2	139	○◇
5.2.2 University-industry R&D collaboration†				● 29.4	85	
5.2.3 University industry & international engagement, top 5*				n/a	n/a	
5.2.4 State of cluster development†				● 43.5	75	●
5.2.5 Patent families/bn PPP\$ GDP				0	100	○◇
5.3 Knowledge absorption				22	93	
5.3.1 Intellectual property payments, % total trade				● 0.004	128	◇
5.3.2 High-tech imports, % total trade				5.6	111	
5.3.3 ICT services imports, % total trade				● 2.4	34	◆◆
5.3.4 FDI net inflows, % GDP				2.1	86	
5.3.5 Research talent, % in businesses				n/a	n/a	
Knowledge and technology outputs				12.6	102	
6.1 Knowledge creation				5.7	110	
6.1.1 Patents by origin/bn PPP\$ GDP				0.4	76	●
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				8	85	
6.1.5 Citable documents H-index				4.1	115	
6.2 Knowledge impact				24.1	74	
6.2.1 Labor productivity growth, %				2.8	17	●
6.2.2 Unicorn valuation, % GDP				0	53	○◇
6.2.3 Software spending, % GDP				0.06	105	
6.2.4 High-tech manufacturing, %				n/a	n/a	
6.3 Knowledge diffusion				8.1	118	
6.3.1 Intellectual property receipts, % total trade				● 0.008	109	
6.3.2 Production and export complexity				35.4	97	
6.3.3 High-tech exports, % total trade				0.06	133	○
6.3.4 ICT services exports, % total trade				● 0.3	117	
6.3.5 ISO 9001 quality/bn PPP\$ GDP				0.7	118	
Creative outputs				4.5	133	◇
7.1 Intangible assets				1.4	134	◇
7.1.1 Intangible asset intensity, top 15, %				n/a	n/a	
7.1.2 Trademarks by origin/bn PPP\$ GDP				3.6	129	◇
7.1.3 Global brand value, top 5,000, % GDP				0	81	○◇
7.1.4 Industrial designs by origin/bn PPP\$ GDP				0.09	117	
7.2 Creative goods and services				1.3	[119]	
7.2.1 Cultural and creative services exports, % total trade				● 0.1	94	
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				0.01	129	
7.3 Online creativity				13.7	121	
7.3.1 Top-level domains (TLDs)/th pop. 15-69				0.3	121	
7.3.2 GitHub commits/mn pop. 15-69				0.9	120	
7.3.3 Mobile app creation/bn PPP\$ GDP				39.8	122	

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 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.

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Data Availability

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



Benin has missing data for eighteen indicators and outdated data for seventeen indicators.

Missing data for Benin

Code	Indicator name	Economy year	Model year*	Source
1.3.2	Entrepreneurship policies and culture [†]	n/a	2024	Global Entrepreneurship Monitor
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
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
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.
4.2.4	VC investors, deal count/bn PPP\$ GDP	n/a	2024	PitchBook Data, Inc.; International Monetary Fund
4.2.5	VC investor co-participation/bn PPP\$ GDP	n/a	2024	PitchBook Data, Inc.; International Monetary Fund
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
7.2.2	National feature films/mn pop. 15–69	n/a	2023	OMDIA; United Nations, World Population Prospects
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).

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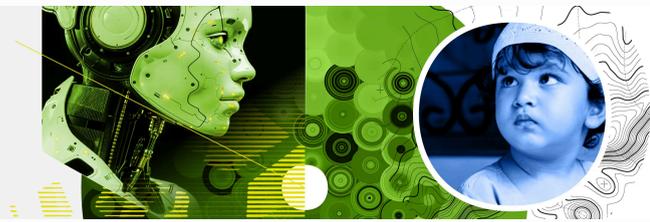


Outdated data for Benin

Code	Indicator name	Economy year	Model year*	Source
1.3.1	Policy stability for doing business [†]	2023	2024	World Economic Forum, Executive Opinion Survey (EOS)
2.1.2	Government funding/pupil, secondary, % GDP/cap	2015	2021	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2022	2023	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2022	2023	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2022	2023	UNESCO Institute for Statistics
2.2.3	Tertiary inbound mobility, %	2022	2023	UNESCO Institute for Statistics
3.2.1	Electricity output, GWh/mn pop.	2022	2023	International Energy Agency
5.1.1	Knowledge-intensive employment, %	2022	2024	International Labour Organization
5.1.2	Females employed w/advanced degrees, %	2022	2024	International Labour Organization
5.2.2	University–industry R&D collaboration [†]	2023	2024	World Economic Forum, Executive Opinion Survey (EOS)
5.2.4	State of cluster development [†]	2023	2024	World Economic Forum, Executive Opinion Survey (EOS)
5.3.1	Intellectual property payments, % total trade	2022	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development
5.3.3	ICT services imports, % total trade	2022	2023	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
6.3.4	ICT services exports, % total trade	2022	2023	World Trade Organization and United Nations Conference on Trade and Development
7.2.1	Cultural and creative services exports, % total trade	2022	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development

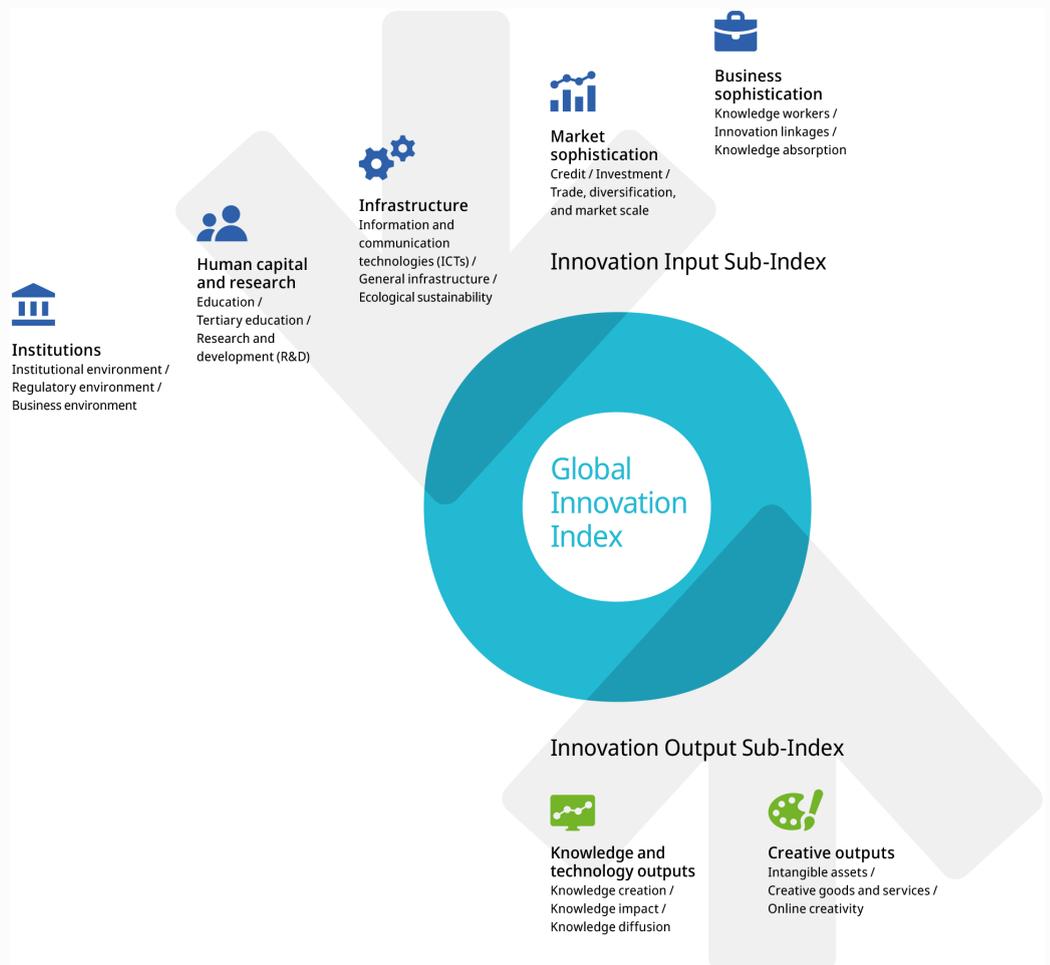
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Global Innovation Index 2025



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.