

Global Innovation Index 2023

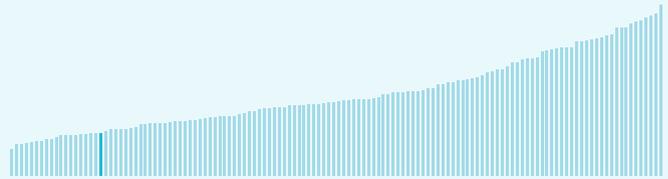


The Global Innovation Index (GII) **ranks world economies according to their innovation capabilities.**

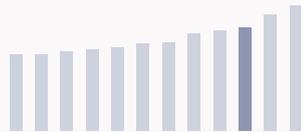
Consisting of **roughly 80 indicators**, grouped into innovation inputs and outputs, the GII **aims to capture the multi-dimensional facets of innovation.**

Togo ranking in the Global Innovation Index 2023

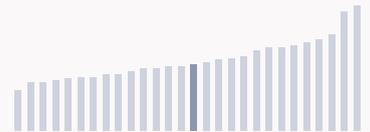
> Togo ranks **114th** among the 132 economies featured in the GII 2023.



> Togo ranks **3rd** among the 12 low-income group economies.



> Togo ranks **14th** among the 28 economies in Sub-Saharan Africa.



> Togo GII Ranking (2020-2023)

The table shows the rankings of Togo 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 Togo in the GII 2023 is between ranks 111 and 117.

	GII Position	Innovation Inputs	Innovation Outputs
2020	125th	121st	127th
2021	125th	110th	129th
2022	122nd	115th	125th
2023	114th	120th	105th

Togo performs better in innovation outputs than innovation inputs in 2023.

This year Togo ranks **120th** in innovation inputs. This position is lower than last year.

Togo ranks **105th** in innovation outputs. This position is higher than last year.

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→ Expected vs. observed innovation performance

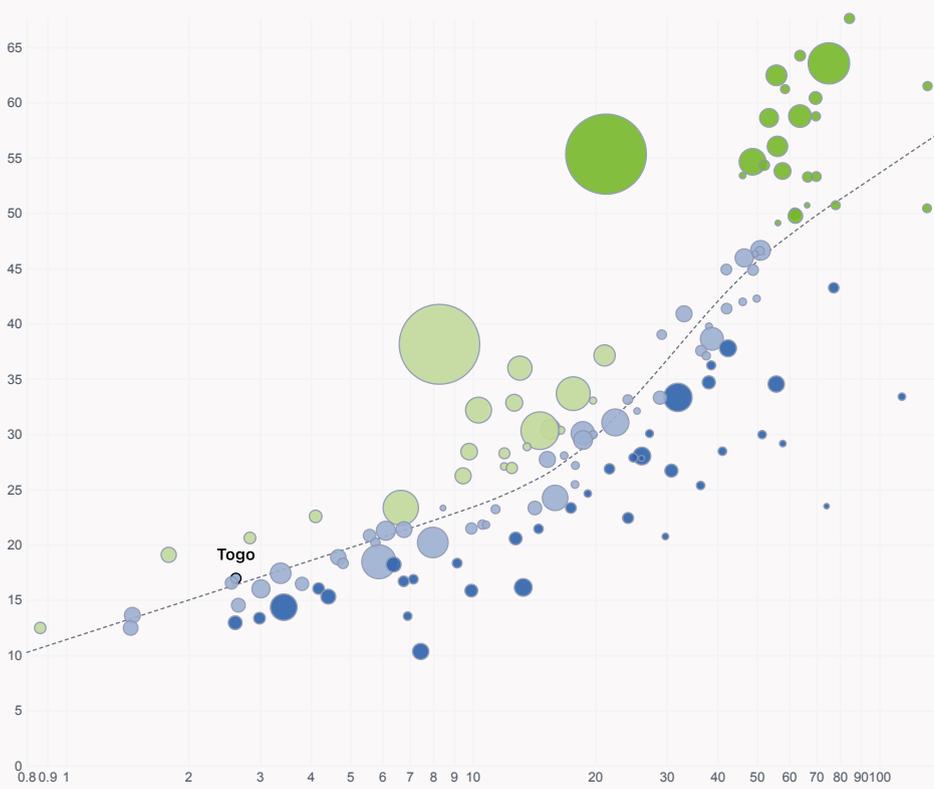
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected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



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

> Innovation overperformers relative to their economic development

↑ **GII Score**



- Innovation leader
- Performing above expectations for level of development
- Performing at expectations for level of development
- Performing below expectations for level of development

Size legend (Population)



→ GDP per capita, PPP logarithmic scale (thousands of \$)

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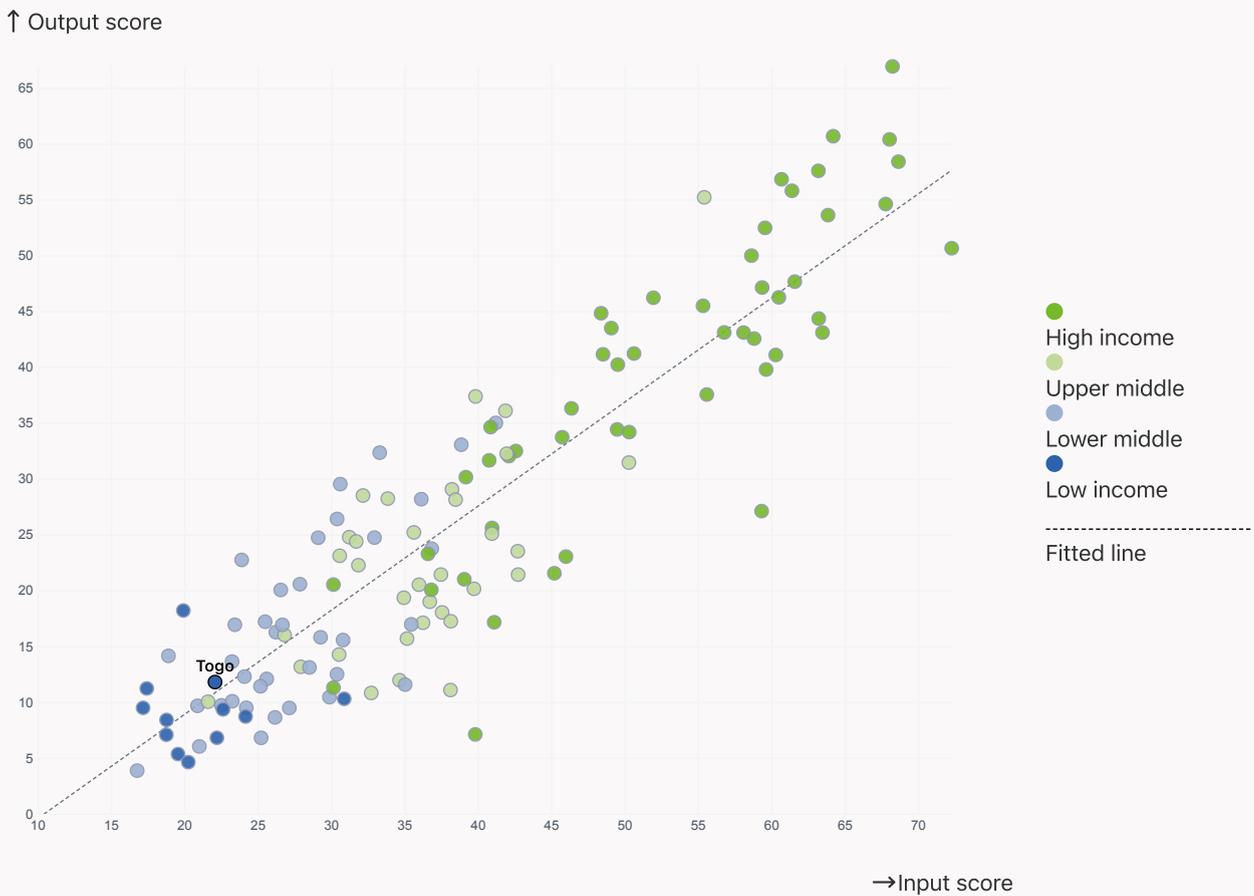
→ Effectively translating innovation investments into innovation outputs

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.

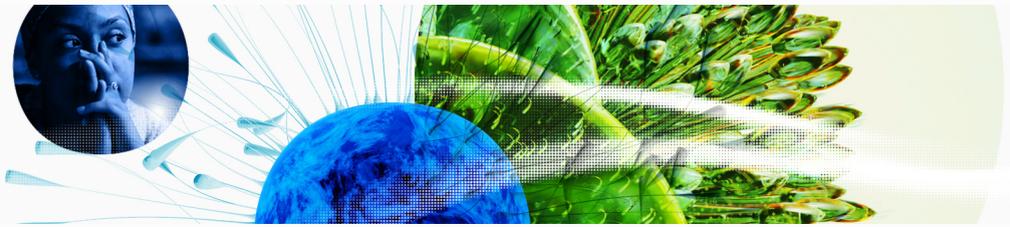


> Togo produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

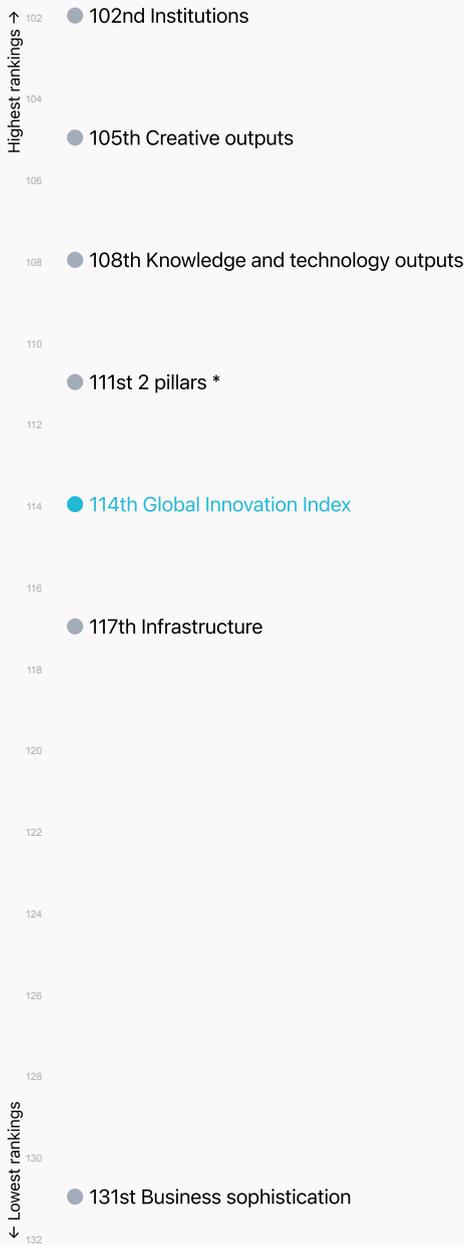


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→ Overview of Togo's rankings in the seven areas of the GII in 2023

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



* Human capital and research, Market sophistication

> Highest rankings



Togo ranks highest in Institutions (102nd), Creative outputs (105th), Knowledge and technology outputs (108th) and Human capital and research, Market sophistication (111st).

> Lowest rankings



Togo ranks lowest in Business sophistication (131st), Infrastructure (117th) and Human capital and research, Market sophistication (111st).



The full WIPO Intellectual Property Statistics profile for Togo can be found on [this link](#).

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→ Benchmark of Togo against other country groupings for each of the seven areas of the GII Index

The charts show the relative position of Togo (blue bar) against other country groupings (grey bars), for each of the seven areas of the GII Index.

> Low-Income economies

Togo performs above the low-income group average in Knowledge and technology outputs, Creative outputs, Market sophistication, Human capital and research, Infrastructure.



> Sub-Saharan Africa

Togo performs below the regional average in Business sophistication, Human capital and research, Infrastructure, Institutions.



Knowledge and technology outputs

Top 10 | Score: 58.96

Togo | Score: 12.41

Sub-Saharan Africa | Score: 12.16

Low income | Score: 11.03

Creative outputs

Top 10 | 56.09

Togo | 11.14

Sub-Saharan Africa | 10.36

Low income | 7.48

Business sophistication

Top 10 | 64.39

Sub-Saharan Africa | 19.85

Low income | 16.81

Togo | 14.37

Market sophistication

Top 10 | 61.93

Togo | 21.13

Sub-Saharan Africa | 20.00

Low income | 15.67

Human capital and research

Top 10 | 60.28

Sub-Saharan Africa | 17.80

Togo | 16.76

Low income | 15.55

Infrastructure

Top 10 | 62.83

Sub-Saharan Africa | 23.36

Togo | 20.77

Low income | 19.43

Institutions

Top 10 | 79.85

Sub-Saharan Africa | 43.27

Low income | 38.42

Togo | 37.48



→ Innovation strengths and weaknesses in Togo

The table below gives an overview of the indicator strengths and weaknesses of Togo in the GII 2023.



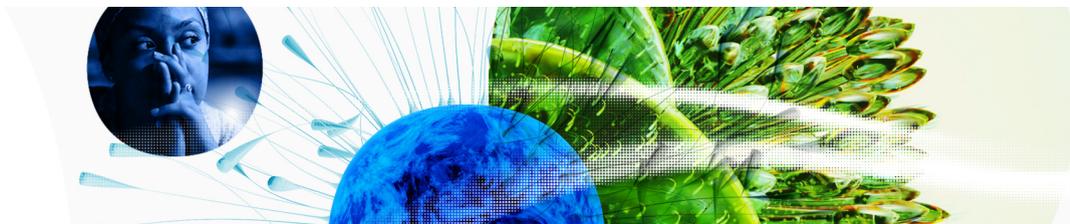
> Togo's main innovation strengths are **Loans from microfinance institutions, % GDP** (rank 6), **Cultural and creative services exports, % total trade** (rank 17) and **Labor productivity growth, %** (rank 39).

Strengths

Weaknesses

Rank	Code	Indicator name	Rank	Code	Indicator name
6	4.1.3	Loans from microfinance institutions, % GDP	129	4.3.3	Domestic market scale, bn PPP\$
17	7.2.1	Cultural and creative services exports, % total trade	122	3.2.1	Electricity output, GWh/mn pop.
39	6.2.1	Labor productivity growth, %	118	5.3.1	Intellectual property payments, % total trade
40	3.2.3	Gross capital formation, % GDP	101	6.1.2	PCT patents by origin/bn PPP\$ GDP
49	5.1.2	Firms offering formal training, %	95	5.2.5	Patent families/bn PPP\$ GDP
52	1.2.3	Cost of redundancy dismissal	75	6.1.3	Utility models by origin/bn PPP\$ GDP
66	2.1.1	Expenditure on education, % GDP	74	7.1.3	Global brand value, top 5,000
66	6.3.4	ICT services exports, % total trade	71	2.3.4	QS university ranking, top 3
78	5.3.4	FDI net inflows, % GDP	48	6.2.2	Unicorn valuation, % GDP
85	1.1.1	Operational stability for businesses	40	2.3.3	Global corporate R&D investors, top 3, mn US\$

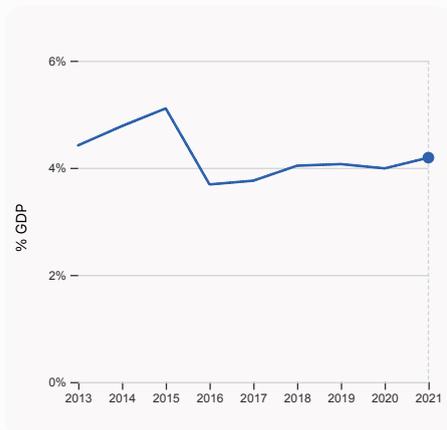
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→ Togo's innovation system

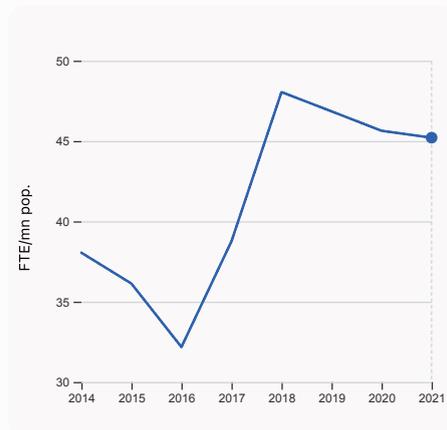
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Togo



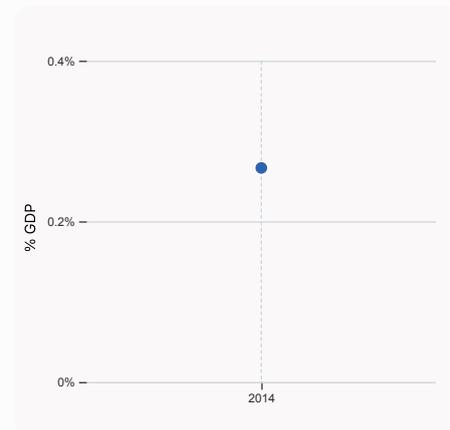
2.1.1 Expenditure on education, % GDP

was equal to 4.19% GDP in 2021, up by 0.2 percentage points from the year prior – and equivalent to an indicator rank of 66.



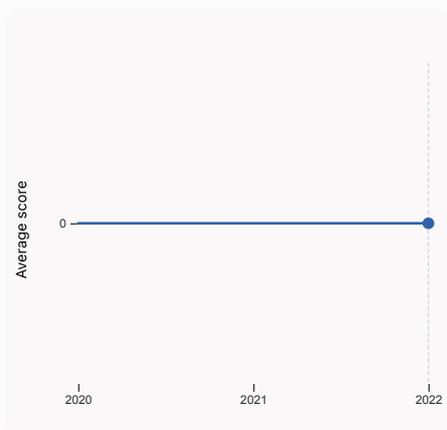
2.3.1 Researchers, FTE/mn pop.

was equal to 45.21 FTE/mn pop. in 2021, down by 0.94% from the year prior – and equivalent to an indicator rank of 95.



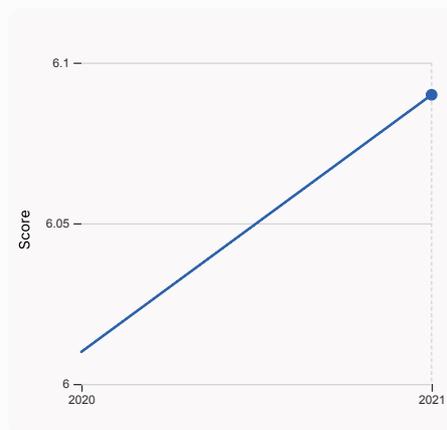
2.3.2 Gross expenditure on R&D, % GDP

was equal to 0.267 % GDP in 2014, equivalent to an indicator rank of 82.



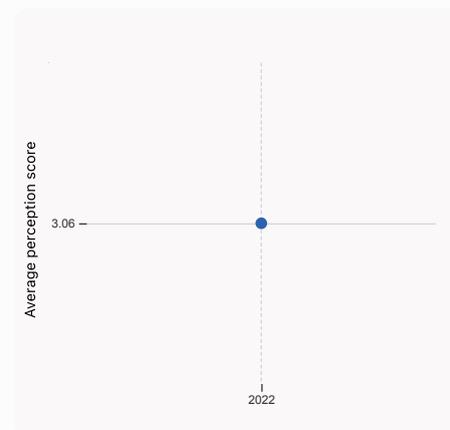
2.3.4 QS university ranking, top 3

was equal to an average score of 0 for the top 3 universities in 2022, equivalent to an indicator rank of 71.



3.1.1 ICT access

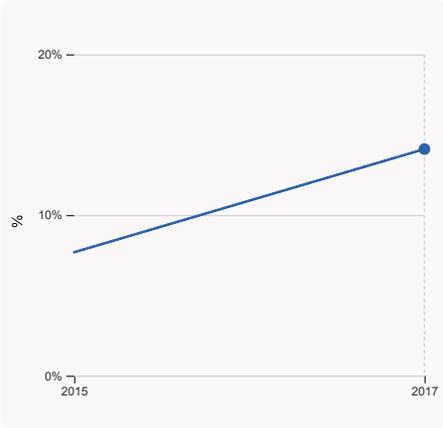
was equal to a score of 6.09 in 2021, up by 1.33% from the year prior – and equivalent to an indicator rank of 117.



4.1.1 Finance for startups and scaleups

was equal to an average perception score of 3.06 in 2022, equivalent to an indicator rank of 80.

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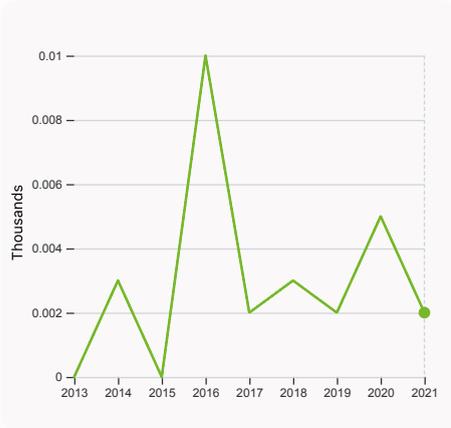
5.1.1 Knowledge-intensive employment, %

was equal to 14.1% in 2017, up by 6.42 percentage points from the year prior – and equivalent to an indicator rank of 91.

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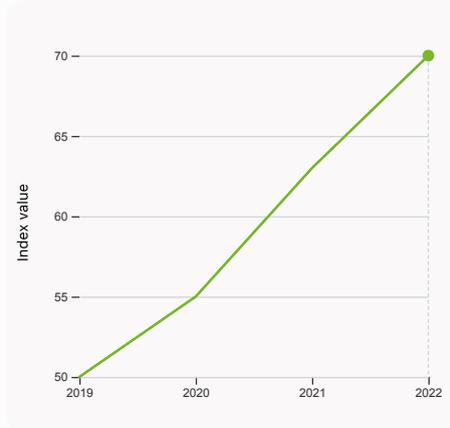


> Innovation outputs in Togo



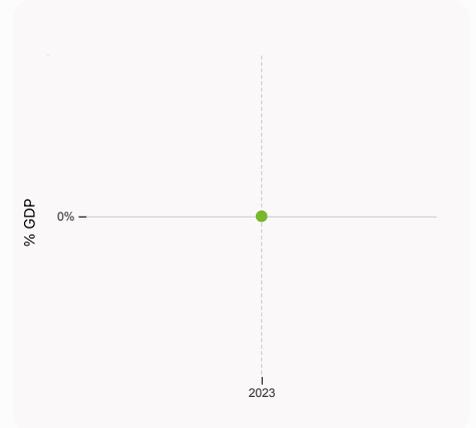
6.1.1 Patents by origin

was equal to 0.002 Thousands in 2021, down by 60% from the year prior – and equivalent to an indicator rank of 111.



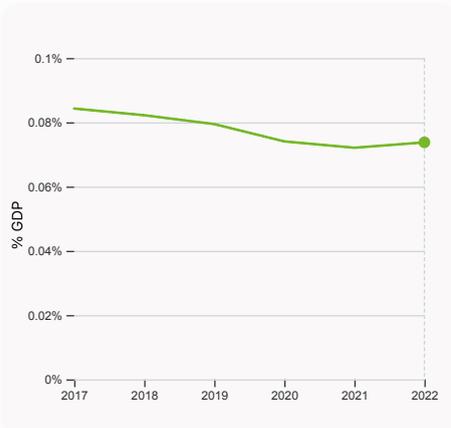
6.1.5 Citable documents H-index

was equal to an index value of 70 in 2022, up by 11.11% from the year prior – and equivalent to an indicator rank of 127.



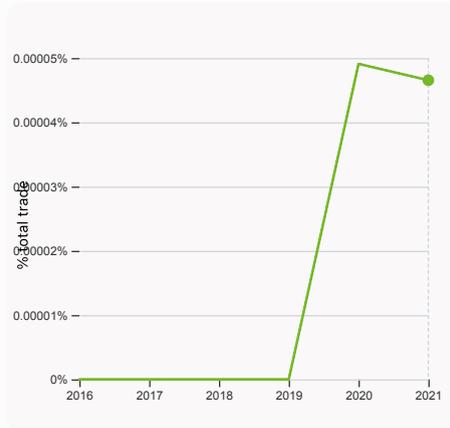
6.2.2 Unicorn valuation, % GDP

was equal to 0 % GDP in 2023 – and equivalent to an indicator rank of 48.



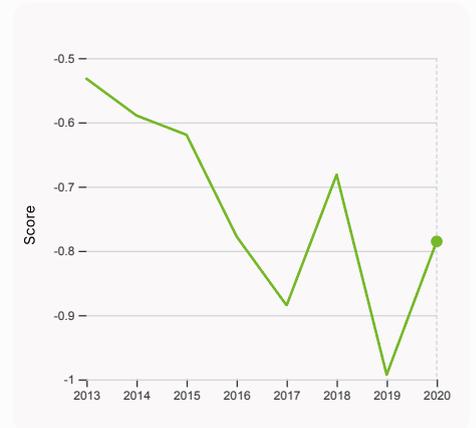
6.2.3 Software spending, % GDP

was equal to 0.074% GDP in 2022, up by 0.0017 percentage points from the year prior – and equivalent to an indicator rank of 94.



6.3.1 Intellectual property receipts, % total trade

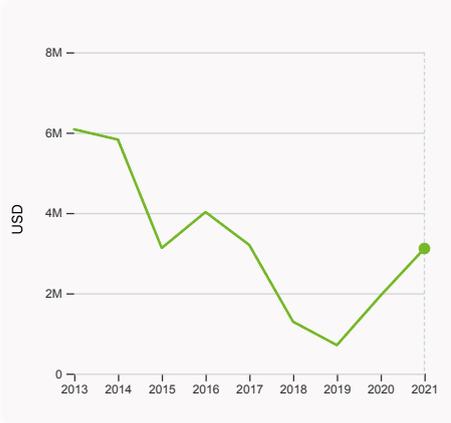
was equal to 0% total trade in 2021, down by 0.0000026 percentage points from the year prior – and equivalent to an indicator rank of 113.



6.3.2 Production and export complexity

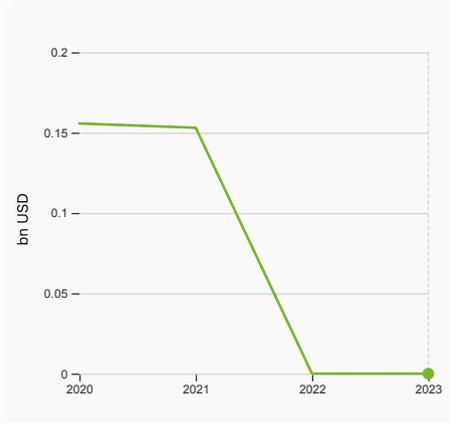
was equal to a score of -0.785 in 2020, up by 20.89% from the year prior – and equivalent to an indicator rank of 99.

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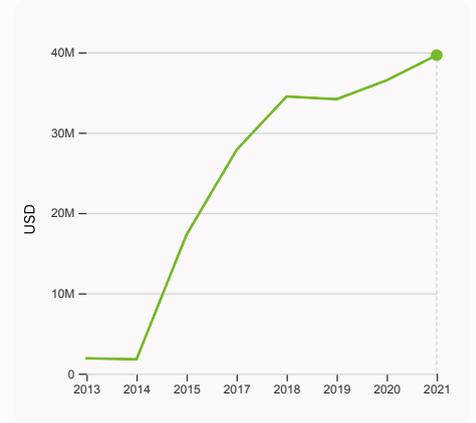
6.3.3 High-tech exports

was equal to 3,115,138 USD in 2021, up by 60.18% from the year prior – and equivalent to an indicator rank of 115.



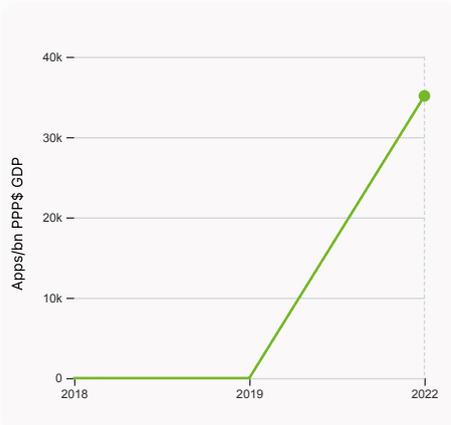
7.1.3 Global brand value, top 5,000

was equal to 0 bn USD in 2023 – and equivalent to an indicator rank of 74.



7.2.1 Cultural and creative services exports

was equal to 39,651,000 USD in 2021, up by 8.59% from the year prior – and equivalent to an indicator rank of 17.



7.3.4 Mobile app creation/bn PPP\$ GDP

was equal to 35,126.07 Apps/bn PPP\$ GDP in 2022, up by 31390312.52% from the year prior – and equivalent to an indicator rank of 88.

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GII 2023 rank

114

Togo

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
105	120	Low	SSA	8.8	22.8	2,618.5

Score / Value Rank

Score / Value Rank

Institutions 37.5 102

1.1 Institutional environment	31.0	99	
1.1.1 Operational stability for businesses*	43.1	85	◆◆
1.1.2 Government effectiveness*	18.9	110	
1.2 Regulatory environment	56.4	84	◆◆
1.2.1 Regulatory quality*	25.7	109	
1.2.2 Rule of law*	23.3	97	
1.2.3 Cost of redundancy dismissal	13.9	52	◆◆
1.3 Business environment	25.0	[111]	
1.3.1 Policies for doing business†	n/a	n/a	
1.3.2 Entrepreneurship policies and culture†	25.0	67	

Human capital and research 16.8 [111]

2.1 Education	41.5	[94]	
2.1.1 Expenditure on education, % GDP	4.2	66	◆◆
2.1.2 Government funding/pupil, secondary, % GDP/cap	n/a	n/a	
2.1.3 School life expectancy, years	12.7	87	◆
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary	25.9	111	
2.2 Tertiary education	7.5	[116]	
2.2.1 Tertiary enrolment, % gross	15.4	105	◆
2.2.2 Graduates in science and engineering, %	n/a	n/a	
2.2.3 Tertiary inbound mobility, %	n/a	n/a	
2.3 Research and development (R&D)	1.2	98	
2.3.1 Researchers, FTE/mn pop.	45.2	95	
2.3.2 Gross expenditure on R&D, % GDP	0.3	82	◆
2.3.3 Global corporate R&D investors, top 3, mn US\$	0.0	40	○◇
2.3.4 QS university ranking, top 3*	0.0	71	○◇

Infrastructure 20.8 117

3.1 Information and communication technologies (ICTs)	36.0	113	
3.1.1 ICT access*	41.0	117	
3.1.2 ICT use*	28.4	118	◆
3.1.3 Government's online service*	37.4	112	
3.1.4 E-participation*	37.2	91	
3.2 General infrastructure	14.3	108	
3.2.1 Electricity output, GWh/mn pop.	84.6	122	○
3.2.2 Logistics performance*	18.2	89	
3.2.3 Gross capital formation, % GDP	26.7	40	◆◆
3.3 Ecological sustainability	12.0	118	
3.3.1 GDP/unit of energy use	4.7	117	
3.3.2 Environmental performance*	25.6	97	
3.3.3 ISO 14001 environment/bn PPP\$ GDP	0.4	90	◆

Market sophistication 21.1 111 ◆

4.1 Credit	27.6	71	◆◆
4.1.1 Finance for startups and scaleups†	17.8	80	
4.1.2 Domestic credit to private sector, % GDP	26.6	105	◆
4.1.3 Loans from microfinance institutions, % GDP	4.8	6	◆◆
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	14.7	128	○◇
4.3.1 Applied tariff rate, weighted avg., %	11.0	122	
4.3.2 Domestic industry diversification	n/a	n/a	
4.3.3 Domestic market scale, bn PPP\$	22.8	129	○

Business sophistication 14.4 [131]

5.1 Knowledge workers	20.1	[99]	
5.1.1 Knowledge-intensive employment, %	14.1	91	◆
5.1.2 Firms offering formal training, %	33.7	49	◆◆
5.1.3 GERD performed by business, % GDP	n/a	n/a	
5.1.4 GERD financed by business, %	n/a	n/a	
5.1.5 Females employed w/advanced degrees, %	0.9	118	◆
5.2 Innovation linkages	1.2	[131]	
5.2.1 University-industry R&D collaboration†	n/a	n/a	
5.2.2 State of cluster development†	n/a	n/a	
5.2.3 GERD financed by abroad, % GDP	0.0	68	◆
5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP	n/a	n/a	
5.2.5 Patent families/bn PPP\$ GDP	0.0	95	○◇
5.3 Knowledge absorption	21.8	121	
5.3.1 Intellectual property payments, % total trade	0.0	118	○◇
5.3.2 High-tech imports, % total trade	5.3	110	
5.3.3 ICT services imports, % total trade	0.6	102	○
5.3.4 FDI net inflows, % GDP	1.8	78	◆◆
5.3.5 Research talent, % in businesses	n/a	n/a	

Knowledge and technology outputs 12.4 108

6.1 Knowledge creation	3.6	119	
6.1.1 Patents by origin/bn PPP\$ GDP	0.1	111	
6.1.2 PCT patents by origin/bn PPP\$ GDP	0.0	101	○◇
6.1.3 Utility models by origin/bn PPP\$ GDP	0.0	75	○◇
6.1.4 Scientific and technical articles/bn PPP\$ GDP	n/a	n/a	
6.1.5 Citable documents H-index	1.5	127	○
6.2 Knowledge impact	22.5	90	
6.2.1 Labor productivity growth, %	1.8	39	◆◆
6.2.2 Unicorn valuation, % GDP	0.0	48	○◇
6.2.3 Software spending, % GDP	0.1	94	◆
6.2.4 High-tech manufacturing, %	n/a	n/a	
6.3 Knowledge diffusion	11.1	102	
6.3.1 Intellectual property receipts, % total trade	0.0	113	
6.3.2 Production and export complexity	36.1	99	
6.3.3 High-tech exports, % total trade	0.1	115	
6.3.4 ICT services exports, % total trade	1.7	66	◆◆
6.3.5 ISO 9001 quality/bn PPP\$ GDP	1.5	94	◆

Creative outputs 11.1 105

7.1 Intangible assets	6.2	117	
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP\$ GDP	19.7	93	
7.1.3 Global brand value, top 5,000	0.0	74	○◇
7.1.4 Industrial designs by origin/bn PPP\$ GDP	0.2	101	
7.2 Creative goods and services	17.4	[53]	
7.2.1 Cultural and creative services exports, % total trade	1.7	17	◆◆
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	0.0	117	
7.3 Online creativity	14.8	98	◆
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	0.6	104	◆
7.3.2 Country-code TLDs/th pop. 15-69	0.1	119	
7.3.3 GitHub commits/mn pop. 15-69	0.7	118	
7.3.4 Mobile app creation/bn PPP\$ GDP	57.6	88	◆

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; see appendices for details, including the year of the data, at <https://www.wipo.int/gii-ranking>. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.



→ Data availability

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



> Togo has missing data for twenty indicators and outdated data for seven indicators.

> Missing data for Togo

Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policies for doing business	n/a	2022	World Economic Forum, Executive Opinion Survey (EOS)
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2019	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD, PISA
2.2.2	Graduates in science and engineering, %	n/a	2020	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	n/a	2020	UNESCO Institute for Statistics
4.2.1	Market capitalization, % GDP	n/a	2020	World Federation of Exchanges; World Bank
4.2.2	Venture capital (VC) investors, deals/bn PPP\$ GDP	n/a	2022	Refinitiv; International Monetary Fund
4.2.3	VC recipients, deals/bn PPP\$ GDP	n/a	2022	Refinitiv; International Monetary Fund
4.2.4	VC received, value, % GDP	n/a	2022	Refinitiv; International Monetary Fund
4.3.2	Domestic industry diversification	n/a	2020	United Nations Industrial Development Organization
5.1.3	GERD performed by business, % GDP	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by business, %	n/a	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.2.1	University-industry R&D collaboration	n/a	2022	World Economic Forum, Executive Opinion Survey (EOS)
5.2.2	State of cluster development	n/a	2022	World Economic Forum, Executive Opinion Survey (EOS)
5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	n/a	2022	Refinitiv; International Monetary Fund
5.3.5	Research talent, % in businesses	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing, %	n/a	2020	United Nations Industrial Development

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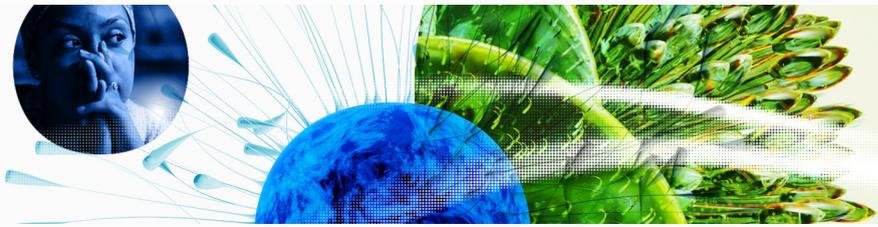


Code	Indicator name	Economy Year	Model Year	Source
				Organization
7.1.1	Intangible asset intensity, top 15, %	n/a	2022	Brand Finance
7.2.2	National feature films/mn pop. 15-69	n/a	2021	OMDIA; United Nations, World Population Prospects
7.2.3	Entertainment and media market/th pop. 15-69	n/a	2022	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

> Outdated data for Togo

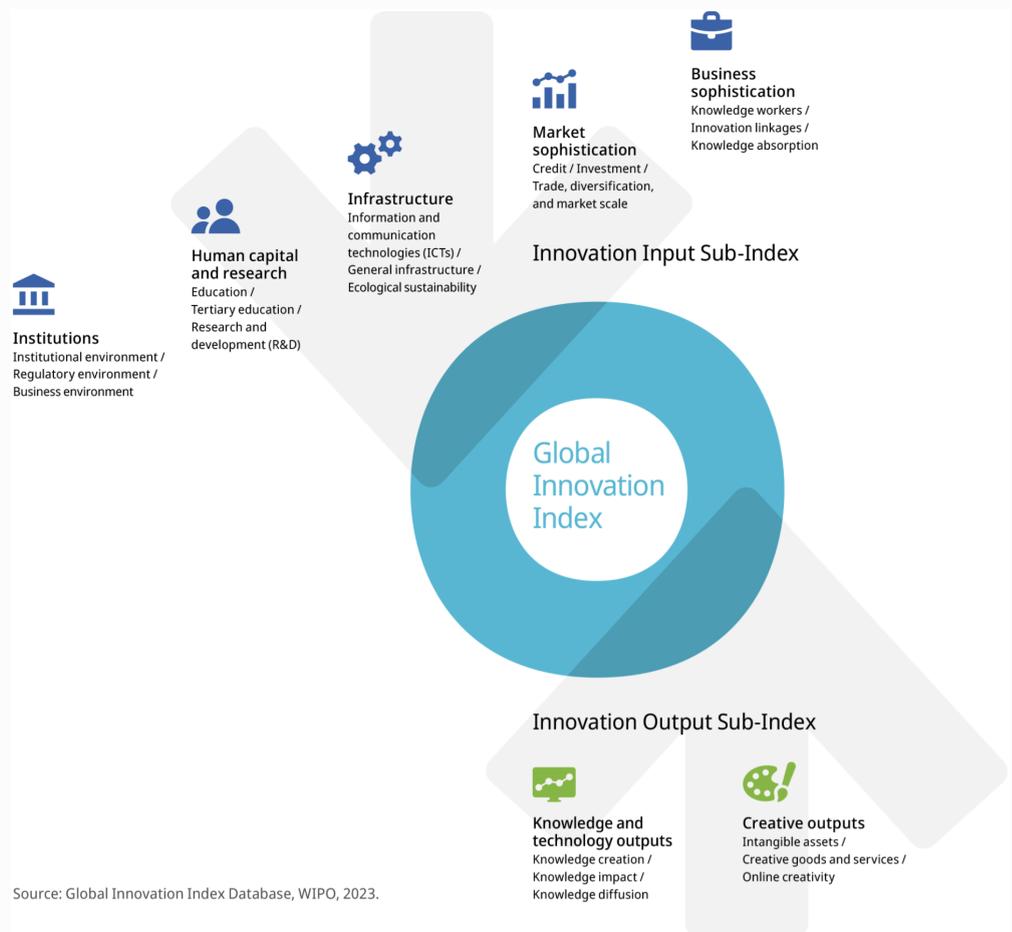
Code	Indicator name	Economy Year	Model Year	Source
2.1.3	School life expectancy, years	2017	2020	UNESCO Institute for Statistics
2.3.2	Gross expenditure on R&D, % GDP	2014	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.1	Electricity output, GWh/mn pop.	2020	2021	International Energy Agency
5.1.1	Knowledge-intensive employment, %	2017	2022	International Labour Organization
5.1.2	Firms offering formal training, %	2016	2019	World Bank Enterprise Surveys
5.1.5	Females employed w/advanced degrees, %	2017	2022	International Labour Organization
5.2.3	GERD financed by abroad, % GDP	2014	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT

Global Innovation Index 2023



→ 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.



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.