



TOGO

122nd Togo ranks 122nd among the 132 economies featured in the GII 2022.

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.

The following table shows the rankings of Togo over the past three years, noting that 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 2022 is between ranks 114 and 123.

Rankings for Togo (2020–2022)

GIIYR	GII	Innovation inputs	Innovation outputs
2020	125	121	127
2021	125	110	129
2022	122	115	125

- Togo performs better in innovation inputs than innovation outputs in 2022.
- This year Togo ranks 115th in innovation inputs, lower than last year but higher than 2020.
- As for innovation outputs, Togo ranks 125th. This position is higher than both 2021 and 2020.

6th Togo ranks 6th among the 12 low-income group economies.

19th Togo ranks 19th among the 27 economies in Sub-Saharan Africa.

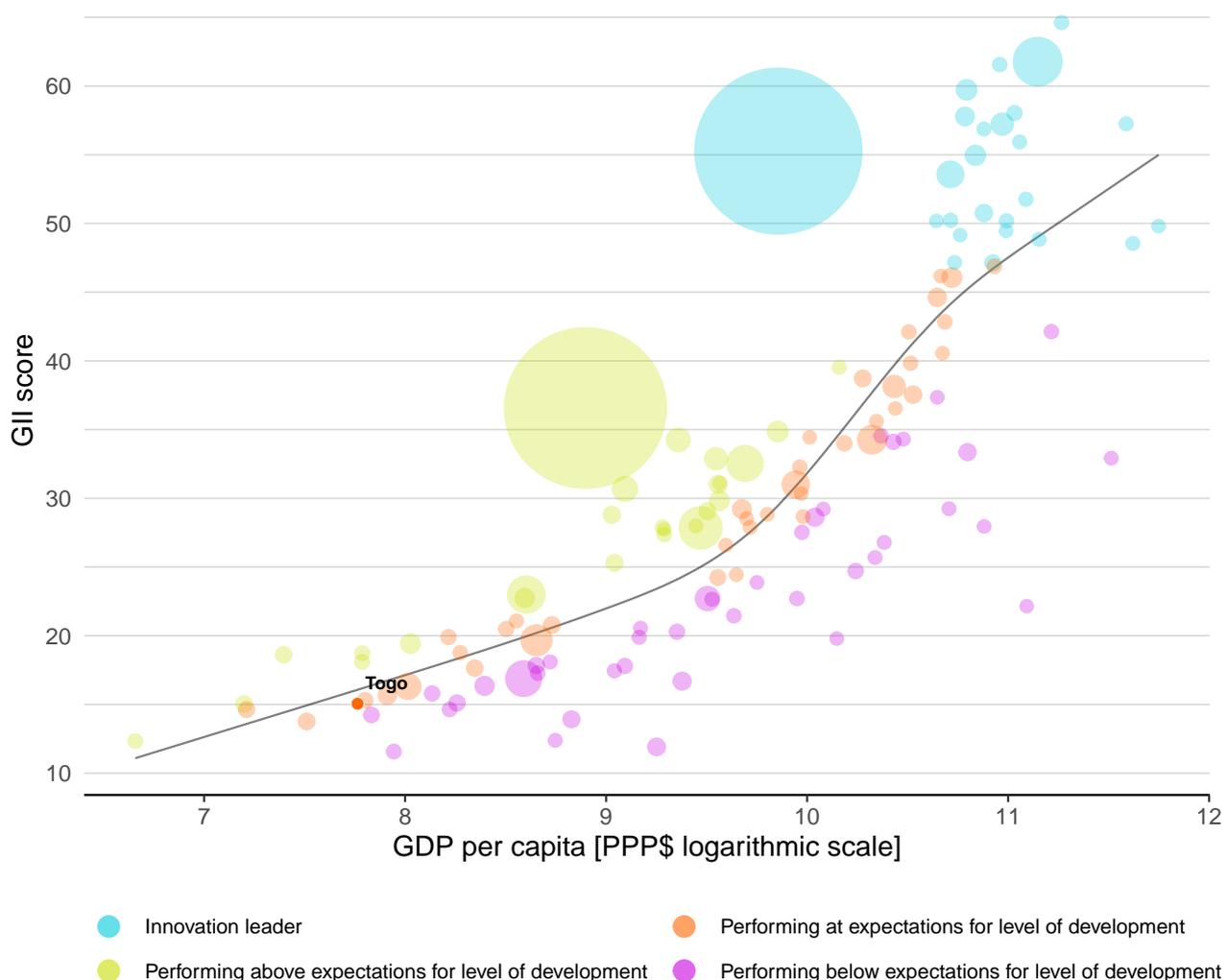


EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

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.

The positive relationship between innovation and development



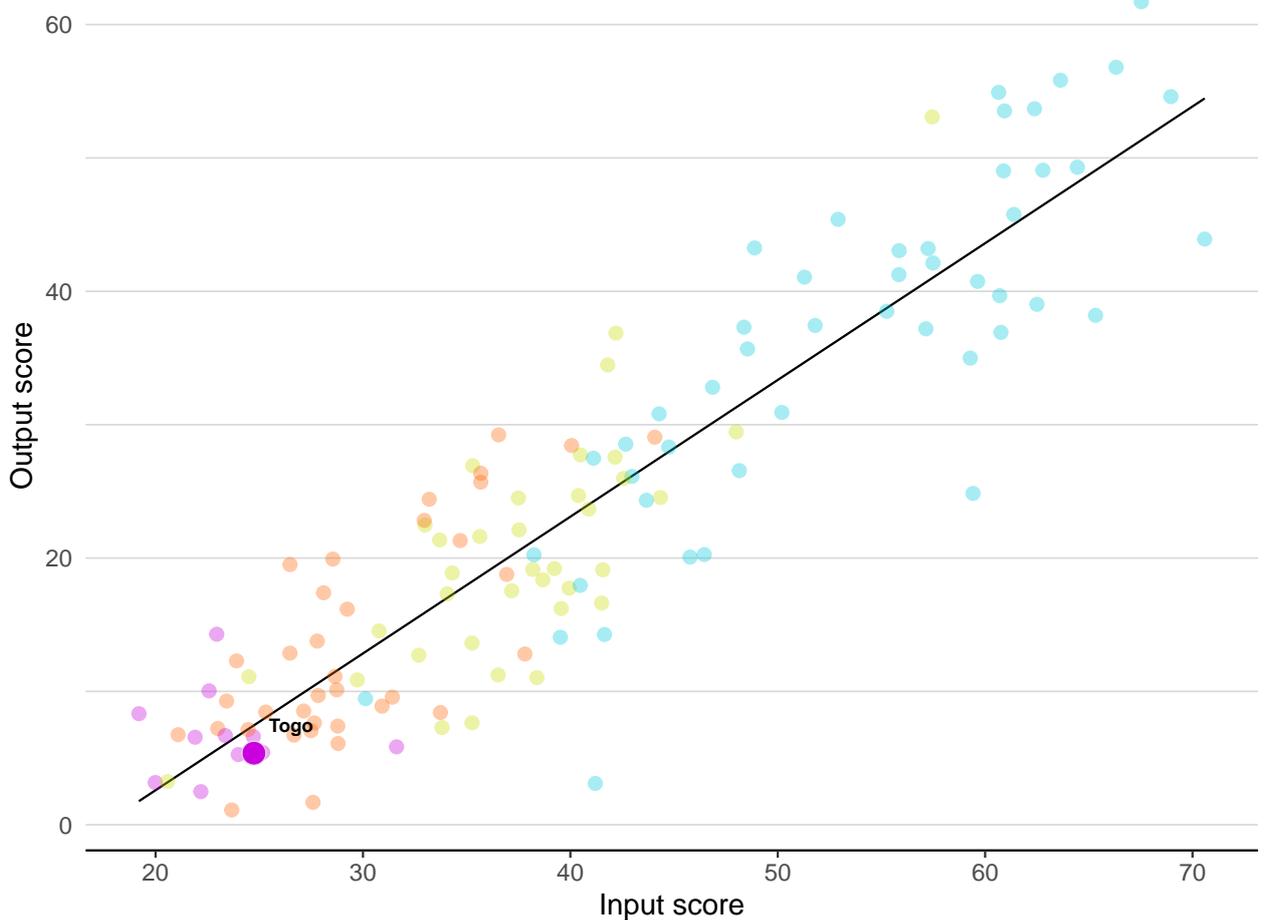


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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 less innovation outputs relative to its level of innovation investments.

Innovation input to output performance



Income ● High income ● Upper middle ● Lower middle ● Low income — Fitted line



BENCHMARKING AGAINST OTHER LOW-INCOME GROUP ECONOMIES AND SUB-SAHARAN AFRICA

The seven GII pillar scores for Togo



Low-income group economies

Togo performs above the low-income group average in four pillars, namely: Human capital and research; Infrastructure; Market sophistication; and, Creative outputs.

Sub-Saharan Africa

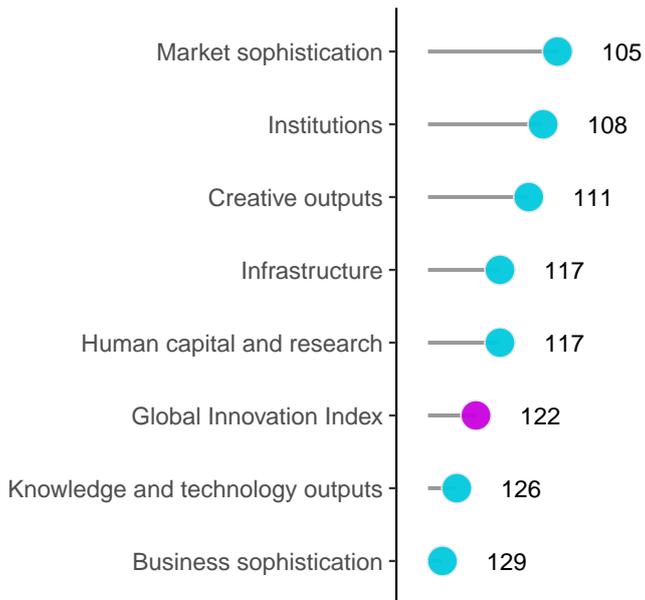
Togo performs above the regional average in Market sophistication.



OVERVIEW OF RANKINGS IN THE SEVEN GII 2022 AREAS

Togo performs best in Market sophistication and its weakest performance is in Business sophistication.

The seven GII pillar ranks for Togo



Note: The highest possible ranking in each pillar is 1.

The full WIPO Intellectual Property Statistics profile for Togo can be found at:

https://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=TG.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the indicator strengths and weaknesses of Togo in the GII 2022.

Strengths and weaknesses for Togo

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.2.3	Cost of redundancy dismissal	52	2.3.3	Global corporate R&D investors, top 3, mn USD	38
2.1.1	Expenditure on education, % GDP	76	2.3.4	QS university ranking, top 3	72
3.2.3	Gross capital formation, % GDP	44	4.3.3	Domestic market scale, bn PPP\$	130
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	81	5.2.5	Patent families/bn PPP\$ GDP	101
4.1.3	Loans from microfinance institutions, % GDP	7	6.1.2	PCT patents by origin/bn PPP\$ GDP	101
5.1.2	Firms offering formal training, %	48	6.1.3	Utility models by origin/bn PPP\$ GDP	78
5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	75	6.1.5	Citable documents H-index	128
5.3.4	FDI net inflows, % GDP	32	6.3.1	Intellectual property receipts, % total trade	113
6.3.4	ICT services exports, % total trade	76	7.1.3	Global brand value, top 5,000, % GDP	77
7.2.1	Cultural and creative services exports, % total trade	19	7.3.4	Mobile app creation/bn PPP\$ GDP	116

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
125	115	Low	SSA	8.5	20.0	2,353

	Score/Value	Rank		Score/Value	Rank
 Institutions	45.0	108	 Business sophistication	14.4	[129]
1.1 Political environment	49.2	97	5.1 Knowledge workers	19.9	[95]
1.1.1 Political and operational stability*	63.6	81	5.1.1 Knowledge-intensive employment, %	14.1	92
1.1.2 Government effectiveness*	34.8	109	5.1.2 Firms offering formal training, %	33.7	48
1.2 Regulatory environment	59.0	82	5.1.3 GERD performed by business, % GDP	n/a	n/a
1.2.1 Regulatory quality*	30.2	102	5.1.4 GERD financed by business, %	n/a	n/a
1.2.2 Rule of law*	28.9	102	5.1.5 Females employed w/advanced degrees, %	0.9	117
1.2.3 Cost of redundancy dismissal	13.9	52	5.2 Innovation linkages	2.8	[130]
1.3 Business environment	26.7	[117]	5.2.1 University-industry R&D collaboration [†]	n/a	n/a
1.3.1 Policies for doing business [†]	n/a	n/a	5.2.2 State of cluster development and depth [†]	n/a	n/a
1.3.2 Entrepreneurship policies and culture*	26.7	54	5.2.3 GERD financed by abroad, % GDP	0.0	69
			5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP	0.0	75
			5.2.5 Patent families/bn PPP\$ GDP	0.0	101
 Human capital and research	14.9	117	5.3 Knowledge absorption	20.6	107
2.1 Education	36.1	107	5.3.1 Intellectual property payments, % total trade	6.9	96
2.1.1 Expenditure on education, % GDP	4.0	76	5.3.2 High-tech imports, % total trade	0.7	103
2.1.2 Government funding/pupil, secondary, % GDP/cap	15.3	81	5.3.3 ICT services imports, % total trade	3.6	32
2.1.3 School life expectancy, years	12.7	85	5.3.4 FDI net inflows, % GDP	n/a	n/a
2.1.4 PISA scales in reading, maths and science	n/a	n/a	5.3.5 Research talent, % in businesses	n/a	n/a
2.1.5 Pupil-teacher ratio, secondary	26.2	109	 Knowledge and technology outputs	5.4	126
2.2 Tertiary education	7.8	[112]	6.1 Knowledge creation	3.1	117
2.2.1 Tertiary enrolment, % gross	15.4	102	6.1.1 Patents by origin/bn PPP\$ GDP	0.3	90
2.2.2 Graduates in science and engineering, %	n/a	n/a	6.1.2 PCT patents by origin/bn PPP\$ GDP	0.0	101
2.2.3 Tertiary inbound mobility, %	n/a	n/a	6.1.3 Utility models by origin/bn PPP\$ GDP	0.0	78
2.3 Research and development (R&D)	0.8	99	6.1.4 Scientific and technical articles/bn PPP\$ GDP	9.3	93
2.3.1 Researchers, FTE/mn pop.	45.6	96	6.1.5 Citable documents H-index	0.8	128
2.3.2 Gross expenditure on R&D, % GDP	0.3	83	6.2 Knowledge impact	4.8	[122]
2.3.3 Global corporate R&D investors, top 3, mn USD	0.0	38	6.2.1 Labor productivity growth, %	n/a	n/a
2.3.4 QS university ranking, top 3*	0.0	72	6.2.2 New businesses/th pop. 15-64	0.9	82
			6.2.3 Software spending, % GDP	0.1	91
 Infrastructure	26.5	117	6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	1.4	97
3.1 Information and communication technologies (ICTs)	46.5	114	6.2.5 High-tech manufacturing, %	n/a	n/a
3.1.1 ICT access*	60.1	115	6.3 Knowledge diffusion	8.2	109
3.1.2 ICT use*	24.7	120	6.3.1 Intellectual property receipts, % total trade	0.0	113
3.1.3 Government's online service*	50.0	106	6.3.2 Production and export complexity	19.2	106
3.1.4 E-participation*	51.2	99	6.3.3 High-tech exports, % total trade	0.1	119
3.2 General infrastructure	18.7	113	6.3.4 ICT services exports, % total trade	1.6	76
3.2.1 Electricity output, GWh/mn pop.	89.1	126	 Creative outputs	5.4	111
3.2.2 Logistics performance*	18.6	107	7.1 Intangible assets	2.8	121
3.2.3 Gross capital formation, % GDP	26.3	44	7.1.1 Intangible asset intensity, top 15, %	n/a	n/a
3.3 Ecological sustainability	14.3	129	7.1.2 Trademarks by origin/bn PPP\$ GDP	11.3	107
3.3.1 GDP/unit of energy use	3.8	126	7.1.3 Global brand value, top 5,000, % GDP	0.0	77
3.3.2 Environmental performance*	34.0	95	7.1.4 Industrial designs by origin/bn PPP\$ GDP	0.3	94
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	0.5	81	7.2 Creative goods and services	15.7	[65]
			7.2.1 Cultural and creative services exports, % total trade	1.4	19
 Market sophistication	22.9	105	7.2.2 National feature films/mn pop. 15-69	n/a	n/a
4.1 Credit	31.2	52	7.2.3 Entertainment and media market/th pop. 15-69	n/a	n/a
4.1.1 Finance for startups and scaleups*	25.3	68	7.2.4 Printing and other media, % manufacturing	n/a	n/a
4.1.2 Domestic credit to private sector, % GDP	26.6	103	7.2.5 Creative goods exports, % total trade	0.0	117
4.1.3 Loans from microfinance institutions, % GDP	4.1	7	7.3 Online creativity	0.2	120
4.2 Investment	n/a	[n/a]	7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	0.6	104
4.2.1 Market capitalization, % GDP	n/a	n/a	7.3.2 Country-code TLDs/th pop. 15-69	0.1	118
4.2.2 Venture capital investors, deals/bn PPP\$ GDP	n/a	n/a	7.3.3 GitHub commit pushes received/mn pop. 15-69	0.2	123
4.2.3 Venture capital recipients, deals/bn PPP\$ GDP	n/a	n/a	7.3.4 Mobile app creation/bn PPP\$ GDP	0.0	116
4.2.4 Venture capital received, value, % GDP	n/a	n/a			
4.3 Trade, diversification, and market scale	14.6	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\$	20.0	130			

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/global_innovation_index/en/2022. 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.

Missing data for Togo

Code	Indicator name	Economy year	Model year	Source
1.3.1	Policies for doing business	n/a	2021	World Economic Forum, Executive Opinion Survey (EOS)
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
2.2.3	Tertiary inbound mobility, %	n/a	2019	UNESCO Institute for Statistics
4.2.1	Market capitalization, % GDP	n/a	2020	World Federation of Exchanges
4.2.2	Venture capital investors, deals/bn PPP\$ GDP	n/a	2021	Refinitiv
4.2.3	Venture capital recipients, deals/bn PPP\$ GDP	n/a	2021	Refinitiv
4.2.4	Venture capital received, value, % GDP	n/a	2021	Refinitiv
4.3.2	Domestic industry diversification	n/a	2019	United Nations Industrial Development Organization
5.1.3	GERD performed by business, % GDP	n/a	2020	UNESCO Institute for Statistics
5.1.4	GERD financed by business, %	n/a	2019	UNESCO Institute for Statistics
5.2.1	University-industry R&D collaboration	n/a	2021	World Economic Forum, Executive Opinion Survey (EOS)
5.2.2	State of cluster development and depth	n/a	2021	World Economic Forum, Executive Opinion Survey (EOS)
5.3.5	Research talent, % in businesses	n/a	2020	UNESCO Institute for Statistics
6.2.1	Labor productivity growth, %	n/a	2021	The Conference Board
6.2.5	High-tech manufacturing, %	n/a	2019	United Nations Industrial Development Organization
7.1.1	Intangible asset intensity, top 15, %	n/a	2021	Brand Finance
7.2.2	National feature films/mn pop. 15–69	n/a	2019	OMDIA
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2021	PwC, GEMO
7.2.4	Printing and other media, % manufacturing	n/a	2019	United Nations Industrial Development Organization

Outdated data for Togo

Code	Indicator name	Economy year	Model year	Source
1.3.2	Entrepreneurship policies and culture	2020	2021	Global Entrepreneurship Monitor

Code	Indicator name	Economy year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	2011	2018	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2017	2019	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2011	2019	UNESCO Institute for Statistics
2.3.2	Gross expenditure on R&D, % GDP	2014	2020	UNESCO Institute for Statistics
3.2.1	Electricity output, GWh/mn pop.	2019	2020	International Energy Agency
4.1.1	Finance for startups and scaleups	2020	2021	Global Entrepreneurship Monitor
5.1.1	Knowledge-intensive employment, %	2017	2021	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	2021	International Labour Organization
5.2.3	GERD financed by abroad, % GDP	2014	2019	UNESCO Institute for Statistics
5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	2019	2021	Refinitiv
5.3.1	Intellectual property payments, % total trade	2019	2020	World Trade Organization and United Nations Conference on Trade and Development
5.3.3	ICT services imports, % total trade	2019	2020	World Trade Organization and United Nations Conference on Trade and Development
6.1.3	Utility models by origin/bn PPP\$ GDP	2019	2020	World Intellectual Property Organization
6.3.1	Intellectual property receipts, % total trade	2019	2020	World Trade Organization and United Nations Conference on Trade and Development
6.3.4	ICT services exports, % total trade	2019	2020	World Trade Organization and United Nations Conference on Trade and Development
7.3.4	Mobile app creation/bn PPP\$ GDP	2019	2021	data.ia



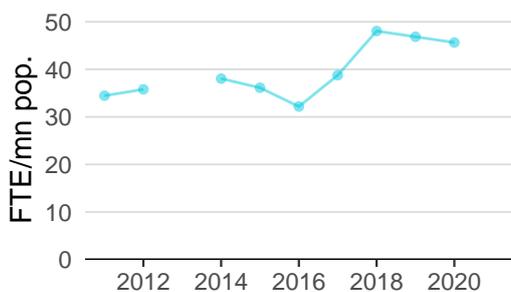
TOGO'S INNOVATION SYSTEM

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

Innovation inputs



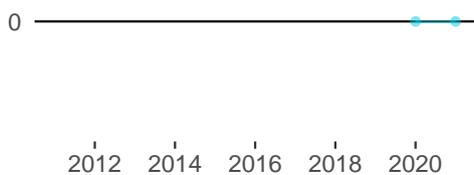
2.1.1 Expenditure on education was equal to 4.0% GDP in 2020—down by 2 percentage points from the year prior—and equivalent to an indicator rank of 76.



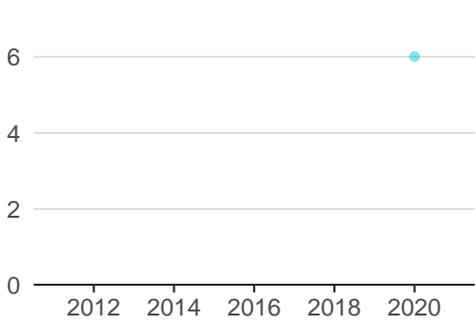
2.3.1 Researchers was equal to 45.6 FTE/mn pop. in 2020—down by 3 percentage points from the year prior—and equivalent to an indicator rank of 96.



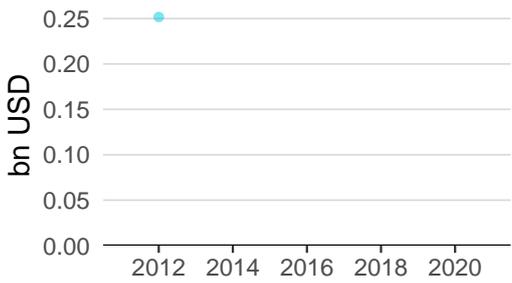
2.3.2 Gross expenditure on R&D was equal to 0.3% GDP in 2014 and equivalent to an indicator rank of 83.



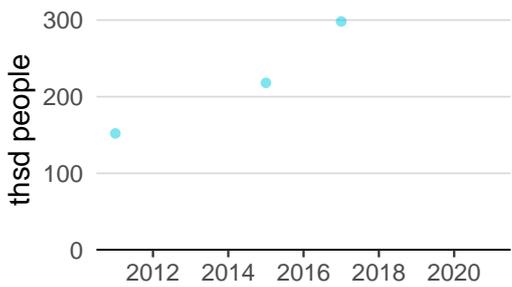
2.3.4 QS university ranking was equal to 0.0 in 2021—effectively unchanged from the year prior—and equivalent to an indicator rank of 72.



3.1.1 ICT access was equal to 6.0 in 2020 and equivalent to an indicator rank of 115.

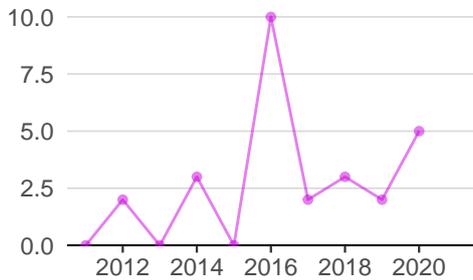


4.2.4 Venture capital received was equal to 0.3 bn USD in 2012 .

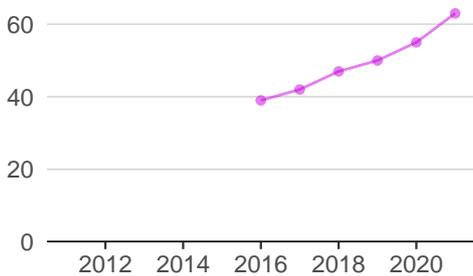


5.1.1 Knowledge-intensive employment was equal to 298.1 thsd people in 2017 and equivalent to an indicator rank of 92.

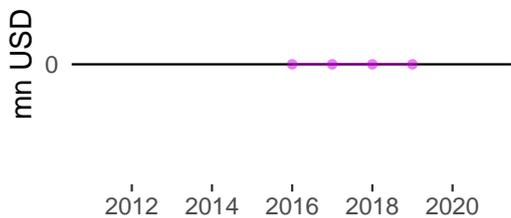
Innovation outputs



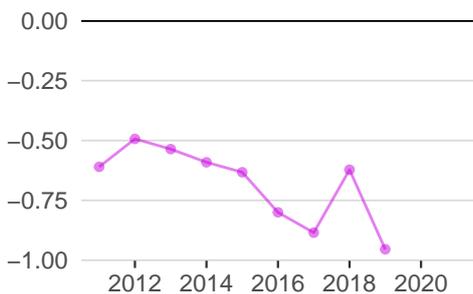
6.1.1 Patents by origin was equal to 5.0 in 2020—up by 150 percentage points from the year prior—and equivalent to an indicator rank of 90.



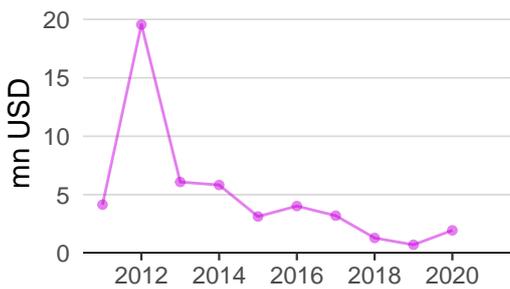
6.1.5 Citable documents H-index was equal to 63.0 in 2021—up by 15 percentage points from the year prior—and equivalent to an indicator rank of 128.



6.3.1 Intellectual property receipts was equal to 0.0 mn USD in 2019—effectively unchanged from the year prior—and equivalent to an indicator rank of 113.



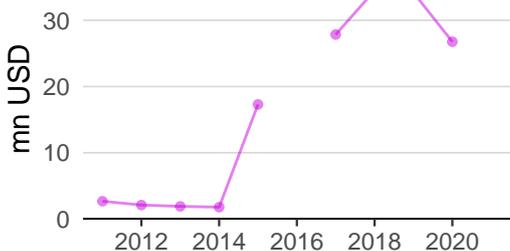
6.3.2 Production and export complexity was equal to -1.0 in 2019—down by 53 percentage points from the year prior—and equivalent to an indicator rank of 106.



6.3.3 High-tech exports was equal to 1.9 mn USD in 2020—up by 174 percentage points from the year prior—and equivalent to an indicator rank of 119.



7.1.3 Global brand value was equal to 0.0 mn USD in 2021—down by 100 percentage points from the year prior—and equivalent to an indicator rank of 77.



7.2.1 Cultural and creative services exports was equal to 26.8 mn USD in 2020—down by 22 percentage points from the year prior—and equivalent to an indicator rank of 19.



TOGO'S INNOVATION TOP PERFORMERS

2.3.3 Global corporate R&D investors

Firm	Industry	R&D	R&D Growth	R&D Intensity	Rank
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No observations

Source: European Commission's Joint Research Centre (<https://iri.jrc.ec.europa.eu/scoreboard/2021-eu-industrial-rd-investment-scoreboard>).

2.3.4 QS university ranking

University	Score	Rank
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No observations

Source: QS Quacquarelli Symonds Ltd (<https://www.topuniversities.com/university-rankings/world-university-rankings/2022>).

7.1.1 Intangible asset intensity, top 15

Firm	Rank
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No observations

Source: Brand Finance (<https://brandirectory.com/reports/gift-2021>).

7.1.3 Global brand value, top 5,000

Brand	Industry	Rank
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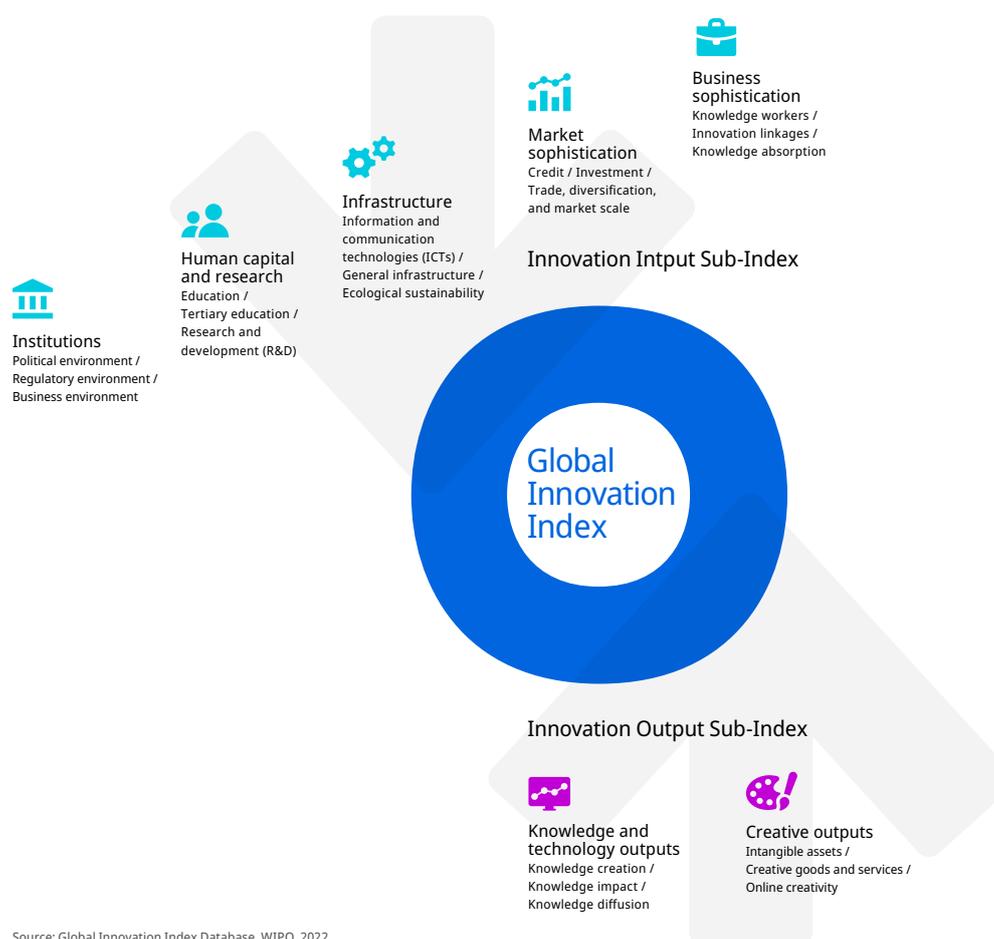
No observations

Source: Brand Finance (<https://brandirectory.com>).

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.