Global Innovation Index 2021

TOGO

125th Togo ranks 125th among the 132 economies featured in the GII 2021.

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 2021 is between ranks 107 and 127.

Rankings for Togo (2019–2021)

	GII	Innovation inputs	Innovation outputs
2021	125	110	129
2020	125	121	127
2019	126	121	128

- Togo performs better in innovation inputs than innovation outputs in 2021.
- This year Togo ranks 110th in innovation inputs, higher than both 2020 and 2019.
- As for innovation outputs, Togo ranks 129th. This position is lower than both 2020 and 2019.

9th Togo ranks 9th among the 13 low-income group economies.

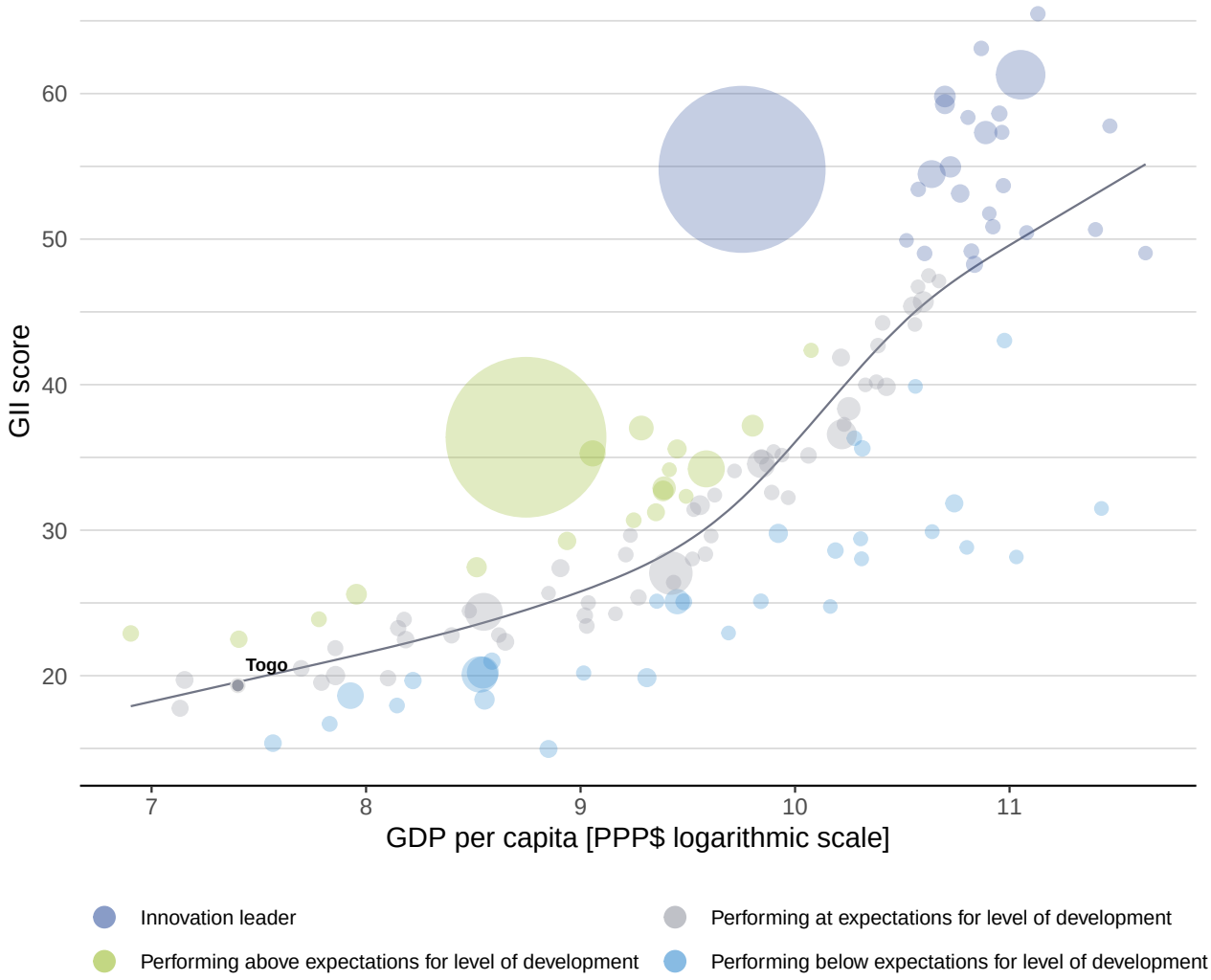
22nd Togo ranks 22nd among the 27 economies in Sub-Saharan Africa.

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

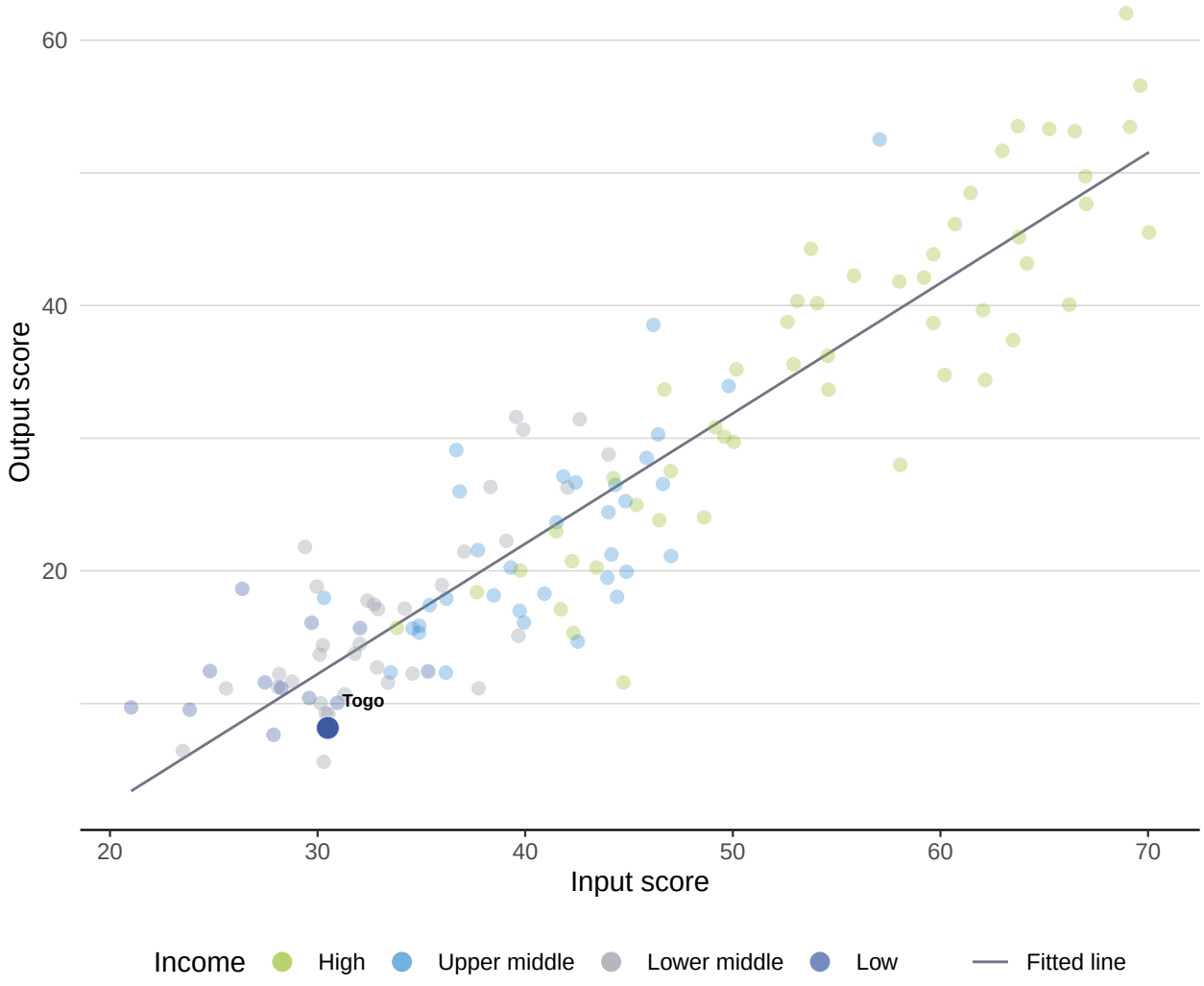


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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



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: Institutions; Human capital and research; Infrastructure; and, Market sophistication.

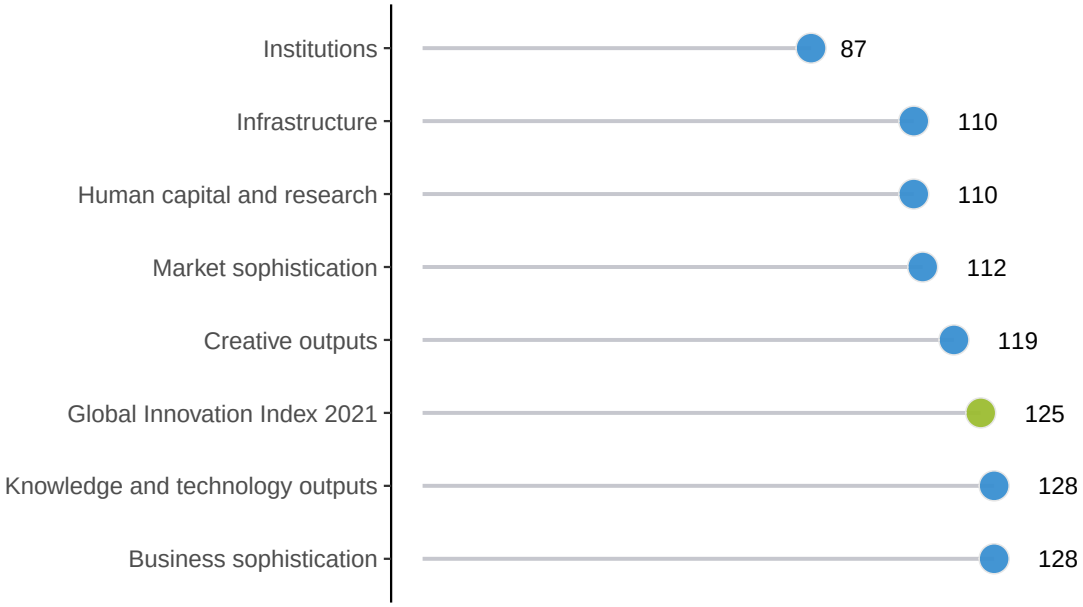
Sub-Saharan Africa

Togo performs above the regional average in two pillars, namely: Institutions; and, Human capital and research.

OVERVIEW OF RANKINGS IN THE SEVEN GII 2021 AREAS

Togo performs best in Institutions and its weakest performance is in Business sophistication and Knowledge and technology outputs.

The seven GII pillar ranks for Togo



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

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Togo in the GII 2021.

Strengths and weaknesses for Togo

Strengths			Weaknesses		
Code	**Indicator name**	**Rank**	**Code**	**Indicator name**	**Rank**
1.2.3	Cost of redudancy dismissal	47	2.3.3	Global corporate R&D investors, top 3, mn US$	41
1.3.1	Ease of starting a business	14	2.3.4	QS university ranking, top 3	74
2.1.1	Expenditure on education, % GDP	25	3.2.1	Electricity output, GWh/mn pop.	122
3.2	General infrastructure	54	3.3	Ecological sustainability	132
3.2.3	Gross capital formation, % GDP	8	4.3	Trade, diversification, and market scale	131
4.1.1	Ease of getting credit	44	4.3.3	Domestic market scale, bn PPP$	130
4.1.3	Microfinance gross loans, % GDP	12	5.2.5	Patent families/bn PPP$ GDP	100
5.1.2	Firms offering formal training, %	44	6.1.2	PCT patents by origin/bn PPP$ GDP	98
6.3.4	ICT services exports, % total trade	64	6.1.3	Utility models by origin/bn PPP$ GDP	76
7.1.2	Global brand value, top 5,000, % GDP	46	6.1.5	Citable documents H-index	129
7.2.1	Cultural and creative services exports, % total trade	14	6.3.1	Intellectual property receipts, % total trade	110
			6.3.3	High-tech exports, % total trade	126
			7.1	Intangible assets	130

Togo

GII 2021 rank **125**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$	GII 2020 rank
129	110	Low	SSF	8.3	13.6	1,640	125

		Score/ Value	Rank	
Institutions		**57.1**	**87**	
1.1	**Political environment**	**41.0**	**115**	
1.1.1	Political and operational stability*	62.5	89	
1.1.2	Government effectiveness*	30.3	123	
1.2	**Regulatory environment**	**59.1**	**81**	
1.2.1	Regulatory quality*	25.7	111	
1.2.2	Rule of law*	31.2	103	
1.2.3	Cost of redundancy dismissal	13.1	47 ●	
1.3	**Business environment**	**71.1**	**67**	◆
1.3.1	Ease of starting a business*	95.1	14 ●	◆
1.3.2	Ease of resolving insolvency*	47.0	80	
Human capital and research		**17.5**	**110**	
2.1	**Education**	**41.7**	**88**	
2.1.1	Expenditure on education, % GDP	5.4	25 ●	◆
2.1.2	Government funding/pupil, secondary, % GDP/cap ⏲	15.3	75	
2.1.3	School life expectancy, years ⏲	12.7	85	◆
2.1.4	PISA scales in reading, maths and science	n/a	n/a	
2.1.5	Pupil-teacher ratio, secondary ⏲	26.2	108	
2.2	**Tertiary education**	**9.3**	**[114]**	
2.2.1	Tertiary enrolment, % gross	14.0	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)**	**1.4**	**102**	
2.3.1	Researchers, FTE/mn pop. ⏲	48.1	94	
2.3.2	Gross expenditure on R&D, % GDP ⏲	0.3	86	
2.3.3	Global corporate R&D investors, top 3, mn US$	0.0	41 ○	◇
2.3.4	QS university ranking, top 3*	0.0	74 ○	◇
Infrastructure		**27.5**	**110**	
3.1	**Information and communication technologies (ICTs)**	**38.4**	**113**	◆
3.1.1	ICT access*	34.3	118	
3.1.2	ICT use*	18.0	116	
3.1.3	Government's online service*	50.0	106	
3.1.4	E-participation*	51.2	99	
3.2	**General infrastructure**	**31.5**	**54** ●	
3.2.1	Electricity output, GWh/mn pop.	50.2	122 ○	
3.2.2	Logistics performance*	18.6	110	
3.2.3	Gross capital formation, % GDP	38.3	8 ●	
3.3	**Ecological sustainability**	**12.7**	**132** ○	
3.3.1	GDP/unit of energy use	4.0	119	
3.3.2	Environmental performance*	29.5	122	
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	0.6	79	◆
Market sophistication		**36.9**	**112**	
4.1	**Credit**	**40.2**	**69**	
4.1.1	Ease of getting credit*	70.0	44 ●	
4.1.2	Domestic credit to private sector, % GDP	35.1	88	◆
4.1.3	Microfinance gross loans, % GDP	2.0	12 ●	
4.2	**Investment**	**42.0**	**[28]**	
4.2.1	Ease of protecting minority investors*	42.0	102	
4.2.2	Market capitalization, % GDP	n/a	n/a	
4.2.3	Venture capital investors, deals/bn PPP$ GDP	n/a	n/a	
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	n/a	
4.3	**Trade, diversification, and market scale**	**28.5**	**131** ○	◇
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$	13.6	130 ○	◇

		Score/ Value	Rank	
Business sophistication		**13.5**	**[128]**	
5.1	**Knowledge workers**	**23.1**	**[91]**	
5.1.1	Knowledge-intensive employment, % ⏲	14.1	94	◆
5.1.2	Firms offering formal training, % ⏲	33.7	44 ●	◆
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	114	
5.2	**Innovation linkages**	**3.0**	**[129]**	
5.2.1	University-industry R&D collaboration†	n/a	n/a	
5.2.2	State of cluster development and depth†	n/a	n/a	
5.2.3	GERD financed by abroad, % GDP ⏲	0.0	73	
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP ⏲	0.0	66	
5.2.5	Patent families/bn PPP$ GDP	0.0	100 ○	◇
5.3	**Knowledge absorption**	**14.3**	**122**	
5.3.1	Intellectual property payments, % total trade ⏲	0.0	113	
5.3.2	High-tech imports, % total trade	5.1	111	
5.3.3	ICT services imports, % total trade	0.8	87	
5.3.4	FDI net inflows, % GDP	0.3	121	
5.3.5	Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs		**6.1**	**128** ○	◇
6.1	**Knowledge creation**	**4.3**	**116**	
6.1.1	Patents by origin/bn PPP$ GDP	0.1	103	
6.1.2	PCT patents by origin/bn PPP$ GDP	0.0	98 ○	◇
6.1.3	Utility models by origin/bn PPP$ GDP	0.0	76 ○	◇
6.1.4	Scientific and technical articles/bn PPP$ GDP	11.0	79	
6.1.5	Citable documents H-index	1.7	129 ○	◇
6.2	**Knowledge impact**	**4.8**	**[127]**	
6.2.1	Labor productivity growth, %	n/a	n/a	
6.2.2	New businesses/th pop. 15–64	0.6	92	
6.2.3	Software spending, % GDP	0.1	94	◆
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	1.9	89	◆
6.2.5	High-tech manufacturing, %	n/a	n/a	
6.3	**Knowledge diffusion**	**9.1**	**98**	
6.3.1	Intellectual property receipts, % total trade ⏲	0.0	110 ○	
6.3.2	Production and export complexity	25.8	101	
6.3.3	High-tech exports, % total trade	0.0	126 ○	◇
6.3.4	ICT services exports, % total trade	1.7	64 ●	
Creative outputs		**10.3**	**119**	
7.1	**Intangible assets**	**8.3**	**130** ○	◇
7.1.1	Trademarks by origin/bn PPP$ GDP	14.9	100	
7.1.2	Global brand value, top 5,000, % GDP	26.8	46 ●	◆
7.1.3	Industrial designs by origin/bn PPP$ GDP	0.5	85	
7.1.4	ICTs and organizational model creation†	n/a	n/a	
7.2	**Creative goods and services**	**12.7**	**[71]**	
7.2.1	Cultural and creative services exports, % total trade	1.7	14 ●	◆
7.2.2	National feature films/mn pop. 15–69	0.7	93	
7.2.3	Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4	Printing and other media, % manufacturing	n/a	n/a	
7.2.5	Creative goods exports, % total trade	0.0	113	
7.3	**Online creativity**	**11.7**	**85**	◆
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	117	
7.3.3	Wikipedia edits/mn pop. 15–69	36.4	92	◆
7.3.4	Mobile app creation/bn PPP$ GDP	n/a	n/a	

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 Appendix IV for details, including the year of the data, at http://globalinnovationindex.org. 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 data that are either missing or outdated for Togo.

Missing data for Togo

Code	Indicator name	Economy year	Model year	Source
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD Programme for International Student Assessment (PISA)
2.2.2	Graduates in science and engineering, %	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.2.3	Tertiary inbound mobility, %	n/a	2018	UNESCO Institute for Statistics
4.2.2	Market capitalization, % GDP	n/a	2019	World Federation of Exchanges
4.2.3	Venture capital investors, deals/bn PPP$ GDP	n/a	2020	Refinitiv Eikon
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	2020	Refinitiv Eikon
4.3.2	Domestic industry diversification	n/a	2018	United Nations Industrial Development Organization
5.1.3	GERD performed by business, % GDP	n/a	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.1.4	GERD financed by business, %	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.2.1	University-industry R&D collaboration	n/a	2020	World Economic Forum
5.2.2	State of cluster development and depth	n/a	2020	World Economic Forum
5.3.5	Research talent, % in businesses	n/a	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
6.2.1	Labor productivity growth, %	n/a	2020	The Conference Board
6.2.5	High-tech manufacturing, %	n/a	2018	United Nations Industrial Development Organization
7.1.4	ICTs and organizational model creation	n/a	2018	World Economic Forum
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2020	PwC

Code	Indicator name	Economy year	Model year	Source
7.2.4	Printing and other media, % manufacturing	n/a	2018	United Nations Industrial Development Organization
7.3.4	Mobile app creation/bn PPP$ GDP	n/a	2020	App Annie

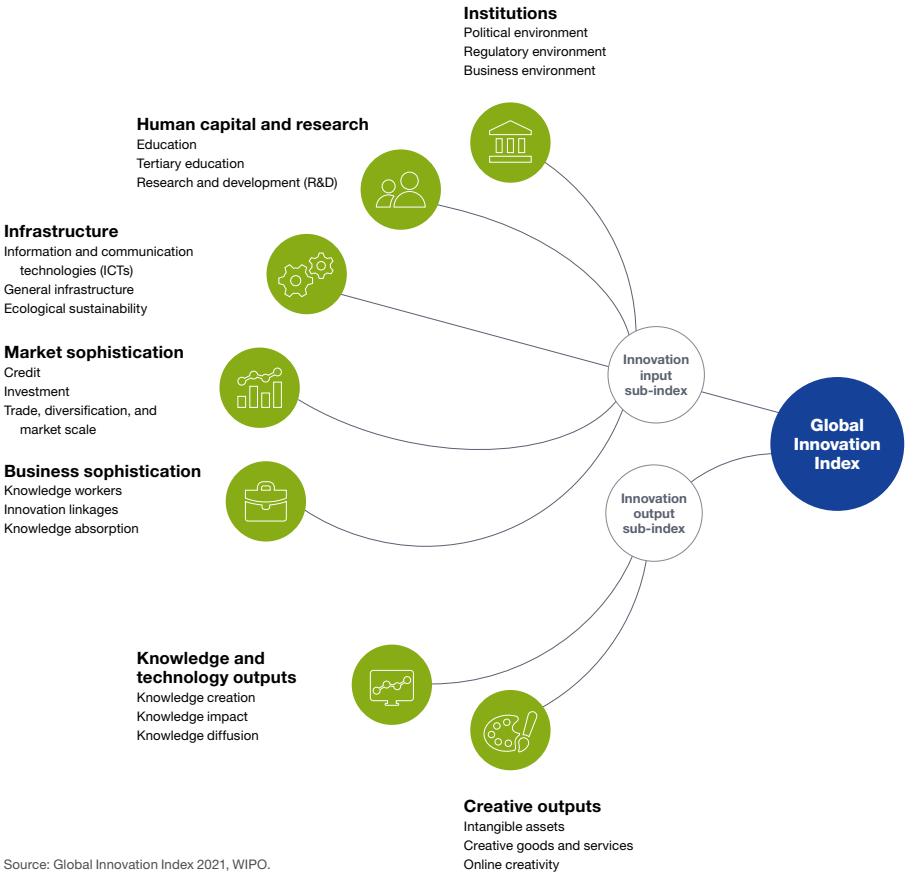
Outdated data for Togo

Code	Indicator name	Economy year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	2011	2017	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2017	2018	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2011	2019	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	2014	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.1.1	Knowledge-intensive employment, %	2017	2019	International Labour Organization
5.1.2	Firms offering formal training, %	2016	2019	World Bank
5.1.5	Females employed w/advanced degrees, %	2017	2019	International Labour Organization
5.2.3	GERD financed by abroad, % GDP	2014	2018	UNESCO Institute for Statistics
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	2019	2020	Refinitiv
5.3.1	Intellectual property payments, % total trade	2017	2019	World Trade Organization
6.3.1	Intellectual property receipts, % total trade	2010	2019	World Trade Organization

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.



Source: Global Innovation Index 2021, WIPO.

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.