Global Innovation Index 2021

CAMEROON

123rd Cameroon ranks 123rd 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 Cameroon 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 Cameroon in the GII 2021 is between ranks 114 and 127.

Rankings for Cameroon (2019–2021)

	GII	Innovation inputs	Innovation outputs
2021	123	124	117
2020	119	120	119
2019	115	112	106

- Cameroon performs better in innovation outputs than innovation inputs in 2021.
- This year Cameroon ranks 124th in innovation inputs, lower than both 2020 and 2019.
- As for innovation outputs, Cameroon ranks 117th. This position is higher than last year but lower than 2019.

31st Cameroon ranks 31st among the 34 lower middle-income group economies.

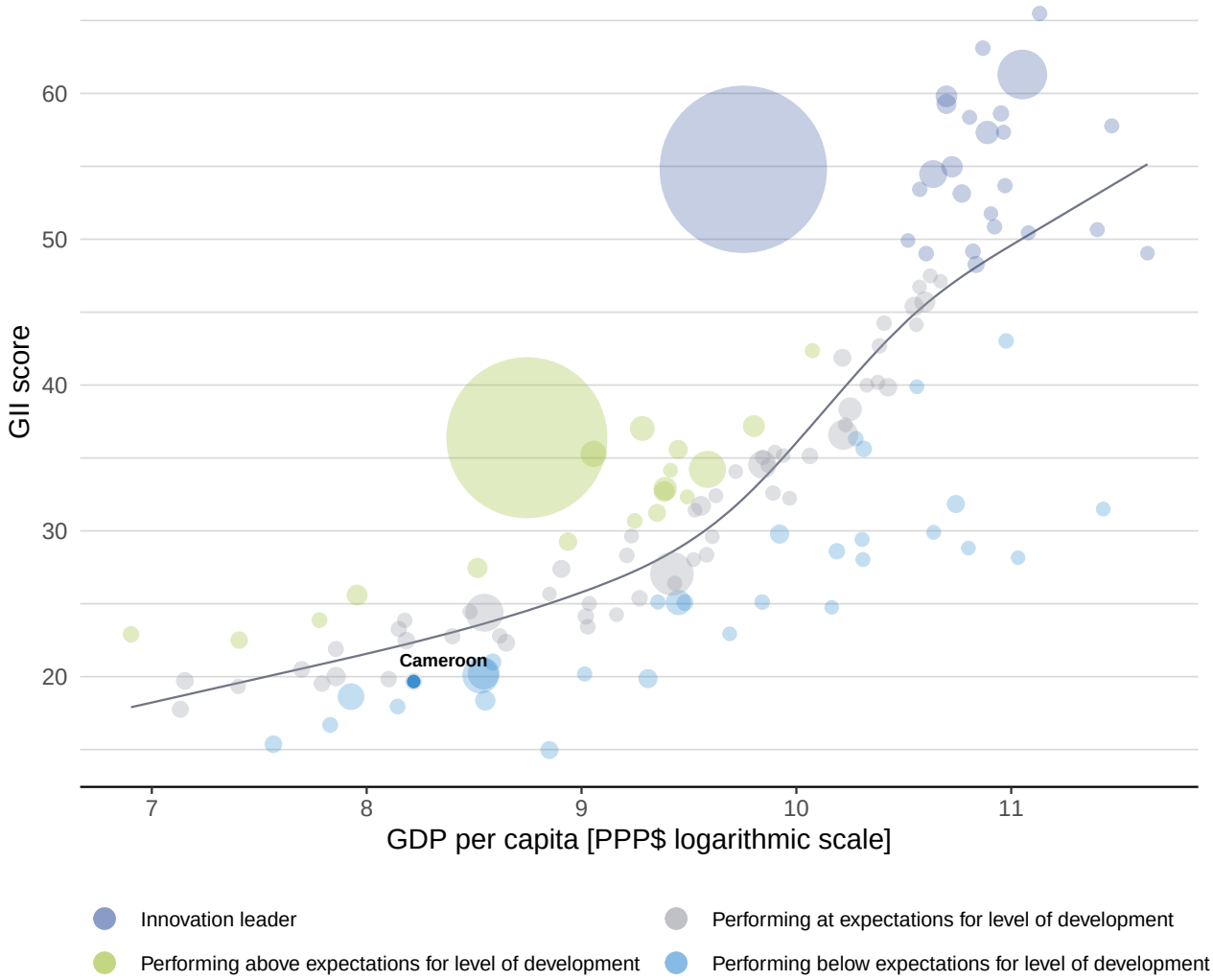
20th Cameroon ranks 20th among the 27 economies in Sub-Saharan Africa.

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, Cameroon's performance is below expectations for its level of development.

The positive relationship between innovation and development

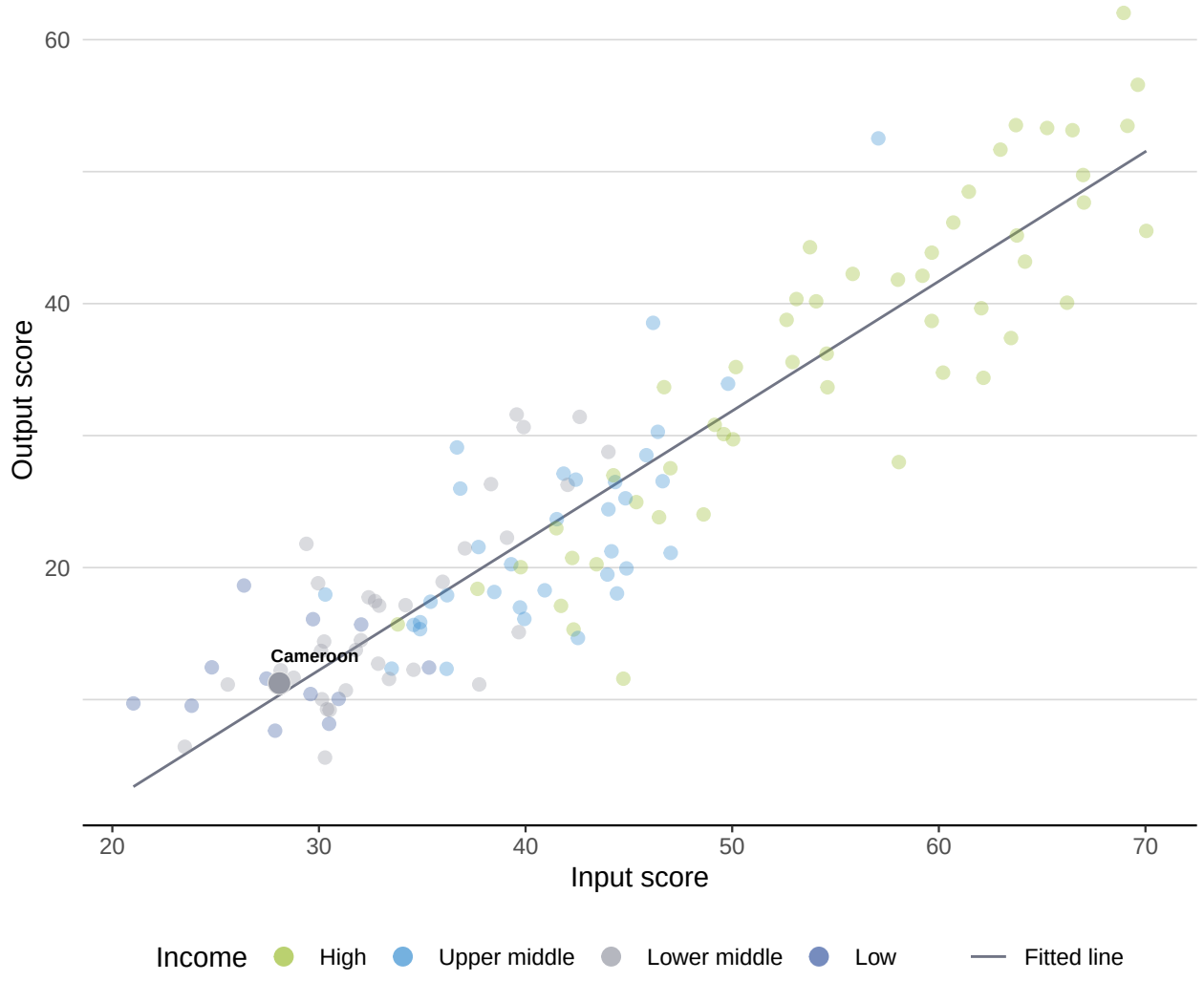


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

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

Innovation input to output performance



BENCHMARKING AGAINST OTHER LOWER MIDDLE-INCOME GROUP ECONOMIES AND SUB-SAHARAN AFRICA

The seven GII pillar scores for Cameroon

Lower middle-income group economies

Cameroon performs below the lower middle-income group average in all GII pillars.

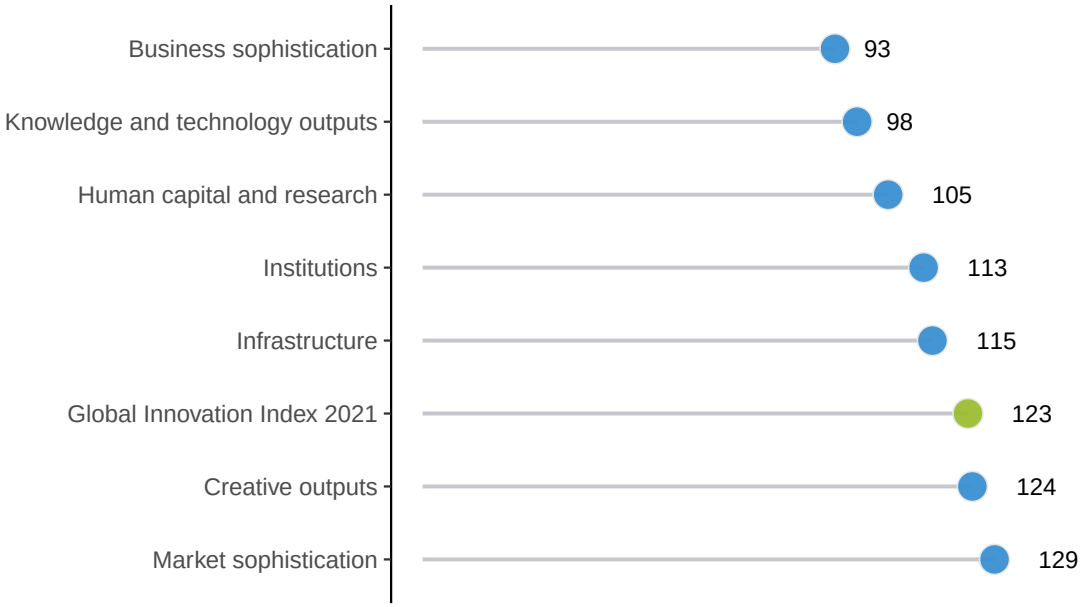
Sub-Saharan Africa

Cameroon performs above the regional average in three pillars, namely: Human capital and research; Business sophistication; and, Knowledge and technology outputs.

OVERVIEW OF RANKINGS IN THE SEVEN GII 2021 AREAS

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

The seven GII pillar ranks for Cameroon



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 Cameroon in the GII 2021.

Strengths and weaknesses for Cameroon

Strengths			Weaknesses		
Code	**Indicator name**	**Rank**	**Code**	**Indicator name**	**Rank**
2.1.2	Government funding/pupil, secondary, % GDP/cap	60	1.2.2	Rule of law	127
3.2.3	Gross capital formation, % GDP	32	2.3.3	Global corporate R&D investors, top 3, mn US$	41
4.1.3	Microfinance gross loans, % GDP	28	2.3.4	QS university ranking, top 3	74
5.1.2	Firms offering formal training, %	35	3.1.2	ICT use	124
5.2	Innovation linkages	76	4.2.1	Ease of protecting minority investors	124
5.3.3	ICT services imports, % total trade	45	4.3	Trade, diversification, and market scale	128
5.3.4	FDI net inflows, % GDP	71	4.3.1	Applied tariff rate, weighted avg., %	131
6.1.4	Scientific and technical articles/bn PPP$ GDP	61	5.3.1	Intellectual property payments, % total trade	117
6.2.1	Labor productivity growth, %	37	6.3.2	Production and export complexity	119
6.3.4	ICT services exports, % total trade	70	7.1.1	Trademarks by origin/bn PPP$ GDP	118
7.2.1	Cultural and creative services exports, % total trade	45	7.1.2	Global brand value, top 5,000, % GDP	80

Cameroon

GII 2021 rank
123

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$	GII 2020 rank
117	**124**	**Lower middle**	**SSF**	**26.5**	**97.0**	**3,710**	**119**

		Score/ Value	Rank
Institutions		**49.9**	**113**
1.1	**Political environment**	**40.2**	**118**
1.1.1	Political and operational stability*	55.4	112
1.1.2	Government effectiveness*	32.6	119
1.2	**Regulatory environment**	**48.0**	**110**
1.2.1	Regulatory quality*	21.9	120
1.2.2	Rule of law*	17.2	127 ○ ◇
1.2.3	Cost of redundancy dismissal	19.9	84
1.3	**Business environment**	**61.4**	**103**
1.3.1	Ease of starting a business*	86.3	80
1.3.2	Ease of resolving insolvency*	36.6	110
Human capital and research		**18.2**	**105**
2.1	**Education**	**35.7**	**103**
2.1.1	Expenditure on education, % GDP	3.1	93
2.1.2	Government funding/pupil, secondary, % GDP/cap ◴	17.8	60 ●
2.1.3	School life expectancy, years ◴	12.1	91
2.1.4	PISA scales in reading, maths and science	n/a	n/a
2.1.5	Pupil-teacher ratio, secondary ◴	19.3	94
2.2	**Tertiary education**	**19.0**	**96**
2.2.1	Tertiary enrolment, % gross	14.3	104
2.2.2	Graduates in science and engineering, % ◴	21.3	66
2.2.3	Tertiary inbound mobility, %	2.8	69
2.3	**Research and development (R&D)**	**0.0**	**[123]**
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 US$	0.0	41 ○ ◇
2.3.4	QS university ranking, top 3*	0.0	74 ○ ◇
Infrastructure		**25.8**	**115**
3.1	**Information and communication technologies (ICTs)**	**34.2**	**120** ◇
3.1.1	ICT access*	34.4	117
3.1.2	ICT use*	13.5	124 ○ ◇
3.1.3	Government's online service*	47.1	110
3.1.4	E-participation*	41.7	111
3.2	**General infrastructure**	**24.1**	**87**
3.2.1	Electricity output, GWh/mn pop.	342.1	114
3.2.2	Logistics performance*	25.5	91
3.2.3	Gross capital formation, % GDP	27.2	32 ●
3.3	**Ecological sustainability**	**19.2**	**108**
3.3.1	GDP/unit of energy use	9.4	76
3.3.2	Environmental performance*	33.6	108
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	0.2	118
Market sophistication		**26.1**	**129** ○ ◇
4.1	**Credit**	**28.2**	**112**
4.1.1	Ease of getting credit*	60.0	74
4.1.2	Domestic credit to private sector, % GDP ◴	15.2	119
4.1.3	Microfinance gross loans, % GDP	0.7	28 ●
4.2	**Investment**	**15.6**	**[127]**
4.2.1	Ease of protecting minority investors*	28.0	124 ○ ◇
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	0.0	73
4.3	**Trade, diversification, and market scale**	**34.5**	**128** ○ ◇
4.3.1	Applied tariff rate, weighted avg., %	15.5	131 ○ ◇
4.3.2	Domestic industry diversification	n/a	n/a
4.3.3	Domestic market scale, bn PPP$	97.0	86

		Score/ Value	Rank
Business sophistication		**20.4**	**93**
5.1	**Knowledge workers**	**23.7**	**[88]**
5.1.1	Knowledge-intensive employment, % ◴	10.9	108
5.1.2	Firms offering formal training, % ◴	37.6	35 ●
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, % ◴	2.0	106
5.2	**Innovation linkages**	**18.6**	**76** ●
5.2.1	University-industry R&D collaboration†	40.0	75
5.2.2	State of cluster development and depth†	42.0	96
5.2.3	GERD financed by abroad, % GDP	n/a	n/a
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP ◴	0.0	102
5.2.5	Patent families/bn PPP$ GDP	0.0	91
5.3	**Knowledge absorption**	**18.8**	**99**
5.3.1	Intellectual property payments, % total trade	0.0	117 ○
5.3.2	High-tech imports, % total trade ◴	5.7	102
5.3.3	ICT services imports, % total trade	1.6	45 ●
5.3.4	FDI net inflows, % GDP	2.3	71 ●
5.3.5	Research talent, % in businesses	n/a	n/a
Knowledge and technology outputs		**12.9**	**98**
6.1	**Knowledge creation**	**7.2**	**95**
6.1.1	Patents by origin/bn PPP$ GDP	0.3	85
6.1.2	PCT patents by origin/bn PPP$ GDP	0.0	90
6.1.3	Utility models by origin/bn PPP$ GDP	0.0	62
6.1.4	Scientific and technical articles/bn PPP$ GDP	14.3	61 ●
6.1.5	Citable documents H-index	7.4	89
6.2	**Knowledge impact**	**26.1**	**[81]**
6.2.1	Labor productivity growth, %	1.3	37 ●
6.2.2	New businesses/th pop. 15–64	n/a	n/a
6.2.3	Software spending, % GDP	0.1	81
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	0.7	116
6.2.5	High-tech manufacturing, %	n/a	n/a
6.3	**Knowledge diffusion**	**5.5**	**118**
6.3.1	Intellectual property receipts, % total trade	0.0	71
6.3.2	Production and export complexity	6.8	119 ○ ◇
6.3.3	High-tech exports, % total trade ◴	0.2	107
6.3.4	ICT services exports, % total trade	1.3	70 ●
Creative outputs		**9.6**	**124** ○ ◇
7.1	**Intangible assets**	**13.3**	**122**
7.1.1	Trademarks by origin/bn PPP$ GDP	6.3	118 ○
7.1.2	Global brand value, top 5,000, % GDP	0.0	80 ○ ◇
7.1.3	Industrial designs by origin/bn PPP$ GDP	0.4	93
7.1.4	ICTs and organizational model creation†	42.4	107
7.2	**Creative goods and services**	**5.3**	**[103]**
7.2.1	Cultural and creative services exports, % total trade	0.6	45 ●
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	Printing and other media, % manufacturing	n/a	n/a
7.2.5	Creative goods exports, % total trade ◴	0.0	121
7.3	**Online creativity**	**6.2**	**116**
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	0.2	119
7.3.2	Country-code TLDs/th pop. 15–69	1.2	81
7.3.3	Wikipedia edits/mn pop. 15–69	21.2	118
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 Cameroon.

Missing data for Cameroon

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)
2.3.1	Researchers, FTE/mn pop.	n/a	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	n/a	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
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
4.3.2	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
5.2.3	GERD financed by abroad, % GDP	n/a	2018	UNESCO Institute for Statistics
5.3.5	Research talent, % in businesses	n/a	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
6.2.2	New businesses/th pop. 15–64	n/a	2018	World Bank
6.2.5	High-tech manufacturing, %	n/a	2018	United Nations Industrial Development Organization
7.2.2	National feature films/mn pop. 15–69	n/a	2017	UNESCO Institute for Statistics
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2020	PwC
7.2.4	Printing and other media, % manufacturing	n/a	2018	United Nations Industrial Development Organization

Code	Indicator name	Economy year	Model year	Source
7.3.4	Mobile app creation/bn PPP$ GDP	n/a	2020	App Annie

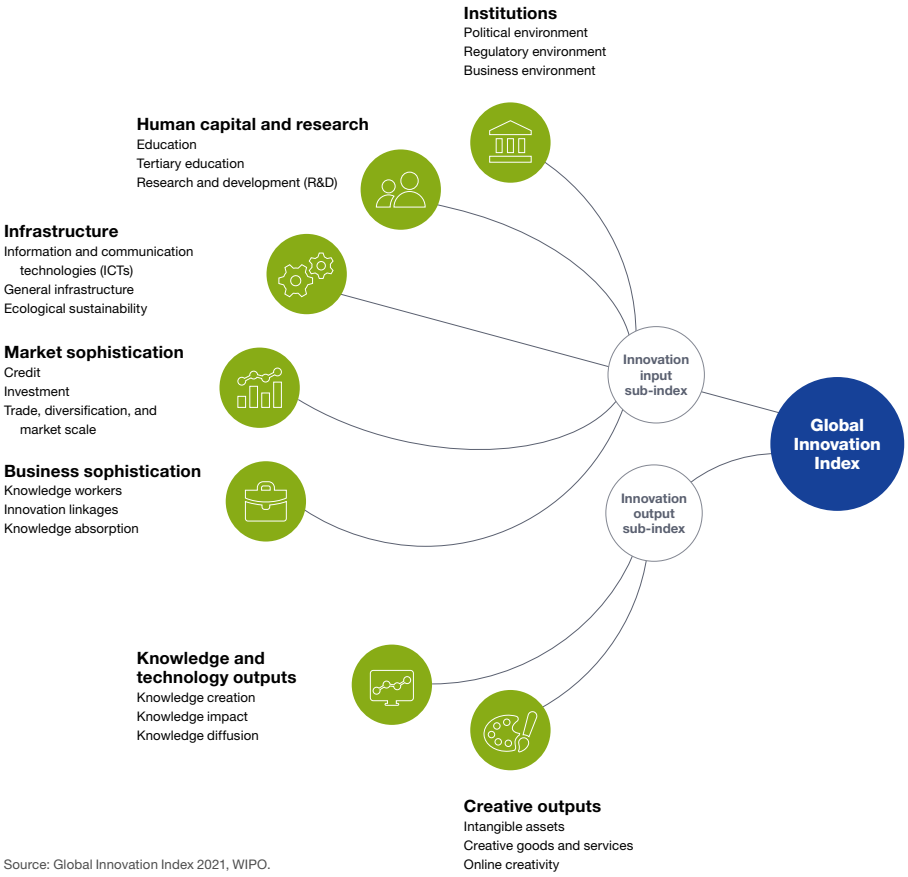
Outdated data for Cameroon

Code	Indicator name	Economy year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	2012	2017	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2016	2018	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2016	2019	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2010	2018	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
4.1.2	Domestic credit to private sector, % GDP	2018	2019	International Monetary Fund
5.1.1	Knowledge-intensive employment, %	2014	2019	International Labour Organization
5.1.2	Firms offering formal training, %	2016	2019	World Bank
5.1.5	Females employed w/advanced degrees, %	2014	2019	International Labour Organization
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	2019	2020	Refinitiv
5.3.2	High-tech imports, % total trade	2017	2019	United Nations, COMTRADE
6.3.3	High-tech exports, % total trade	2017	2019	United Nations, COMTRADE
7.2.5	Creative goods exports, % total trade	2017	2019	United Nations, COMTRADE

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.