GLOBAL INNOVATION INDEX 2020

CAMEROON

119th Cameroon ranks 119th among the 131 economies featured in the GII 2020.

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 2020 is between ranks 116 and 124.

Rankings of Cameroon (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	119	120	119
2019	115	112	106
2018	111	115	98

- Cameroon performs better in innovation outputs than innovation inputs in 2020.
- This year Cameroon ranks 120th in innovation inputs, lower than last year and lower compared to 2018.
- As for innovation outputs, Cameroon ranks 119th. This position is lower than last year and lower compared to 2018.

26th Cameroon ranks 26th among the 29 lower middle-income group economies.

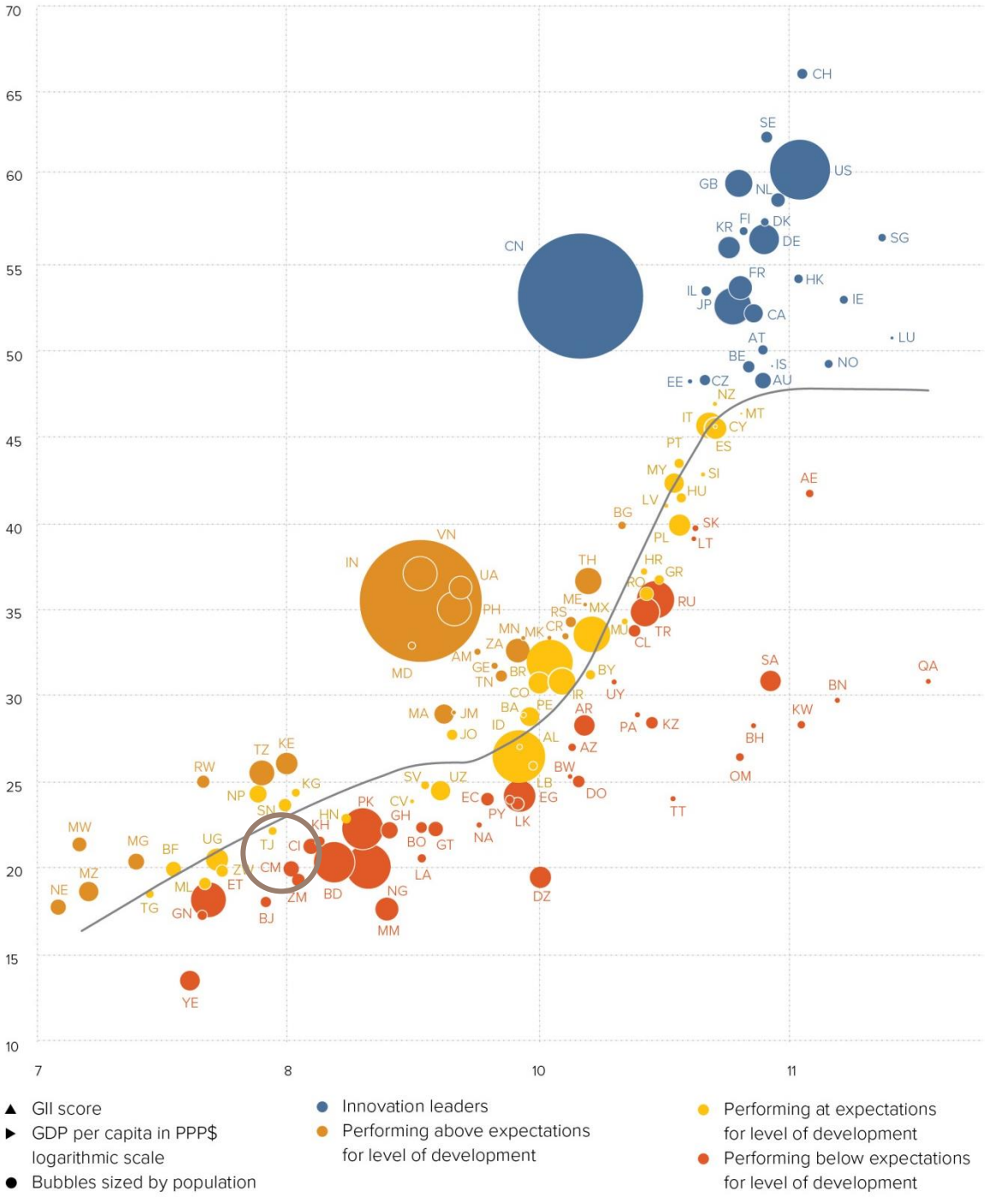
17th Cameroon ranks 17th among the 26 economies in Sub-Saharan Africa.

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 is performing below expectations for its level of development.

The positive relationship between innovation and development

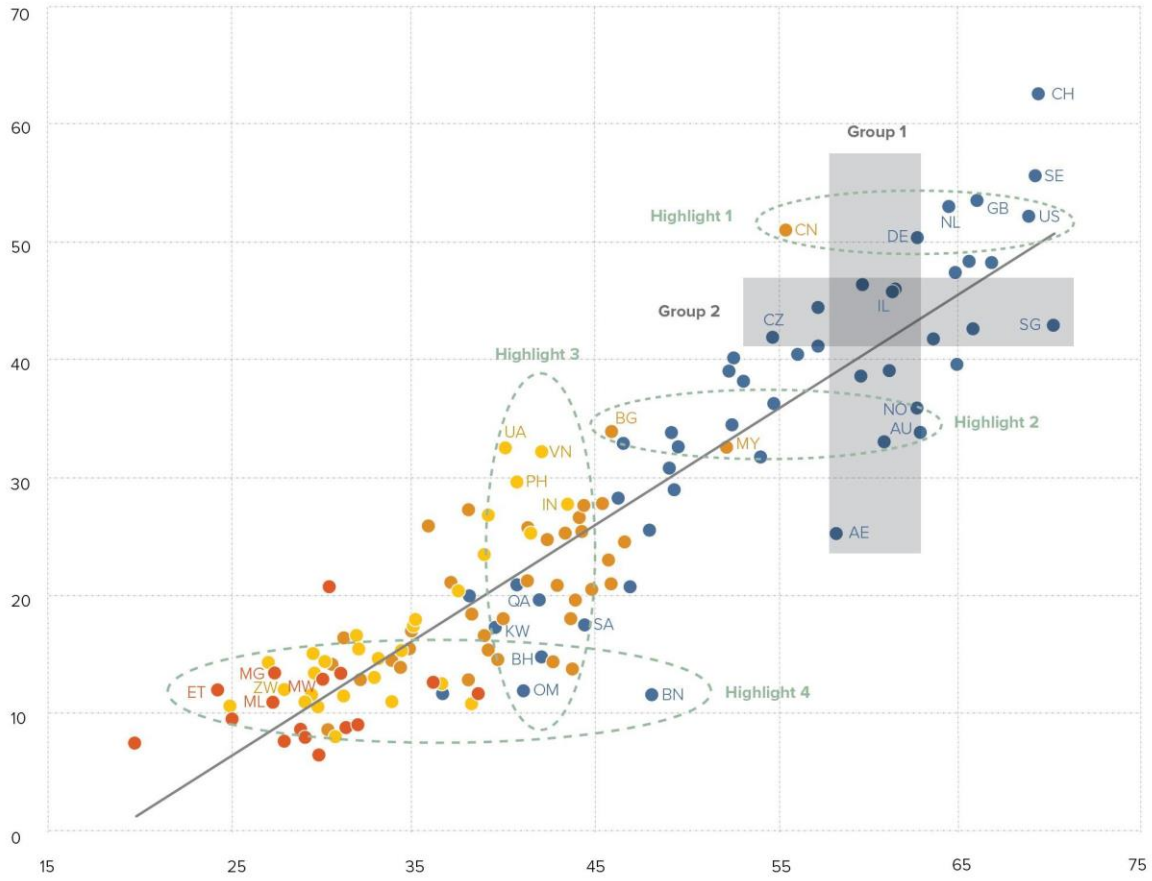


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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, 2020



▲ Output score
► Input score

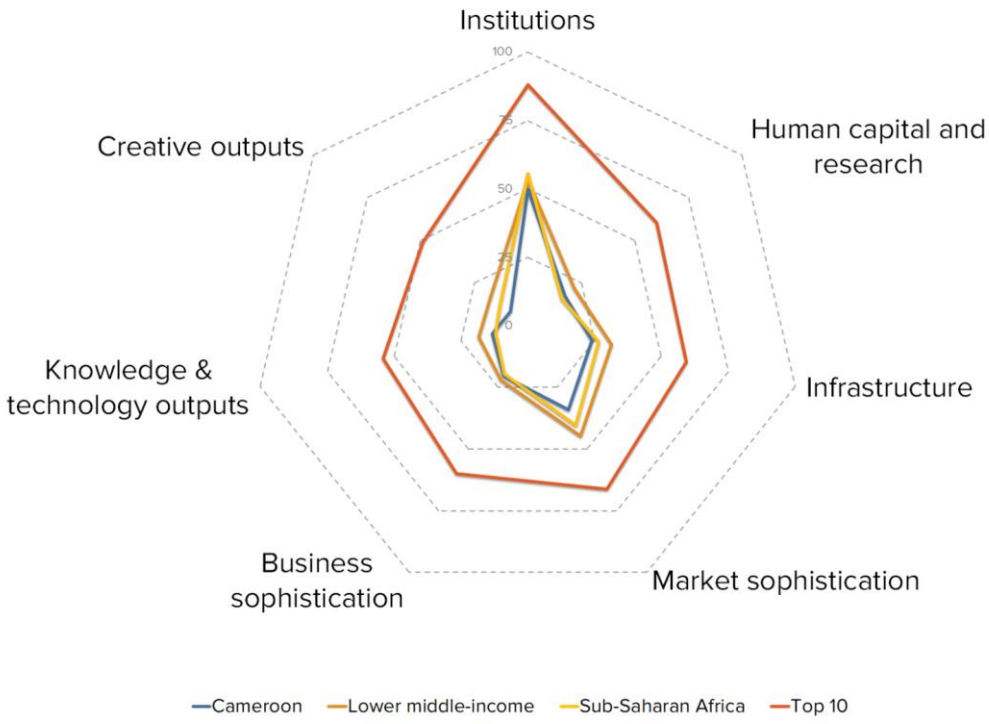
● High income group
● Upper middle-income group
● Lower middle-income group
● Low income group

— Fitted values

AU	Australia	IN	India	NL	Netherlands	CH	Switzerland
BH	Bahrain	IL	Israel	NO	Norway	UA	Ukraine
BN	Brunei Darussalam	KW	Kuwait	OM	Oman	AE	United Arab Emirates
BG	Bulgaria	MG	Madagascar	PH	Philippines	GB	United Kingdom
CN	China	MW	Malawi	QA	Qatar	US	United States of America
CZ	Czech Republic	ML	Mali	SA	Saudi Arabia	VN	Viet Nam
ET	Ethiopia	MY	Malaysia	SG	Singapore	ZW	Zimbabwe
DE	Germany			SE	Sweden		

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

Cameroon's scores in the seven GII pillars



Lower middle-income group economies

Cameroon scores below average for its income group in all pillars.

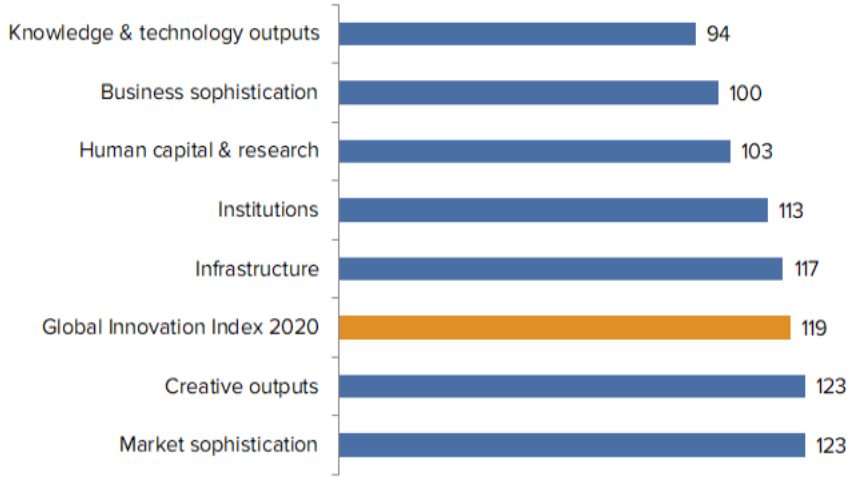
Sub-Saharan Africa

Compared to other economies in Sub-Saharan Africa, Cameroon performs:

- above average in three out of the seven GII pillars: Human capital & research, Business sophistication and Knowledge & technology outputs; and
- below average in four of the seven GII pillars: Institutions, Infrastructure, Market sophistication and Creative outputs.

OVERVIEW OF CAMEROON RANKINGS IN THE SEVEN GII AREAS

Cameroon performs best in Knowledge & technology outputs and its weakest performance is in Market sophistication and Creative outputs.



*The highest possible ranking in each pillar is 1.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Cameroon in the GII 2020.

Strengths

Code	Indicator name	Rank
2.2.2	Graduates in science & engineering, %	41
3.2.3	Gross capital formation, % GDP	29
4.1.3	Microfinance gross loans, % GDP	28
5.1.2	Firms offering formal training, %	35
5.2.1	University/industry research collaboration†	71
5.3.3	ICT services imports, % total trade	67
6.1.4	Scientific & technical articles/bn PPP$ GDP	65
6.2.1	Growth rate of PPP$ GDP/worker, %	64
6.3.3	ICT services exports, % total trade	57
7.2.1	Cultural & creative services exports, % total trade	59

Weaknesses

Code	Indicator name	Rank
1.2.2	Rule of law*	125
2.3.3	Global R&D companies, top 3, mn US$	42
2.3.4	QS university ranking, average score top 3*	77
3.1	Information & communication technologies (ICTs)	121
3.1.2	ICT use*	125
4	Market sophistication	123
4.2.1	Ease of protecting minority investors*	123
4.3	Trade, competition, and market scale	125
4.3.1	Applied tariff rate, weighted avg., %	127
5.3.1	Intellectual property payments, % total trade	109
7	Creative outputs	123
7.1	Intangible assets	122
7.1.2	Global brand value, top 5,000, % GDP	80
7.2.5	Creative goods exports, % total trade	123
7.3.3	Wikipedia edits/mn pop. 15–69	115

STRENGTHS

GII strengths for Cameroon are found in six of the seven GII pillars.

- Human capital & research (103): the indicator Graduates in science & engineering (41) reveals a strength.
- Infrastructure (117): demonstrates strength in the indicator Gross capital formation GDP (29).
- Market sophistication (123): shows strength in the indicator Microfinance gross loans (28).
- Business sophistication (100): displays strengths in the indicators Firms offering formal training (35), University/industry research collaboration (71) and ICT services imports (67).
- Knowledge & technology outputs (94): reveals strengths in the indicators Scientific & technical articles (65), Growth rate of PPP (64) and ICT services exports (57).
- Creative outputs (123): the indicator Cultural & creative services exports (59) demonstrates a strength.

WEAKNESSES

GII weaknesses for Cameroon are found in six of the seven GII pillars.

- Institutions (113): exhibits weakness in the indicator Rule of law (125).
- Human capital & research (103): shows weaknesses in the indicators Global R&D companies (42) and QS university ranking (77).
- Infrastructure (117): displays weaknesses in the sub-pillar Information & communication technologies (121) and in the indicator ICT use (125).
- Market sophistication (123): shows weaknesses in the sub-pillar Trade, competition, and market scale (125) and in the indicators Ease of protecting minority investors (123) and Applied tariff rate (127).
- Business sophistication (100): the indicator Intellectual property payments (109) reveals a weakness.
- Creative outputs (123): has weaknesses in the sub-pillar Intangible assets (122) and in the indicators Global brand value (80), Creative goods exports (123) and Wikipedia edits (115).

CAMEROON

GII 2020 rank

119

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$	GDP per capita, PPP$	GII 2019 rank
119	120	Lower middle	SSF	25.9	100.9	3,453.0	115

		Score/Value	Rank	
INSTITUTIONS		**50.0**	**113**	
1.1	**Political environment**	**40.6**	**118**	◇
1.1.1	Political and operational stability*	57.1	110	
1.1.2	Government effectiveness*	32.3	120	
1.2	**Regulatory environment**	**48.1**	**109**	
1.2.1	Regulatory quality*	20.7	119	
1.2.2	Rule of law*	18.5	125	○ ◇
1.2.3	Cost of redundancy dismissal, salary weeks	19.9	83	
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 & RESEARCH		**17.4**	**103**	
2.1	**Education**	**31.4**	**103**	
2.1.1	Expenditure on education, % GDP	3.1	95	
2.1.2	Government funding/pupil, secondary, % GDP/cap	17.8	62	
2.1.3	School life expectancy, years	12.1	91	
2.1.4	PISA scales in reading, maths, & science	n/a	n/a	
2.1.5	Pupil-teacher ratio, secondary	19.3	95	
2.2	**Tertiary education**	**20.7**	**94**	
2.2.1	Tertiary enrolment, % gross	12.8	103	
2.2.2	Graduates in science & engineering, %	24.2	41	●
2.2.3	Tertiary inbound mobility, %	1.4	84	
2.3	**Research & development (R&D)**	**0.0**	**[121]**	
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 R&D companies, avg. exp. top 3, mn $US	0.0	42	○ ◇
2.3.4	QS university ranking, average score top 3*	0.0	77	○ ◇
INFRASTRUCTURE		**24.1**	**117**	◇
3.1	**Information & communication technologies (ICTs)**	**30.9**	**121**	○ ◇
3.1.1	ICT access*	32.6	119	◇
3.1.2	ICT use*	12.5	125	○ ◇
3.1.3	Government's online service*	45.8	112	
3.1.4	E-participation*	32.6	117	◇
3.2	**General infrastructure**	**21.7**	**89**	
3.2.1	Electricity output, kWh/mn pop	340.8	112	
3.2.2	Logistics performance*	24.7	91	
3.2.3	Gross capital formation, % GDP	28.9	29	●
3.3	**Ecological sustainability**	**19.6**	**102**	
3.3.1	GDP/unit of energy use	8.6	71	
3.3.2	Environmental performance*	33.6	108	
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	0.2	115	
MARKET SOPHISTICATION		**34.2**	**123**	○ ◇
4.1	**Credit**	**27.9**	**112**	
4.1.1	Ease of getting credit*	60.0	74	
4.1.2	Domestic credit to private sector, % GDP	15.2	117	
4.1.3	Microfinance gross loans, % GDP	0.7	28	●
4.2	**Investment**	**28.0**	**[103]**	
4.2.1	Ease of protecting minority investors*	28.0	123	○ ◇
4.2.2	Market capitalization, % GDP	n/a	n/a	
4.2.3	Venture capital deals/bn PPP$ GDP	n/a	n/a	
4.3	**Trade, competition, and market scale**	**46.6**	**125**	○ ◇
4.3.1	Applied tariff rate, weighted avg., %	12.7	127	○ ◇
4.3.2	Intensity of local competition+	63.2	89	
4.3.3	Domestic market scale, bn PPP$	100.9	81	

		Score/Value	Rank	
BUSINESS SOPHISTICATION		**20.3**	**100**	
5.1	**Knowledge workers**	**23.9**	**[86]**	
5.1.1	Knowledge-intensive employment, %	10.9	104	
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	102	
5.2	**Innovation linkages**	**17.9**	**88**	
5.2.1	University/industry research collaboration+	40.5	71	●
5.2.2	State of cluster development+	40.0	97	
5.2.3	GERD financed by abroad, % GDP	n/a	n/a	
5.2.4	JV-strategic alliance deals/bn PPP$ GDP	0.0	111	
5.2.5	Patent families 2+ offices/bn PPP$ GDP	0.0	81	
5.3	**Knowledge absorption**	**19.2**	**106**	
5.3.1	Intellectual property payments, % total trade	0.1	109	○ ◇
5.3.2	High-tech imports, % total trade	5.7	101	
5.3.3	ICT services imports, % total trade	1.1	67	●
5.3.4	FDI net inflows, % GDP	2.1	78	
5.3.5	Research talent, % in business enterprise	n/a	n/a	
KNOWLEDGE & TECHNOLOGY OUTPUTS		**13.4**	**94**	
6.1	**Knowledge creation**	**8.2**	**81**	
6.1.1	Patents by origin/bn PPP$ GDP	0.4	84	
6.1.2	PCT patents by origin/bn PPP$ GDP	0.0	95	
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4	Scientific & technical articles/bn PPP$ GDP	7.3	65	●
6.1.5	Citable documents H-index	7.3	89	
6.2	**Knowledge impact**	**17.0**	**[92]**	
6.2.1	Growth rate of PPP$ GDP/worker, %	0.8	64	● ◇
6.2.2	New businesses/th pop. 15-64	n/a	n/a	
6.2.3	Computer software spending, % GDP	0.0	76	
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	0.6	117	◇
6.2.5	High- and medium-high-tech manufacturing, %	n/a	n/a	
6.3	**Knowledge diffusion**	**14.9**	**94**	
6.3.1	Intellectual property receipts, % total trade	0.0	89	
6.3.2	High-tech net exports, % total trade	0.2	98	
6.3.3	ICT services exports, % total trade	1.9	57	●
6.3.4	FDI net outflows, % GDP	0.1	107	
CREATIVE OUTPUTS		**8.2**	**123**	○ ◇
7.1	**Intangible assets**	**12.9**	**122**	○
7.1.1	Trademarks by origin/bn PPP$ GDP	6.1	115	
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	89	
7.1.4	ICTs & organizational model creation+	42.4	107	
7.2	**Creative goods and services**	**3.8**	**[109]**	
7.2.1	Cultural & creative services exports, % total trade	0.3	59	●
7.2.2	National feature films/mn pop. 15-69	1.9	71	
7.2.3	Entertainment & 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	123	○
7.3	**Online creativity**	**3.2**	**115**	
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	1.3	79	
7.3.3	Wikipedia edits/mn pop. 15-69	12.9	115	○ ◇
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 II 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

Code	Indicator name	Country year	Model year	Source
2.1.4	PISA scales in reading, maths & science	n/a	2018	OECD Programme for International Student Assessment (PISA)
2.3.1	Researchers, FTE/mn pop.	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
4.2.2	Market capitalization, % GDP	n/a	2018	World Federation of Exchanges
4.2.3	Venture capital deals/bn PPP$ GDP	n/a	2019	Thomson Reuters
5.1.3	GERD performed by business, % GDP	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
5.1.4	GERD financed by business, %	n/a	2017	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
5.2.3	GERD financed by abroad, % GDP	n/a	2017	UNESCO Institute for Statistics
5.3.5	Research talent, % in business enterprise	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2018	World Intellectual Property Organization
6.2.2	New businesses/th pop. 15–64	n/a	2018	World Bank
6.2.5	High- & medium-high-tech manufacturing, %	n/a	2017	United Nations Industrial Development Organization
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	2018	PwC
7.2.4	Printing & other media, % manufacturing	n/a	2017	United Nations Industrial Development Organization
7.3.4	Mobile app creation/bn PPP$ GDP	n/a	2019	App Annie

Outdated data

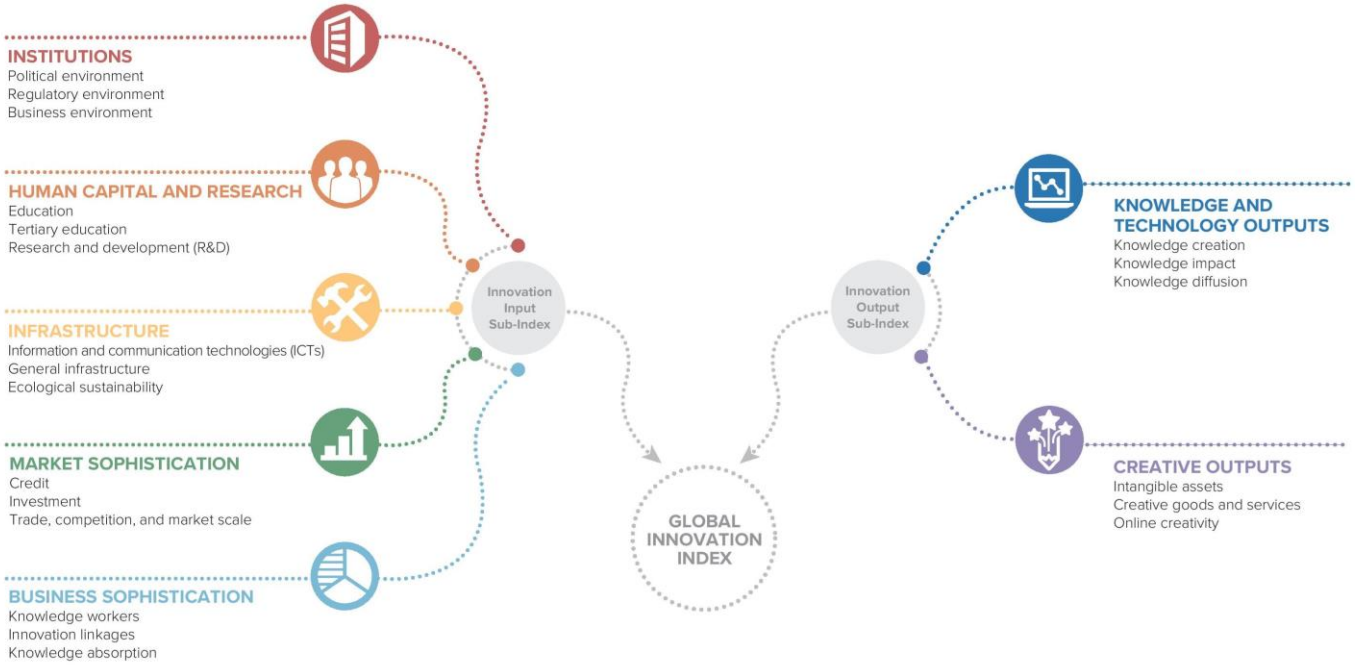
Code	Indicator name	Country year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	2012	2016	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2016	2017	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2016	2018	UNESCO Institute for Statistics
4.3.1	Applied tariff rate, weighted avg., %	2014	2018	World Bank
5.1.1	Knowledge-intensive employment, %	2014	2018	International Labour Organization
5.1.2	Firms offering formal training, %	2015	2018	World Bank
5.1.5	Females employed w/advanced degrees, %	2014	2018	International Labour Organization
5.3.1	Intellectual property payments, % total trade	2017	2018	World Trade Organization
5.3.2	High-tech imports, % total trade	2017	2018	United Nations, COMTRADE
5.3.3	ICT services imports, % total trade	2017	2018	World Trade Organization
6.3.1	Intellectual property receipts, % total trade	2017	2018	World Trade Organization
6.3.2	High-tech net exports, % total trade	2017	2018	United Nations, COMTRADE
6.3.3	ICT services exports, % total trade	2017	2018	World Trade Organization
7.2.1	Cultural & creative services exports, % total trade	2017	2018	World Trade Organization
7.2.2	National feature films/mn pop. 15–69	2009	2017	UNESCO Institute for Statistics
7.2.5	Creative goods exports, % total trade	2017	2018	United Nations, COMTRADE

ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2020, the GII presents its 13th edition devoted to the theme *Who Will Finance Innovation?*

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.

Framework of the Global Innovation Index 2020



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.