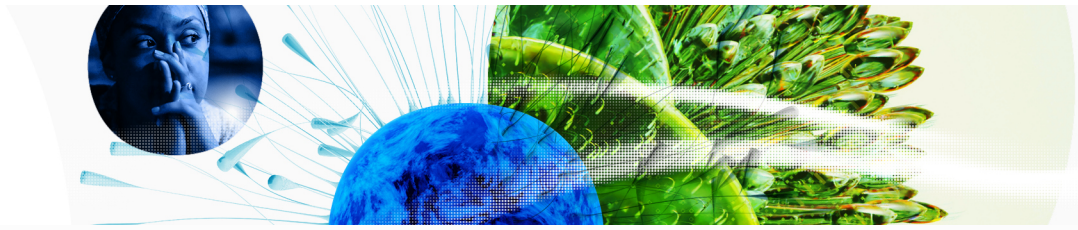
Global Innovation Index 2023



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**.

Jamaica ranking in the Global Innovation Index 2023

> Jamaica ranks 78th among the 132 economies featured in the GII 2023.

> Jamaica ranks 23rd among the 33 upper-middle-income group economies.

> Jamaica ranks 9th among the 19 economies in Latin America and the Caribbean.

> Jamaica GII Ranking (2020-2023)

The table shows the rankings of Jamaica 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 Jamaica in the GII 2023 is between ranks 72 and 82.

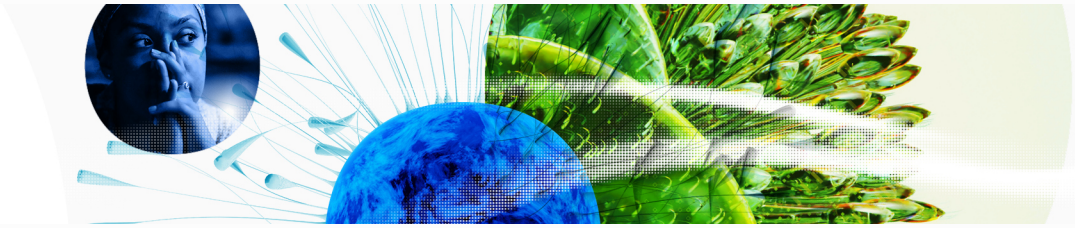
	GII Position	Innovation Inputs	Innovation Outputs
2020	72nd	86th	62nd
2021	74th	82nd	66th
2022	76th	88th	60th
2023	78th	82nd	69th

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

This year Jamaica ranks 82nd in innovation inputs. This position is higher than last year.

Jamaica ranks 69th in innovation outputs. This position is lower than last year.

Global Innovation Index 2023

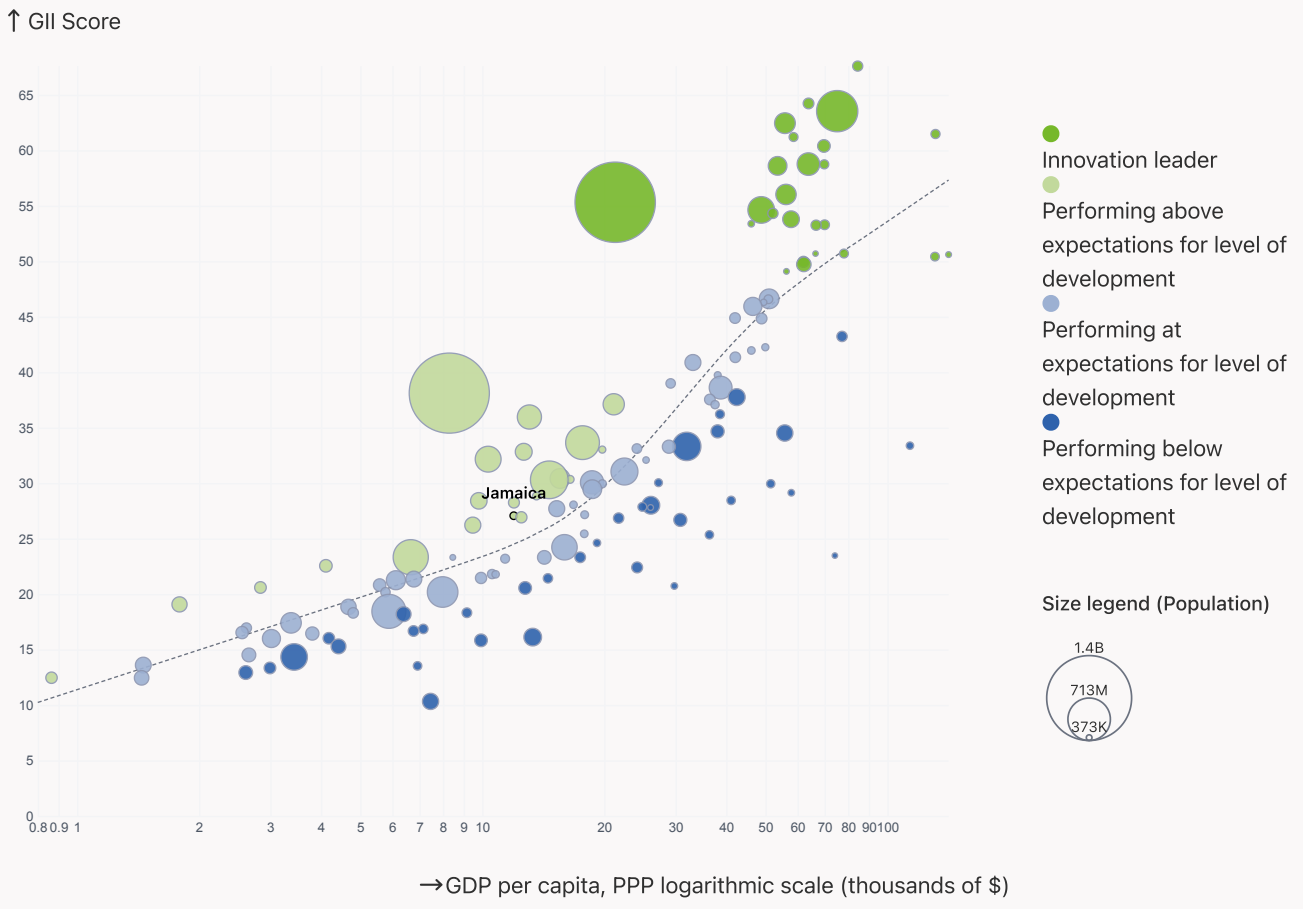


→ Expected vs. observed innovation performance

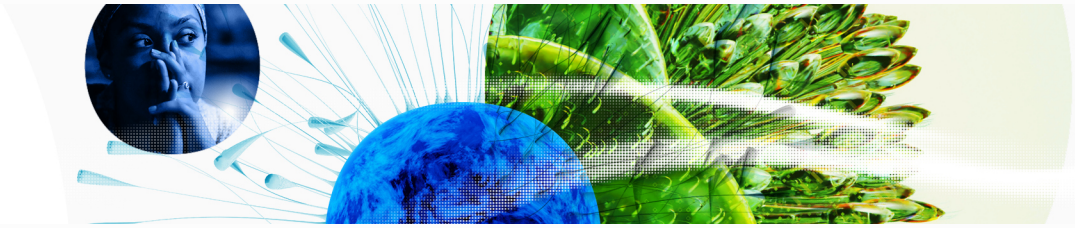
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected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

> Relative to GDP, Jamaica is performing above expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2023

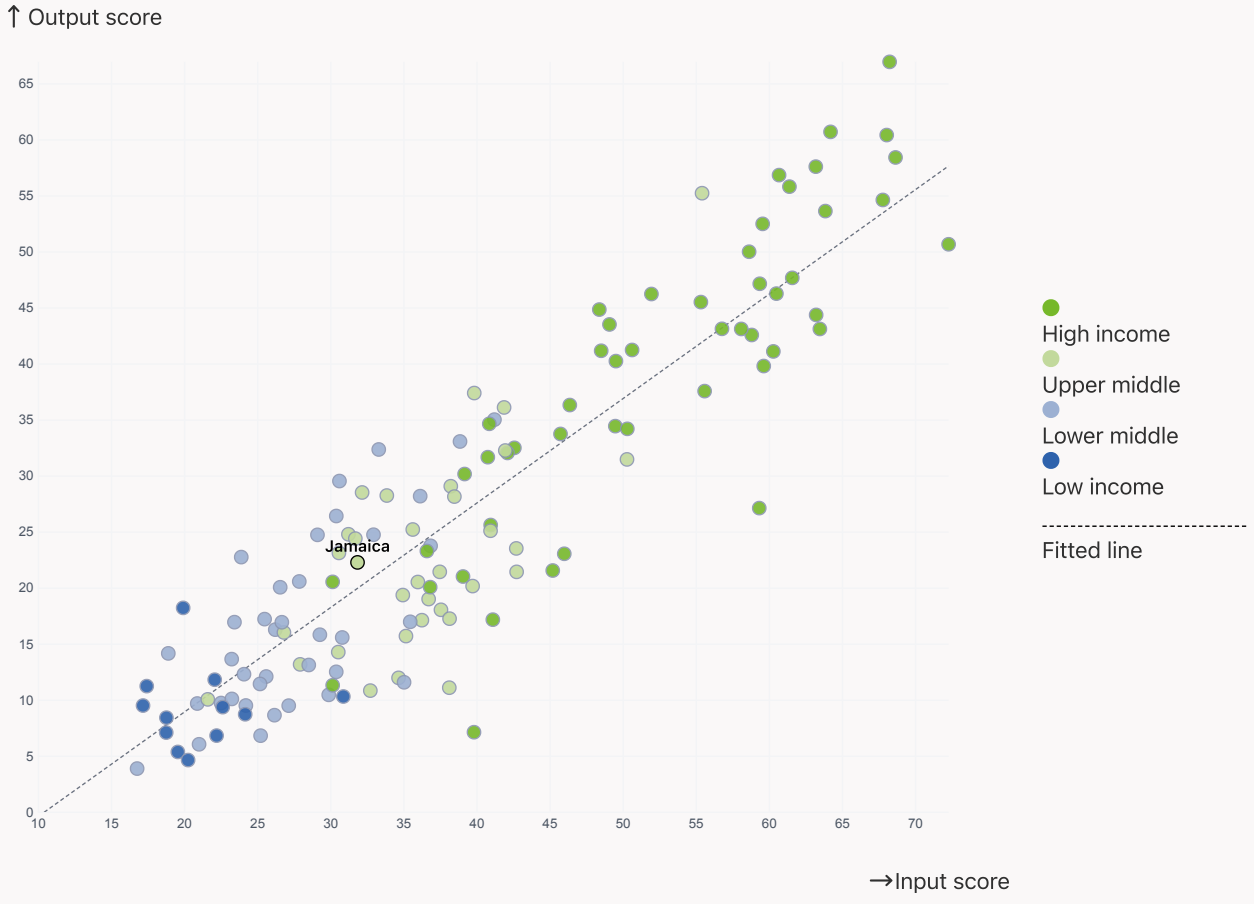


→ Effectively translating innovation investments into innovation outputs

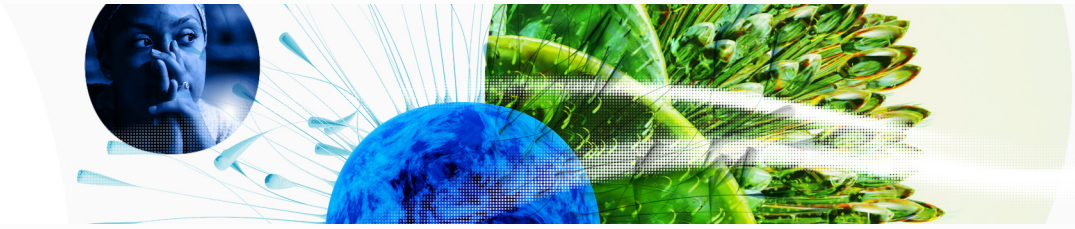
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

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

> Relationship between innovation inputs and outputs

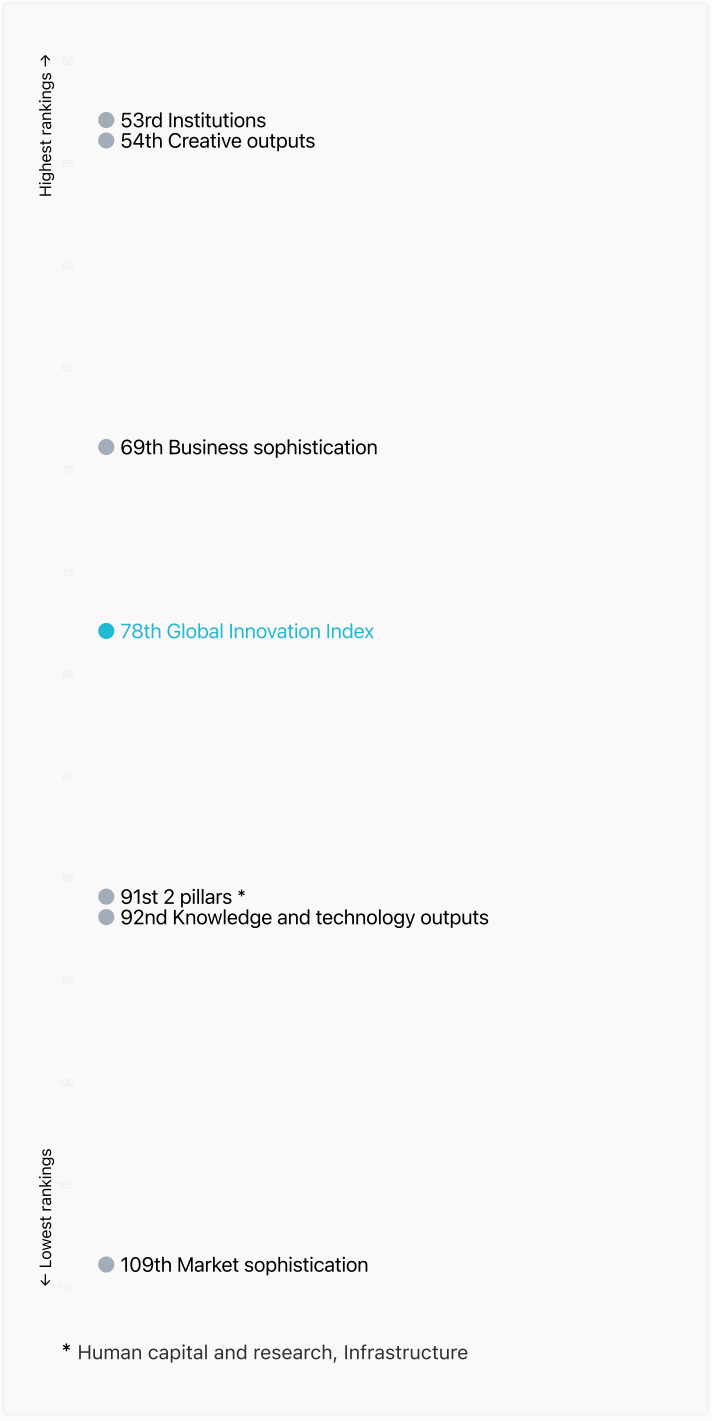


Global Innovation Index 2023



→ Overview of Jamaica'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 Jamaica are those that rank above the GII (shown in blue) and the weakest are those that rank below.



> Highest rankings

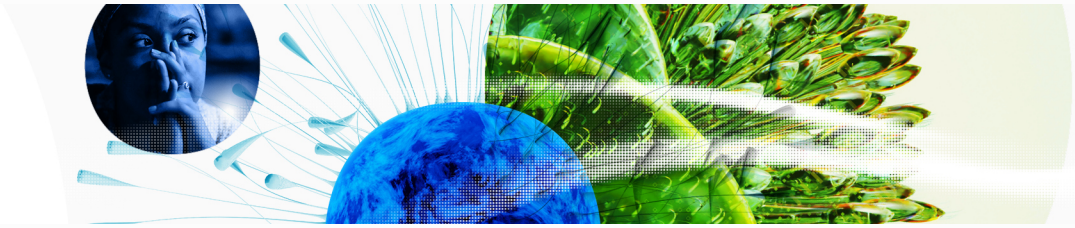
Jamaica ranks highest in Institutions (53rd), Creative outputs (54th) and Business sophistication (69th).

> Lowest rankings

Jamaica ranks lowest in Market sophistication (109th), Knowledge and technology outputs (92nd) and Human capital and research, Infrastructure (91st).

The full WIPO Intellectual Property Statistics profile for Jamaica can be found on this link.

Global Innovation Index 2023



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

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

> Upper-Middle-Income economies

Jamaica performs below the upper-middle-income group average in Knowledge and technology outputs, Business sophistication, Market sophistication, Human capital and research, Infrastructure.

> Latin America And The Caribbean

Jamaica performs above the regional average in Creative outputs, Business sophistication, Institutions.

Knowledge and technology outputs

- Top 10 | Score: 58.96
- Upper middle income | Score: 22.36
- LCN | Score: 17.14
- Jamaica | Score: 14.68

Creative outputs

- Top 10 | 56.09
- Jamaica | 29.81
- Upper middle income | 23.16
- LCN | 18.91

Business sophistication

- Top 10 | 64.39
- Upper middle income | 29.27
- Jamaica | 27.69
- LCN | 26.15

Market sophistication

- Top 10 | 61.93
- Upper middle income | 35.45
- LCN | 29.74
- Jamaica | 22.01

Human capital and research

- Top 10 | 60.28
- Upper middle income | 29.68
- LCN | 24.92
- Jamaica | 23.14

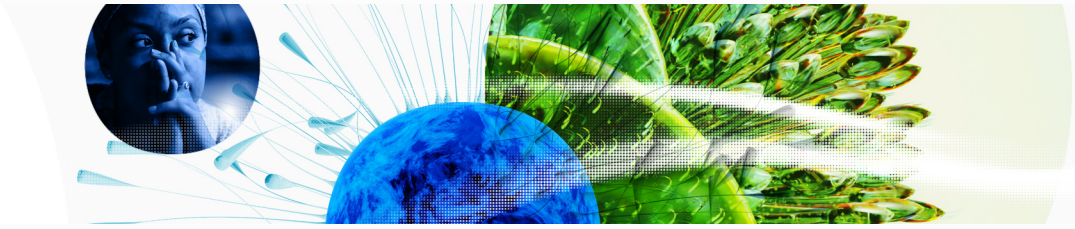
Infrastructure

- Top 10 | 62.83
- Upper middle income | 40.40
- LCN | 35.88
- Jamaica | 31.29

Institutions

- Top 10 | 79.85
- Jamaica | 55.24
- Upper middle income | 47.71
- LCN | 41.12

Global Innovation Index 2023



→ Innovation strengths and weaknesses in Jamaica

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

> Jamaica's main innovation strengths are **Government funding/pupil, secondary, % GDP/cap** (rank 12), **Trademarks by origin/bn PPP$ GDP** (rank 18) and **Market capitalization, % GDP** (rank 20).

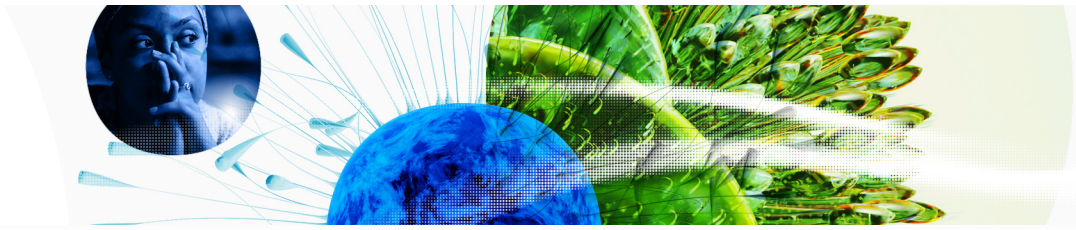
Strengths

Rank	Code	Indicator name
12	2.1.2	Government funding/pupil, secondary, % GDP/cap
18	7.1.2	Trademarks by origin/bn PPP$ GDP
20	4.2.1	Market capitalization, % GDP
21	6.3.4	ICT services exports, % total trade
25	7.1.3	Global brand value, top 5,000
27	5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP
29	6.2.3	Software spending, % GDP
33	2.1.1	Expenditure on education, % GDP
33	5.3.3	ICT services imports, % total trade
33	7.1.4	Industrial designs by origin/bn PPP$ GDP

Weaknesses

Rank	Code	Indicator name
125	6.2.1	Labor productivity growth, %
122	4.3.3	Domestic market scale, bn PPP$
114	6.3.3	High-tech exports, % total trade
106	3.1.4	E-participation
95	5.2.5	Patent families/bn PPP$ GDP
89	3.2.2	Logistics performance
71	2.3.4	QS university ranking, top 3
48	6.2.2	Unicorn valuation, % GDP
40	2.3.3	Global corporate R&D investors, top 3, mn US$

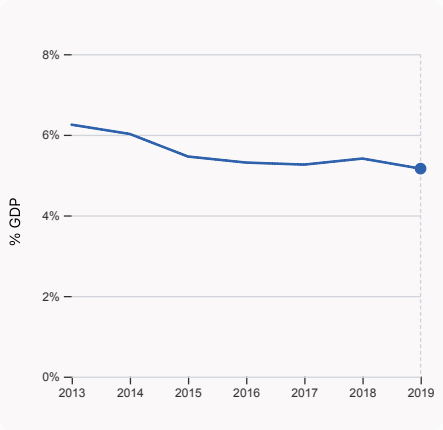
Global Innovation Index 2023



→ Jamaica's innovation system

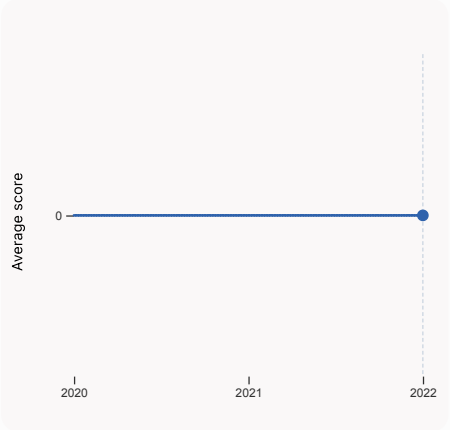
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Jamaica



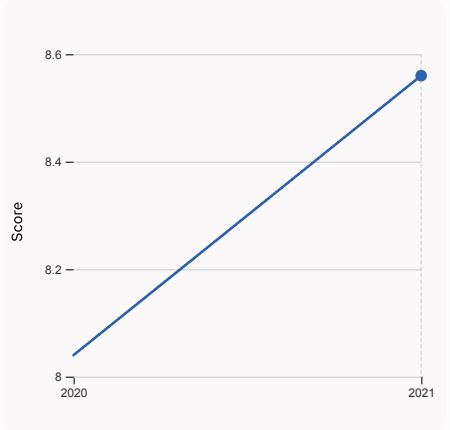
2.1.1 Expenditure on education, % GDP

was equal to 5.16% GDP in 2019, down by 0.25 percentage points from the year prior – and equivalent to an indicator rank of 33.



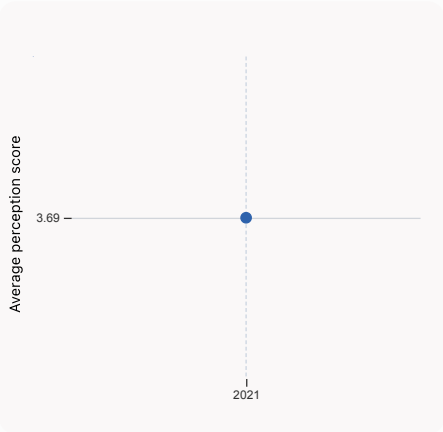
2.3.4 QS university ranking, top 3

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



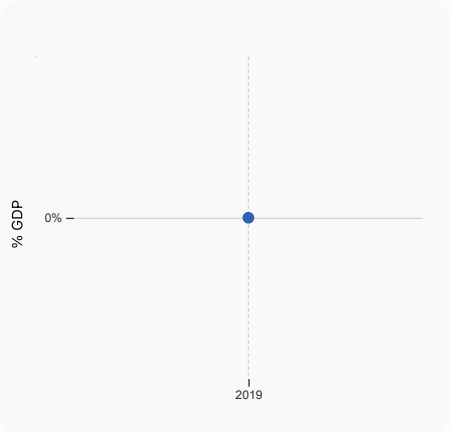
3.1.1 ICT access

was equal to a score of 8.56 in 2021, up by 6.47% from the year prior – and equivalent to an indicator rank of 78.



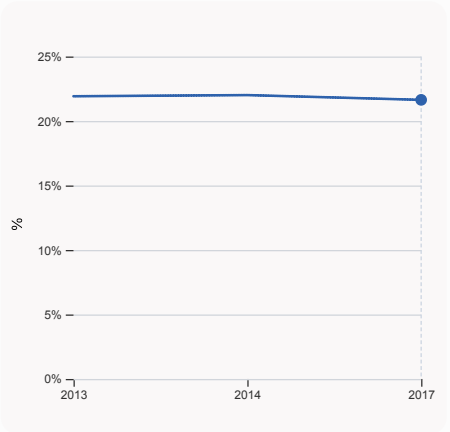
4.1.1 Finance for startups and scaleups

was equal to an average perception score of 3.69 in 2021, equivalent to an indicator rank of 69.



4.2.4 VC received, value, % GDP

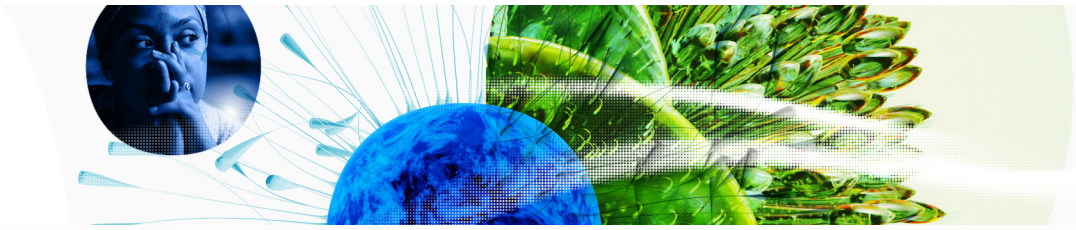
was equal to 0 % GDP in 2019.



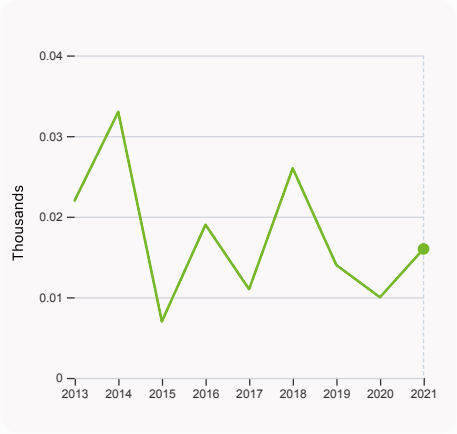
5.1.1 Knowledge-intensive employment, %

was equal to 21.64% in 2017, down by 0.37 percentage points from the year prior – and equivalent to an indicator rank of 71.

Global Innovation Index 2023

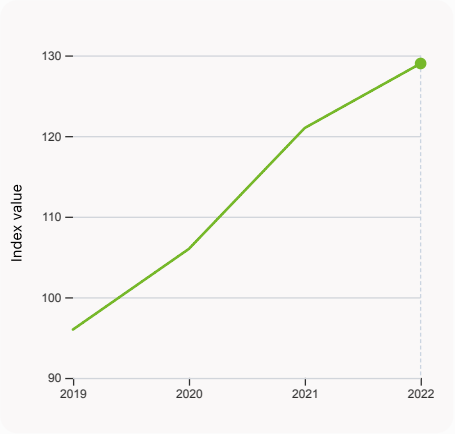


> Innovation outputs in Jamaica



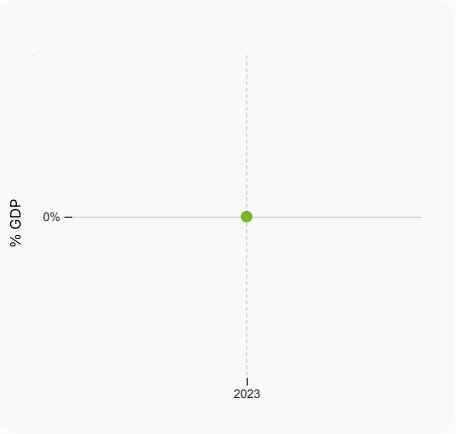
6.1.1 Patents by origin

was equal to 0.016 Thousands in 2021, up by 60% from the year prior – and equivalent to an indicator rank of 78.



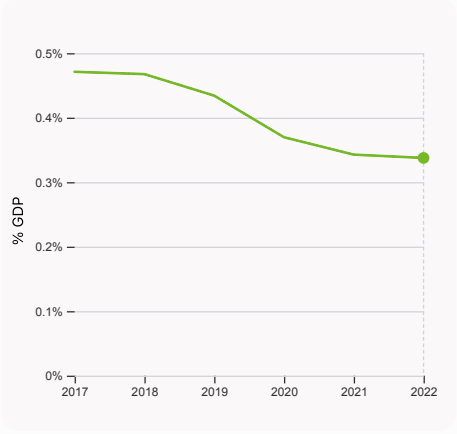
6.1.5 Citable documents H-index

was equal to an index value of 129 in 2022, up by 6.61% from the year prior – and equivalent to an indicator rank of 105.



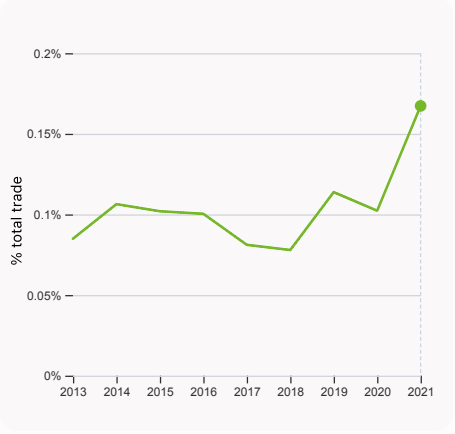
6.2.2 Unicorn valuation, % GDP

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



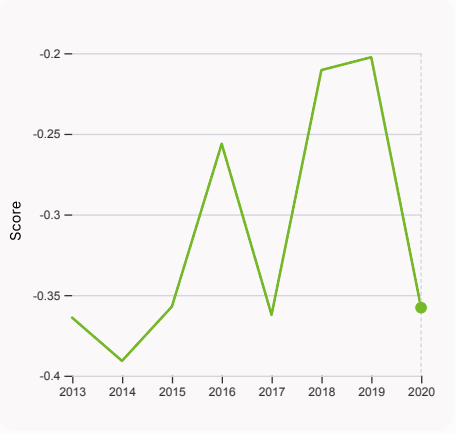
6.2.3 Software spending, % GDP

was equal to 0.338% GDP in 2022, down by 0.0051 percentage points from the year prior – and equivalent to an indicator rank of 29.



6.3.1 Intellectual property receipts, % total trade

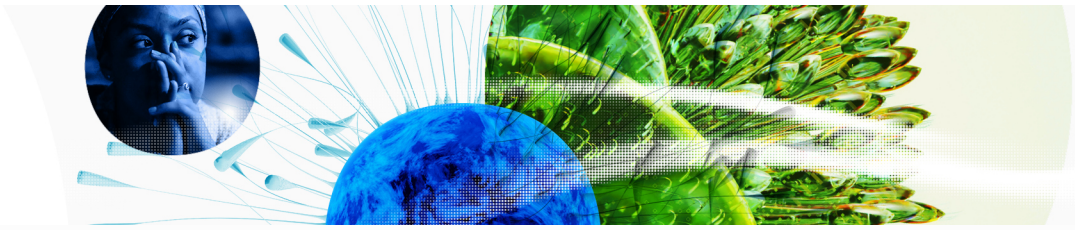
was equal to 0.167% total trade in 2021, up by 0.065 percentage points from the year prior – and equivalent to an indicator rank of 51.

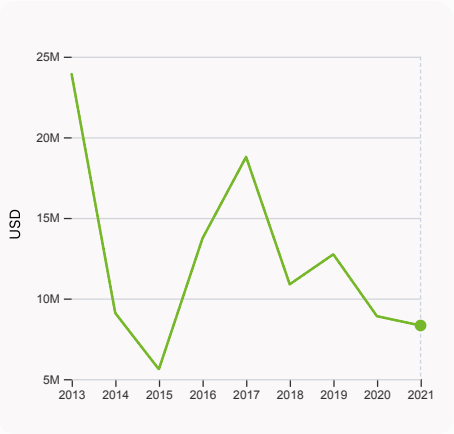


6.3.2 Production and export complexity

was equal to a score of -0.358 in 2020, down by 76.73% from the year prior – and equivalent to an indicator rank of 82.

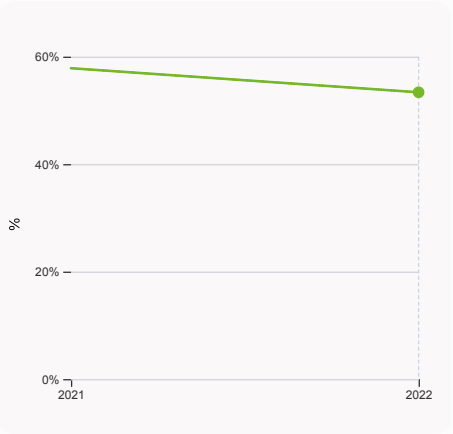
Global Innovation Index 2023





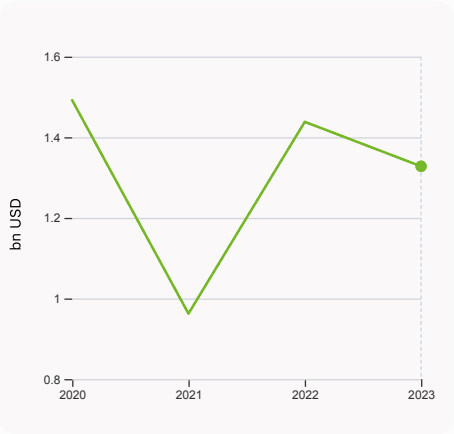
6.3.3 High-tech exports

was equal to 8,325,844 USD in 2021, down by 6.48% from the year prior – and equivalent to an indicator rank of 114.



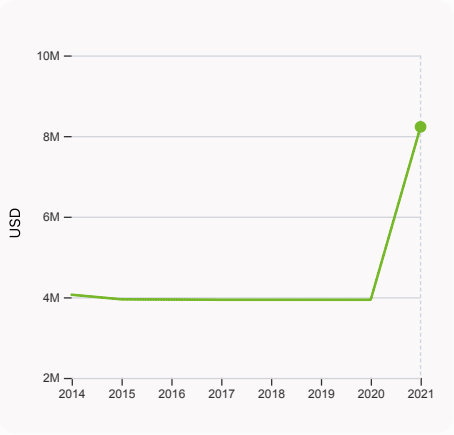
7.1.1 Intangible asset intensity, top 15, %

was equal to 53.37% in 2022, down by 4.48 percentage points from the year prior – and equivalent to an indicator rank of 45.



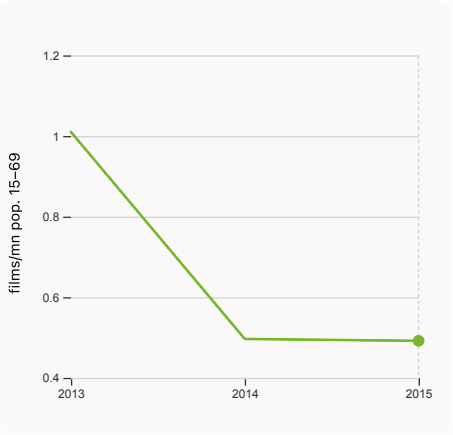
7.1.3 Global brand value, top 5,000

was equal to 1.328 bn USD in 2023, down by 7.67% from the year prior – and equivalent to an indicator rank of 25.



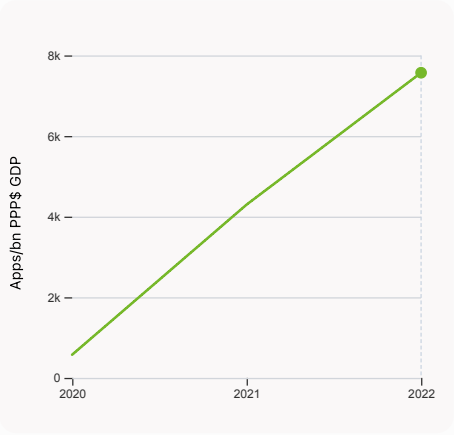
7.2.1 Cultural and creative services exports

was equal to 8,228,000 USD in 2021, up by 108.94% from the year prior – and equivalent to an indicator rank of 77.



7.2.2 National feature films/mn pop. 15-69

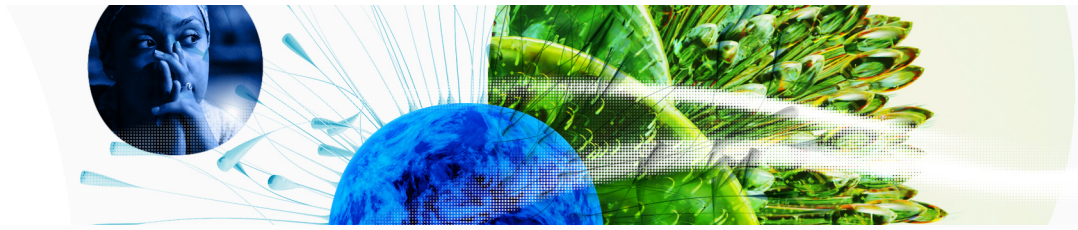
was equal to 0.492 films/mn pop. 15–69 in 2015, down by 0.94% from the year prior – and equivalent to an indicator rank of 71.



7.3.4 Mobile app creation/bn PPP$ GDP

was equal to 7,570.66 Apps/bn PPP$ GDP in 2022, up by 76.1% from the year prior – and equivalent to an indicator rank of 103.

Global Innovation Index 2023



→ Jamaica's innovation top performers

> 7.1.1 Top 15 intangible-asset intensive companies in Jamaica

Rank	Firm	Intensity, %
1	NCB FINANCIAL GROUP LTD	34.50
2	SAGICOR GROUP JAMAICA LTD	36.50
3	BARITA INVESTMENTS LTD	60.43

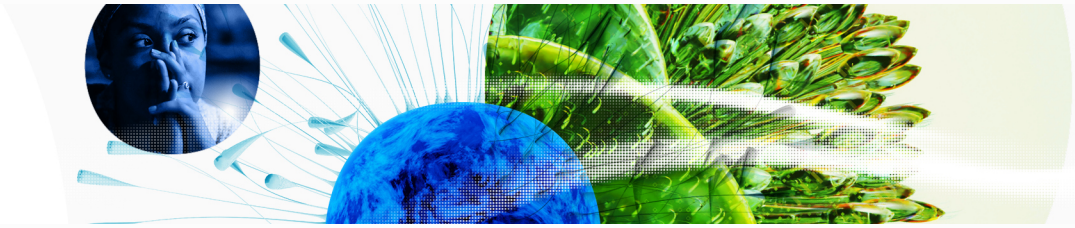
Source: Brand Finance (https://brandirectory.com/reports/gift-2022).
Note: Brand Finance only provides within economy ranks.

> 7.1.3 Top 5,000 companies in Jamaica with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	CAPTAIN MORGAN	Spirits	993.3
2	DIGICEL	Telecoms	334.6

Source: Brand Finance (https://brandirectory.com).
Note: Rank corresponds to within economy ranks.

Global Innovation Index 2023



Jamaica

GII 2023 rank **78**

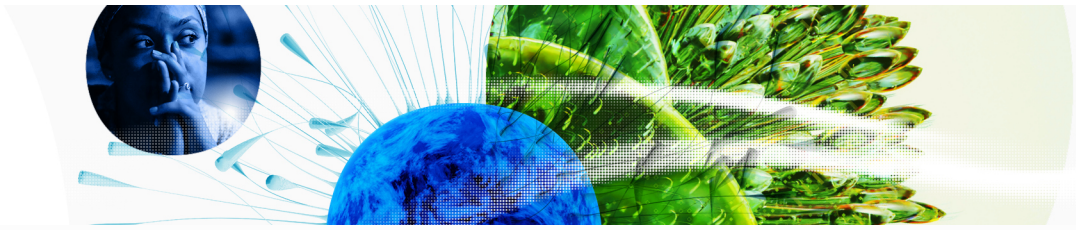
Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
69	82	Upper middle	LCN	2.8	32.8	11,962.4

	Score / Value	Rank	
Institutions	**55.2**	**53**	
1.1 Institutional environment	**54.6**	**46**	
1.1.1 Operational stability for businesses*	61.1	43	
1.1.2 Government effectiveness*	48.2	48	
1.2 Regulatory environment	**64.6**	**61**	
1.2.1 Regulatory quality*	47.2	59	
1.2.2 Rule of law*	34.8	73	
1.2.3 Cost of redundancy dismissal	14.0	53	
1.3 Business environment	**46.5**	**63**	
1.3.1 Policies for doing business†	55.2	51	
1.3.2 Entrepreneurship policies and culture†	37.8	51	
Human capital and research	**23.1**	**91**	
2.1 Education	**53.9**	**59**	
2.1.1 Expenditure on education, % GDP	5.2	33 ●	
2.1.2 Government funding/pupil, secondary, % GDP/cap	27.3	12 ●	
2.1.3 School life expectancy, years	n/a	n/a	
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary	18.2	93	
2.2 Tertiary education	**15.5**	**101**	
2.2.1 Tertiary enrolment, % gross	27.1	90	◇
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)	**0.0**	**119**	
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	40 ○ ◇	
2.3.4 QS university ranking, top 3*	0.0	71 ○ ◇	
Infrastructure	**31.3**	**91**	◇
3.1 Information and communication technologies (ICTs)	**52.6**	**95**	◇
3.1.1 ICT access*	78.4	78	
3.1.2 ICT use*	61.6	89	
3.1.3 Government's online service*	43.8	101	◇
3.1.4 E-participation*	26.7	106 ○ ◇	
3.2 General infrastructure	**16.6**	**103**	
3.2.1 Electricity output, GWh/mn pop.	1,459.0	92	◇
3.2.2 Logistics performance*	18.2	89 ○ ◇	
3.2.3 Gross capital formation, % GDP	26.7	39	
3.3 Ecological sustainability	**24.6**	**64**	
3.3.1 GDP/unit of energy use	10.8	59	
3.3.2 Environmental performance*	45.3	56	
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.5	85	
Market sophistication	**22.0**	**109**	◇
4.1 Credit	**25.7**	**76**	
4.1.1 Finance for startups and scaleups†	31.3	69	
4.1.2 Domestic credit to private sector, % GDP	56.3	64	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**17.3**	**43**	
4.2.1 Market capitalization, % GDP	87.0	20 ●	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	0.0	73	
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	**23.1**	**123**	◇
4.3.1 Applied tariff rate, weighted avg., %	8.4	107	◇
4.3.2 Domestic industry diversification	n/a	n/a	
4.3.3 Domestic market scale, bn PPP$	32.8	122 ○	

	Score / Value	Rank	
Business sophistication	**27.7**	**69**	
5.1 Knowledge workers	**21.9**	**92**	
5.1.1 Knowledge-intensive employment, %	21.6	71	
5.1.2 Firms offering formal training, %	n/a	n/a	
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, %	4.1	96	◇
5.2 Innovation linkages	**24.7**	**56**	
5.2.1 University-industry R&D collaboration†	42.6	69	
5.2.2 State of cluster development†	37.6	81	
5.2.3 GERD financed by abroad, % GDP	n/a	n/a	
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.1	27 ●	
5.2.5 Patent families/bn PPP$ GDP	0.0	95 ○ ◇	
5.3 Knowledge absorption	**36.4**	**53**	
5.3.1 Intellectual property payments, % total trade	1.1	35	
5.3.2 High-tech imports, % total trade	5.3	109	
5.3.3 ICT services imports, % total trade	2.1	33 ●	
5.3.4 FDI net inflows, % GDP	2.8	56	
5.3.5 Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs	**14.7**	**92**	
6.1 Knowledge creation	**6.3**	**104**	
6.1.1 Patents by origin/bn PPP$ GDP	0.5	78	
6.1.2 PCT patents by origin/bn PPP$ GDP	0.1	72	
6.1.3 Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4 Scientific and technical articles/bn PPP$ GDP	n/a	n/a	
6.1.5 Citable documents H-index	4.8	105	
6.2 Knowledge impact	**19.7**	**107**	
6.2.1 Labor productivity growth, %	-1.9	125 ○ ◇	
6.2.2 Unicorn valuation, % GDP	0.0	48 ○ ◇	
6.2.3 Software spending, % GDP	0.3	29 ●	
6.2.4 High-tech manufacturing, %	n/a	n/a	
6.3 Knowledge diffusion	**18.0**	**81**	
6.3.1 Intellectual property receipts, % total trade	0.1	51	
6.3.2 Production and export complexity	45.0	82	
6.3.3 High-tech exports, % total trade	0.1	114 ○ ◇	
6.3.4 ICT services exports, % total trade	4.6	21 ●	
6.3.5 ISO 9001 quality/bn PPP$ GDP	1.2	101	
Creative outputs	**29.8**	**54**	
7.1 Intangible assets	**51.8**	**22**	
7.1.1 Intangible asset intensity, top 15, %	53.4	45	
7.1.2 Trademarks by origin/bn PPP$ GDP	86.4	18 ●	
7.1.3 Global brand value, top 5,000	8.1	25 ●	
7.1.4 Industrial designs by origin/bn PPP$ GDP	3.2	33 ●	
7.2 Creative goods and services	**2.1**	**103**	◇
7.2.1 Cultural and creative services exports, % total trade	0.1	77	
7.2.2 National feature films/mn pop. 15-69	0.5	71	
7.2.3 Entertainment and media market/th pop. 15-69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	0.1	109	
7.3 Online creativity	**13.5**	**104**	
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	1.9	87	
7.3.2 Country-code TLDs/th pop. 15-69	1.1	88	
7.3.3 GitHub commits/mn pop. 15-69	3.1	89	
7.3.4 Mobile app creation/bn PPP$ GDP	47.8	103	◇

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.

Global Innovation Index 2023



→ Data availability

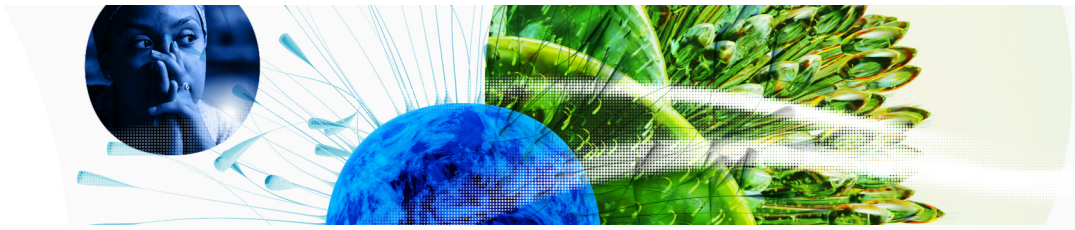
The following tables list indicators that are either missing or outdated for Jamaica.

> Jamaica has missing data for eighteen indicators and outdated data for eleven indicators.

> Missing data for Jamaica

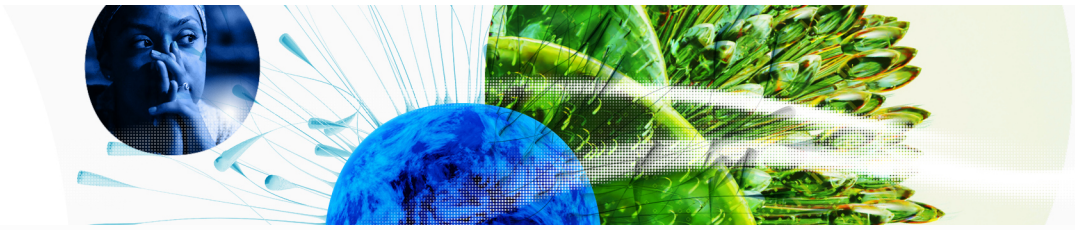
Code	Indicator name	Economy Year	Model Year	Source
2.1.3	School life expectancy, years	n/a	2020	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD, PISA
2.2.2	Graduates in science and engineering, %	n/a	2020	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	n/a	2020	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.1.3	Loans from microfinance institutions, % GDP	n/a	2021	International Monetary Fund, Financial Access Survey (FAS)
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
5.1.2	Firms offering formal training, %	n/a	2019	World Bank Enterprise Surveys
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
5.2.3	GERD financed by abroad, % GDP	n/a	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.5	Research talent, % in businesses	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2021	World Intellectual Property Organization; International Monetary Fund

Global Innovation Index 2023



Code	Indicator name	Economy Year	Model Year	Source
6.2.4	High-tech manufacturing, %	n/a	2020	United Nations Industrial Development Organization
7.2.3	Entertainment and media market/th pop. 15-69	n/a	2022	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

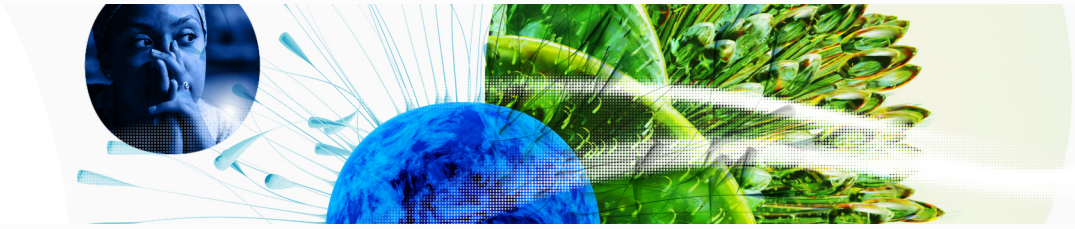
Global Innovation Index 2023



> Outdated data for Jamaica

Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policies for doing business	2019	2022	World Economic Forum, Executive Opinion Survey (EOS)
1.3.2	Entrepreneurship policies and culture	2021	2022	Global Entrepreneurship Monitor
2.1.1	Expenditure on education, % GDP	2019	2021	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2015	2020	UNESCO Institute for Statistics
3.2.1	Electricity output, GWh/mn pop.	2020	2021	International Energy Agency
4.1.1	Finance for startups and scaleups	2021	2022	Global Entrepreneurship Monitor
5.1.1	Knowledge-intensive employment, %	2017	2022	International Labour Organization
5.1.5	Females employed w/advanced degrees, %	2020	2022	International Labour Organization
5.2.1	University-industry R&D collaboration	2019	2022	World Economic Forum, Executive Opinion Survey (EOS)
5.2.2	State of cluster development	2019	2022	World Economic Forum, Executive Opinion Survey (EOS)
7.2.2	National feature films/mn pop. 15-69	2015	2021	OMDIA; United Nations, World Population Prospects

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.

Source: Global Innovation Index Database, WIPO, 2023.

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.