

# Global Innovation Index 2023

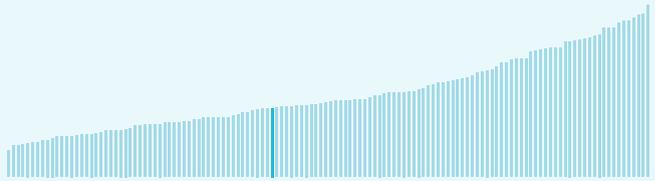


The Global Innovation Index (GII) **ranks world economies according to their innovation capabilities.**

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

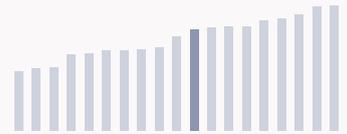
> Jamaica ranks **78th** among the 132 economies featured in the GII 2023.



> 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.

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## → Expected vs. observed innovation performance

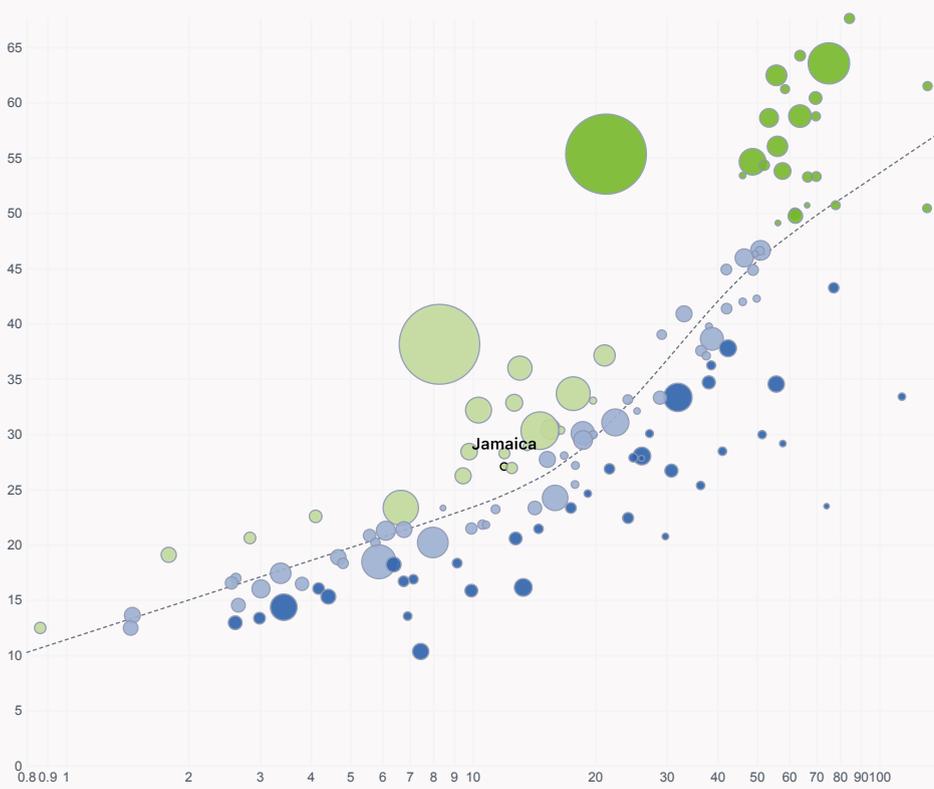
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected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

↑ **GII Score**



- Innovation leader
- Performing above expectations for level of development
- Performing at expectations for level of development
- Performing below expectations for level of development

Size legend (Population)



→ GDP per capita, PPP logarithmic scale (thousands of \$)

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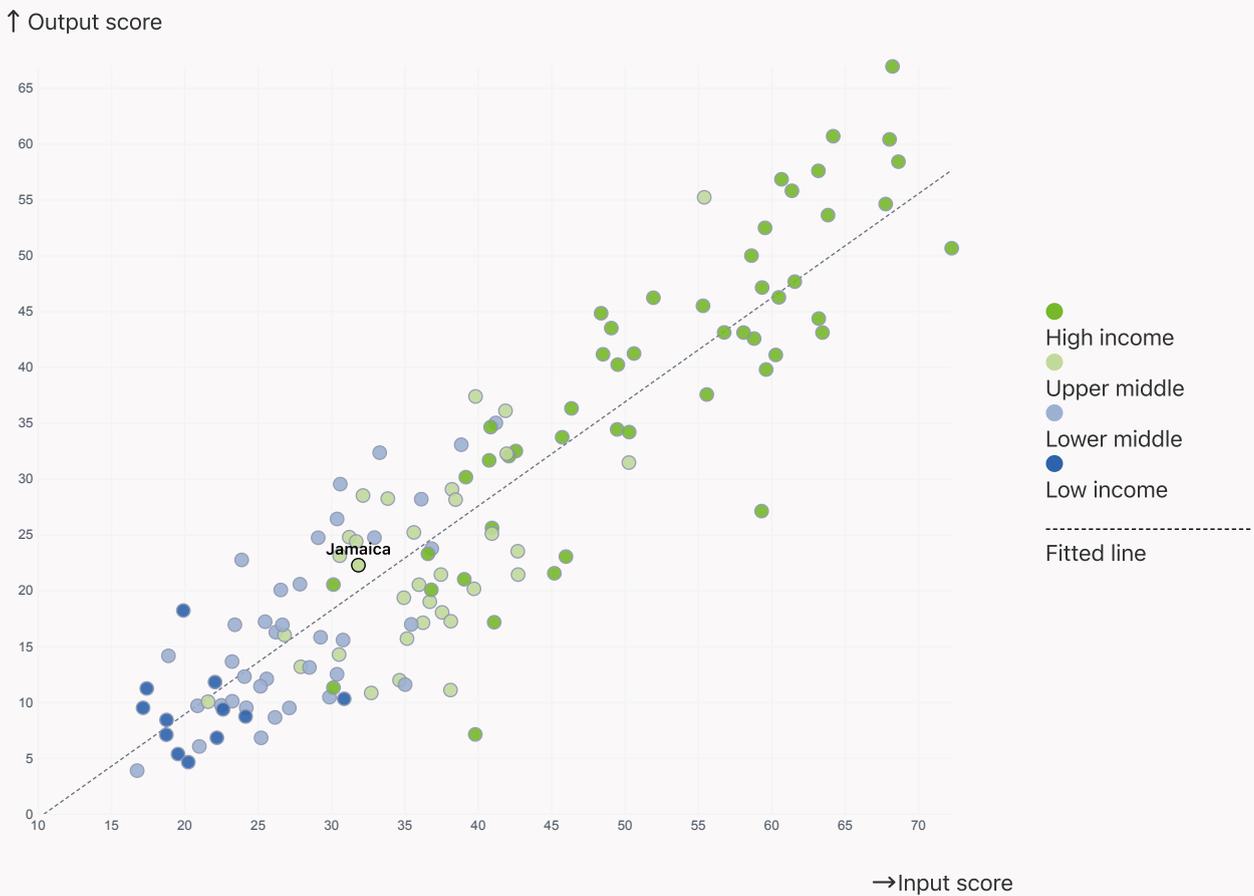
## → Effectively translating innovation investments into innovation outputs

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](#).

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

The charts show 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

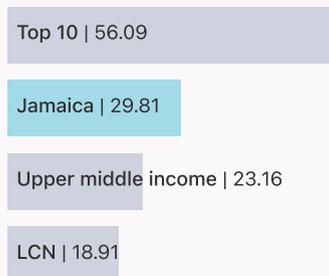
Jamaica performs above the regional average in Creative outputs, Business sophistication, Institutions.



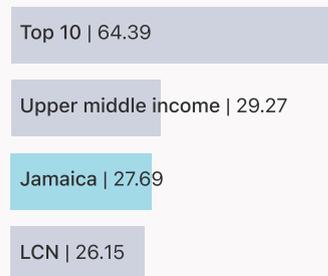
### Knowledge and technology outputs



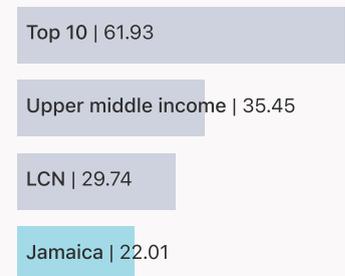
### Creative outputs



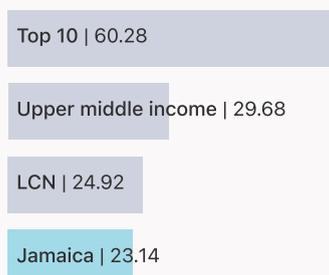
### Business sophistication



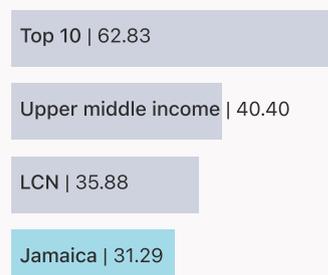
### Market sophistication



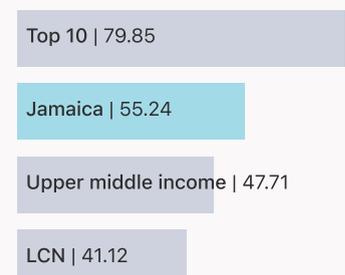
### Human capital and research



### Infrastructure



### Institutions





## → Innovation strengths and weaknesses in Jamaica

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



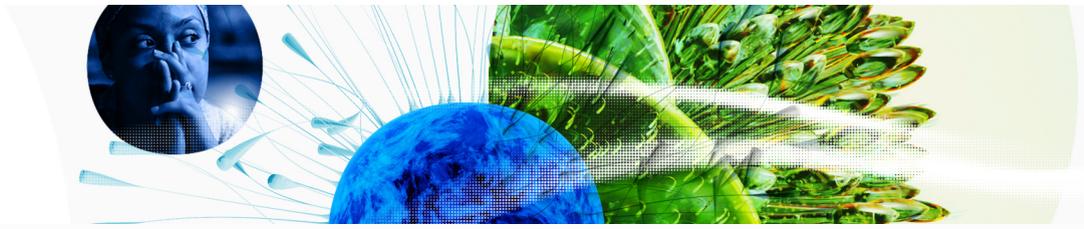
> Jamaica's main innovation strengths are **Government funding/pupil, secondary, % GDP/cap (rank 12)**, **Trademarks by origin/bn PPP\$ GDP (rank 18)** and **Market capitalization, % GDP (rank 20)**.

### Strengths

### Weaknesses

Rank	Code	Indicator name	Rank	Code	Indicator name
12	2.1.2	Government funding/pupil, secondary, % GDP/cap	125	6.2.1	Labor productivity growth, %
18	7.1.2	Trademarks by origin/bn PPP\$ GDP	122	4.3.3	Domestic market scale, bn PPP\$
20	4.2.1	Market capitalization, % GDP	114	6.3.3	High-tech exports, % total trade
21	6.3.4	ICT services exports, % total trade	106	3.1.4	E-participation
25	7.1.3	Global brand value, top 5,000	95	5.2.5	Patent families/bn PPP\$ GDP
27	5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	89	3.2.2	Logistics performance
29	6.2.3	Software spending, % GDP	71	2.3.4	QS university ranking, top 3
33	2.1.1	Expenditure on education, % GDP	48	6.2.2	Unicorn valuation, % GDP
33	5.3.3	ICT services imports, % total trade	40	2.3.3	Global corporate R&D investors, top 3, mn US\$
33	7.1.4	Industrial designs by origin/bn PPP\$ GDP			

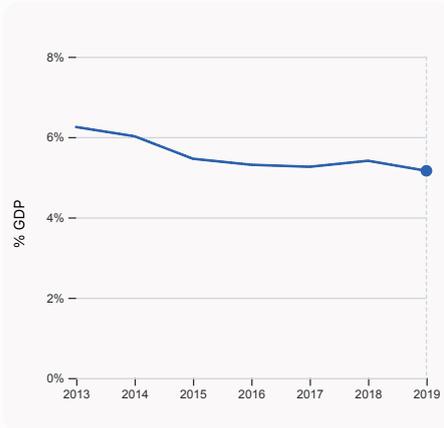
# Global Innovation Index 2023



## → Jamaica's innovation system

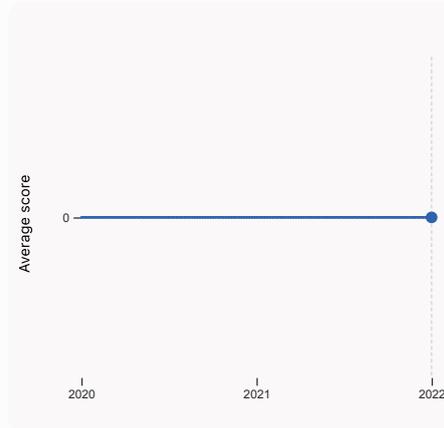
As far as practicable, the plots below present unscaled indicator data.

### > Innovation inputs in Jamaica



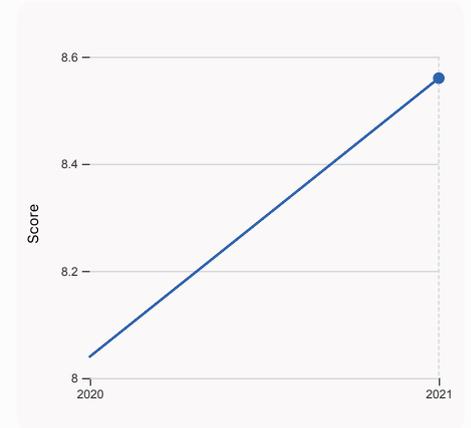
#### 2.1.1 Expenditure on education, % GDP

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.



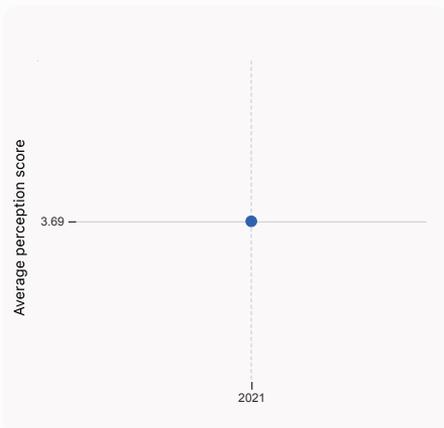
#### 2.3.4 QS university ranking, top 3

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



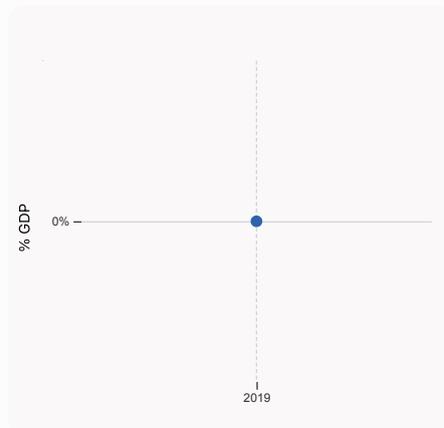
#### 3.1.1 ICT access

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.



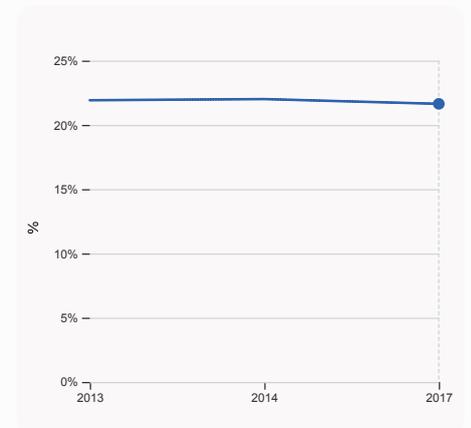
#### 4.1.1 Finance for startups and scaleups

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.



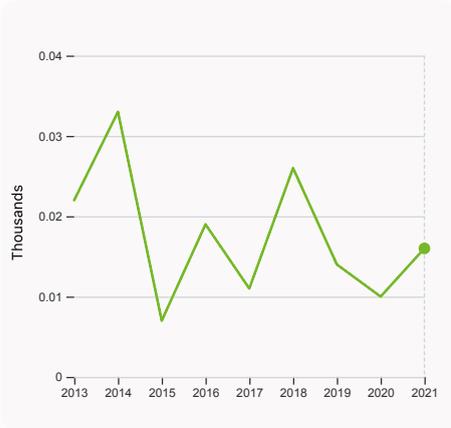
#### 5.1.1 Knowledge-intensive employment, %

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.

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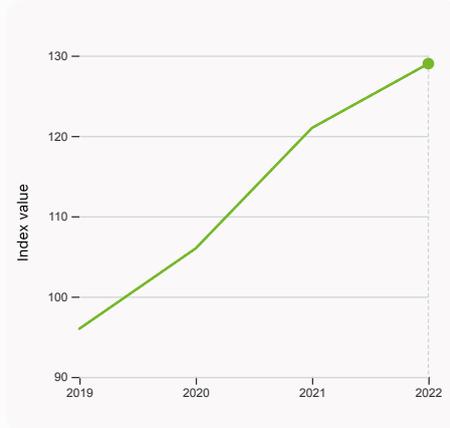


## > Innovation outputs in Jamaica



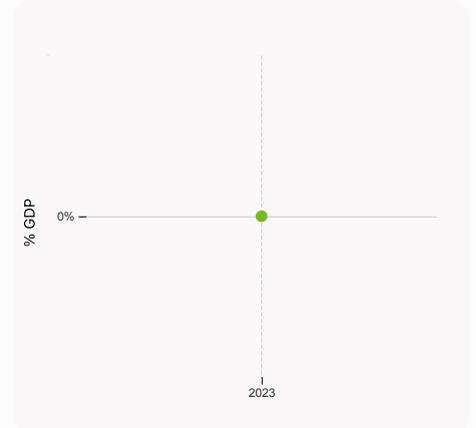
### 6.1.1 Patents by origin

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



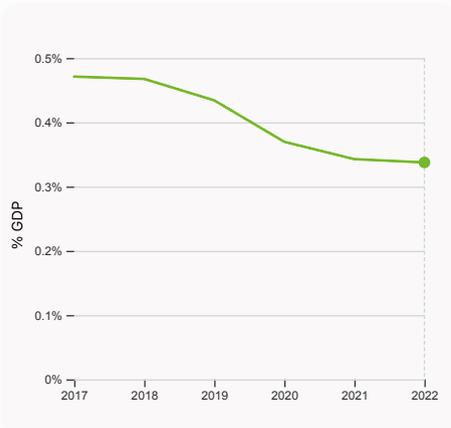
### 6.1.5 Citable documents H-index

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.



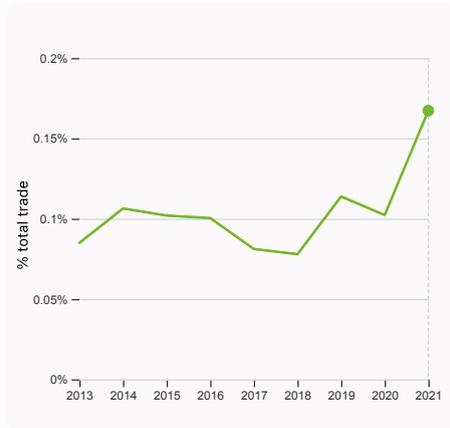
### 6.2.2 Unicorn valuation, % GDP

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



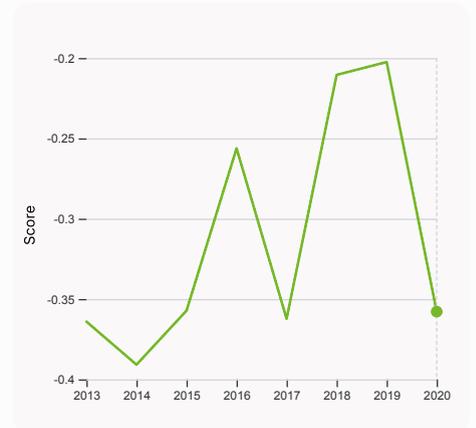
### 6.2.3 Software spending, % GDP

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

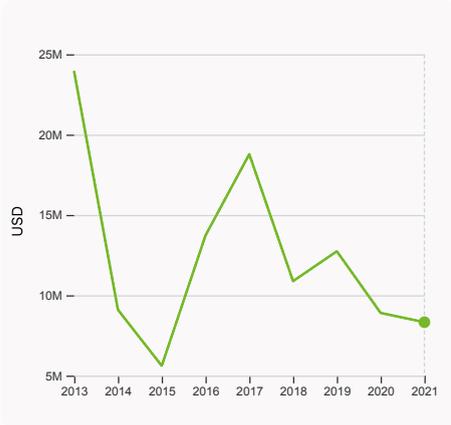
was equal to 0.167% total trade in 2021, up by 0.065 percentage points from the year prior – and equivalent to an indicator rank of 51.



### 6.3.2 Production and export complexity

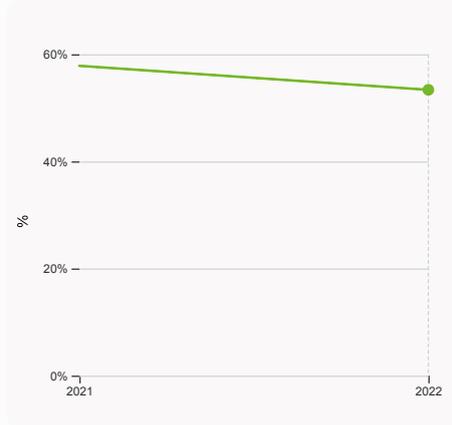
was equal to a score of -0.358 in 2020, down by 76.73% from the year prior – and equivalent to an indicator rank of 82.

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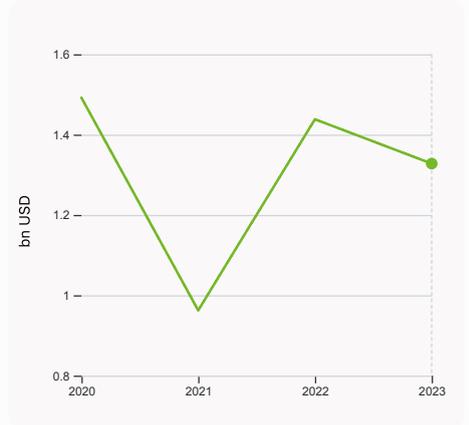
## 6.3.3 High-tech exports

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.



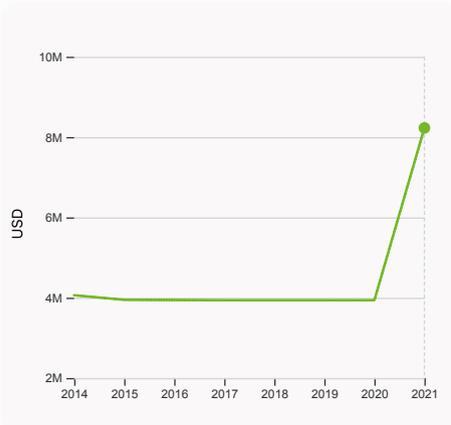
## 7.1.1 Intangible asset intensity, top 15, %

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.



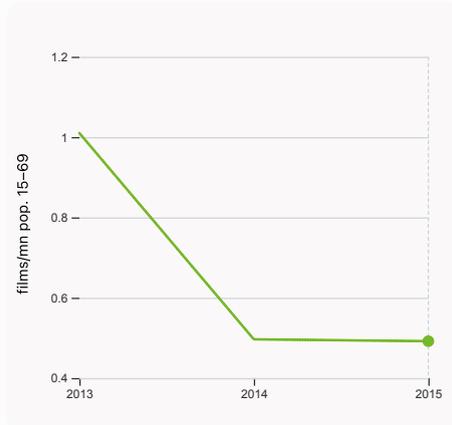
## 7.1.3 Global brand value, top 5,000

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.



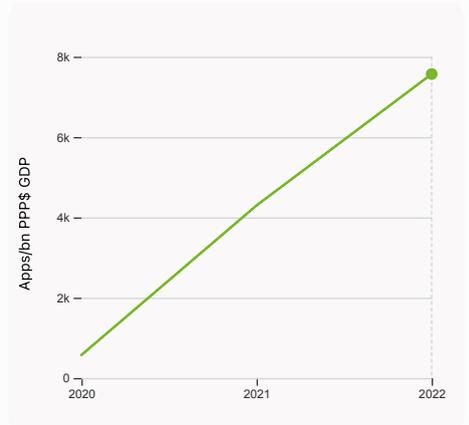
## 7.2.1 Cultural and creative services exports

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

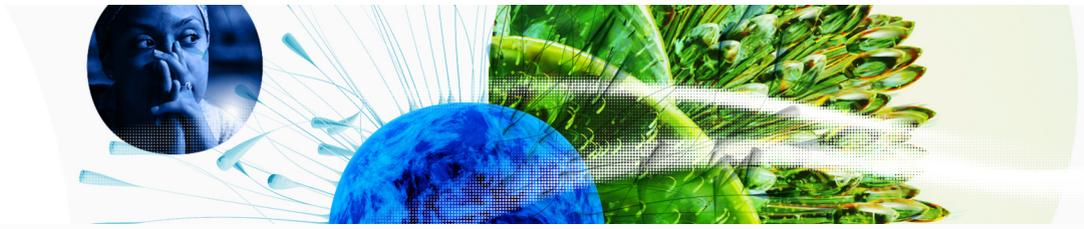
was equal to 0.492 films/mn pop. 15-69 in 2015, down by 0.94% from the year prior – and equivalent to an indicator rank of 71.



## 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.

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## → 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

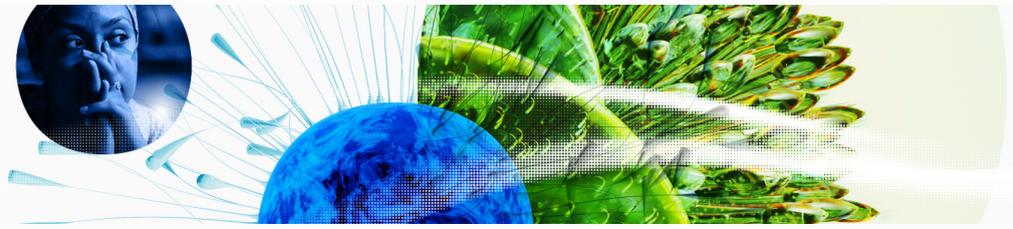
Source: Brand Finance (<https://brandirectory.com/reports/gift-2022>).  
Note: Brand Finance only provides within economy ranks.

### > 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.

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GII 2023 rank

78

## Jamaica

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			
<b>Institutions</b>		55.2	53	<b>Business sophistication</b>		27.7 69
<b>1.1 Institutional environment</b>		54.6	46 ◆	<b>5.1 Knowledge workers</b>		21.9 [92]
1.1.1 Operational stability for businesses*		61.1	43	5.1.1 Knowledge-intensive employment, %		● 21.6 71
1.1.2 Government effectiveness*		48.2	48	5.1.2 Firms offering formal training, %		n/a n/a
<b>1.2 Regulatory environment</b>		64.6	61	5.1.3 GERD performed by business, % GDP		n/a n/a
1.2.1 Regulatory quality*		47.2	59	5.1.4 GERD financed by business, %		n/a n/a
1.2.2 Rule of law*		34.8	73	5.1.5 Females employed w/advanced degrees, %		● 4.1 96 ◇
1.2.3 Cost of redundancy dismissal		14.0	53	<b>5.2 Innovation linkages</b>		24.7 56
<b>1.3 Business environment</b>		46.5	63	5.2.1 University-industry R&D collaboration+		● 42.6 69
1.3.1 Policies for doing business*		● 55.2	51	5.2.2 State of cluster development*		● 37.6 81
1.3.2 Entrepreneurship policies and culture*		● 37.8	51	5.2.3 GERD financed by abroad, % GDP		n/a n/a
<b>Human capital and research</b>		23.1	[91]	5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP		0.1 27 ●◆
<b>2.1 Education</b>		53.9	[59]	5.2.5 Patent families/bn PPP\$ GDP		0.0 95 ○◇
2.1.1 Expenditure on education, % GDP		● 5.2	33 ●◆	<b>5.3 Knowledge absorption</b>		36.4 53
2.1.2 Government funding/pupil, secondary, % GDP/cap		27.3	12 ●◆	5.3.1 Intellectual property payments, % total trade		1.1 35
2.1.3 School life expectancy, years		n/a	n/a	5.3.2 High-tech imports, % total trade		5.3 109
2.1.4 PISA scales in reading, maths and science		n/a	n/a	5.3.3 ICT services imports, % total trade		2.1 33 ●◆
2.1.5 Pupil-teacher ratio, secondary		18.2	93	5.3.4 FDI net inflows, % GDP		2.8 56
<b>2.2 Tertiary education</b>		15.5	[101]	5.3.5 Research talent, % in businesses		n/a n/a
2.2.1 Tertiary enrolment, % gross		● 27.1	90 ◇	<b>Knowledge and technology outputs</b>		14.7 92
2.2.2 Graduates in science and engineering, %		n/a	n/a	<b>6.1 Knowledge creation</b>		6.3 104
2.2.3 Tertiary inbound mobility, %		n/a	n/a	6.1.1 Patents by origin/bn PPP\$ GDP		0.5 78
<b>2.3 Research and development (R&amp;D)</b>		0.0	[119]	6.1.2 PCT patents by origin/bn PPP\$ GDP		0.1 72
2.3.1 Researchers, FTE/mn pop.		n/a	n/a	6.1.3 Utility models by origin/bn PPP\$ GDP		n/a n/a
2.3.2 Gross expenditure on R&D, % GDP		n/a	n/a	6.1.4 Scientific and technical articles/bn PPP\$ GDP		n/a n/a
2.3.3 Global corporate R&D investors, top 3, mn US\$		0.0	40 ○◇	6.1.5 Citable documents H-index		4.8 105
2.3.4 QS university ranking, top 3*		0.0	71 ○◇	<b>6.2 Knowledge impact</b>		19.7 107
<b>Infrastructure</b>		31.3	91 ◇	6.2.1 Labor productivity growth, %		-1.9 125 ○◇
<b>3.1 Information and communication technologies (ICTs)</b>		52.6	95 ◇	6.2.2 Unicorn valuation, % GDP		0.0 48 ○◇
3.1.1 ICT access*		78.4	78	6.2.3 Software spending, % GDP		0.3 29 ●◆
3.1.2 ICT use*		61.6	89	6.2.4 High-tech manufacturing, %		n/a n/a
3.1.3 Government's online service*		43.8	101 ◇	<b>6.3 Knowledge diffusion</b>		18.0 81
3.1.4 E-participation*		26.7	106 ○◇	6.3.1 Intellectual property receipts, % total trade		0.1 51
<b>3.2 General infrastructure</b>		16.6	103	6.3.2 Production and export complexity		45.0 82
3.2.1 Electricity output, GWh/mn pop.		● 1,459.0	92 ◇	6.3.3 High-tech exports, % total trade		0.1 114 ○◇
3.2.2 Logistics performance*		18.2	89 ○◇	6.3.4 ICT services exports, % total trade		4.6 21 ●◆
3.2.3 Gross capital formation, % GDP		26.7	39	6.3.5 ISO 9001 quality/bn PPP\$ GDP		1.2 101
<b>3.3 Ecological sustainability</b>		24.6	64	<b>Creative outputs</b>		29.8 54
3.3.1 GDP/unit of energy use		10.8	59	<b>7.1 Intangible assets</b>		51.8 22 ●◆
3.3.2 Environmental performance*		45.3	56	7.1.1 Intangible asset intensity, top 15, %		53.4 45
3.3.3 ISO 14001 environment/bn PPP\$ GDP		0.5	85	7.1.2 Trademarks by origin/bn PPP\$ GDP		86.4 18 ●◆
<b>Market sophistication</b>		22.0	109 ◇	7.1.3 Global brand value, top 5,000		8.1 25 ●◆
<b>4.1 Credit</b>		25.7	76	7.1.4 Industrial designs by origin/bn PPP\$ GDP		3.2 33 ●◆
4.1.1 Finance for startups and scaleups*		● 31.3	69	<b>7.2 Creative goods and services</b>		2.1 103 ◇
4.1.2 Domestic credit to private sector, % GDP		56.3	64	7.2.1 Cultural and creative services exports, % total trade		0.1 77
4.1.3 Loans from microfinance institutions, % GDP		n/a	n/a	7.2.2 National feature films/mn pop. 15-69		● 0.5 71
<b>4.2 Investment</b>		17.3	[43]	7.2.3 Entertainment and media market/th pop. 15-69		n/a n/a
4.2.1 Market capitalization, % GDP		87.0	20 ●◆	7.2.4 Creative goods exports, % total trade		0.1 109
4.2.2 Venture capital (VC) investors, deals/bn PPP\$ GDP		0.0	73	<b>7.3 Online creativity</b>		13.5 104
4.2.3 VC recipients, deals/bn PPP\$ GDP		n/a	n/a	7.3.1 Generic top-level domains (TLDs)/th pop. 15-69		1.9 87
4.2.4 VC received, value, % GDP		n/a	n/a	7.3.2 Country-code TLDs/th pop. 15-69		1.1 88
<b>4.3 Trade, diversification, and market scale</b>		23.1	123 ○◇	7.3.3 GitHub commits/mn pop. 15-69		3.1 89
4.3.1 Applied tariff rate, weighted avg., %		8.4	107 ◇	7.3.4 Mobile app creation/bn PPP\$ GDP		47.8 103 ◇
4.3.2 Domestic industry diversification		n/a	n/a			
4.3.3 Domestic market scale, bn PPP\$		32.8	122 ○			

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.



## → Data availability

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

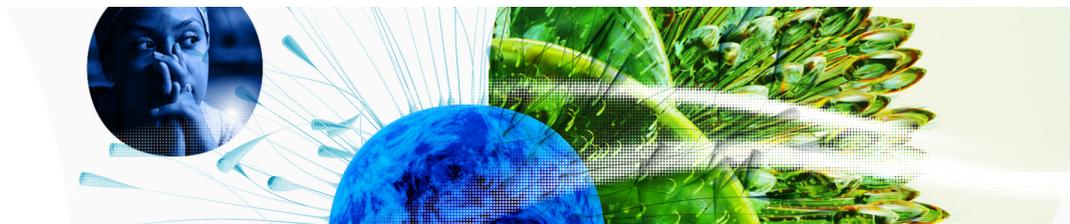


> Jamaica has missing data for eighteen indicators and outdated data for eleven indicators.

## > 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



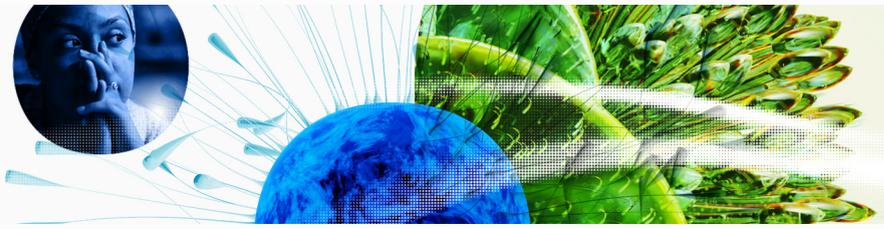
Code	Indicator name	Economy Year	Model Year	Source
6.2.4	High-tech manufacturing, %	n/a	2020	United Nations Industrial Development Organization
7.2.3	Entertainment and media market/th pop. 15-69	n/a	2022	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund



## > Outdated data for Jamaica

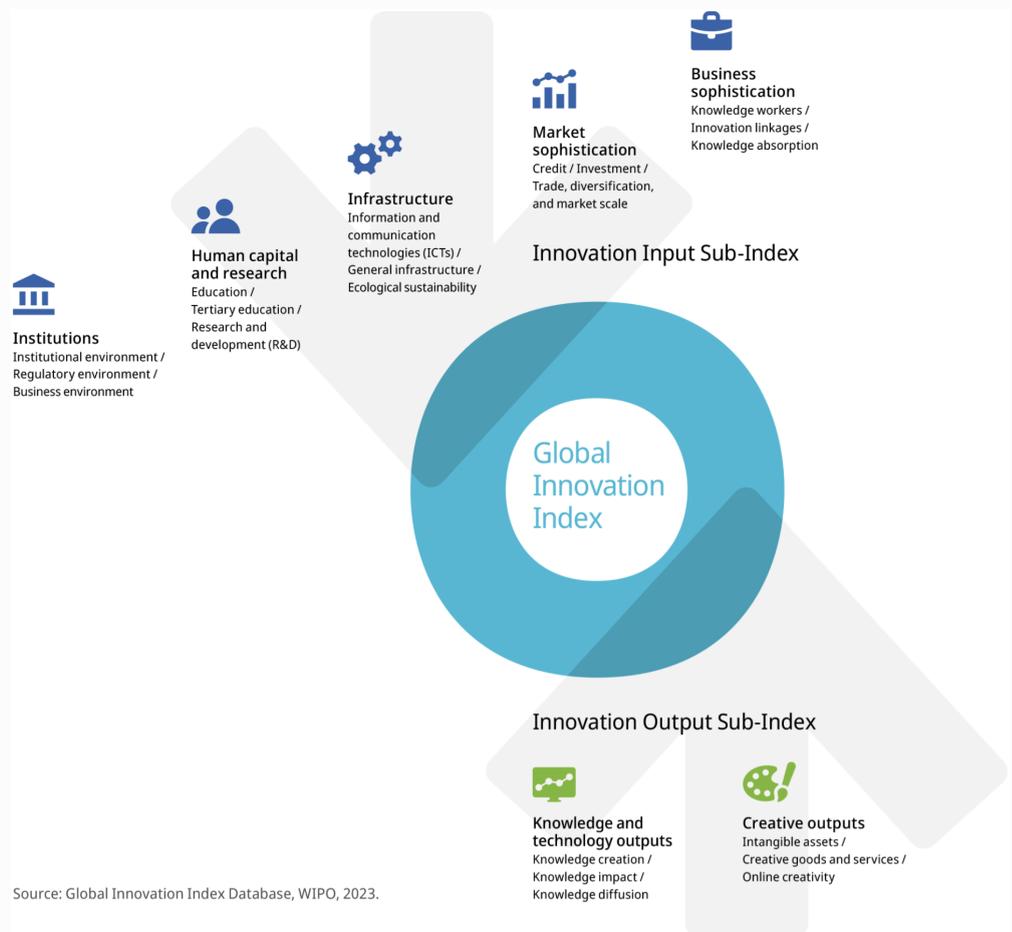
Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policies for doing business	2019	2022	World Economic Forum, Executive Opinion Survey (EOS)
1.3.2	Entrepreneurship policies and culture	2021	2022	Global Entrepreneurship Monitor
2.1.1	Expenditure on education, % GDP	2019	2021	UNESCO Institute for 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.



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.