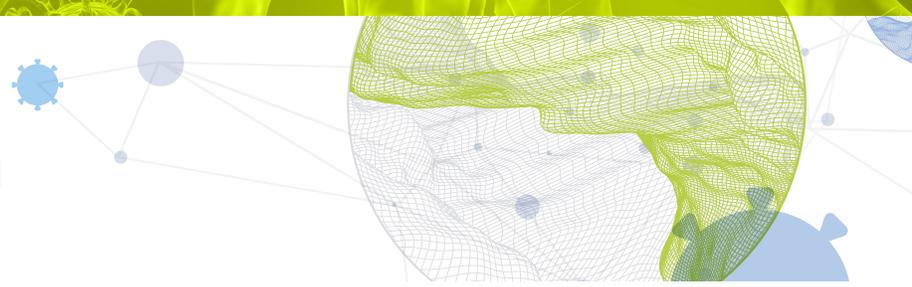




Global Innovation Index 2021



JAMAICA

74th

Jamaica ranks 74th 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 Jamaica 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 Jamaica in the GII 2021 is between ranks 68 and 76.

Rankings for Jamaica (2019–2021)

	GII	Innovation inputs	Innovation outputs
2021	74	82	66
2020	72	86	62
2019	81	84	69

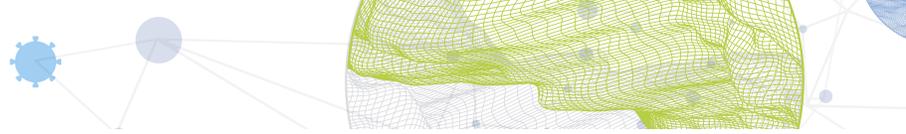
- Jamaica performs better in innovation outputs than innovation inputs in 2021.
- This year Jamaica ranks 82nd in innovation inputs, higher than both 2020 and 2019.
- As for innovation outputs, Jamaica ranks 66th. This position is lower than last year but higher than 2019.

21st

Jamaica ranks 21st among the 34 upper middle-income group economies.

9th

Jamaica ranks 9th among the 18 economies in Latin America and the Caribbean.

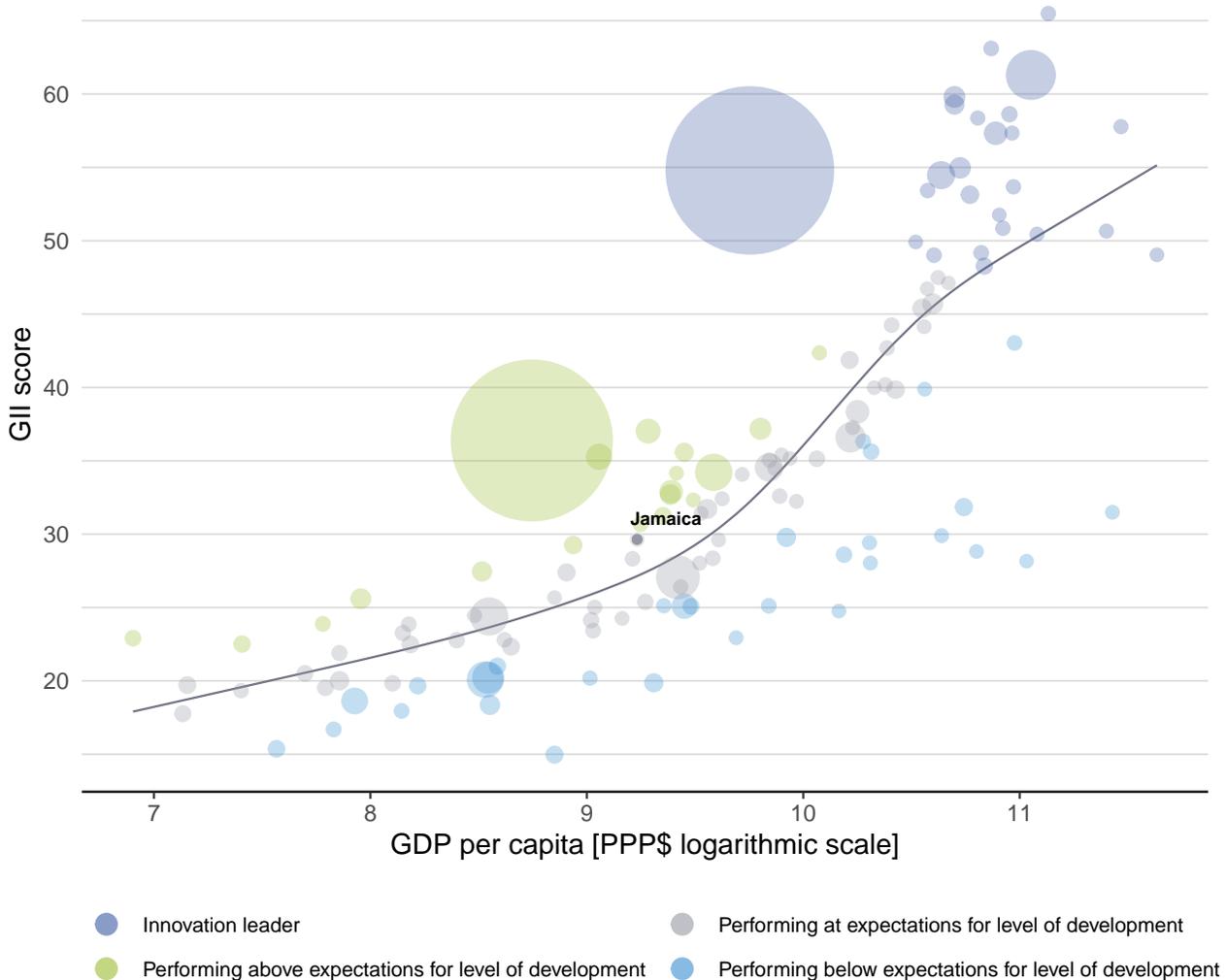


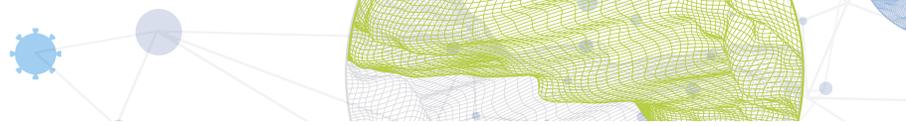
EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

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's performance is at expectations for its level of development.

The positive relationship between innovation and development



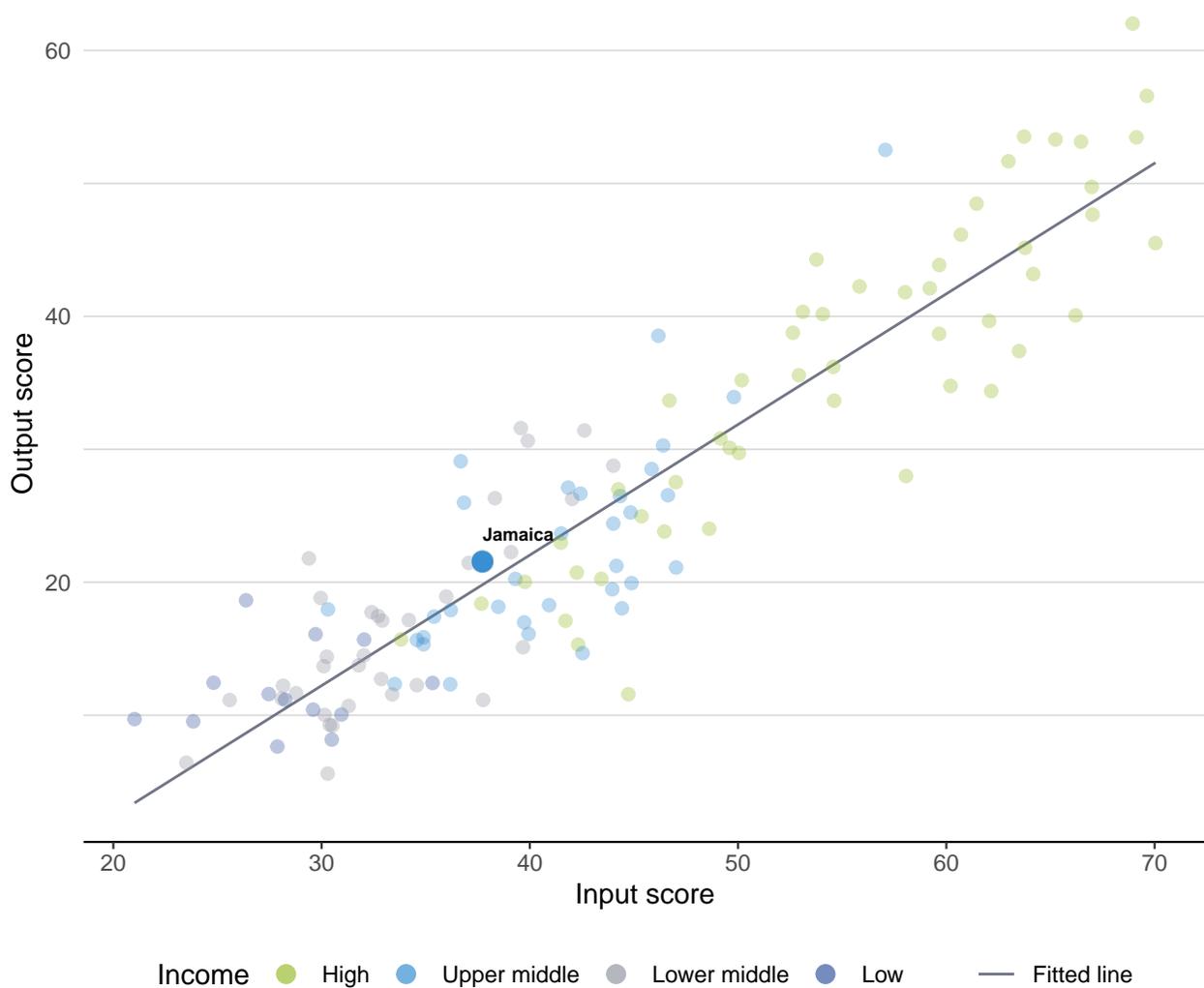


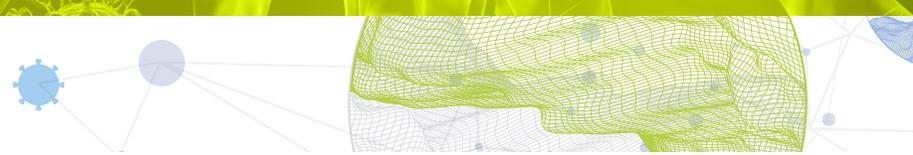
EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

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

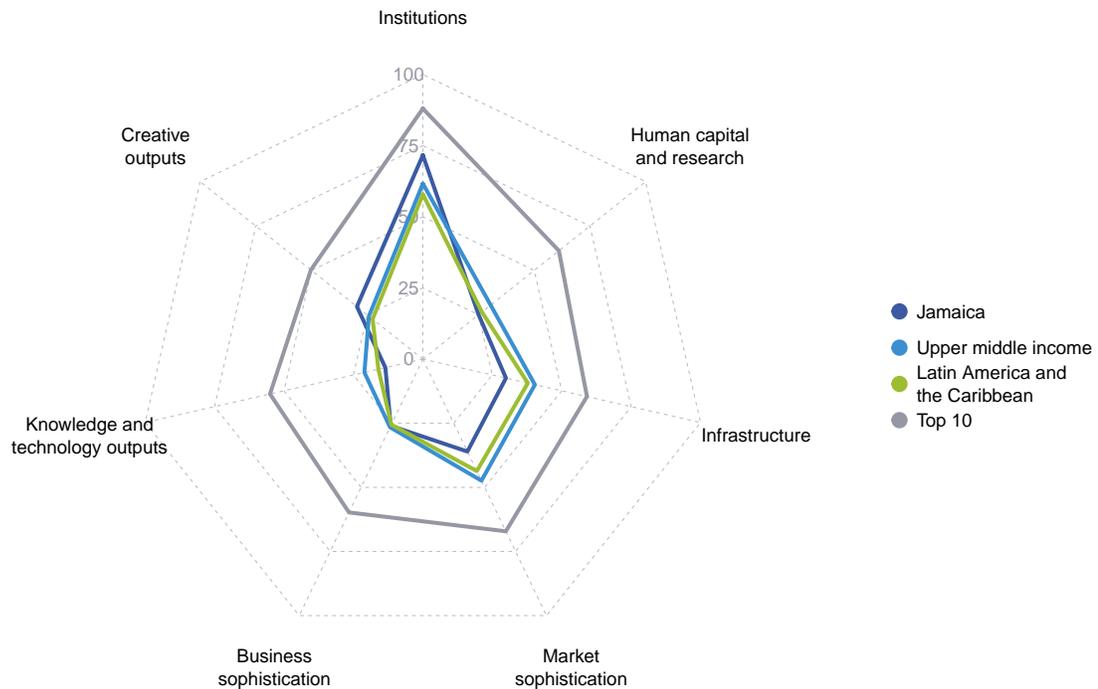
Innovation input to output performance





BENCHMARKING AGAINST OTHER UPPER MIDDLE-INCOME GROUP ECONOMIES AND LATIN AMERICA AND THE CARIBBEAN

The seven GII pillar scores for Jamaica

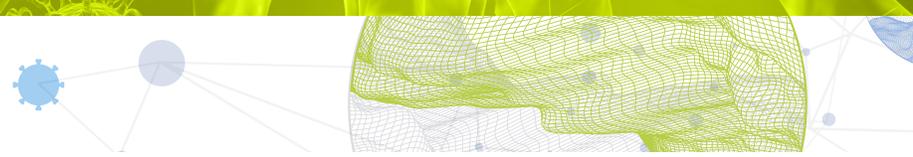


Upper middle-income group economies

Jamaica performs above the upper middle-income group average in two pillars, namely: Institutions; and, Creative outputs.

Latin America and the Caribbean

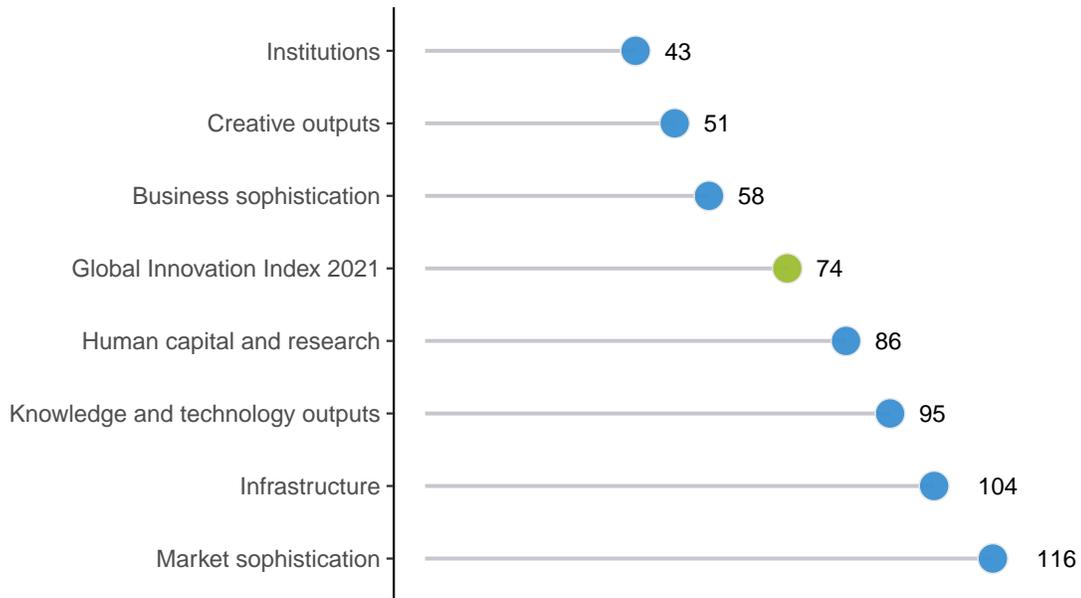
Jamaica performs above the regional average in three pillars, namely: Institutions; Business sophistication; and, Creative outputs.



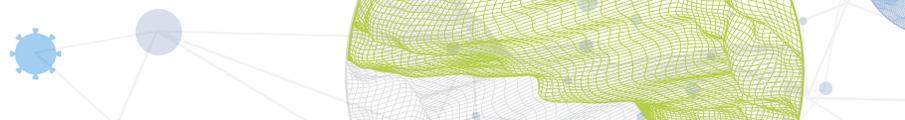
OVERVIEW OF RANKINGS IN THE SEVEN GII 2021 AREAS

Jamaica performs best in Institutions and its weakest performance is in Market sophistication.

The seven GII pillar ranks for Jamaica



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 Jamaica in the GII 2021.

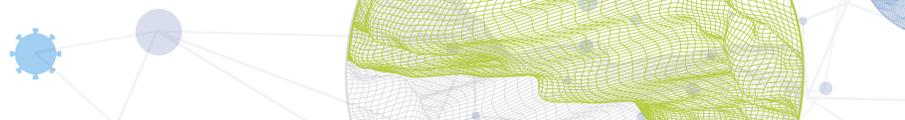
Strengths and weaknesses for Jamaica

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.3	Business environment	23	2.3.3	Global corporate R&D investors, top 3, mn US\$	41
1.3.1	Ease of starting a business	6	2.3.4	QS university ranking, top 3	74
1.3.2	Ease of resolving insolvency	32	3.1.3	Government's online service	118
2.1.2	Government funding/pupil, secondary, % GDP/cap	10	3.1.4	E-participation	116
4.1.1	Ease of getting credit	14	3.2	General infrastructure	113
4.2.2	Market capitalization, % GDP	13	3.2.2	Logistics performance	106
5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	24	4.3	Trade, diversification, and market scale	129
5.3.4	FDI net inflows, % GDP	21	4.3.1	Applied tariff rate, weighted avg., %	120
6.2.3	Software spending, % GDP	23	4.3.3	Domestic market scale, bn PPP\$	124
7.1	Intangible assets	20	5.2.5	Patent families/bn PPP\$ GDP	100
7.1.1	Trademarks by origin/bn PPP\$ GDP	9	5.3.2	High-tech imports, % total trade	115
7.1.3	Industrial designs by origin/bn PPP\$ GDP	21	6.2.1	Labor productivity growth, %	111
			6.3.3	High-tech exports, % total trade	111

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$	GII 2020 rank
66	82	Upper middle	LCN	3.0	27.9	10,221	72

	Score/Value	Rank		Score/Value	Rank
 Institutions	71.6	43	 Business sophistication	26.0	58
1.1 Political environment	65.5	46	5.1 Knowledge workers	29.6	[70]
1.1.1 Political and operational stability*	73.2	44	5.1.1 Knowledge-intensive employment, %	21.6	74
1.1.2 Government effectiveness*	61.7	44	5.1.2 Firms offering formal training, %	25.9	61
1.2 Regulatory environment	65.7	63	5.1.3 GERD performed by business, % GDP	n/a	n/a
1.2.1 Regulatory quality*	47.9	60	5.1.4 GERD financed by business, %	n/a	n/a
1.2.2 Rule of law*	38.5	79	5.1.5 Females employed w/advanced degrees, %	n/a	n/a
1.2.3 Cost of redundancy dismissal	14.0	52	5.2 Innovation linkages	26.7	41
1.3 Business environment	83.7	23	5.2.1 University-industry R&D collaboration†	44.8	55
1.3.1 Ease of starting a business*	97.4	6	5.2.2 State of cluster development and depth†	46.5	64
1.3.2 Ease of resolving insolvency*	70.1	32	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	24
			5.2.5 Patent families/bn PPP\$ GDP	0.0	100
 Human capital and research	25.0	[86]	5.3 Knowledge absorption	21.7	81
2.1 Education	56.5	[45]	5.3.1 Intellectual property payments, % total trade	0.8	57
2.1.1 Expenditure on education, % GDP	5.2	33	5.3.2 High-tech imports, % total trade	4.2	115
2.1.2 Government funding/pupil, secondary, % GDP/cap	28.6	10	5.3.3 ICT services imports, % total trade	1.2	64
2.1.3 School life expectancy, years	n/a	n/a	5.3.4 FDI net inflows, % GDP	5.0	21
2.1.4 PISA scales in reading, maths and science	n/a	n/a	5.3.5 Research talent, % in businesses	n/a	n/a
2.1.5 Pupil-teacher ratio, secondary	15.7	77	 Knowledge and technology outputs	13.5	95
2.2 Tertiary education	18.5	[100]	6.1 Knowledge creation	5.9	[103]
2.2.1 Tertiary enrolment, % gross	27.1	89	6.1.1 Patents by origin/bn PPP\$ GDP	0.5	81
2.2.2 Graduates in science and engineering, %	n/a	n/a	6.1.2 PCT patents by origin/bn PPP\$ GDP	n/a	n/a
2.2.3 Tertiary inbound mobility, %	n/a	n/a	6.1.3 Utility models by origin/bn PPP\$ GDP	n/a	n/a
2.3 Research and development (R&D)	0.0	[123]	6.1.4 Scientific and technical articles/bn PPP\$ GDP	6.2	105
2.3.1 Researchers, FTE/mn pop.	n/a	n/a	6.1.5 Citable documents H-index	5.2	103
2.3.2 Gross expenditure on R&D, % GDP	n/a	n/a	6.2 Knowledge impact	23.2	89
2.3.3 Global corporate R&D investors, top 3, mn US\$	0.0	41	6.2.1 Labor productivity growth, %	-2.8	111
2.3.4 QS university ranking, top 3*	0.0	74	6.2.2 New businesses/th pop. 15-64	1.6	64
 Infrastructure	29.9	104	6.2.3 Software spending, % GDP	0.4	23
3.1 Information and communication technologies (ICTs)	43.6	102	6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	1.4	101
3.1.1 ICT access*	56.0	83	6.2.5 High-tech manufacturing, %	n/a	n/a
3.1.2 ICT use*	42.8	96	6.3 Knowledge diffusion	11.4	89
3.1.3 Government's online service*	38.8	118	6.3.1 Intellectual property receipts, % total trade	0.1	64
3.1.4 E-participation*	36.9	116	6.3.2 Production and export complexity	30.5	91
3.2 General infrastructure	19.2	113	6.3.3 High-tech exports, % total trade	0.2	111
3.2.1 Electricity output, GWh/mn pop.	1,499.8	91	6.3.4 ICT services exports, % total trade	2.0	55
3.2.2 Logistics performance*	21.9	106	 Creative outputs	29.6	51
3.2.3 Gross capital formation, % GDP	21.2	78	7.1 Intangible assets	50.1	20
3.3 Ecological sustainability	27.0	72	7.1.1 Trademarks by origin/bn PPP\$ GDP	97.6	9
3.3.1 GDP/unit of energy use	9.2	79	7.1.2 Global brand value, top 5,000, % GDP	67.6	29
3.3.2 Environmental performance*	48.2	60	7.1.3 Industrial designs by origin/bn PPP\$ GDP	6.8	21
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	1.7	52	7.1.4 ICTs and organizational model creation†	55.2	60
 Market sophistication	36.0	116	7.2 Creative goods and services	1.4	[124]
4.1 Credit	40.9	65	7.2.1 Cultural and creative services exports, % total trade	0.1	92
4.1.1 Ease of getting credit*	85.0	14	7.2.2 National feature films/mn pop. 15-69	n/a	n/a
4.1.2 Domestic credit to private sector, % GDP	41.3	81	7.2.3 Entertainment and media market/th pop. 15-69	n/a	n/a
4.1.3 Microfinance gross loans, % GDP	0.2	52	7.2.4 Printing and other media, % manufacturing	n/a	n/a
4.2 Investment	32.8	57	7.2.5 Creative goods exports, % total trade	0.1	96
4.2.1 Ease of protecting minority investors*	62.0	60	7.3 Online creativity	16.9	68
4.2.2 Market capitalization, % GDP	95.8	13	7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	1.8	81
4.2.3 Venture capital investors, deals/bn PPP\$ GDP	0.1	27	7.3.2 Country-code TLDs/th pop. 15-69	1.0	85
4.2.4 Venture capital recipients, deals/bn PPP\$ GDP	0.0	38	7.3.3 Wikipedia edits/mn pop. 15-69	48.2	69
4.3 Trade, diversification, and market scale	34.4	129	7.3.4 Mobile app creation/bn PPP\$ GDP	n/a	n/a
4.3.1 Applied tariff rate, weighted avg., %	10.8	120			
4.3.2 Domestic industry diversification	n/a	n/a			
4.3.3 Domestic market scale, bn PPP\$	27.9	124			

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.

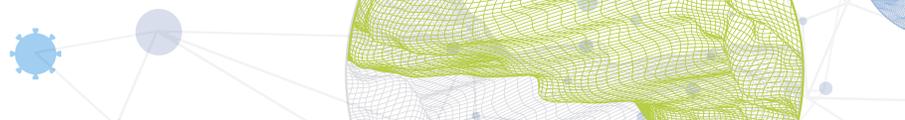


DATA AVAILABILITY

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

Missing data for Jamaica

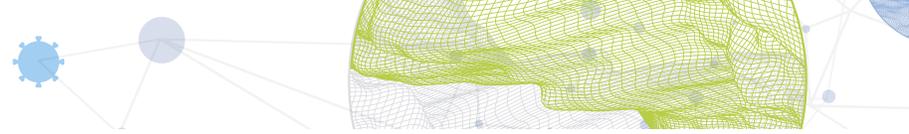
Code	Indicator name	Economy year	Model year	Source
2.1.3	School life expectancy, years	n/a	2018	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD Programme for International Student Assessment (PISA)
2.2.2	Graduates in science and engineering, %	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.2.3	Tertiary inbound mobility, %	n/a	2018	UNESCO Institute for Statistics
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
4.3.2	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
5.1.5	Females employed w/advanced degrees, %	n/a	2019	International Labour Organization
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
6.1.2	PCT patents by origin/bn PPP\$ GDP	n/a	2020	World Intellectual Property Organization
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2019	World Intellectual Property Organization



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

Outdated data for Jamaica

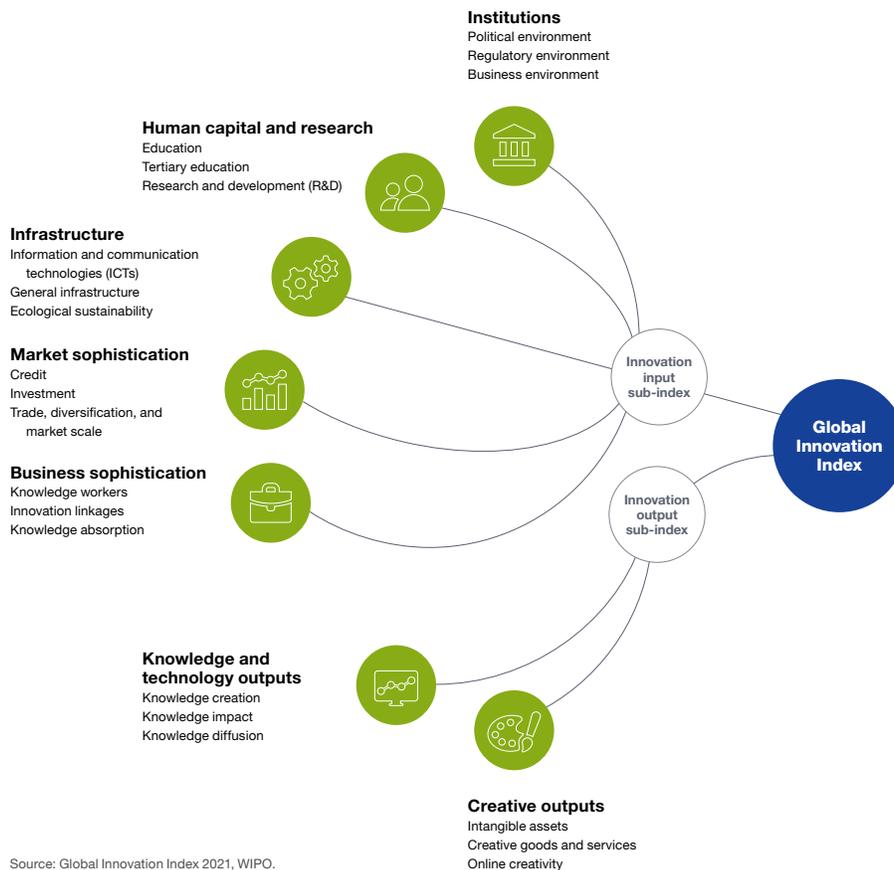
Code	Indicator name	Economy year	Model year	Source
2.2.1	Tertiary enrolment, % gross	2015	2018	UNESCO Institute for Statistics
4.2.4	Venture capital recipients, deals/bn PPP\$ GDP	2019	2020	Refinitiv Eikon
4.3.1	Applied tariff rate, weighted avg., %	2016	2019	World Bank
5.1.1	Knowledge-intensive employment, %	2017	2019	International Labour Organization
5.1.2	Firms offering formal training, %	2010	2019	World Bank
5.2.1	University-industry R&D collaboration	2019	2020	World Economic Forum
5.2.2	State of cluster development and depth	2019	2020	World Economic Forum



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.