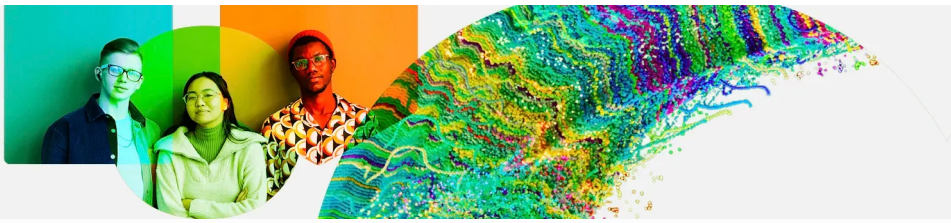
Global Innovation Index 2024



Barbados ranking in the Global Innovation Index 2024

Barbados ranks 77th among the 133 economies featured in the GII 2024.

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.

Barbados ranks 48th among the 51 high-income group economies.

Barbados ranks 9th among the 20 economies in Latin America and the Caribbean.

Barbados GII Ranking (2020-2024)

The table shows the rankings of Barbados 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 Barbados in the GII 2024 is between ranks 52 and 81.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	n/a	n/a	n/a
2021	n/a	n/a	n/a
2022	n/a	n/a	n/a
2023	n/a	n/a	n/a
2024	77th	77th	77th

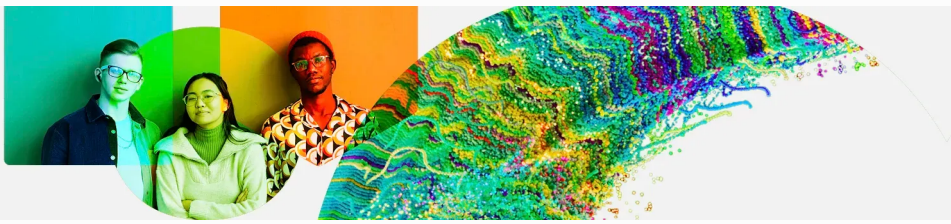
Barbados performs the same in innovation outputs as in innovation inputs in 2024.

This year Barbados ranks 77th in innovation inputs.

Barbados ranks 77th in innovation outputs.

Barbados has no clusters in the top 100 S&T clusters of the Global Innovation Index.

Global Innovation Index 2024



> Global Innovation Tracker

The Global Innovation Tracker 2024 shows what is the current state of innovation in Barbados, how rapidly is technology being embraced and what are the resulting societal impacts.

For Barbados, 3 indicators have improved in the short-term and 2 indicators have worsened.

Science and innovation investment

Scientific publications	R&D investments	Venture capital		International patent filings
		Deal numbers	Deal values	
▼ -23% 2022 - 2023	n/a	n/a	n/a	▲ 113.2% 2022 - 2023
▲ 1.3% 2013 - 2023	n/a	n/a	n/a	▼ -5.9% 2013 - 2023

Technology adoption

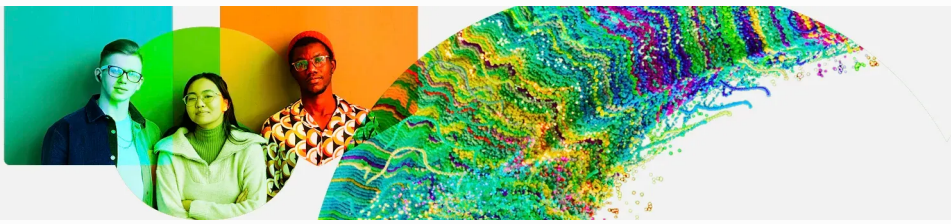
Safe sanitation	Connectivity		Robots	Electric vehicles
	Fixed broadband	5G		
n/a	▲ 3% 2021 - 2022	n/a	n/a	n/a
n/a	▲ 4.5% 2012 - 2022		n/a	n/a
n/a	37.6 per 100 inhabitants in 2022	n/a		n/a

Socioeconomic impact

Labor productivity	Life expectancy	Temperature change
n/a	▲ 0.2% 2021 - 2022	▲ 0.6°C 2022
n/a	▲ 0.2% 2012 - 2022	n/a
	77.7 years in 2022	

Notes: Not all indicators of the Global Innovation Tracker are used to calculate the Global Innovation Index. Long-term annual growth refers to the compound annual growth rate (CAGR) over the indicated period. For each variable, a one-year growth rate is set for the short run, and ten-year CAGR is set for the long run; time windows might differ when gaps exist in data availability. The end period corresponds to the most recent available observation, which may differ among countries. Temperature change is an exception: it indicates the change in degrees Celsius with respect to the average temperature in the country from 1951–1980. Figures are rounded.

Global Innovation Index 2024

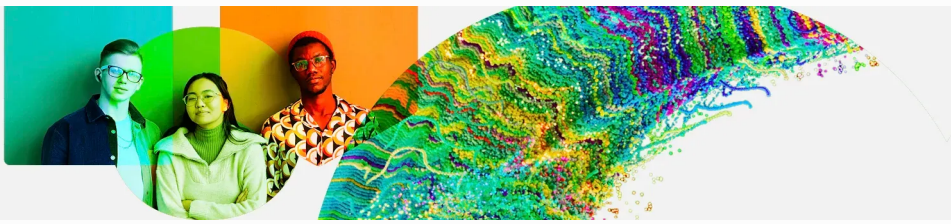


Expected vs. observed innovation performance

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

> Innovation overperformers relative to their economic development



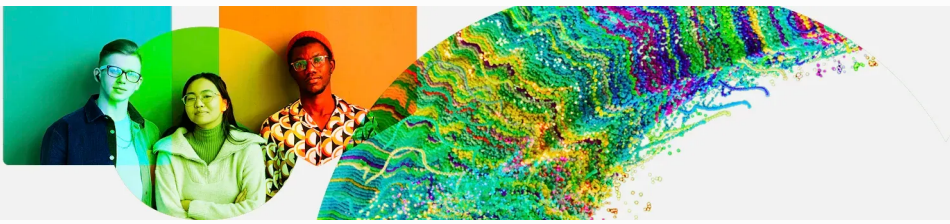
Effectively translating innovation investments into innovation outputs

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.

Barbados produces less innovation outputs relative to its level of innovation investments.

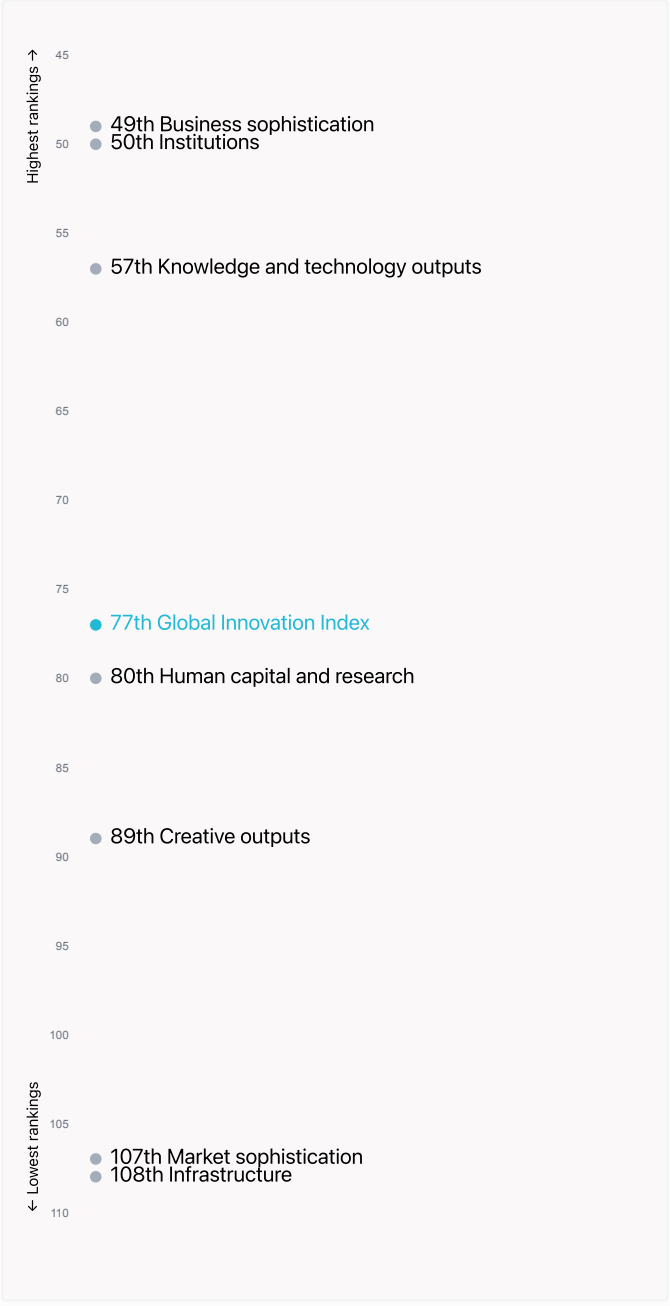
> Relationship between innovation inputs and outputs

Global Innovation Index 2024



Overview of Barbados's rankings in the seven areas of the GII in 2024

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Barbados are those that rank above the GII (shown in blue) and the weakest are those that rank below.



Highest rankings

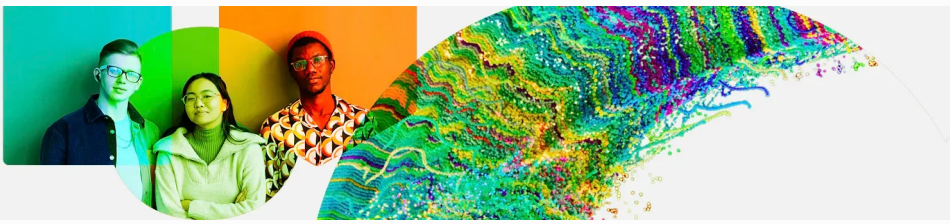
Barbados ranks highest in Business sophistication (49th), Institutions (50th) and Knowledge and technology outputs (57th).

Lowest rankings

Barbados ranks lowest in Infrastructure (108th), Market sophistication (107th) and Creative outputs (89th).

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

Global Innovation Index 2024



Benchmark of Barbados against other economy groupings for each of the seven areas of the GII Index

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

High-Income economies

Barbados performs below the high-income group average in all pillars.

Latin America And The Caribbean

Barbados performs above the regional average in Institutions, Human capital and research, Business sophistication, Knowledge and technology outputs.

Institutions

- Top 10 | Score: 80.81
- High income | Score: 67.41
- Barbados | Score: 55.08
- LCN | Score: 38.36

Human capital and research

- Top 10 | Score: 61.30
- High income | Score: 46.99
- Barbados | Score: 26.79
- LCN | Score: 26.04

Infrastructure

- Top 10 | Score: 58.57
- High income | Score: 51.96
- LCN | Score: 35.16
- Barbados | Score: 26.47

Market sophistication

- Top 10 | Score: 62.12
- High income | Score: 44.90
- LCN | Score: 27.03
- Barbados | Score: 20.74

Business sophistication

- Top 10 | Score: 63.64
- High income | Score: 44.71
- Barbados | Score: 31.07
- LCN | Score: 24.99

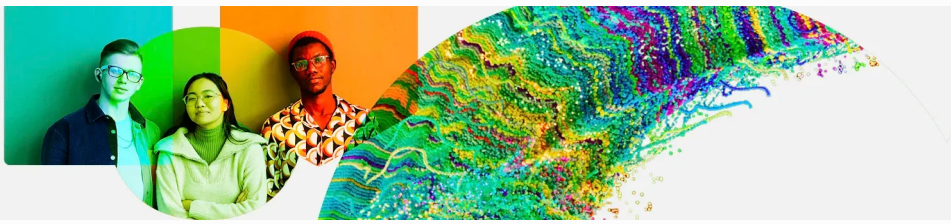
Knowledge and technology outputs

- Top 10 | Score: 57.29
- High income | Score: 35.79
- Barbados | Score: 23.04
- LCN | Score: 15.72

Creative outputs

- Top 10 | Score: 56.54
- High income | Score: 39.44
- LCN | Score: 19.36
- Barbados | Score: 17.11

Global Innovation Index 2024



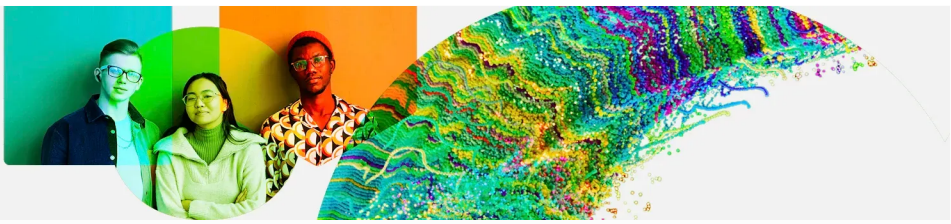
Innovation strengths and weaknesses in Barbados

The table below gives an overview of the indicator strengths and weaknesses of Barbados in the GII 2024.

Barbados's main innovation strengths are **Patent families/bn PPP$ GDP** (rank 1), **PCT patents by origin/bn PPP$ GDP** (rank 1) and **National feature films/mn pop. 15–69** (rank 3).

Strengths			Weaknesses		
Rank	Code	Indicator name	Rank	Code	Indicator name
1	5.2.5	Patent families/bn PPP$ GDP	133	4.3.3	Domestic market scale, bn PPP$
1	6.1.2	PCT patents by origin/bn PPP$ GDP	123	4.3.1	Applied tariff rate, weighted avg., %
3	7.2.2	National feature films/mn pop. 15–69	117	6.1.5	Citable documents H-index
4	6.1.1	Patents by origin/bn PPP$ GDP	114	5.2.2	University-industry R&D collaboration†
16	4.2.3	VC recipients, deals/bn PPP$ GDP	113	3.2.3	Gross capital formation, % GDP
18	5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	107	4.2.4	VC received, value, % GDP
26	5.3.4	FDI net inflows, % GDP	95	5.1.2	Firms offering formal training, %
26	6.3.1	Intellectual property receipts, % total trade	75	2.3.4	QS university ranking, top 3*
30	4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP	49	6.2.2	Unicorn valuation, % GDP
38	1.1.1	Operational stability for businesses*	41	2.3.3	Global corporate R&D investors, top 3, mn USD

Global Innovation Index 2024



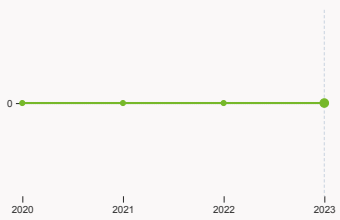
Barbados's innovation system

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

Innovation inputs in Barbados

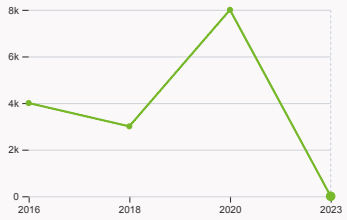
2.1.1 **Expenditure on education**

was equal to 5.13 % GDP in 2023, up by 0.62 percentage points from the year prior – and equivalent to an indicator rank of 40.



2.3.4 **QS university ranking**

was equal to an average score of 0 for the top three universities in 2023 with no change from the year prior – and equivalent to an indicator rank of 75.



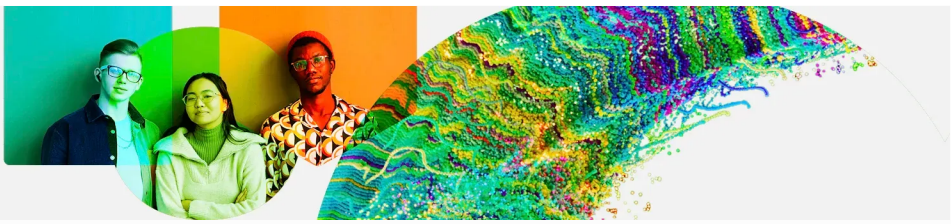
4.2.4 **VC received, value**

was equal to 0 USD in 2023, down by 100% from the year prior – and equivalent to an indicator rank of 107.

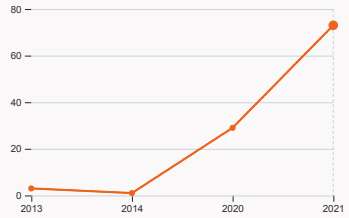
5.1.1 **Knowledge-intensive employment**

was equal to 28.6 % in 2019, down by 3.3 percentage points from the year prior – and equivalent to an indicator rank of 50.

Global Innovation Index 2024

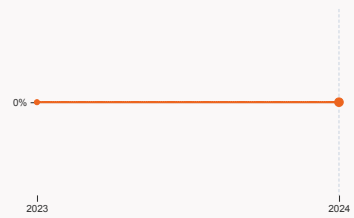


Innovation outputs in Barbados



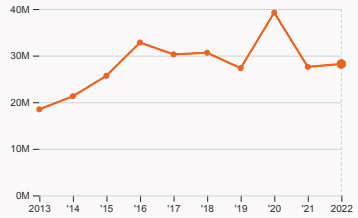
6.1.1 Patents by origin

was equal to 73 patents in 2021, up by 151.72% from the year prior – and equivalent to an indicator rank of 4.



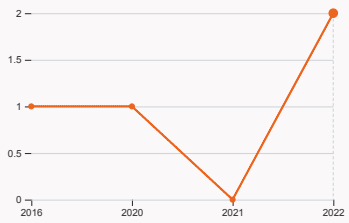
6.2.2 Unicorn valuation

was equal to 0 % GDP in 2024 with no change from the year prior – and equivalent to an indicator rank of 49.



6.3.3 High-tech exports

was equal to 28.2 million USD in 2022, up by 2.25% from the year prior – and equivalent to an indicator rank of 71.



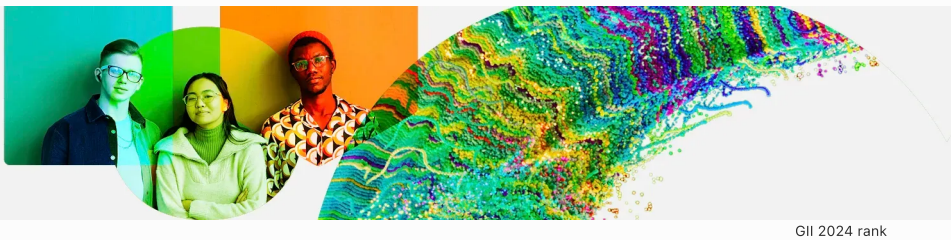
7.2.2 National feature films

was equal to 2 films in 2022, up by 200% from the year prior – and equivalent to an indicator rank of 3.

7.3.3 Mobile app creation

was equal to 11.09 thousand global downloads of mobile apps in 2023, down by 72.9% from the year prior – and equivalent to an indicator rank of 108.

Global Innovation Index 2024



Barbados

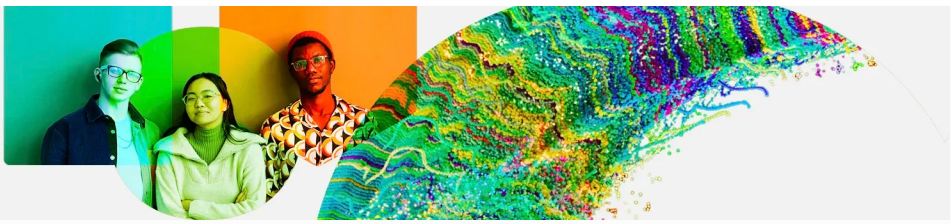
GII 2024 rank **77**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
77	77	High	LCN	0.2	5.4	18,738.3

	Score / Value	Rank	
Institutions	55.1	50	
1.1 Institutional environment	64.3	42	
1.1.1 Operational stability for businesses*	73.3	38	●◆
1.1.2 Government effectiveness*	55.2	51	◇
1.2 Regulatory environment	54.2	49	◇
1.2.1 Regulatory quality*	54.4	49	◇
1.2.2 Rule of law*	54.1	51	◇
1.3 Business environment	46.8	[64]	
1.3.1 Policy stability for doing business†	46.8	70	
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	26.8	[80]	
2.1 Education	53.6	[62]	
2.1.1 Expenditure on education, % GDP	5.1	40	
2.1.2 Government funding/pupil, secondary, % GDP/cap	21.7	40	
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	15.3	80	◇
2.2 Tertiary education	n/a	[n/a]	
2.2.1 Tertiary enrolment, % gross	n/a	n/a	
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	[120]	
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 USD	0	41	○◇
2.3.4 QS university ranking, top 3*	0	75	○◇
Infrastructure	26.5	108	◇
3.1 Information and communication technologies (ICTs)	60.1	88	◇
3.1.1 ICT access*	90.3	63	◇
3.1.2 ICT use*	62.5	95	◇
3.1.3 Government's online service*	49	93	◇
3.1.4 E-participation*	38.4	90	◇
3.2 General infrastructure	12.5	[120]	
3.2.1 Electricity output, GWh/mn pop.	n/a	n/a	
3.2.2 Logistics performance*	n/a	n/a	
3.2.3 Gross capital formation, % GDP	17.9	113	○◇
3.3 Ecological sustainability	6.9	119	○◇
3.3.1 GDP/unit of energy use	n/a	n/a	
3.3.2 Low-carbon energy use, %	3.7	110	
3.3.3 ISO 14001 environment/bn PPP$ GDP	1.2	66	
Market sophistication	20.7	107	◇
4.1 Credit	25.6	[69]	
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	73.8	39	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	21.6	38	
4.2.1 Market capitalization, % GDP	63.9	30	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	0.2	30	●◆
4.2.3 VC recipients, deals/bn PPP$ GDP	0.2	16	●◆
4.2.4 VC received, value, % GDP	0	107	○◇
4.3 Trade, diversification and market scale	15	127	○◇
4.3.1 Applied tariff rate, weighted avg., %	8.9	123	○◇
4.3.2 Domestic industry diversification	n/a	n/a	
4.3.3 Domestic market scale, bn PPP$	5.4	133	○◇

	Score / Value	Rank	
Business sophistication	31.1	49	
5.1 Knowledge workers	28.1	[78]	
5.1.1 Knowledge-intensive employment, %	28.6	50	◇
5.1.2 Firms offering formal training, %	9	95	○◇
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, %	10.7	70	◇
5.2 Innovation linkages	40	30	●◆
5.2.1 Public Research-Industry co-publications, %	1.1	83	◇
5.2.2 University-industry R&D collaboration†	22.5	114	○◇
5.2.3 State of cluster development†	29.6	107	◇
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.08	18	●◆
5.2.5 Patent families/bn PPP$ GDP	58.1	1	●◆
5.3 Knowledge absorption	25.1	72	
5.3.1 Intellectual property payments, % total trade	0.4	77	
5.3.2 High-tech imports, % total trade	6.2	93	
5.3.3 ICT services imports, % total trade	1.7	43	
5.3.4 FDI net inflows, % GDP	4.6	26	●◆
5.3.5 Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs	23	57	
6.1 Knowledge creation	50.4	13	●◆
6.1.1 Patents by origin/bn PPP$ GDP	17.1	4	●◆
6.1.2 PCT patents by origin/bn PPP$ GDP	14.9	1	●◆
6.1.3 Utility models by origin/bn PPP$ GDP	-	-	
6.1.4 Scientific and technical articles/bn PPP$ GDP	14.2	47	
6.1.5 Citable documents H-index	3.4	117	○◇
6.2 Knowledge impact	10.3	[130]	
6.2.1 Labor productivity growth, %	n/a	n/a	
6.2.2 Unicorn valuation, % GDP	0	49	○◇
6.2.3 Software spending, % GDP	0.2	71	
6.2.4 High-tech manufacturing, %	n/a	n/a	
6.3 Knowledge diffusion	8.5	101	◇
6.3.1 Intellectual property receipts, % total trade	0.6	26	●◆
6.3.2 Production and export complexity	n/a	n/a	
6.3.3 High-tech exports, % total trade	1.3	71	
6.3.4 ICT services exports, % total trade	0.4	106	
6.3.5 ISO 9001 quality/bn PPP$ GDP	2.6	82	◇
Creative outputs	17.1	89	◇
7.1 Intangible assets	8.9	[101]	
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP$ GDP	21.9	82	
7.1.3 Global brand value, top 5,000, % GDP	n/a	n/a	
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.2	99	
7.2 Creative goods and services	30.6	38	●◆
7.2.1 Cultural and creative services exports, % total trade	0.5	54	
7.2.2 National feature films/mn pop. 15–69	11.3	3	●◆
7.2.3 Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	0.7	55	
7.3 Online creativity	20.1	96	◇
7.3.1 Top-level domains (TLDs)/th pop. 15–69	7.8	46	
7.3.2 GitHub commits/mn pop. 15–69	5.9	71	◇
7.3.3 Mobile app creation/bn PPP$ GDP	46.6	108	◇

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question, ◔ that the economy's data is outdated. Square brackets [ ] indicate the the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level; n/a represents missing values; a dash - indicates an indicator which is not relevant to this economy and thus not considered for DMC thresholds.



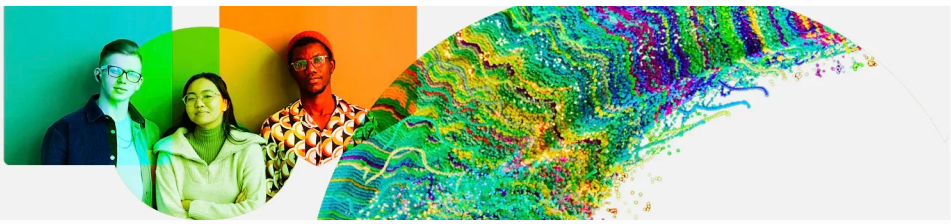
Data availability

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

Barbados has missing data for twenty four indicators and outdated data for ten indicators.

Missing data for Barbados

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture†	n/a	2023	Global Entrepreneurship Monitor
2.1.3	School life expectancy, years	n/a	2022	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
2.2.1	Tertiary enrolment, % gross	n/a	2022	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	n/a	2022	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.1	Electricity output, GWh/mn pop.	n/a	2022	International Energy Agency
3.2.2	Logistics performance*	n/a	2023	World Bank, Logistics Performance Index 2023 (https://lpi.worldbank.org/); and World Bank 2023, Connecting to Compete 2023: Trade Logistics in the Global Economy The Logistics Performance Index and its Indicators.
3.3.1	GDP/unit of energy use	n/a	2021	International Energy Agency
4.1.1	Finance for startups and scaleups†	n/a	2023	Global Entrepreneurship Monitor
4.1.3	Loans from microfinance institutions, % GDP	n/a	2022	International Monetary Fund, Financial Access Survey (FAS)
4.3.2	Domestic industry diversification	n/a	2021	United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database (INDSTAT) Rev.3 and 4
5.1.3	GERD performed by business, % GDP	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT

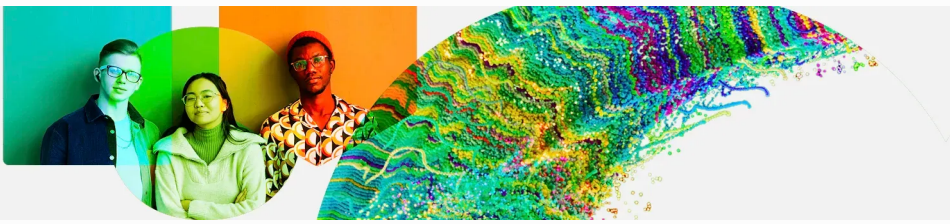


Code	Indicator name	Economy Year	Model Year	Source
	business, %			
5.3.5	Research talent, % in businesses	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2022	World Intellectual Property Organization; International Monetary Fund
6.2.1	Labor productivity growth, %	n/a	2023	The Conference Board
6.2.4	High-tech manufacturing, %	n/a	2021	United Nations Industrial Development Organization
6.3.2	Production and export complexity	n/a	2021	Harvard University, Growth Lab
7.1.1	Intangible asset intensity, top 15, %	n/a	2023	Brand Finance
7.1.3	Global brand value, top 5,000, % GDP	n/a	2024	Brand Finance; International Monetary Fund
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2023	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

Outdated data for Barbados

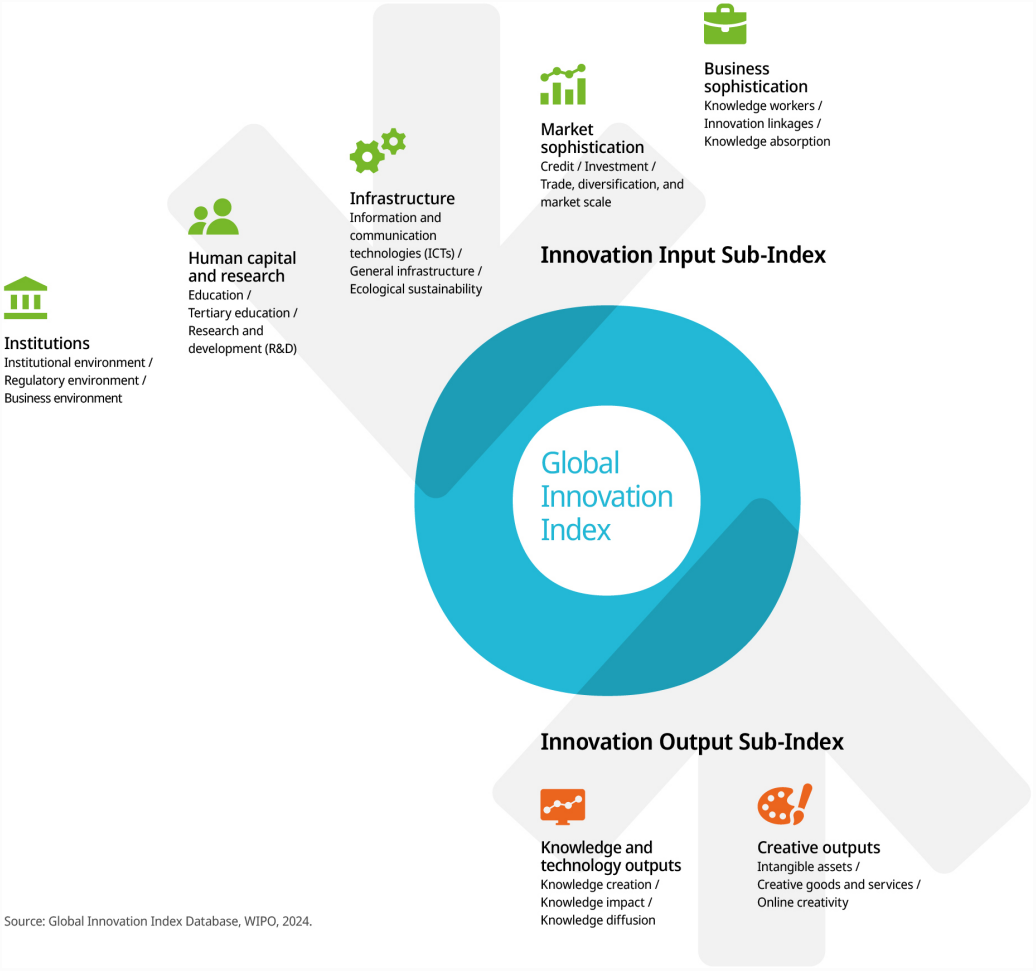
Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policy stability for doing business[†]	2022	2023	World Economic Forum, Executive Opinion Survey (EOS)
4.2.1	Market capitalization, % GDP	2020	2022	World Federation of Exchanges; World Bank
4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP	2018	2023	LSEG Data & Analytics; International Monetary Fund
5.1.1	Knowledge-intensive employment, %	2019	2022	International Labour Organization
5.1.5	Females employed w/advanced degrees, %	2019	2023	International Labour Organization
5.2.2	University-industry R&D collaboration[†]	2022	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.3	State of cluster development[†]	2022	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	2020	2023	LSEG Data & Analytics; International Monetary Fund
6.1.1	Patents by origin/bn PPP$ GDP	2021	2022	World Intellectual Property Organization; International Monetary Fund
7.1.4	Industrial designs by origin/bn PPP$ GDP	2017	2022	World Intellectual Property Organization; International Monetary Fund

Global Innovation Index 2024



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, 2024.

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.