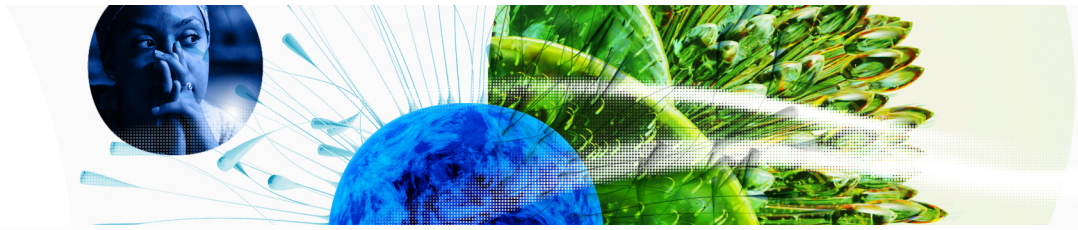
Global Innovation Index 2023



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**.

Dominican Republic ranking in the Global Innovation Index 2023

> Dominican Republic ranks 94th among the 132 economies featured in the GII 2023.

> Dominican Republic ranks 29th among the 33 upper-middle-income group economies.

> Dominican Republic ranks 11th among the 19 economies in Latin America and the Caribbean.

> Dominican Republic GII Ranking (2020-2023)

The table shows the rankings of Dominican Republic 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 Dominican Republic in the GII 2023 is between ranks 90 and 95.

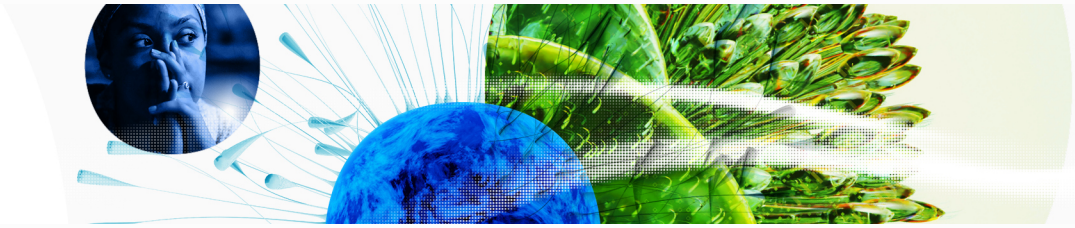
	GII Position	Innovation Inputs	Innovation Outputs
2020	90th	94th	85th
2021	93rd	93rd	98th
2022	90th	90th	92nd
2023	94th	89th	96th

Dominican Republic performs worse in innovation outputs than innovation inputs in 2023.

This year **Dominican Republic ranks 89th in innovation inputs.** This position is higher than last year.

Dominican Republic ranks 96th in innovation outputs. This position is lower than last year.

Global Innovation Index 2023



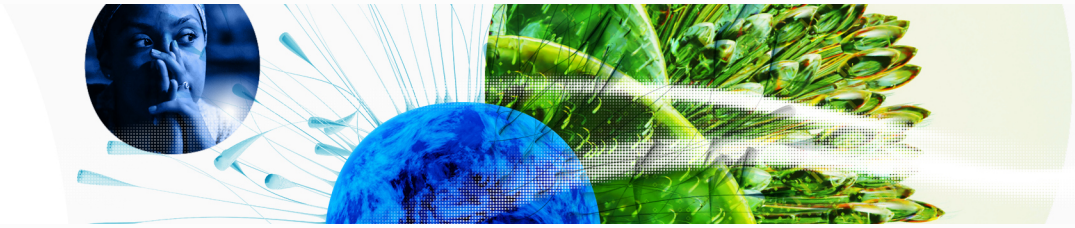
→ Expected vs. observed innovation performance

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, Dominican Republic's performance is below expectations for its level of development.

> Innovation overperformers relative to their economic development

Global Innovation Index 2023

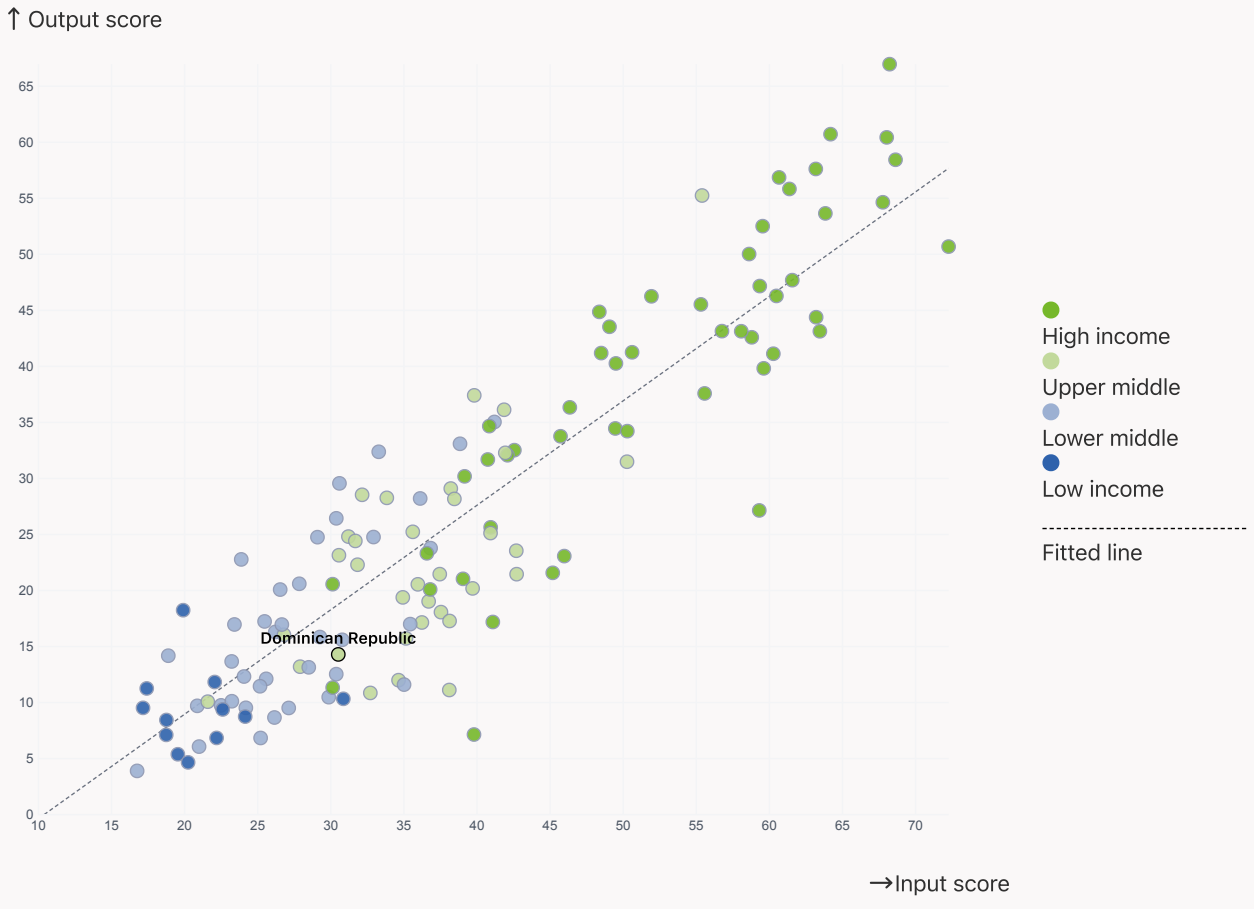


→ Effectively translating innovation investments into innovation outputs

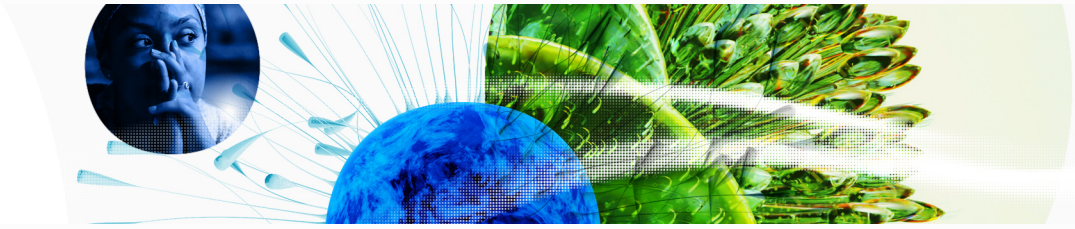
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

> Dominican Republic produces less innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

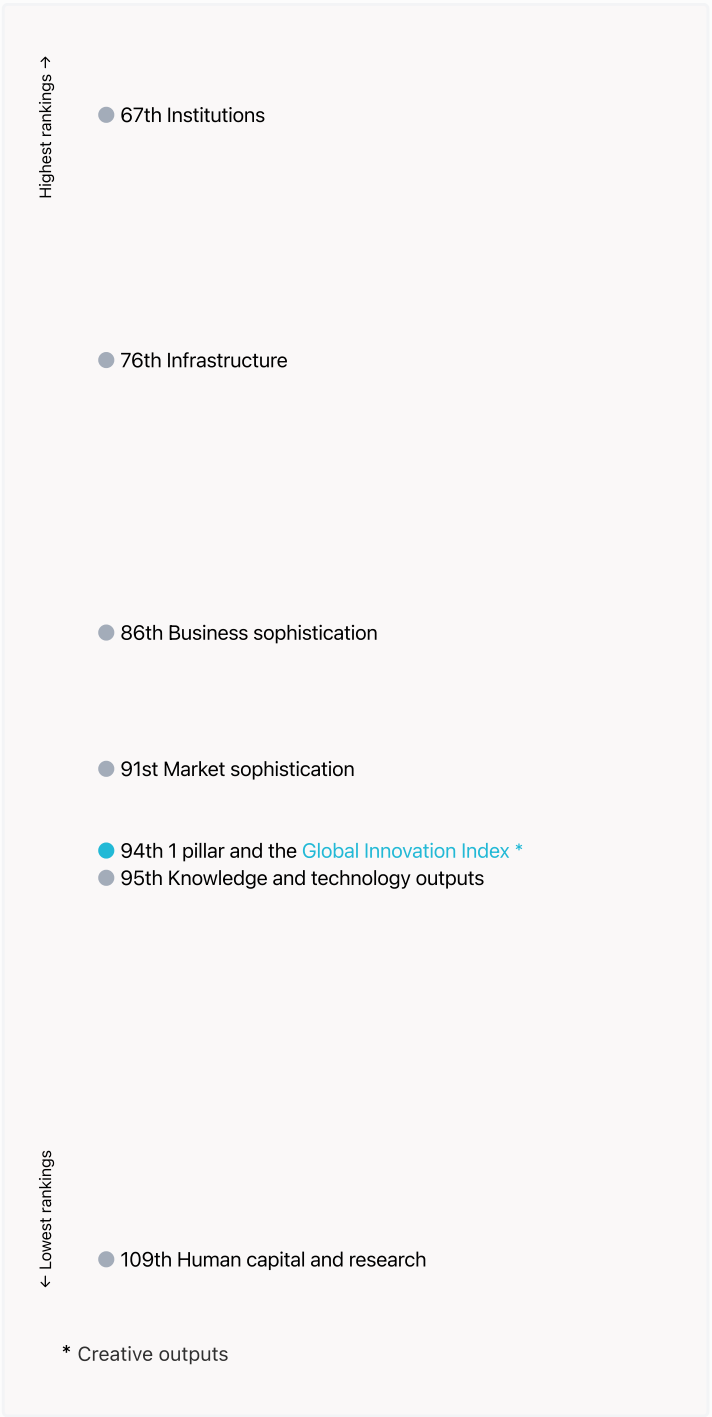


Global Innovation Index 2023



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



> Highest rankings

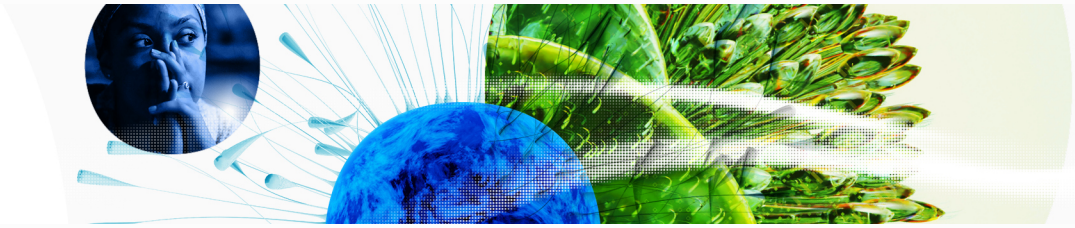
Dominican Republic ranks highest in Institutions (67th), Infrastructure (76th), Business sophistication (86th), Market sophistication (91st) and Creative outputs (94th).

> Lowest rankings

Dominican Republic ranks lowest in Human capital and research (109th), Knowledge and technology outputs (95th) and Creative outputs, GII Index (94th).

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

Global Innovation Index 2023



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

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

> Upper-Middle-Income economies

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

> Latin America And The Caribbean

Dominican Republic performs below the regional average in Knowledge and technology outputs, Creative outputs, Business sophistication, Market sophistication, Human capital and research.

Knowledge and technology outputs

- Top 10 | Score: 58.96
- Upper middle income | Score: 22.36
- LCN | Score: 17.14
- Dominican Republic | Score: 14.36

Creative outputs

- Top 10 | 56.09
- Upper middle income | 23.16
- LCN | 18.91
- Dominican Republic | 14.12

Business sophistication

- Top 10 | 64.39
- Upper middle income | 29.27
- LCN | 26.15
- Dominican Republic | 23.70

Market sophistication

- Top 10 | 61.93
- Upper middle income | 35.45
- LCN | 29.74
- Dominican Republic | 25.30

Human capital and research

- Top 10 | 60.28
- Upper middle income | 29.68
- LCN | 24.92
- Dominican Republic | 17.46

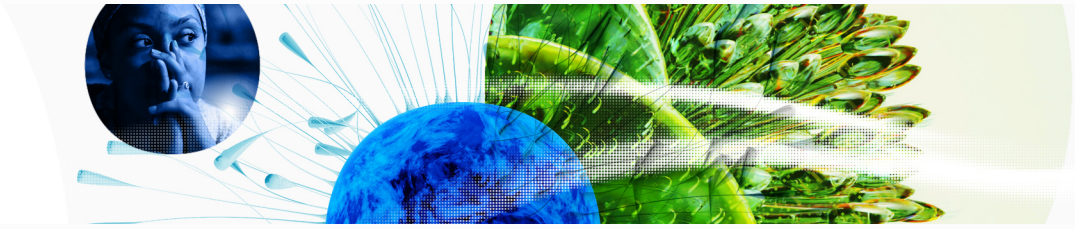
Infrastructure

- Top 10 | 62.83
- Upper middle income | 40.40
- Dominican Republic | 37.00
- LCN | 35.88

Institutions

- Top 10 | 79.85
- Dominican Republic | 49.32
- Upper middle income | 47.71
- LCN | 41.12

Global Innovation Index 2023



→ Innovation strengths and weaknesses in Dominican Republic

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

> Dominican Republic's main innovation strengths are **GDP/unit of energy use** (rank 7), **Labor productivity growth, %** (rank 16) and **Gross capital formation, % GDP** (rank 20).

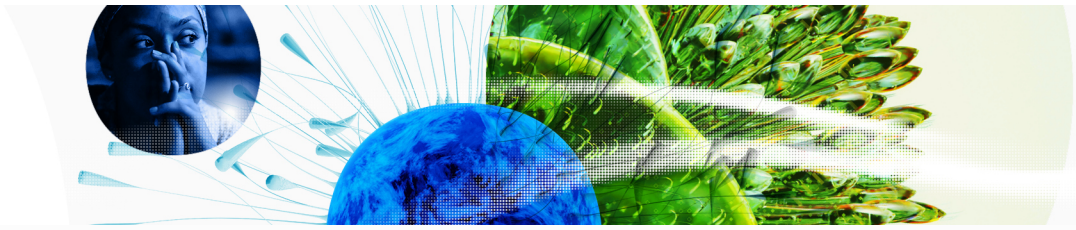
Strengths

Rank	Code	Indicator name
7	3.3.1	GDP/unit of energy use
16	6.2.1	Labor productivity growth, %
20	3.2.3	Gross capital formation, % GDP
21	7.2.4	Creative goods exports, % total trade
41	1.3.1	Policies for doing business
42	5.3.4	FDI net inflows, % GDP
52	5.3.2	High-tech imports, % total trade
53	6.3.3	High-tech exports, % total trade
53	2.2.1	Tertiary enrolment, % gross
53	7.1.2	Trademarks by origin/bn PPP$ GDP
55	1.1.1	Operational stability for businesses

Weaknesses

Rank	Code	Indicator name
130	6.1.4	Scientific and technical articles/bn PPP$ GDP
126	6.1.1	Patents by origin/bn PPP$ GDP
123	5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP
119	7.1.4	Industrial designs by origin/bn PPP$ GDP
114	6.3.1	Intellectual property receipts, % total trade
83	4.1.1	Finance for startups and scaleups
79	2.1.4	PISA scales in reading, maths and science
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$

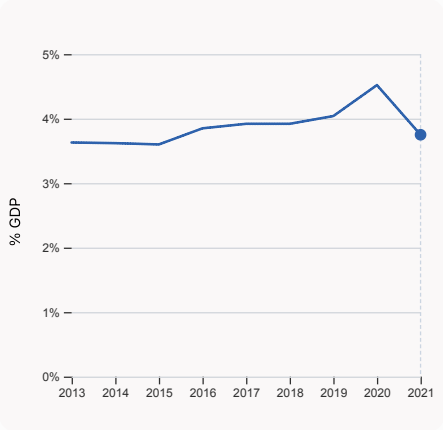
Global Innovation Index 2023



→ Dominican Republic's innovation system

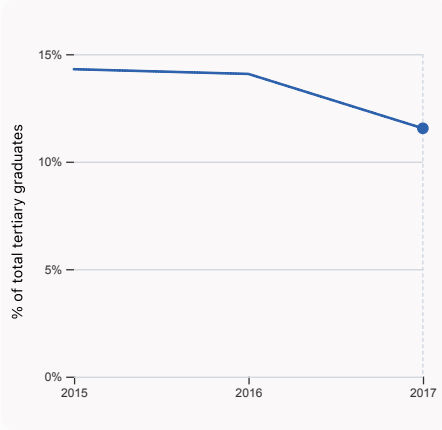
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Dominican Republic



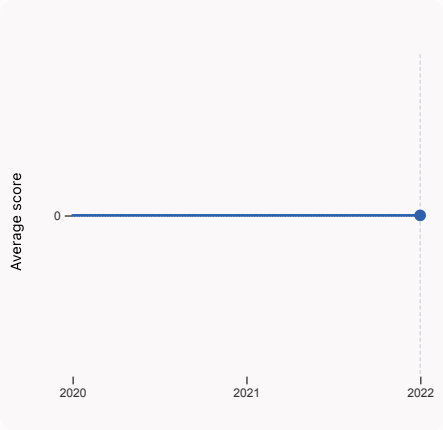
2.1.1 Expenditure on education, % GDP

was equal to 3.75% GDP in 2021, down by 0.77 percentage points from the year prior – and equivalent to an indicator rank of 80.



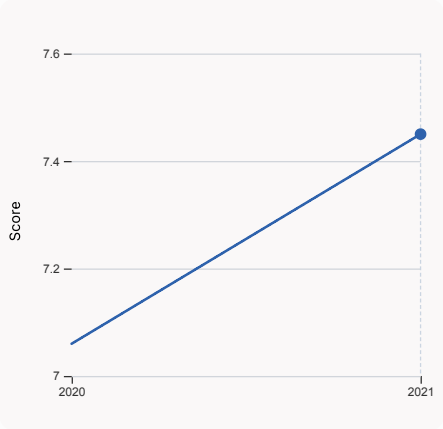
2.2.2 Graduates in science and engineering, %

was equal to 11.55% of total tertiary graduates in 2017, down by 2.53 percentage points from the year prior – and equivalent to an indicator rank of 106.



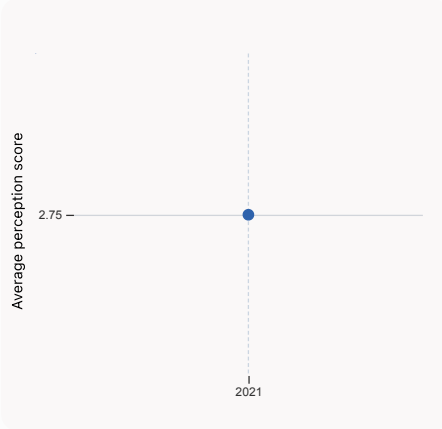
2.3.4 QS university ranking, top 3

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



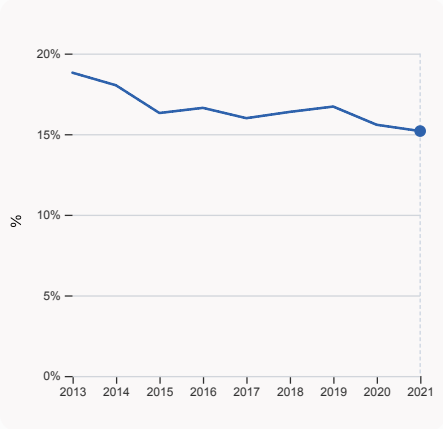
3.1.1 ICT access

was equal to a score of 7.45 in 2021, up by 5.52% from the year prior – and equivalent to an indicator rank of 97.



4.1.1 Finance for startups and scaleups

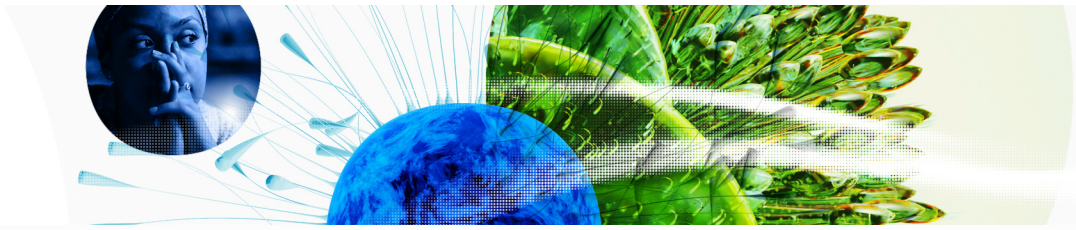
was equal to an average perception score of 2.75 in 2021, equivalent to an indicator rank of 83.



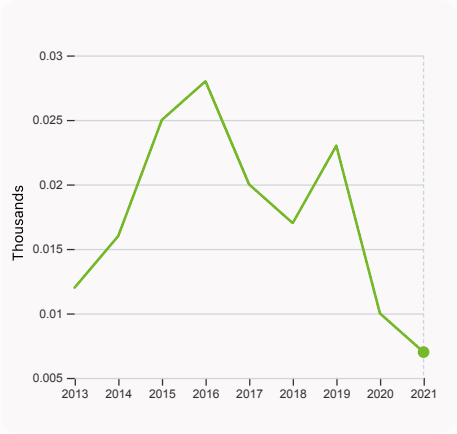
5.1.1 Knowledge-intensive employment, %

was equal to 15.19% in 2021, down by 0.39 percentage points from the year prior – and equivalent to an indicator rank of 88.

Global Innovation Index 2023

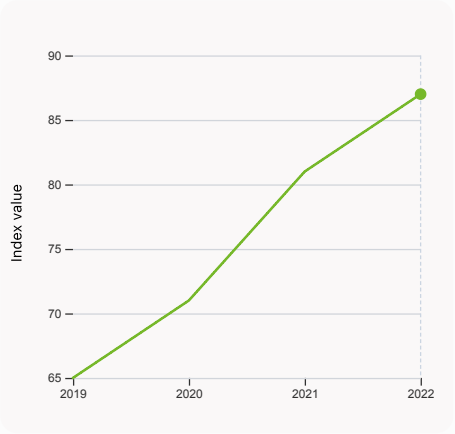


> Innovation outputs in Dominican Republic



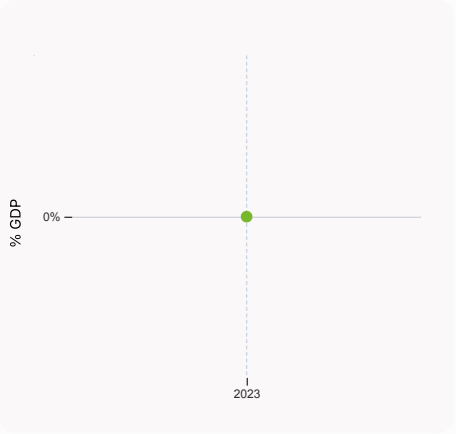
6.1.1 Patents by origin

was equal to 0.007 Thousands in 2021, down by 30% from the year prior – and equivalent to an indicator rank of 126.



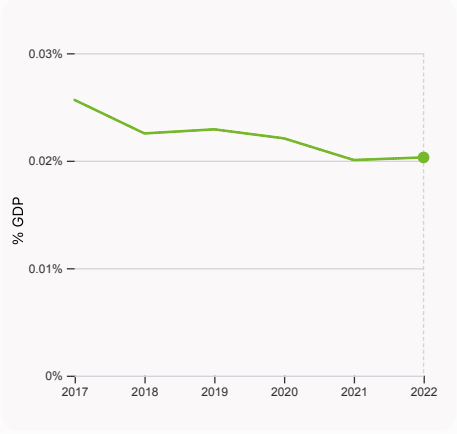
6.1.5 Citable documents H-index

was equal to an index value of 87 in 2022, up by 7.41% from the year prior – and equivalent to an indicator rank of 123.



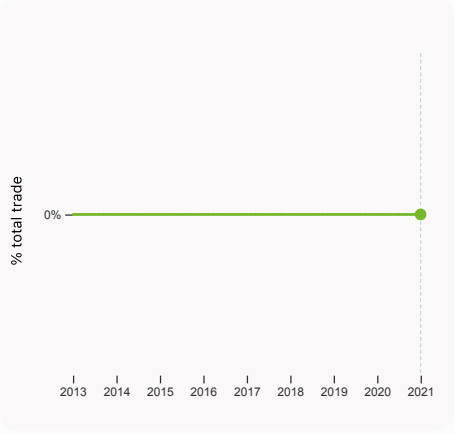
6.2.2 Unicorn valuation, % GDP

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



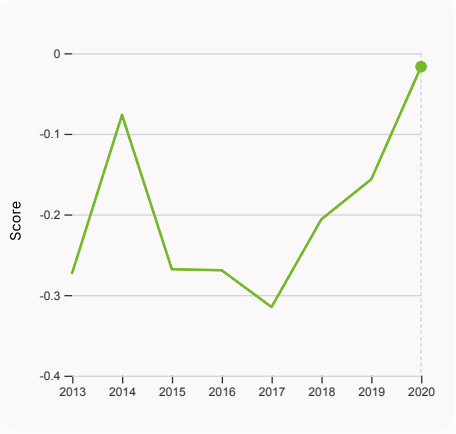
6.2.3 Software spending, % GDP

was equal to 0.02% GDP in 2022, up by 0.00024 percentage points from the year prior – and equivalent to an indicator rank of 122.



6.3.1 Intellectual property receipts, % total trade

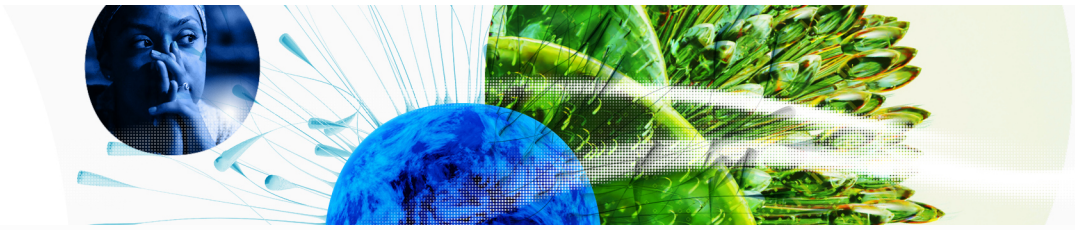
was equal to 0% total trade in 2021 – and equivalent to an indicator rank of 114.

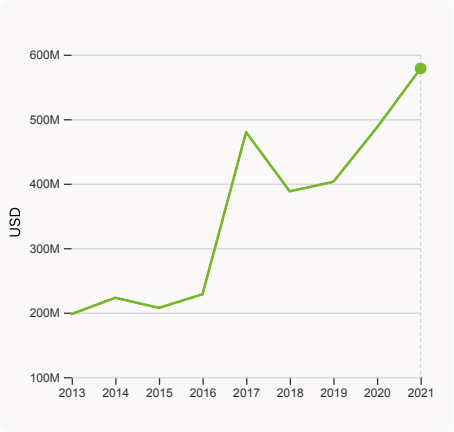


6.3.2 Production and export complexity

was equal to a score of -0.017 in 2020, up by 89.31% from the year prior – and equivalent to an indicator rank of 61.

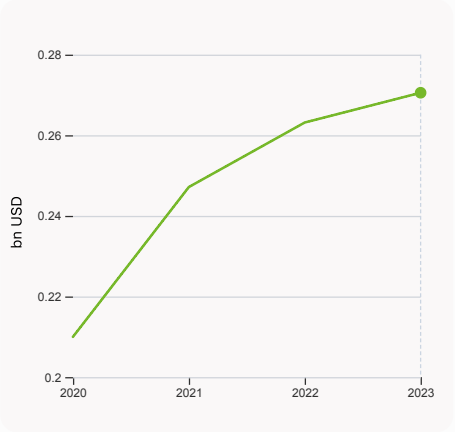
Global Innovation Index 2023





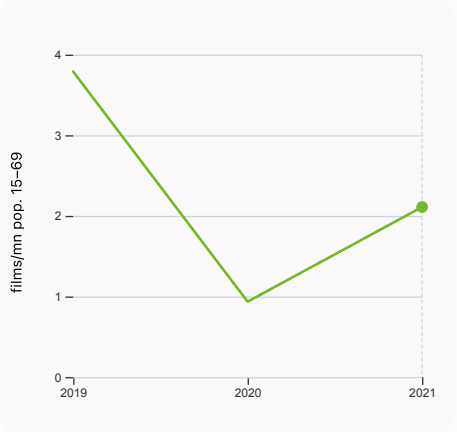
6.3.3 High-tech exports

was equal to 578,606,999 USD in 2021, up by 18.79% from the year prior – and equivalent to an indicator rank of 53.



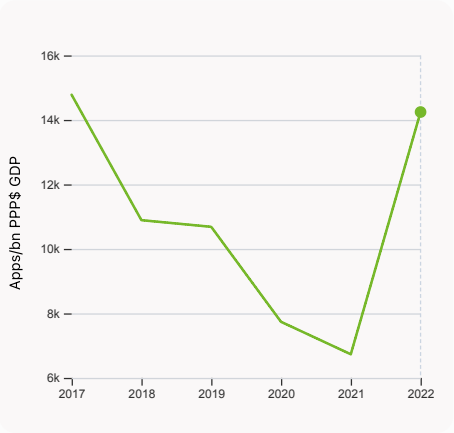
7.1.3 Global brand value, top 5,000

was equal to 0.271 bn USD in 2023, up by 2.81% from the year prior – and equivalent to an indicator rank of 70.



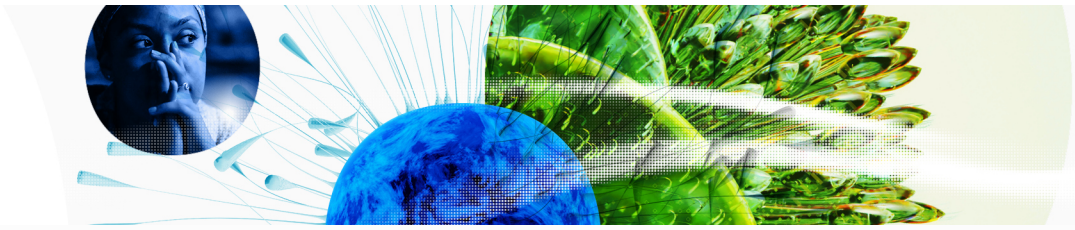
7.2.2 National feature films/mn pop. 15-69

was equal to 2.11 films/mn pop. 15–69 in 2021, up by 125.46% from the year prior – and equivalent to an indicator rank of 46.



7.3.4 Mobile app creation/bn PPP$ GDP

was equal to 14,244.56 Apps/bn PPP$ GDP in 2022, up by 111.58% from the year prior – and equivalent to an indicator rank of 101.



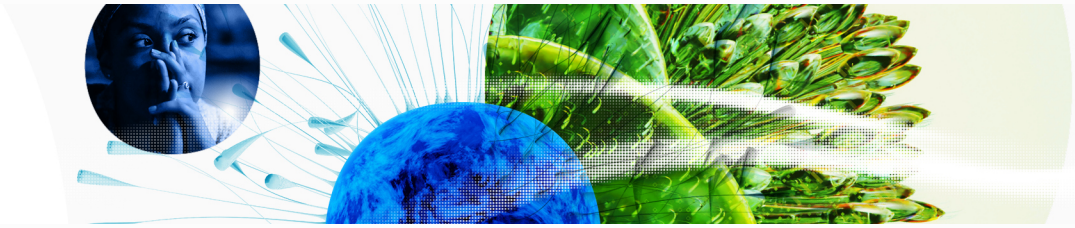
→ Dominican Republic's innovation top performers

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

Rank	Brand	Industry	Brand Value, mn USD
1	BRUGAL	Spirits	270.6

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

Global Innovation Index 2023



Dominican Republic

GII 2023 rank **94**

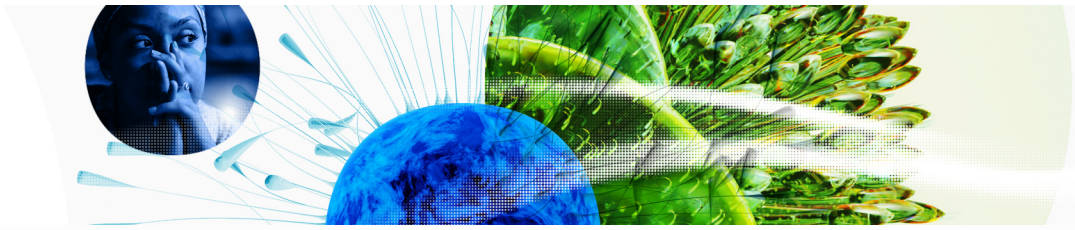
Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
96	89	Upper middle	LCN	11.2	256.4	24,119.5

	Score / Value	Rank	
Institutions	**49.3**	**67**	
1.1 Institutional environment	**47.3**	**59**	
1.1.1 Operational stability for businesses*	56.9	55	●
1.1.2 Government effectiveness*	37.6	68	
1.2 Regulatory environment	**52.3**	**93**	
1.2.1 Regulatory quality*	44.4	67	
1.2.2 Rule of law*	36.9	70	
1.2.3 Cost of redundancy dismissal	26.2	107	
1.3 Business environment	**48.4**	**61**	
1.3.1 Policies for doing business†	58.8	41	●
1.3.2 Entrepreneurship policies and culture†	37.9	50	
Human capital and research	**17.5**	**109**	◇
2.1 Education	**35.8**	**110**	◇
2.1.1 Expenditure on education, % GDP	3.7	80	
2.1.2 Government funding/pupil, secondary, % GDP/cap	13.6	80	
2.1.3 School life expectancy, years	14.2	70	
2.1.4 PISA scales in reading, maths and science	334.1	79	○ ◇
2.1.5 Pupil-teacher ratio, secondary	13.5	66	
2.2 Tertiary education	**16.6**	**97**	◇
2.2.1 Tertiary enrolment, % gross	59.9	53	●
2.2.2 Graduates in science and engineering, %	11.6	106	◇
2.2.3 Tertiary inbound mobility, %	1.7	80	
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	**37.0**	**76**	
3.1 Information and communication technologies (ICTs)	**58.2**	**85**	
3.1.1 ICT access*	61.6	97	◇
3.1.2 ICT use*	69.3	74	
3.1.3 Government's online service*	57.8	79	
3.1.4 E-participation*	44.2	83	
3.2 General infrastructure	**20.8**	**88**	
3.2.1 Electricity output, GWh/mn pop.	1,533.0	91	◇
3.2.2 Logistics performance*	22.7	82	
3.2.3 Gross capital formation, % GDP	31.5	20	●
3.3 Ecological sustainability	**31.9**	**49**	
3.3.1 GDP/unit of energy use	21.2	7	●
3.3.2 Environmental performance*	39.5	65	
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.1	120	
Market sophistication	**25.3**	**91**	◇
4.1 Credit	**10.5**	**111**	◇
4.1.1 Finance for startups and scaleups†	11.1	83	○ ◇
4.1.2 Domestic credit to private sector, % GDP	30.5	95	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**n/a**	**n/a**	
4.2.1 Market capitalization, % GDP	n/a	n/a	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	n/a	n/a	
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	**40.1**	**103**	◇
4.3.1 Applied tariff rate, weighted avg., %	3.9	81	
4.3.2 Domestic industry diversification	n/a	n/a	
4.3.3 Domestic market scale, bn PPP$	256.4	62	

	Score / Value	Rank	
Business sophistication	**23.7**	**86**	
5.1 Knowledge workers	**25.0**	**78**	
5.1.1 Knowledge-intensive employment, %	15.2	88	◇
5.1.2 Firms offering formal training, %	23.4	70	
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, %	9.6	77	
5.2 Innovation linkages	**19.2**	**78**	
5.2.1 University-industry R&D collaboration†	31.1	94	
5.2.2 State of cluster development†	43.9	59	
5.2.3 GERD financed by abroad, % GDP	n/a	n/a	
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.0	123	○
5.2.5 Patent families/bn PPP$ GDP	0.0	65	
5.3 Knowledge absorption	**26.9**	**94**	
5.3.1 Intellectual property payments, % total trade	0.4	78	
5.3.2 High-tech imports, % total trade	8.9	52	●
5.3.3 ICT services imports, % total trade	0.4	112	◇
5.3.4 FDI net inflows, % GDP	3.3	42	●
5.3.5 Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs	**14.4**	**95**	
6.1 Knowledge creation	**1.0**	**130**	◇
6.1.1 Patents by origin/bn PPP$ GDP	0.0	126	○
6.1.2 PCT patents by origin/bn PPP$ GDP	0.0	84	
6.1.3 Utility models by origin/bn PPP$ GDP	0.0	66	
6.1.4 Scientific and technical articles/bn PPP$ GDP	n/a	n/a	
6.1.5 Citable documents H-index	2.4	123	
6.2 Knowledge impact	**24.4**	**76**	
6.2.1 Labor productivity growth, %	3.0	16	●
6.2.2 Unicorn valuation, % GDP	0.0	48	○ ◇
6.2.3 Software spending, % GDP	0.0	122	◇
6.2.4 High-tech manufacturing, %	n/a	n/a	
6.3 Knowledge diffusion	**17.7**	**85**	
6.3.1 Intellectual property receipts, % total trade	0.0	114	○ ◇
6.3.2 Production and export complexity	52.2	61	
6.3.3 High-tech exports, % total trade	2.4	53	●
6.3.4 ICT services exports, % total trade	0.3	114	
6.3.5 ISO 9001 quality/bn PPP$ GDP	1.0	107	
Creative outputs	**14.1**	**94**	
7.1 Intangible assets	**9.8**	**108**	◇
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP$ GDP	43.1	53	●
7.1.3 Global brand value, top 5,000	0.2	70	
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.0	119	○ ◇
7.2 Creative goods and services	**22.3**	**46**	
7.2.1 Cultural and creative services exports, % total trade	n/a	n/a	
7.2.2 National feature films/mn pop. 15-69	2.1	46	
7.2.3 Entertainment and media market/th pop. 15-69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	2.7	21	●
7.3 Online creativity	**14.6**	**99**	
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	2.7	76	
7.3.2 Country-code TLDs/th pop. 15-69	1.4	79	
7.3.3 GitHub commits/mn pop. 15-69	3.2	87	
7.3.4 Mobile app creation/bn PPP$ GDP	51.0	101	

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

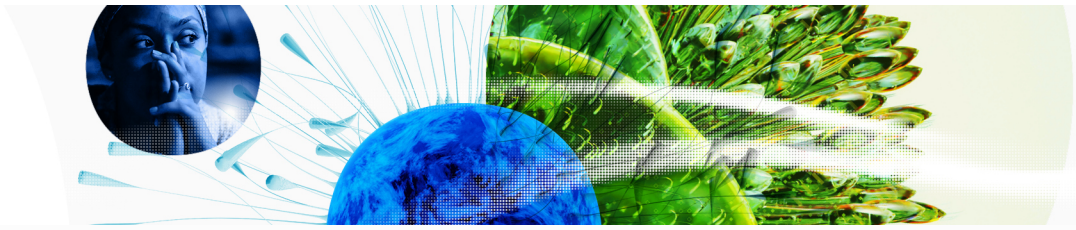
The following tables list indicators that are either missing or outdated for Dominican Republic.

> Dominican Republic has missing data for sixteen indicators and outdated data for ten indicators.

> Missing data for Dominican Republic

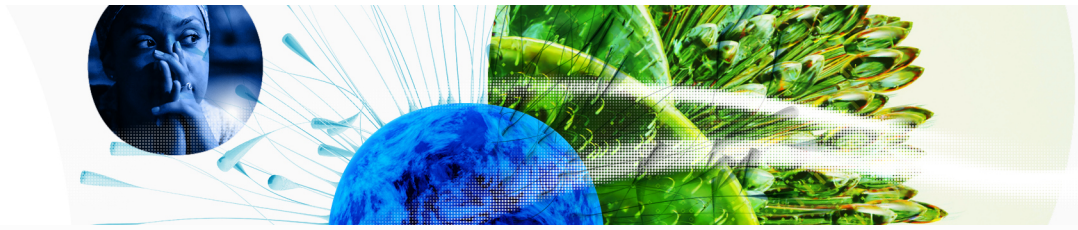
Code	Indicator name	Economy Year	Model Year	Source
2.3.1	Researchers, FTE/mn pop.	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.1.3	Loans from microfinance institutions, % GDP	n/a	2021	International Monetary Fund, Financial Access Survey (FAS)
4.2.1	Market capitalization, % GDP	n/a	2020	World Federation of Exchanges; World Bank
4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP	n/a	2022	Refinitiv; International Monetary Fund
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
5.1.3	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
6.2.4	High-tech manufacturing, %	n/a	2020	United Nations Industrial Development Organization
7.1.1	Intangible asset intensity, top 15, %	n/a	2022	Brand Finance
7.2.1	Cultural and creative services exports, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development

Global Innovation Index 2023



Code	Indicator name	Economy Year	Model Year	Source
7.2.3	Entertainment and media market/th pop. 15-69	n/a	2022	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

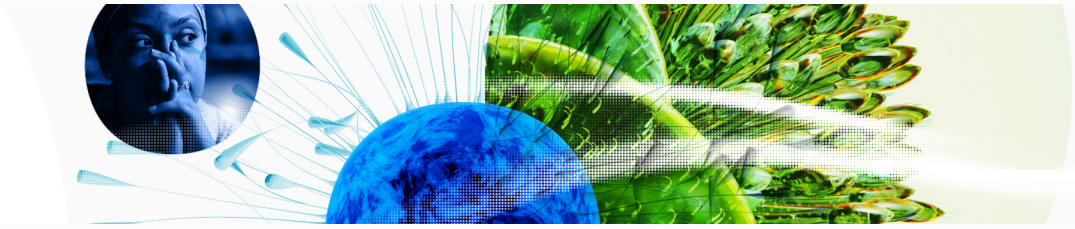
Global Innovation Index 2023



> Outdated data for Dominican Republic

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture	2021	2022	Global Entrepreneurship Monitor
2.1.3	School life expectancy, years	2017	2020	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2017	2020	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2017	2020	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	2017	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, %	2021	2022	International Labour Organization
5.1.2	Firms offering formal training, %	2016	2019	World Bank Enterprise Surveys
5.1.5	Females employed w/advanced degrees, %	2021	2022	International Labour Organization

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.