Global Innovation Index 2021

TRINIDAD AND TOBAGO

97th Trinidad and Tobago ranks 97th 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 Trinidad and Tobago 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 Trinidad and Tobago in the GII 2021 is between ranks 89 and 98.

Rankings for Trinidad and Tobago (2019–2021)

	GII	Innovation inputs	Innovation outputs
2021	97	97	95
2020	98	87	111
2019	91	88	99

- Trinidad and Tobago performs better in innovation outputs than innovation inputs in 2021.
- This year Trinidad and Tobago ranks 97th in innovation inputs, lower than both 2020 and 2019.
- As for innovation outputs, Trinidad and Tobago ranks 95th. This position is higher than both 2020 and 2019.

51st Trinidad and Tobago ranks 51st among the 51 high-income group economies.

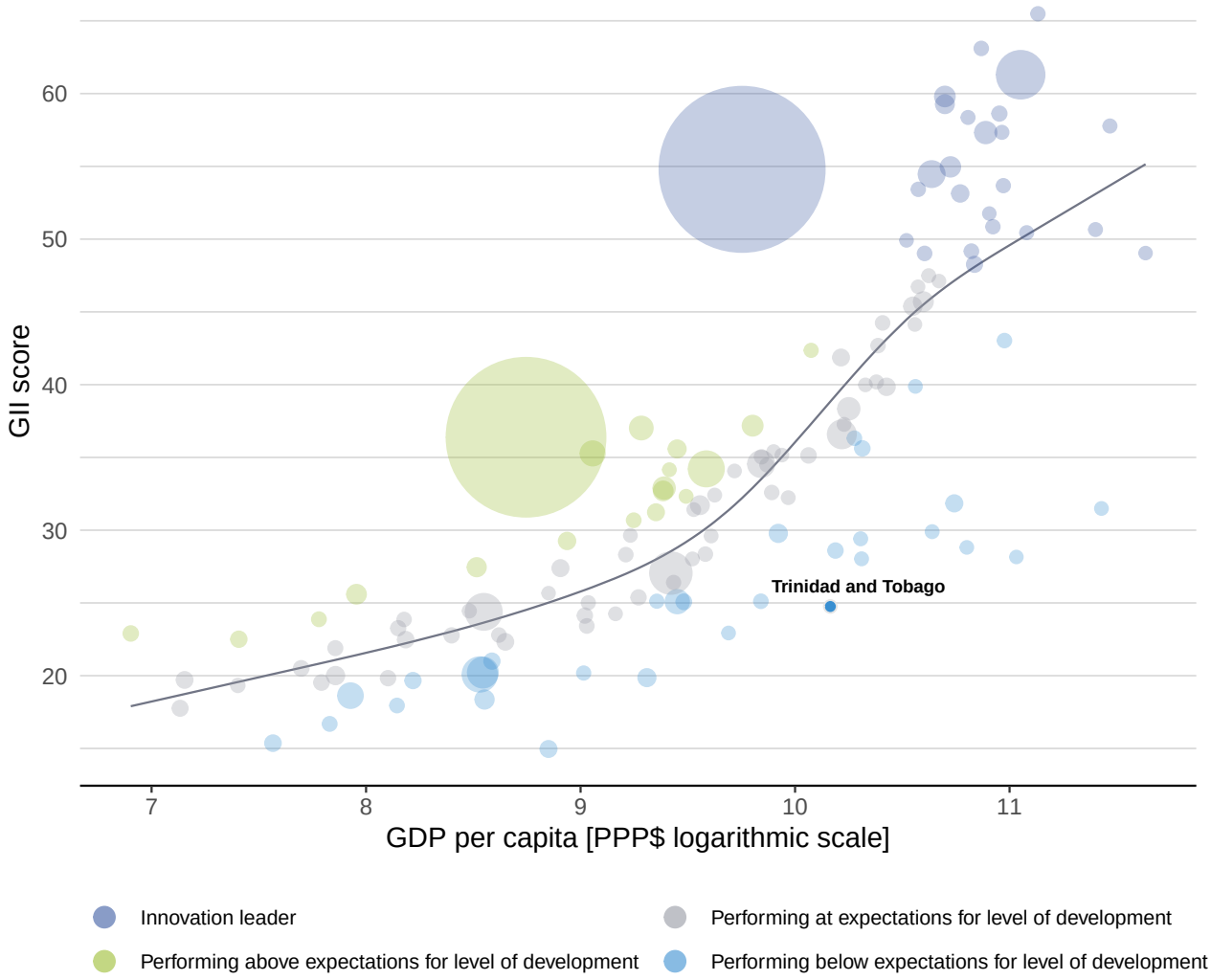
15th Trinidad and Tobago ranks 15th among the 18 economies in Latin America and the Caribbean.

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, Trinidad and Tobago's performance is below expectations for its level of development.

The positive relationship between innovation and development

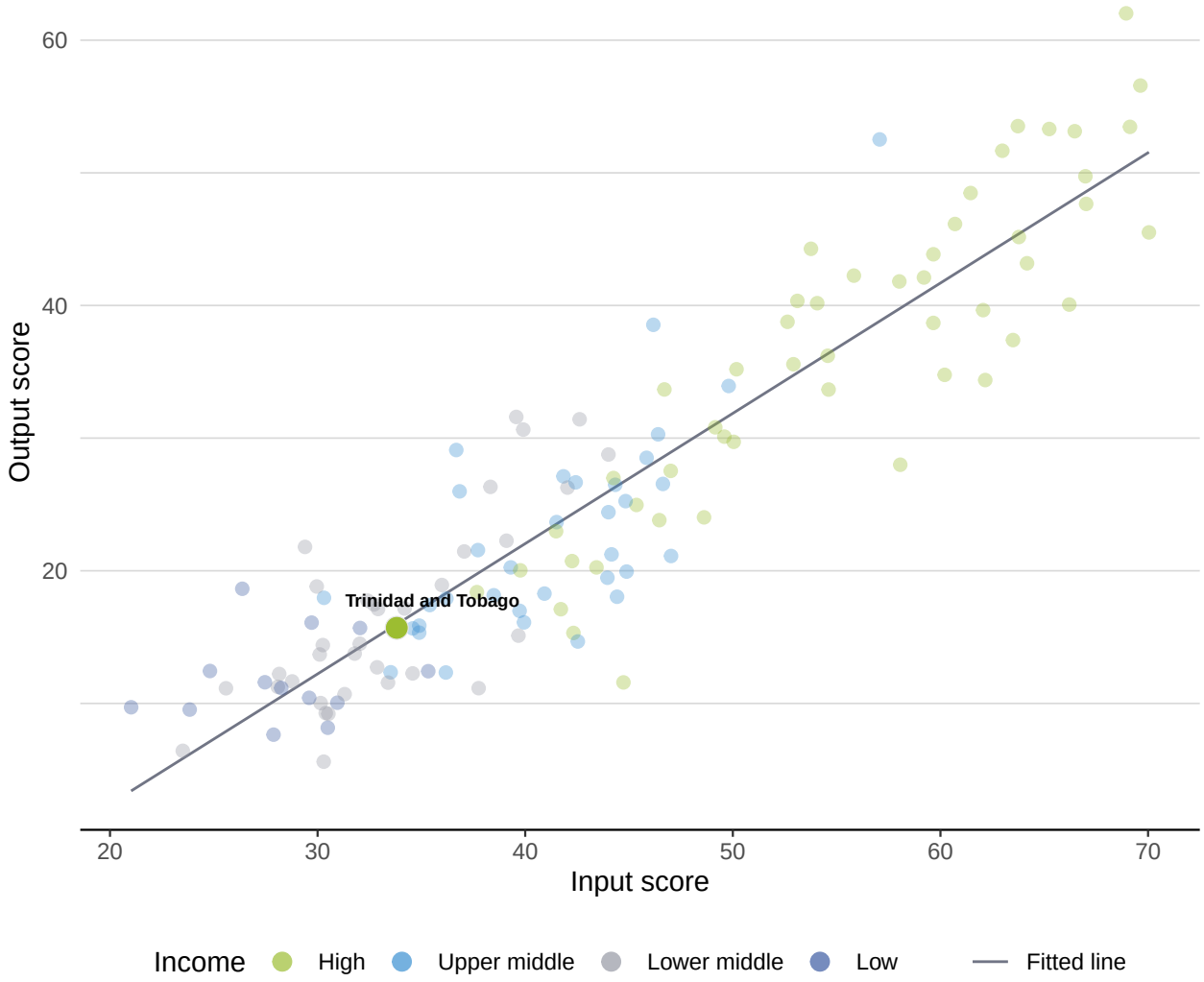


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

Trinidad and Tobago produces less innovation outputs relative to its level of innovation investments.

Innovation input to output performance



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

The seven GII pillar scores for Trinidad and Tobago

High-income group economies

Trinidad and Tobago performs below the high-income group average in all GII pillars.

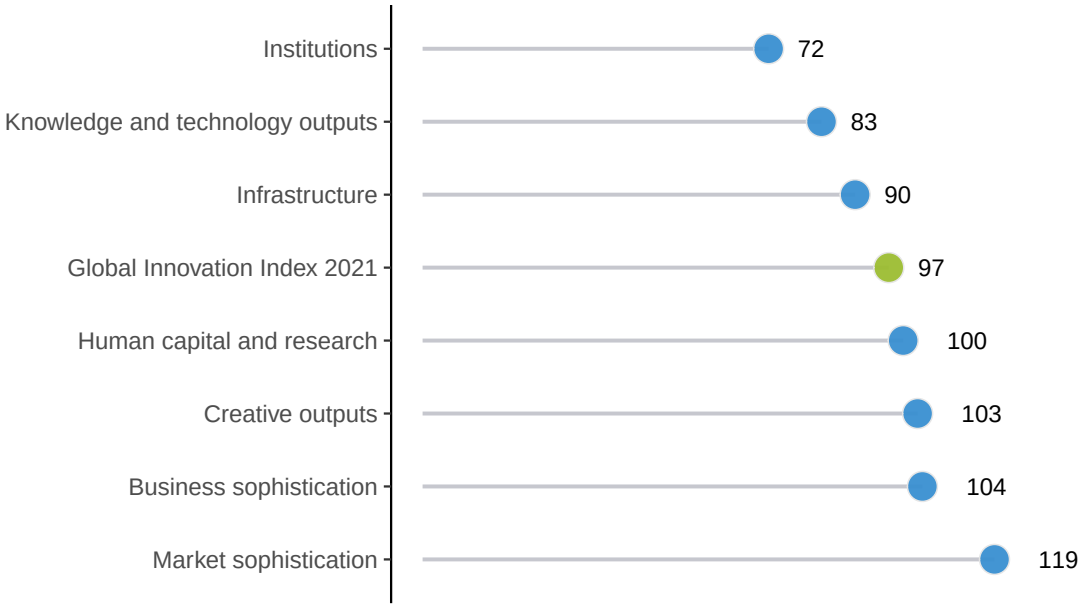
Latin America and the Caribbean

Trinidad and Tobago performs above the regional average in Institutions.

OVERVIEW OF RANKINGS IN THE SEVEN GII 2021 AREAS

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

The seven GII pillar ranks for Trinidad and Tobago



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 Trinidad and Tobago in the GII 2021.

Strengths and weaknesses for Trinidad and Tobago

Strengths			Weaknesses		
Code	**Indicator name**	**Rank**	**Code**	**Indicator name**	**Rank**
1.1	Political environment	60	2.3.2	Gross expenditure on R&D, % GDP	108
1.1.1	Political and operational stability	54	2.3.3	Global corporate R&D investors, top 3, mn US$	41
3.1.1	ICT access	41	2.3.4	QS university ranking, top 3	74
3.2.1	Electricity output, GWh/mn pop.	31	3.3.1	GDP/unit of energy use	124
4.2.1	Ease of protecting minority investors	56	4.1.3	Microfinance gross loans, % GDP	76
5.1.1	Knowledge-intensive employment, %	49	4.3	Trade, diversification, and market scale	124
5.1.5	Females employed w/advanced degrees, %	57	5.1.3	GERD performed by business, % GDP	86
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	58	5.3	Knowledge absorption	123
6.3.3	High-tech exports, % total trade	59	5.3.4	FDI net inflows, % GDP	125
7.3	Online creativity	54	6.1.1	Patents by origin/bn PPP$ GDP	124
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	58	6.3.4	ICT services exports, % total trade	123
7.3.3	Wikipedia edits/mn pop. 15–69	55	7.1.2	Global brand value, top 5,000, % GDP	80

Trinidad and Tobago

GII 2021 rank
97

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$	GII 2020 rank
95	97	High	LCN	1.4	36.4	25,964	98

		Score/ Value	Rank
Institutions		**62.0**	**72** ◇
1.1	**Political environment**	**59.1**	**60** ● ◇
1.1.1	Political and operational stability*	71.4	54 ● ◇
1.1.2	Government effectiveness*	52.9	64 ◇
1.2	**Regulatory environment**	**58.4**	**84** ◇
1.2.1	Regulatory quality*	39.6	80 ◇
1.2.2	Rule of law*	43.6	69 ◇
1.2.3	Cost of redundancy dismissal	20.5	87
1.3	**Business environment**	**68.5**	**74** ◇
1.3.1	Ease of starting a business*	88.6	64
1.3.2	Ease of resolving insolvency*	48.4	75 ◇
Human capital and research		**19.2**	**[100]**
2.1	**Education**	**36.3**	**[101]**
2.1.1	Expenditure on education, % GDP	n/a	n/a
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	n/a
2.1.3	School life expectancy, years	n/a	n/a
2.1.4	PISA scales in reading, maths and science ◴	423.0	54 ◇
2.1.5	Pupil-teacher ratio, secondary	n/a	n/a
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)**	**2.0**	**94** ◇
2.3.1	Researchers, FTE/mn pop. ◴	567.0	64 ◇
2.3.2	Gross expenditure on R&D, % GDP ◴	0.1	108 ○ ◇
2.3.3	Global corporate R&D investors, top 3, mn US$	0.0	41 ○ ◇
2.3.4	QS university ranking, top 3*	0.0	74 ○ ◇
Infrastructure		**33.8**	**90** ◇
3.1	**Information and communication technologies (ICTs)**	**64.1**	**71** ◇
3.1.1	ICT access*	77.7	41 ●
3.1.2	ICT use*	55.6	70 ◇
3.1.3	Government's online service*	61.2	86 ◇
3.1.4	E-participation*	61.9	84 ◇
3.2	**General infrastructure**	**20.6**	**106** ◇
3.2.1	Electricity output, GWh/mn pop.	6,636.7	31 ●
3.2.2	Logistics performance*	17.1	113 ◇
3.2.3	Gross capital formation, % GDP	n/a	n/a
3.3	**Ecological sustainability**	**16.8**	**117** ◇
3.3.1	GDP/unit of energy use	2.5	124 ○ ◇
3.3.2	Environmental performance*	47.5	63 ◇
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	0.5	86 ◇
Market sophistication		**35.8**	**119** ◇
4.1	**Credit**	**32.0**	**100** ◇
4.1.1	Ease of getting credit*	65.0	61
4.1.2	Domestic credit to private sector, % GDP	40.1	82 ◇
4.1.3	Microfinance gross loans, % GDP ◴	0.0	76 ○
4.2	**Investment**	**34.8**	**[50]**
4.2.1	Ease of protecting minority investors*	64.0	56 ●
4.2.2	Market capitalization, % GDP	n/a	n/a
4.2.3	Venture capital investors, deals/bn PPP$ GDP ◴	0.0	51
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	n/a
4.3	**Trade, diversification, and market scale**	**40.5**	**124** ○ ◇
4.3.1	Applied tariff rate, weighted avg., % ◴	8.6	107 ◇
4.3.2	Domestic industry diversification	n/a	n/a
4.3.3	Domestic market scale, bn PPP$	36.4	114 ◇

		Score/ Value	Rank
Business sophistication		**18.3**	**104** ◇
5.1	**Knowledge workers**	**25.1**	**85** ◇
5.1.1	Knowledge-intensive employment, % ◴	29.8	49 ●
5.1.2	Firms offering formal training, % ◴	28.0	55
5.1.3	GERD performed by business, % GDP ◴	0.0	86 ○ ◇
5.1.4	GERD financed by business, %	13.6	73 ◇
5.1.5	Females employed w/advanced degrees, % ◴	12.8	57 ●
5.2	**Innovation linkages**	**15.9**	**104** ◇
5.2.1	University-industry R&D collaboration†	33.3	99 ◇
5.2.2	State of cluster development and depth†	43.0	86 ◇
5.2.3	GERD financed by abroad, % GDP	0.0	66
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	0.0	58 ●
5.2.5	Patent families/bn PPP$ GDP	0.0	77
5.3	**Knowledge absorption**	**14.1**	**123** ○ ◇
5.3.1	Intellectual property payments, % total trade	0.6	65
5.3.2	High-tech imports, % total trade ◴	6.5	88
5.3.3	ICT services imports, % total trade	0.5	105 ◇
5.3.4	FDI net inflows, % GDP	–1.4	125 ○
5.3.5	Research talent, % in businesses ◴	1.4	77 ◇
Knowledge and technology outputs		**15.8**	**83** ◇
6.1	**Knowledge creation**	**3.5**	**119** ◇
6.1.1	Patents by origin/bn PPP$ GDP	0.0	124 ○
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	65
6.1.4	Scientific and technical articles/bn PPP$ GDP	6.7	104 ◇
6.1.5	Citable documents H-index	4.9	106 ◇
6.2	**Knowledge impact**	**33.0**	**[54]**
6.2.1	Labor productivity growth, %	0.5	56
6.2.2	New businesses/th pop. 15–64	n/a	n/a
6.2.3	Software spending, % GDP	n/a	n/a
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	2.2	85 ◇
6.2.5	High-tech manufacturing, %	n/a	n/a
6.3	**Knowledge diffusion**	**10.9**	**92** ◇
6.3.1	Intellectual property receipts, % total trade	0.0	81
6.3.2	Production and export complexity	45.1	58 ◇
6.3.3	High-tech exports, % total trade ◴	2.0	59 ●
6.3.4	ICT services exports, % total trade	0.2	123 ○
Creative outputs		**15.6**	**103** ◇
7.1	**Intangible assets**	**19.5**	**102** ◇
7.1.1	Trademarks by origin/bn PPP$ GDP	22.4	89 ◇
7.1.2	Global brand value, top 5,000, % GDP	0.0	80 ○ ◇
7.1.3	Industrial designs by origin/bn PPP$ GDP	0.5	84
7.1.4	ICTs and organizational model creation†	49.8	83 ◇
7.2	**Creative goods and services**	**1.5**	**[122]**
7.2.1	Cultural and creative services exports, % total trade	0.0	97 ◇
7.2.2	National feature films/mn pop. 15–69	n/a	n/a
7.2.3	Entertainment and media market/th pop. 15–69	n/a	n/a
7.2.4	Printing and other media, % manufacturing	n/a	n/a
7.2.5	Creative goods exports, % total trade ◴	0.1	89
7.3	**Online creativity**	**21.9**	**54** ● ◇
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	4.2	58 ●
7.3.2	Country-code TLDs/th pop. 15–69	1.5	75 ◇
7.3.3	Wikipedia edits/mn pop. 15–69	58.8	55 ●
7.3.4	Mobile app creation/bn PPP$ GDP	n/a	n/a

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 Trinidad and Tobago.

Missing data for Trinidad and Tobago

Code	Indicator name	Economy year	Model year	Source
2.1.1	Expenditure on education, % GDP	n/a	2017	UNESCO Institute for Statistics
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2017	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	n/a	2018	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	n/a	2019	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	n/a	2018	UNESCO Institute for Statistics
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
3.2.3	Gross capital formation, % GDP	n/a	2020	International Monetary Fund
4.2.2	Market capitalization, % GDP	n/a	2019	World Federation of Exchanges
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	2020	Refinitiv Eikon
4.3.2	Domestic industry diversification	n/a	2018	United Nations Industrial Development Organization
6.2.2	New businesses/th pop. 15–64	n/a	2018	World Bank
6.2.3	Software spending, % GDP	n/a	2020	IHS Markit
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

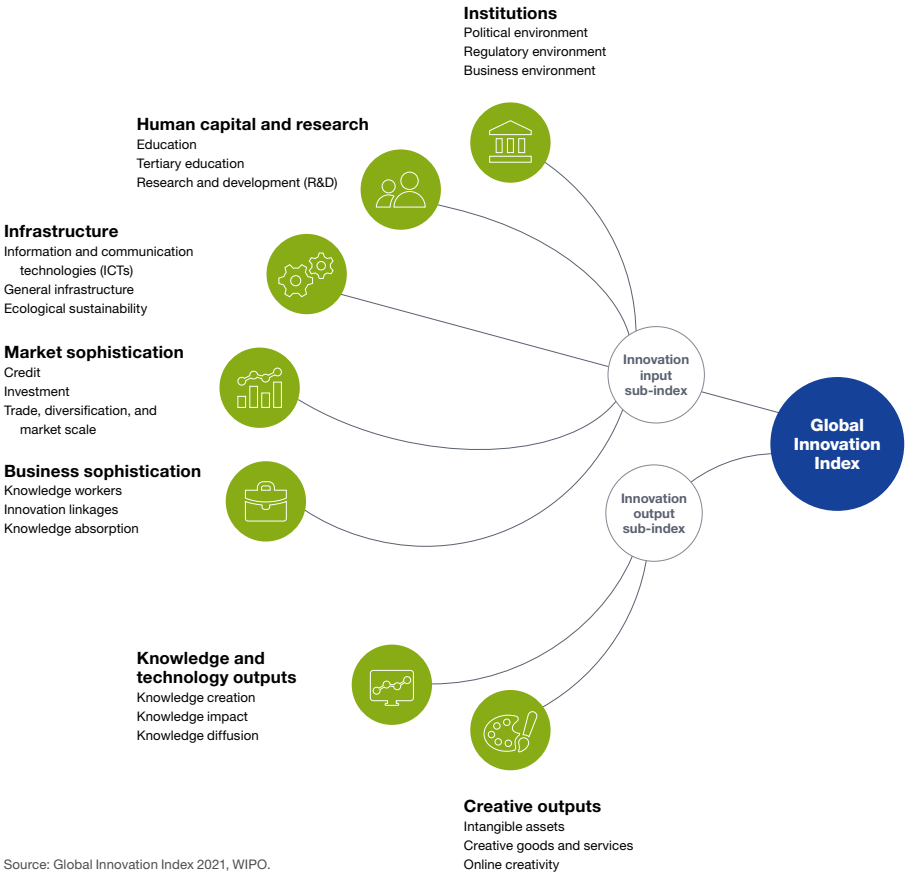
Outdated data for Trinidad and Tobago

Code	Indicator name	Economy year	Model year	Source
2.1.4	PISA scales in reading, maths and science	2015	2018	OECD Programme for International Student Assessment (PISA)
2.3.1	Researchers, FTE/mn pop.	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
4.1.3	Microfinance gross loans, % GDP	2013	2018	Microfinance Information Exchange
4.2.3	Venture capital investors, deals/bn PPP$ GDP	2019	2020	Refinitiv Eikon
4.3.1	Applied tariff rate, weighted avg., %	2013	2019	World Bank
5.1.1	Knowledge-intensive employment, %	2016	2019	International Labour Organization
5.1.2	Firms offering formal training, %	2010	2019	World Bank
5.1.3	GERD performed by business, % GDP	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.1.5	Females employed w/advanced degrees, %	2016	2019	International Labour Organization
5.3.2	High-tech imports, % total trade	2015	2019	United Nations, COMTRADE
5.3.5	Research talent, % in businesses	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
6.1.3	Utility models by origin/bn PPP$ GDP	2018	2019	World Intellectual Property Organization
6.3.3	High-tech exports, % total trade	2015	2019	United Nations, COMTRADE
7.2.5	Creative goods exports, % total trade	2015	2019	United Nations, COMTRADE

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 2021, WIPO.

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.