Global Innovation Index 2025

Costa Rica ranking in the Global Innovation Index 2025

Costa Rica ranks 72nd among the 139 economies featured in the GII 2025.

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.

Costa Rica ranks 19th among the 36 Upper middle-income group economies.

Costa Rica ranks 6th among the 21 economies in Latin America and the Caribbean.

Costa Rica GII Ranking (2020-2025)

The table shows the rankings of Costa Rica over the past six 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 Costa Rica in the GII 2025 is between ranks 63 and 74.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	56th	66th	51st
2021	56th	66th	49th
2022	68th	67th	71st
2023	74th	66th	81st
2024	70th	61st	76th
2025	72nd	70th	74th

Costa Rica performs worse in innovation outputs than innovation inputs in 2025.

This year **Costa Rica ranks 70th in innovation inputs.** This position is lower than last year.

Costa Rica ranks 74th in innovation outputs. This position is higher than last year.

Costa Rica has no clusters in the world's top innovation clusters of the Global Innovation Index.

Global Innovation Index 2025

> Global Innovation Tracker

The Global Innovation Tracker 2025 shows what is the current state of innovation in Costa Rica, how rapidly is technology being embraced and what are the resulting societal impacts.

For Costa Rica, 7 indicators have improved in the short-term and 3 indicators have worsened.

Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▲ 3.8 % 2023 - 2024	▲ 29 % 2021 - 2022	▼ -11.1 % 2023 - 2024	▼ -60 % 2023 - 2024
Long term (annual growth)	▲ 5.4 % 2014 - 2024	▼ -1.8 % 2012 - 2022	▼ -2.9 % 2020 - 2024	▼ -16.4 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 1.2% 2023 - 2024	▲ 4% 2022 - 2023	n/a	n/a	▲ 96.4% 2023 - 2024
Long term (annual growth)	▲ 1.3% 2014 - 2024	▲ 9% 2013 - 2023	n/a	n/a	▲ 131% 2015 - 2024
Penetration	26.3 per 100 inhabitants in 2024	22.5 per 100 inhabitants in 2023	n/a	n/a	1.9 per 100 cars in 2024

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 3.8 % 2023 - 2024	▲ 1.9 % 2022 - 2023	+ 1.7 °C 2024
Long term (annual growth)	▲ 2.9 % 2014 - 2024	▲ 0.1 % 2013 - 2023	+ 0.6 °C 2014
Level	73,645.8 USD in 2024	80.8 years in 2023	n/a

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 countries. from 1951–1980. Figures are rounded.

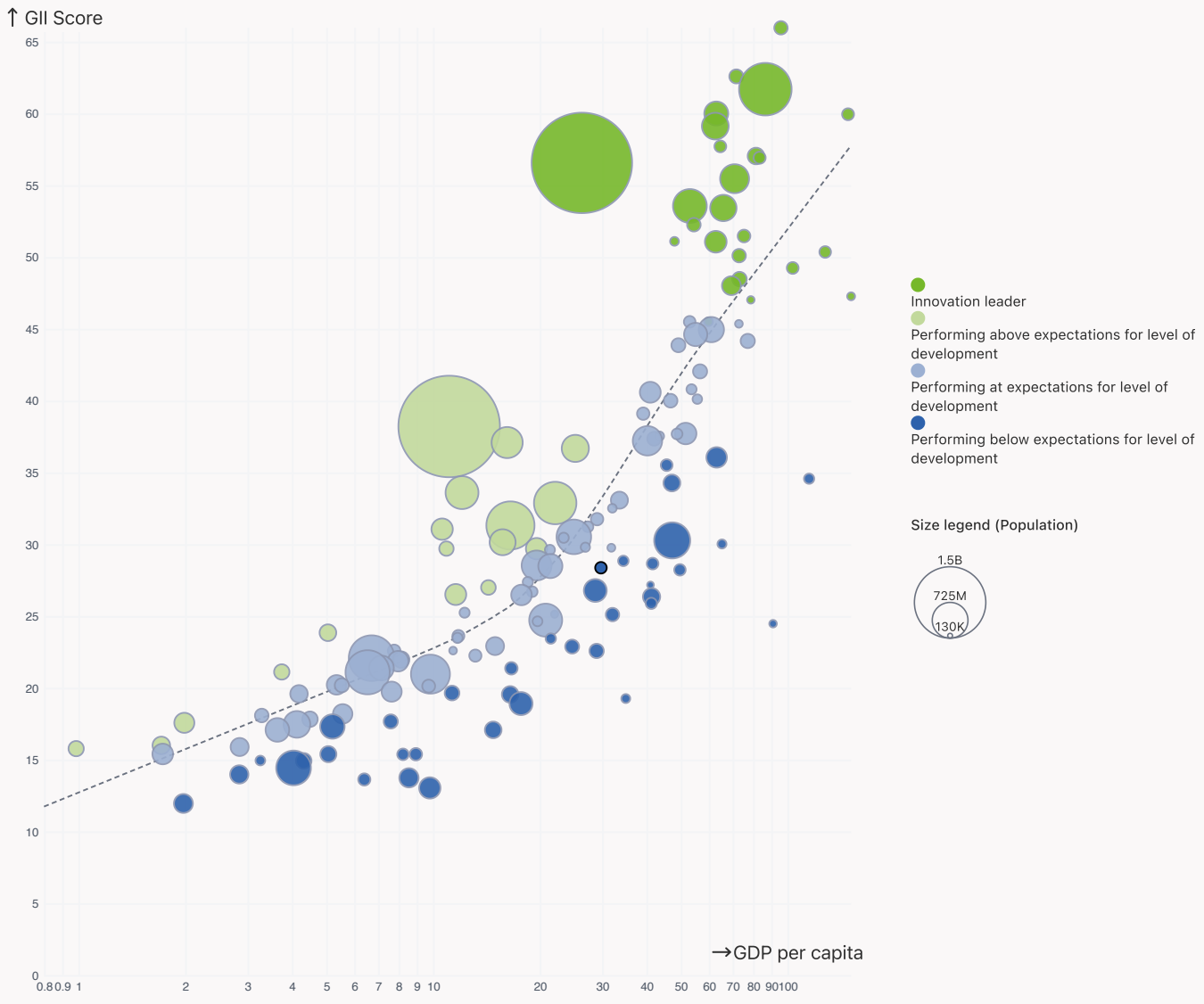
Global Innovation Index 2025

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 Costa Rica performs below expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2025

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.

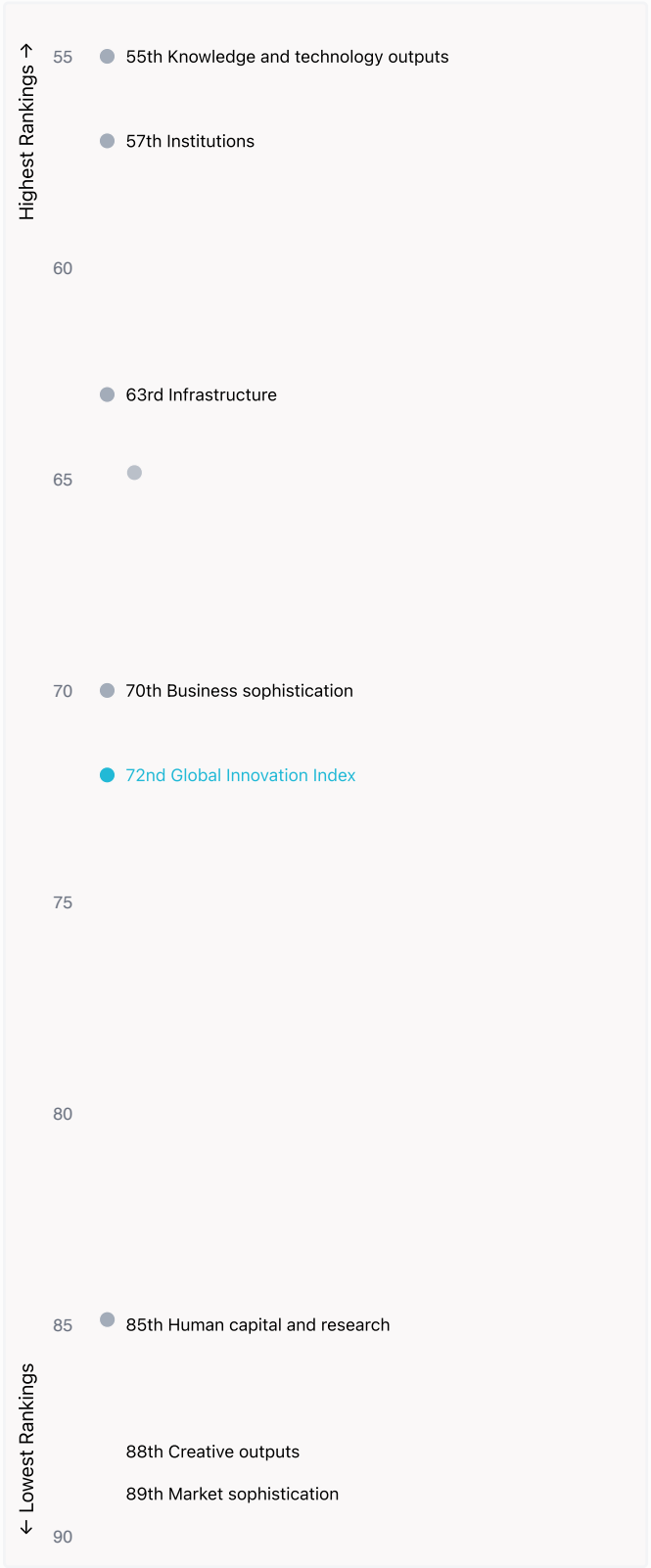
Costa Rica produces less innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

Global Innovation Index 2025

Overview of Costa Rica's rankings in the seven areas of the GII in 2025

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



Highest Rankings

Costa Rica ranks highest in Knowledge and technology outputs (55th), Institutions (57th), Infrastructure (63rd) and Business sophistication (70th).

Lowest Rankings

Costa Rica ranks lowest in Market sophistication (89th), Creative outputs (88th) and Human capital and research (85th).

The full WIPO Intellectual Property Statistics profile for Costa Rica can be found on https://www.wipo.int/edocs/statistics-country-profile/en/cr.pdf

Global Innovation Index 2025

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

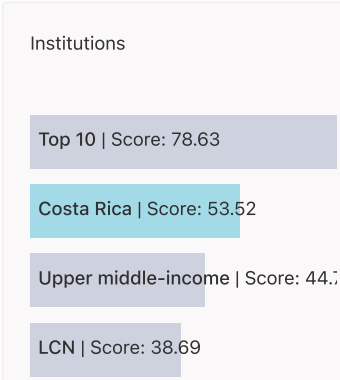
The charts shows the relative position of Costa Rica (blue bar) against other economy groupings (grey bars)

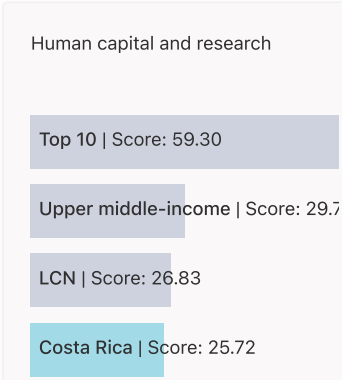
Upper middle-income economies

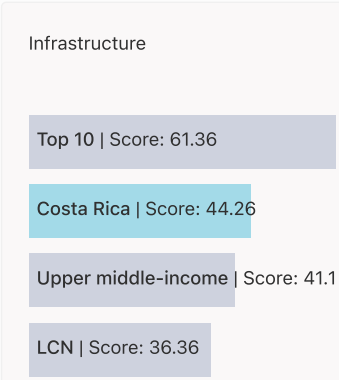
Costa Rica performs above the Upper middle-income group average in Institutions, Infrastructure, Business sophistication, Knowledge and technology outputs.

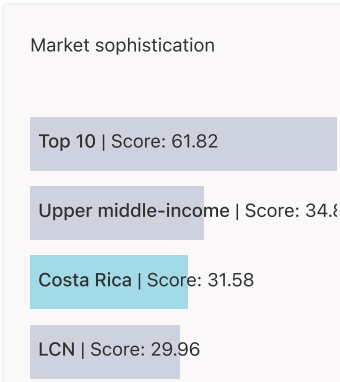
Latin America and the Caribbean

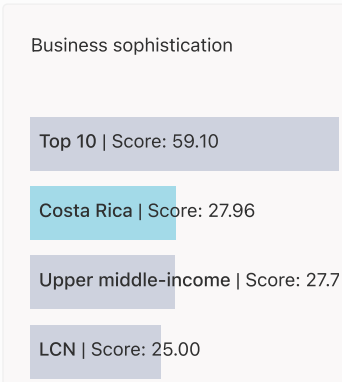
Costa Rica performs above the regional average in Institutions, Infrastructure, Market sophistication, Business sophistication, Knowledge and technology outputs.

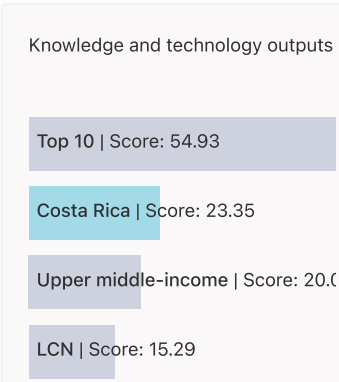


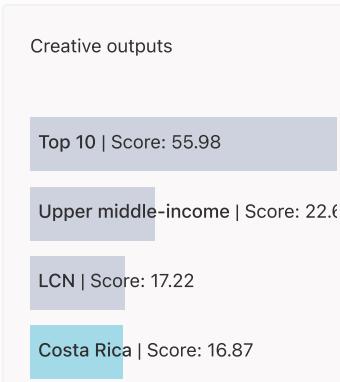












Global Innovation Index 2025

Innovation strengths and weaknesses in Costa Rica

The table below gives an overview of the indicator strengths and weaknesses of Costa Rica in the GII 2025.

Costa Rica's best-ranked innovation strengths are **Labor productivity growth, %** (rank 7), **Intellectual property payments, % total trade** (rank 8) and **Trademarks by origin/bn PPP$ GDP** (rank 8).

Strengths

Rank	Code	Indicator name
7	6.2.1	Labor productivity growth, %
8	5.3.1	Intellectual property payments, % total trade
8	7.1.2	Trademarks by origin/bn PPP$ GDP
10	3.3.1	GDP/unit of energy use
13	6.3.4	ICT services exports, % total trade
14	4.3.1	Applied tariff rate, weighted avg., %
14	2.1.1	Expenditure on education, % GDP
17	3.3.2	Low-carbon energy use, %
23	6.3.3	High-tech exports, % total trade
27	5.3.4	FDI net inflows, % GDP

Weaknesses

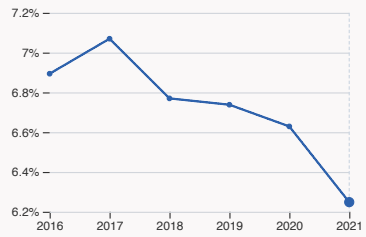
Rank	Code	Indicator name
126	7.1.4	Industrial designs by origin/bn PPP$ GDP
120	3.2.3	Gross capital formation, % GDP
110	6.1.1	Patents by origin/bn PPP$ GDP
102	2.2.2	Graduates in science and engineering, %
93	5.2.3	University industry & international engagement, top 5*
81	7.1.3	Global brand value, top 5,000, % GDP
81	4.1.1	Finance for startups and scaleups†
81	4.2.1	Market capitalization, % GDP
53	6.2.2	Unicorn valuation, % GDP
44	2.3.3	Global corporate R&D investors, top 3, mn USD

Global Innovation Index 2025

Costa Rica's innovation system

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

Innovation inputs in Costa Rica

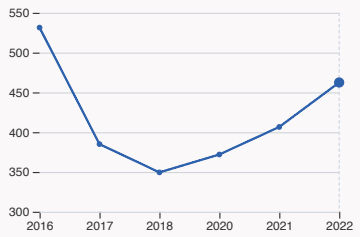


2.1.1 Expenditure on education

was equal to 6.25 % GDP in 2021, down by 0.38 percentage points from the year prior – and equivalent to an indicator rank of 14.

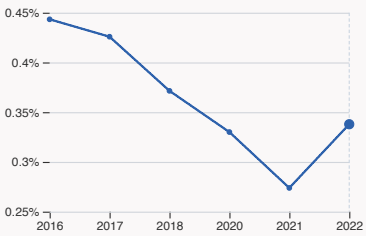
2.2.2 Graduates in science and engineering

was equal to 15.78 % of total graduates in 2023 with no change from the year prior – and equivalent to an indicator rank of 102.



2.3.1 Researchers

was equal to 462.47 FTE per million population in 2022, up by 13.75% from the year prior – and equivalent to an indicator rank of 76.

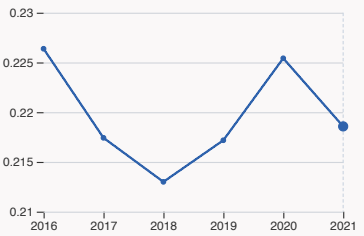


2.3.2 Gross expenditure on R&D

was equal to 0.34 % GDP in 2022, up by 0.06 percentage points from the year prior – and equivalent to an indicator rank of 72.

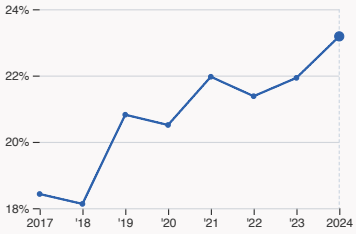
2.3.4 QS university ranking

was equal to an average score of 8.07 for the top three universities in 2024, down by 25.96% from the year prior – and equivalent to an indicator rank of 73.



4.3.2 Domestic industry diversification

was equal to an index score of 0.22 in 2021, down by 3.04% from the year prior – and equivalent to an indicator rank of 78.



5.1.1 Knowledge-intensive employment

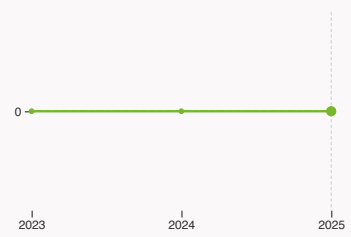
was equal to 23.18 % in 2024, up by 1.25 percentage points from the year prior – and equivalent to an indicator rank of 66.

Global Innovation Index 2025

Innovation outputs in Costa Rica

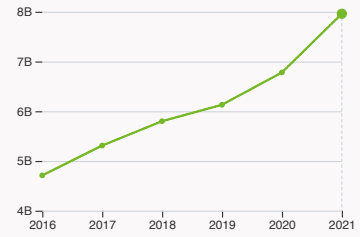
6.1.1 Patents by origin

was equal to 18 patents in 2023, up by 100% from the year prior – and equivalent to an indicator rank of 110.



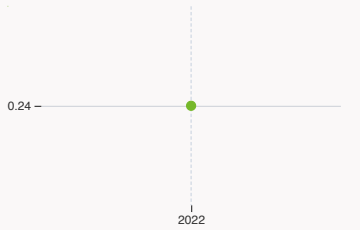
6.2.2 Unicorn valuation

The country does not have unicorns in 2025.



6.2.4 High-tech manufacturing

was equal to 7.96 high-tech manufacturing output in billion USD in 2021, up by 17.4% from the year prior – and equivalent to an indicator rank of 35.

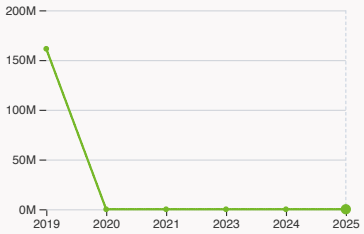


6.3.2 Production and export complexity

was equal to a score of 0.24 in 2022 – and equivalent to an indicator rank of 49.

6.3.3 High-tech exports

was equal to 2.85 billion USD in 2023, up by 35.07% from the year prior – and equivalent to an indicator rank of 23.



7.1.3 Global brand value, top 5,000

The country does not have any brands that make the top 5,000 ranking in 2025.

7.2.2 National feature films

was equal to 9 films in 2022, up by 50% from the year prior – and equivalent to an indicator rank of 54.

7.3.3 Mobile app creation

was equal to 7.15 million global downloads of mobile apps in 2024, up by 17.21% from the year prior – and equivalent to an indicator rank of 89.

Costa Rica's innovation top performers

Data not available for 2.3.3 Global corporate R&D investors, 6.2.2 Top Unicorn Companies, 7.1.1 Top 15 intangible-asset intensive companies and 7.1.3 Global brand value, top 5,000.

Disclaimer: This section contains only the top performers per country. For the complete list, please visit the GII Innovation Ecosystems and Data Explorer website.

2.3.4 QS university ranking of Costa Rica's top universities

Rank	University	Score
497	UNIVERSIDAD DE COSTA RICA	24.20
1001-1200	TECNOLOGICO DE COSTA RICA -TEC	n/a
1201-1400	UNIVERSIDAD LATINOAMERICANA DE CIENCIA Y TECNOLOGIA COSTA RICA (ULACIT)	n/a

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2024).
Note: QS Quacquarelli Symonds Ltd annually assesses over 1,200 universities across the globe and scores them between [0,100]. Ranks can represent a single value 'x', a tie 'x=' or a range 'x-y'.

5.2.3 University industry and international engagement, top 5 universities

Rank	University	Score
1	UNIVERSITY OF COSTA RICA	34.00

Source: Times Higher Education (THE), World University Rankings 2025.
Note: Rank corresponds to within economy ranks. The score is calculated as the average of the International Outlook score (encompassing international staff, students, and co-authorship) and the industry score (reflecting industry income and patent citations). The 2025 ranking corresponds to data from the academic year that ended in 2022.

Costa Rica

GII 2025 rank **72**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
74	70	Upper middle	Latin America and the Caribbean	5.1	158.6	29,779.2

	Score / Value	Rank	
Institutions	**53.5**	**57**	
1.1 Institutional environment	**58.7**	**56**	
1.1.1 Operational stability for businesses*	68	47	
1.1.2 Government effectiveness*	49.5	57	
1.2 Regulatory environment	**60.5**	**48**	
1.2.1 Regulatory quality*	59.3	47	
1.2.2 Rule of law*	61.7	53	
1.3 Business environment	**41.3**	**74**	
1.3.1 Policy stability for doing business†	60.6	45	
1.3.2 Entrepreneurship policies and culture†	22	72	
Human capital and research	**25.7**	**85**	
2.1 Education	**54.5**	**57**	
2.1.1 Expenditure on education, % GDP	6.2	14	●
2.1.2 Government funding/pupil, secondary, % GDP/cap	21.8	37	
2.1.3 School life expectancy, years	15.6	41	
2.1.4 PISA scales in reading, maths and science	403.6	59	
2.1.5 Pupil–teacher ratio, secondary	13.5	66	
2.2 Tertiary education	**18.2**	**100**	
2.2.1 Tertiary enrolment, % gross	55	66	
2.2.2 Graduates in science and engineering, %	15.8	102	○
2.2.3 Tertiary inbound mobility, %	1.2	90	
2.3 Research and development (R&D)	**4.5**	**81**	
2.3.1 Researchers, FTE/mn pop.	462.5	76	
2.3.2 Gross expenditure on R&D, % GDP	0.3	72	
2.3.3 Global corporate R&D investors, top 3, mn USD	0	44	○ ◇
2.3.4 QS university ranking, top 3*	8.3	73	
Infrastructure	**44.3**	**63**	
3.1 Information and communication technologies (ICTs)	**75.4**	**71**	
3.1.1 ICT access*	81.9	79	
3.1.2 ICT use*	77.7	68	
3.1.3 Government's online service*	66.5	71	
3.2 General infrastructure	**20.1**	**111**	
3.2.1 Electricity output, GWh/mn pop.	2,342.2	76	
3.2.2 Logistics performance*	36.4	65	
3.2.3 Gross capital formation, % GDP	16.3	120	○ ◇
3.3 Ecological sustainability	**37.3**	**25**	
3.3.1 GDP/unit of energy use	21.7	10	●
3.3.2 Low-carbon energy use, %	44.4	17	●
3.3.3 ISO 14001 environment/bn PPP$ GDP	1	70	
Market sophistication	**31.6**	**89**	
4.1 Credit	**22**	**85**	
4.1.1 Finance for startups and scaleups†	26.1	81	○
4.1.2 Domestic credit to private sector, % GDP	51.1	63	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**2.9**	**87**	
4.2.1 Market capitalization, % GDP	3.1	81	○
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.07	69	
4.2.3 Late-stage VC deal count, % global VC	0.007	80	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.1	58	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.04	66	
4.3 Trade, diversification and market scale	**69.9**	**64**	
4.3.1 Applied tariff rate, weighted avg., %	0.9	14	●
4.3.2 Domestic industry diversification	68.6	78	
4.3.3 Domestic market scale, bn PPP$	158.6	84	

	Score / Value	Rank	
Business sophistication	**28**	**70**	
5.1 Knowledge workers	**28.3**	**104**	
5.1.1 Knowledge-intensive employment, %	23.2	66	
5.1.2 Females employed w/advanced degrees, %	12.8	63	
5.1.3 Youth demographic dividend, %	32.5	77	
5.1.4 GERD performed by business, % GDP	0.1	58	
5.1.5 GERD financed by business, %	29	61	
5.2 Innovation linkages	**23.5**	**76**	
5.2.1 Public research–industry co-publications, %	1.2	75	
5.2.2 University–industry R&D collaboration†	38.7	57	
5.2.3 University industry & international engagement, top 5*	10.4	93	○
5.2.4 State of cluster development†	56.9	48	
5.2.5 Patent families/bn PPP$ GDP	0.008	85	
5.3 Knowledge absorption	**32**	**46**	
5.3.1 Intellectual property payments, % total trade	3.1	8	●
5.3.2 High-tech imports, % total trade	8.7	60	
5.3.3 ICT services imports, % total trade	1.4	69	
5.3.4 FDI net inflows, % GDP	5.4	27	●
5.3.5 Research talent, % in businesses	15.4	56	
Knowledge and technology outputs	**23.4**	**55**	
6.1 Knowledge creation	**5.7**	**109**	
6.1.1 Patents by origin/bn PPP$ GDP	0.1	110	○
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	0.1	57	
6.1.3 Utility models by origin/bn PPP$ GDP	0.03	66	
6.1.4 Scientific and technical articles/bn PPP$ GDP	5.4	104	
6.1.5 Citable documents H-index	10	78	
6.2 Knowledge impact	**35.4**	**33**	
6.2.1 Labor productivity growth, %	4.1	7	●
6.2.2 Unicorn valuation, % GDP	0	53	○ ◇
6.2.3 Software spending, % GDP	0.3	54	
6.2.4 High-tech manufacturing	33.9	35	
6.3 Knowledge diffusion	**29**	**46**	
6.3.1 Intellectual property receipts, % total trade	0.03	91	
6.3.2 Production and export complexity	54.2	49	
6.3.3 High-tech exports, % total trade	9.1	23	●
6.3.4 ICT services exports, % total trade	6.8	13	●
6.3.5 ISO 9001 quality/bn PPP$ GDP	2.7	76	
Creative outputs	**16.9**	**88**	
7.1 Intangible assets	**15.4**	**86**	
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP$ GDP	92	8	●
7.1.3 Global brand value, top 5,000, % GDP	0	81	○ ◇
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.02	126	○ ◇
7.2 Creative goods and services	**10.9**	**70**	
7.2.1 Cultural and creative services exports, % total trade	0.8	39	
7.2.2 National feature films/mn pop. 15–69	2.4	54	
7.2.3 Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	0.3	75	
7.3 Online creativity	**25.8**	**65**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	6.4	55	
7.3.2 GitHub commits/mn pop. 15–69	13.1	53	
7.3.3 Mobile app creation/bn PPP$ GDP	58	89	

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.

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Data Availability

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

Costa Rica has missing data for three indicators and outdated data for twelve indicators.

Missing data for Costa Rica

Code	Indicator name	Economy year	Model year	Source
4.1.3	Loans from microfinance institutions, % GDP	n/a	2023	International Monetary Fund, Financial Access Survey (FAS)
7.1.1	Intangible asset intensity, top 15, %	n/a	2024	Brand Finance
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2024	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

Outdated data for Costa Rica

Code	Indicator name	Economy year	Model year	Source
2.1.1	Expenditure on education, % GDP	2021	2023	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2019	2023	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2022	2023	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2019	2023	UNESCO Institute for Statistics
2.2.3	Tertiary inbound mobility, %	2019	2023	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2022	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2022	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.3.2	Domestic industry diversification	2021	2022	United Nations Industrial Development Organization (UNIDO)
5.3.5	Research talent, % in businesses	2022	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing	2021	2022	United Nations Industrial Development Organization (UNIDO)
7.1.4	Industrial designs by origin/bn PPP$ GDP	2022	2023	World Intellectual Property Organization; International Monetary Fund
7.2.2	National feature films/mn pop. 15–69	2022	2023	OMDIA; United Nations, World Population Prospects

Global Innovation Index 2025

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 140 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.