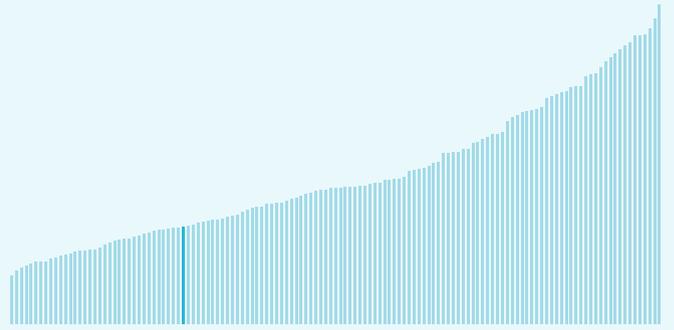


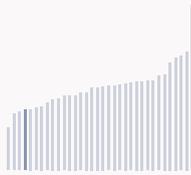
El Salvador ranking in the Global Innovation Index 2024

El Salvador ranks **98th** among the 133 economies featured in the GII 2024.

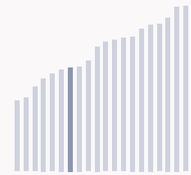
The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.



El Salvador ranks **31st** among the 34 upper-middle-income group economies.



El Salvador ranks **14th** among the 20 economies in Latin America and the Caribbean.



> El Salvador GII Ranking (2020-2024)

The table shows the rankings of El Salvador 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 El Salvador in the GII 2024 is between ranks 91 and 103.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	92nd	95th	87th
2021	96th	100th	89th
2022	100th	101st	95th
2023	95th	102nd	90th
2024	98th	107th	89th

El Salvador performs better in innovation outputs than innovation inputs in 2024.

This year El Salvador ranks **107th** in innovation inputs. This position is lower than last year.

El Salvador ranks **89th** in innovation outputs. This position is higher than last year.

El Salvador 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 El Salvador, how rapidly is technology being embraced and what are the resulting societal impacts.



For El Salvador, 4 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	
▼ -17.5% 2022 - 2023	▲ 9.3% 2020 - 2021	▲ 200% 2022 - 2023	n/a	n/a
▲ 9.3% 2013 - 2023	▲ 18.7% 2011 - 2021	n/a	n/a	n/a

Technology adoption

Safe sanitation	Connectivity		Robots	Electric vehicles
	Fixed broadband	5G		
n/a	▲ 9% 2021 - 2022	n/a	n/a	n/a
n/a	▲ 10.4% 2012 - 2022	n/a	n/a	n/a
n/a	10.6 per 100 inhabitants in 2022	n/a	n/a	n/a

Socioeconomic impact

Labor productivity	Life expectancy	Temperature change
n/a	▲ 1% 2021 - 2022	▲ 1.6°C 2023
n/a	0% 2012 - 2022	n/a
	71.5 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.



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

> Innovation overperformers relative to their economic development





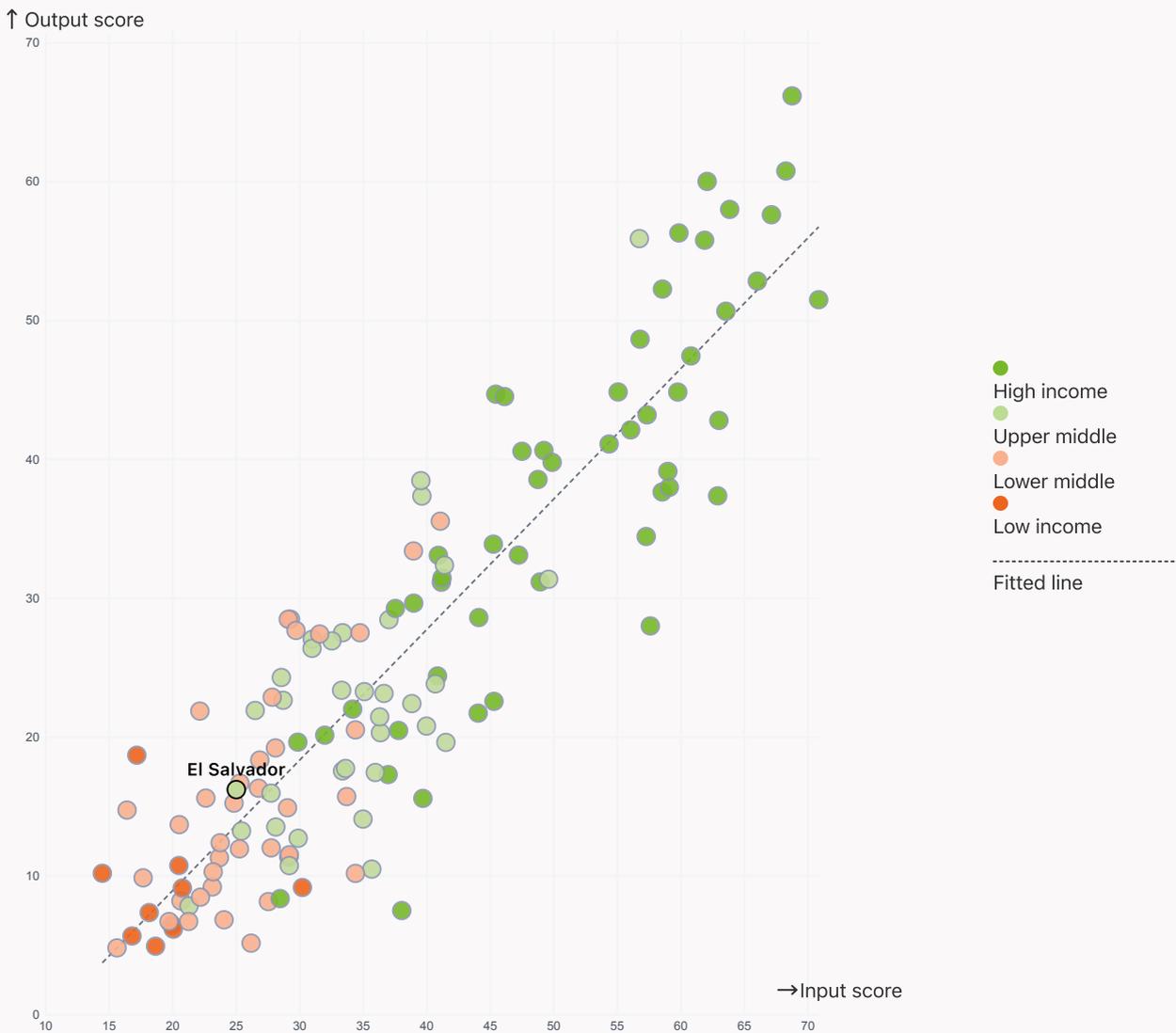
Effectively translating innovation investments into innovation outputs

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.



El Salvador produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

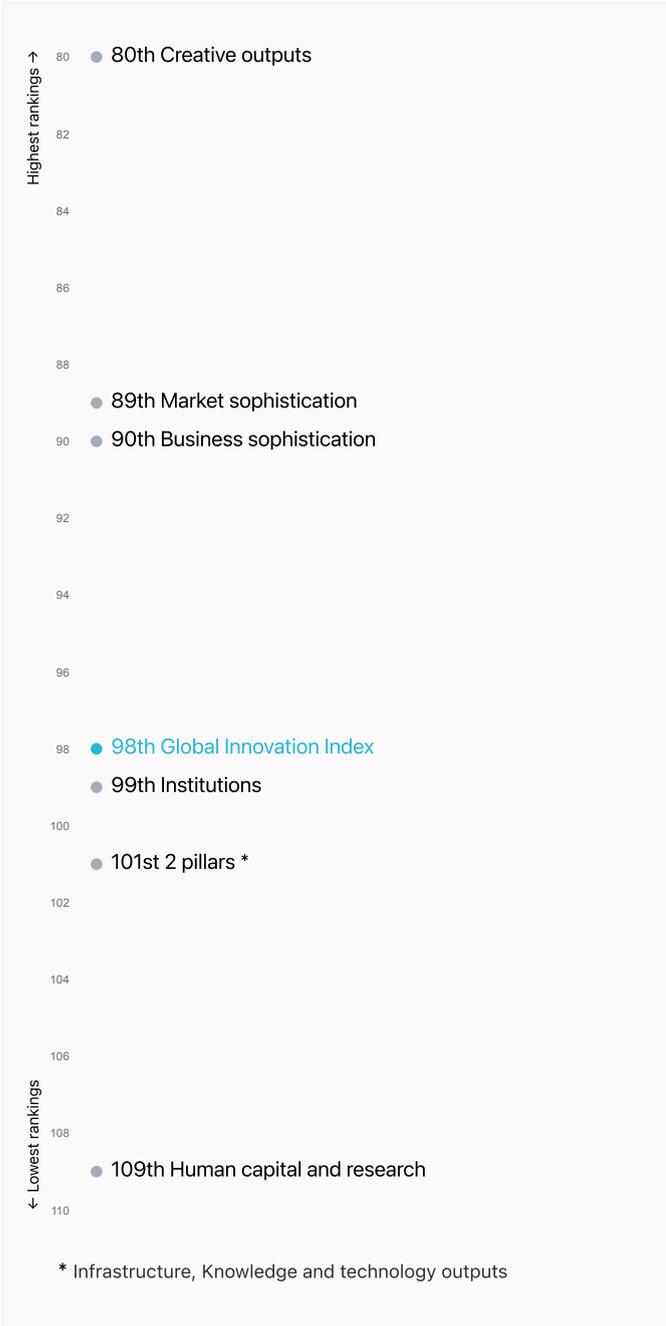


Global Innovation Index 2024



Overview of El Salvador'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 El Salvador are those that rank above the GII (shown in blue) and the weakest are those that rank below.



Highest rankings



El Salvador ranks highest in Creative outputs (80th), Market sophistication (89th) and Business sophistication (90th).

Lowest rankings



El Salvador ranks lowest in Human capital and research (109th), Infrastructure, Knowledge and technology outputs (101st) and Institutions (99th).

The full WIPO Intellectual Property  Statistics profile for El Salvador can be found on [this link](#).



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

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



Upper-Middle-Income economies

El Salvador performs below the upper-middle-income group average in all pillars.



Latin America And The Caribbean

El Salvador performs above the regional average in Creative outputs.

Institutions

Top 10 | Score: 80.81

Upper middle income | Score: 43.0

LCN | Score: 38.36

El Salvador | Score: 33.31

Human capital and research

Top 10 | Score: 61.30

Upper middle income | Score: 29.5

LCN | Score: 26.04

El Salvador | Score: 17.64

Infrastructure

Top 10 | Score: 58.57

Upper middle income | Score: 39.8

LCN | Score: 35.16

El Salvador | Score: 27.71

Market sophistication

Top 10 | Score: 62.12

Upper middle income | Score: 32.9

LCN | Score: 27.03

El Salvador | Score: 24.58

Business sophistication

Top 10 | Score: 63.64

Upper middle income | Score: 27.6

LCN | Score: 24.99

El Salvador | Score: 22.10

Knowledge and technology outputs

Top 10 | Score: 57.29

Upper middle income | Score: 20.6

LCN | Score: 15.72

El Salvador | Score: 11.92

Creative outputs

Top 10 | Score: 56.54

Upper middle income | Score: 24.3

El Salvador | Score: 20.39

LCN | Score: 19.36



Innovation strengths and weaknesses in El Salvador

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



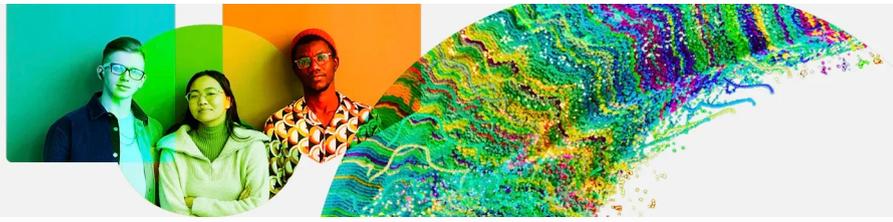
El Salvador's main innovation strengths are **Trademarks by origin/bn PPP\$ GDP** (rank 18), **High-tech imports, % total trade** (rank 24) and **Low-carbon energy use, %** (rank 30).

Strengths

Weaknesses

Rank	Code	Indicator name	Rank	Code	Indicator name
18	7.1.2	Trademarks by origin/bn PPP\$ GDP	130	6.1.4	Scientific and technical articles/bn PPP\$ GDP
24	5.3.2	High-tech imports, % total trade	127	6.1.5	Citable documents H-index
30	3.3.2	Low-carbon energy use, %	124	5.2.1	Public Research-Industry co-publications, %
37	5.3.1	Intellectual property payments, % total trade	121	5.2.3	State of cluster development†
45	6.3.4	ICT services exports, % total trade	115	2.1.5	Pupil-teacher ratio, secondary
49	6.3.3	High-tech exports, % total trade	99	6.1.2	PCT patents by origin/bn PPP\$ GDP
51	4.1.2	Domestic credit to private sector, % GDP	79	2.1.4	PISA scales in reading, maths and science
55	3.3.1	GDP/unit of energy use	75	2.3.4	QS university ranking, top 3*
56	2.1.1	Expenditure on education, % GDP	49	6.2.2	Unicorn valuation, % GDP
57	5.3.3	ICT services imports, % total trade	41	2.3.3	Global corporate R&D investors, top 3, mn USD

Global Innovation Index 2024



El Salvador's innovation system

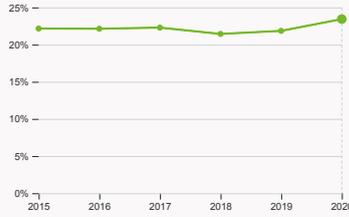
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in El Salvador



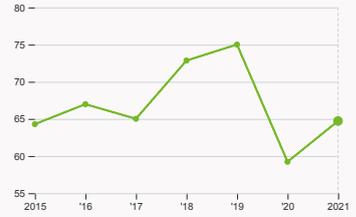
2.1.1 Expenditure on education

was equal to 4.53 % GDP in 2022, up by 1.003 percentage points from the year prior – and equivalent to an indicator rank of 56.



2.2.2 Graduates in science and engineering

was equal to 23.43 % of total graduates in 2020, up by 1.58 percentage points from the year prior – and equivalent to an indicator rank of 56.



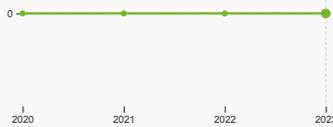
2.3.1 Researchers

was equal to 64.72 FTE per million population in 2021, up by 9.27% from the year prior – and equivalent to an indicator rank of 96.



2.3.2 Gross expenditure on R&D

was equal to 0.16 % GDP in 2021, down by 0.003 percentage points from the year prior – and equivalent to an indicator rank of 93.



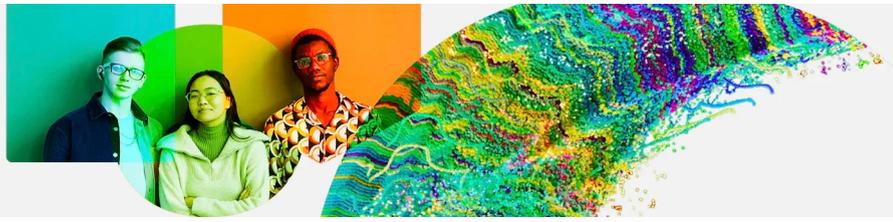
2.3.4 QS university ranking

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.



5.1.1 Knowledge-intensive employment

was equal to 14.79 % in 2022, up by 2.04 percentage points from the year prior – and equivalent to an indicator rank of 91.

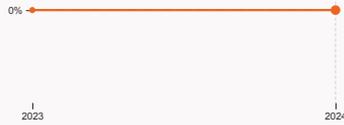


› Innovation outputs in El Salvador



6.1.1 Patents by origin

was equal to 4 patents in 2022, up by 100% from the year prior – and equivalent to an indicator rank of 116.



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.



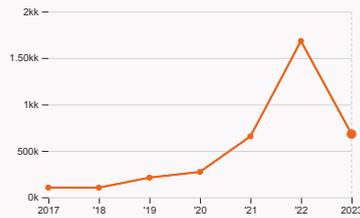
6.3.2 Production and export complexity

was equal to a score of 0.05 in 2021, up by 155.56% from the year prior – and equivalent to an indicator rank of 60.



6.3.3 High-tech exports

was equal to 415.37 million USD in 2022, up by 19.35% from the year prior – and equivalent to an indicator rank of 49.



7.3.3 Mobile app creation

was equal to 681.21 thousand global downloads of mobile apps in 2023, down by 59.52% from the year prior – and equivalent to an indicator rank of 101.

Global Innovation Index 2024



El Salvador

GII 2024 rank

98

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
89	107	Upper middle	LCN	6.3	74.5	11,717.1
			Score / Value Rank			
Institutions			33.3 99	Business sophistication		
1.1 Institutional environment			43.8 88	5.1 Knowledge workers		
1.1.1 Operational stability for businesses*			52 89	24 93		
1.1.2 Government effectiveness*			35.6 90	5.1.1 Knowledge-intensive employment, %		
1.2 Regulatory environment			26.1 105 ◇	5.1.2 Firms offering formal training, %		
1.2.1 Regulatory quality*			29.7 97	5.1.3 GERD performed by business, % GDP		
1.2.2 Rule of law*			22.6 108 ◇	5.1.4 GERD financed by business, %		
1.3 Business environment			30 97	5.1.5 Females employed w/advanced degrees, %		
1.3.1 Policy stability for doing business*			23.5 116 ◇	5.2 Innovation linkages		
1.3.2 Entrepreneurship policies and culture*			36.5 45	5.2.1 Public Research-Industry co-publications, %		
Human capital and research			17.6 109 ◇	5.2.2 University-industry R&D collaboration†		
2.1 Education			30.4 121 ◇	5.2.3 State of cluster development†		
2.1.1 Expenditure on education, % GDP			4.5 56 ●◆	5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP		
2.1.2 Government funding/pupil, secondary, % GDP/cap			15.1 71	5.2.5 Patent families/bn PPP\$ GDP		
2.1.3 School life expectancy, years			11.8 95	5.3 Knowledge absorption		
2.1.4 PISA scales in reading, maths and science			360.5 79 ○◇	5.3.1 Intellectual property payments, % total trade		
2.1.5 Pupil-teacher ratio, secondary			27.6 115 ○◇	5.3.2 High-tech imports, % total trade		
2.2 Tertiary education			21.8 90	5.3.3 ICT services imports, % total trade		
2.2.1 Tertiary enrolment, % gross			30.8 91 ◇	5.3.4 FDI net inflows, % GDP		
2.2.2 Graduates in science and engineering, %			23.4 56	5.3.5 Research talent, % in businesses		
2.2.3 Tertiary inbound mobility, %			0.4 102 ◇	Knowledge and technology outputs		
2.3 Research and development (R&D)			0.8 103	6.1 Knowledge creation		
2.3.1 Researchers, FTE/mn pop.			64.7 96 ◇	6.1.1 Patents by origin/bn PPP\$ GDP		
2.3.2 Gross expenditure on R&D, % GDP			0.2 93	6.1.2 PCT patents by origin/bn PPP\$ GDP		
2.3.3 Global corporate R&D investors, top 3, mn USD			0 41 ○◇	6.1.3 Utility models by origin/bn PPP\$ GDP		
2.3.4 QS university ranking, top 3*			0 75 ○◇	6.1.4 Scientific and technical articles/bn PPP\$ GDP		
Infrastructure			27.7 101 ◇	6.1.5 Citable documents H-index		
3.1 Information and communication technologies (ICTs)			44.4 109 ◇	6.2 Knowledge impact		
3.1.1 ICT access*			39.6 117 ◇	6.2.1 Labor productivity growth, %		
3.1.2 ICT use*			63.3 93 ◇	6.2.2 Unicorn valuation, % GDP		
3.1.3 Government's online service*			41.1 109 ◇	6.2.3 Software spending, % GDP		
3.1.4 E-participation*			33.7 98 ◇	6.2.4 High-tech manufacturing, %		
3.2 General infrastructure			17.1 106	6.3 Knowledge diffusion		
3.2.1 Electricity output, GWh/mn pop.			1,147.4 94 ◇	6.3.1 Intellectual property receipts, % total trade		
3.2.2 Logistics performance*			27.3 76	6.3.2 Production and export complexity		
3.2.3 Gross capital formation, % GDP			20.3 98	6.3.3 High-tech exports, % total trade		
3.3 Ecological sustainability			21.6 61	6.3.4 ICT services exports, % total trade		
3.3.1 GDP/unit of energy use			11.8 55 ●◆	6.3.5 ISO 9001 quality/bn PPP\$ GDP		
3.3.2 Low-carbon energy use, %			32 30 ●◆	Creative outputs		
3.3.3 ISO 14001 environment/bn PPP\$ GDP			0.3 107	20.4 [80]		
Market sophistication			24.6 89	7.1 Intangible assets		
4.1 Credit			26.2 67	7.1.1 Intangible asset intensity, top 15, %		
4.1.1 Finance for startups and scaleups†			31.6 64	7.1.2 Trademarks by origin/bn PPP\$ GDP		
4.1.2 Domestic credit to private sector, % GDP			61.4 51 ●◆	7.1.3 Global brand value, top 5,000, % GDP		
4.1.3 Loans from microfinance institutions, % GDP			n/a n/a	7.1.4 Industrial designs by origin/bn PPP\$ GDP		
4.2 Investment			4.1 [91]	7.2 Creative goods and services		
4.2.1 Market capitalization, % GDP			n/a n/a	7.2.1 Cultural and creative services exports, % total trade		
4.2.2 Venture capital (VC) investors, deals/bn PPP\$ GDP			0.02 84	7.2.2 National feature films/mn pop. 15-69		
4.2.3 VC recipients, deals/bn PPP\$ GDP			0.03 80	7.2.3 Entertainment and media market/th pop. 15-69		
4.2.4 VC received, value, % GDP			n/a n/a	7.2.4 Creative goods exports, % total trade		
4.3 Trade, diversification and market scale			43.5 93 ◇	7.3 Online creativity		
4.3.1 Applied tariff rate, weighted avg., %			1.8 62	7.3.1 Top-level domains (TLDs)/th pop. 15-69		
4.3.2 Domestic industry diversification			n/a n/a	7.3.2 GitHub commits/mn pop. 15-69		
4.3.3 Domestic market scale, bn PPP\$			74.5 99	7.3.3 Mobile app creation/bn PPP\$ GDP		

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 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 El Salvador.



El Salvador has missing data for eleven indicators and outdated data for twelve indicators.

Missing data for El Salvador

Code	Indicator name	Economy Year	Model Year	Source
4.1.3	Loans from microfinance institutions, % GDP	n/a	2022	International Monetary Fund, Financial Access Survey (FAS)
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank
4.2.4	VC received, value, % GDP	n/a	2023	LSEG Data & Analytics; International Monetary Fund
4.3.2	Domestic industry diversification	n/a	2021	United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database (INDSTAT) Rev.3 and 4
5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	n/a	2023	LSEG Data & Analytics; International Monetary Fund
5.3.5	Research talent, % in businesses	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing, %	n/a	2021	United Nations Industrial Development Organization
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
7.2.2	National feature films/mn pop. 15–69	n/a	2022	OMDIA; United Nations, World Population Prospects
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 El Salvador

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture ⁺	2016	2023	Global Entrepreneurship Monitor
2.1.3	School life expectancy, years	2016	2022	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2018	2022	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2020	2022	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2020	2021	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	2020	2022	UNESCO Institute for Statistics

Global Innovation Index 2024



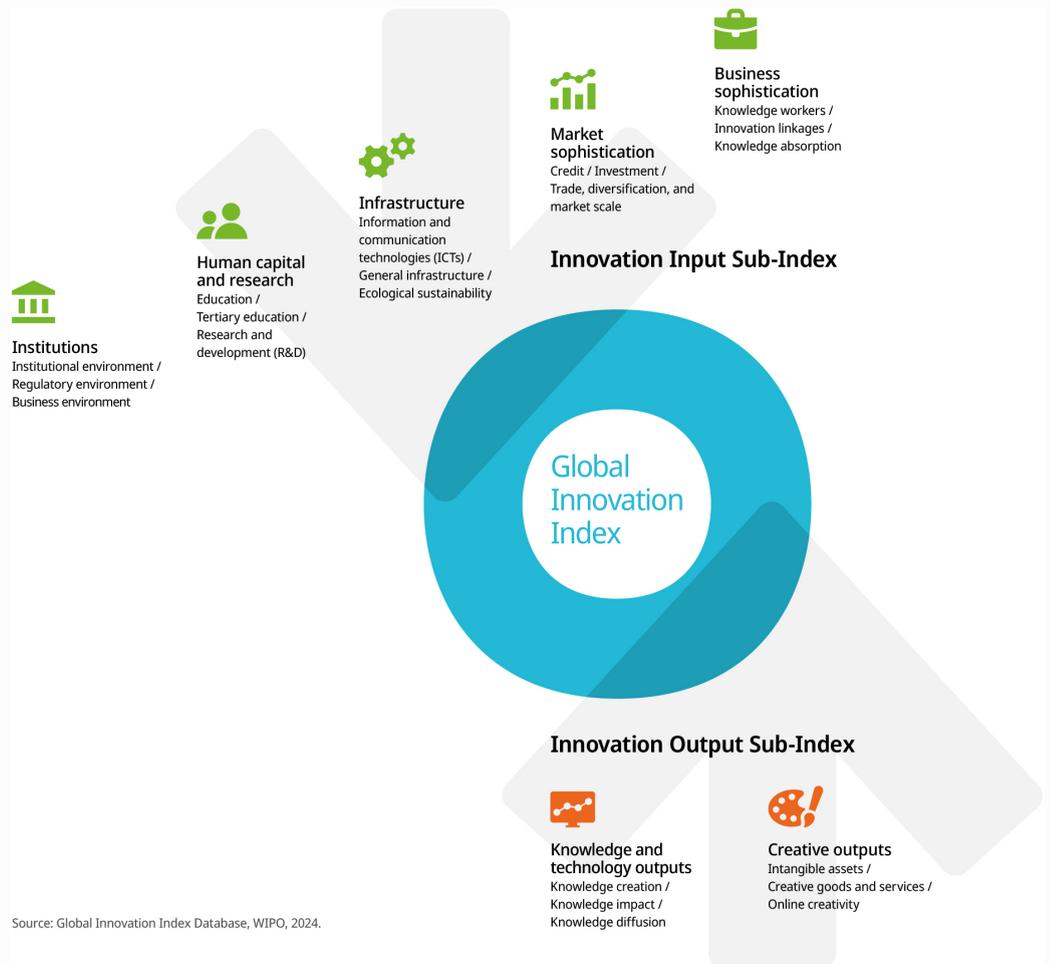
Code	Indicator name	Economy Year	Model Year	Source
2.3.1	Researchers, FTE/mn pop.	2021	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2021	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.1.1	Finance for startups and scaleups [†]	2016	2023	Global Entrepreneurship Monitor
5.1.3	GERD performed by business, % GDP	2019	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by business, %	2019	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	Females employed w/advanced degrees, %	2022	2023	International Labour Organization

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.



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.