



ARGENTINA

69th Argentina ranks 69th among the 132 economies featured in the GII 2022.

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 Argentina 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 Argentina in the GII 2022 is between ranks 62 and 71.

Rankings for Argentina (2020–2022)

GIIYR	GII	Innovation inputs	Innovation outputs
2020	80	80	73
2021	73	77	71
2022	69	77	62

- Argentina performs better in innovation outputs than innovation inputs in 2022.
- This year Argentina ranks 77th in innovation inputs, the same as last year but higher than 2020.
- As for innovation outputs, Argentina ranks 62nd. This position is higher than both 2021 and 2020.

19th Argentina ranks 19th among the 36 upper-middle-income group economies.

8th Argentina ranks 8th among the 18 economies in Latin America and the Caribbean.

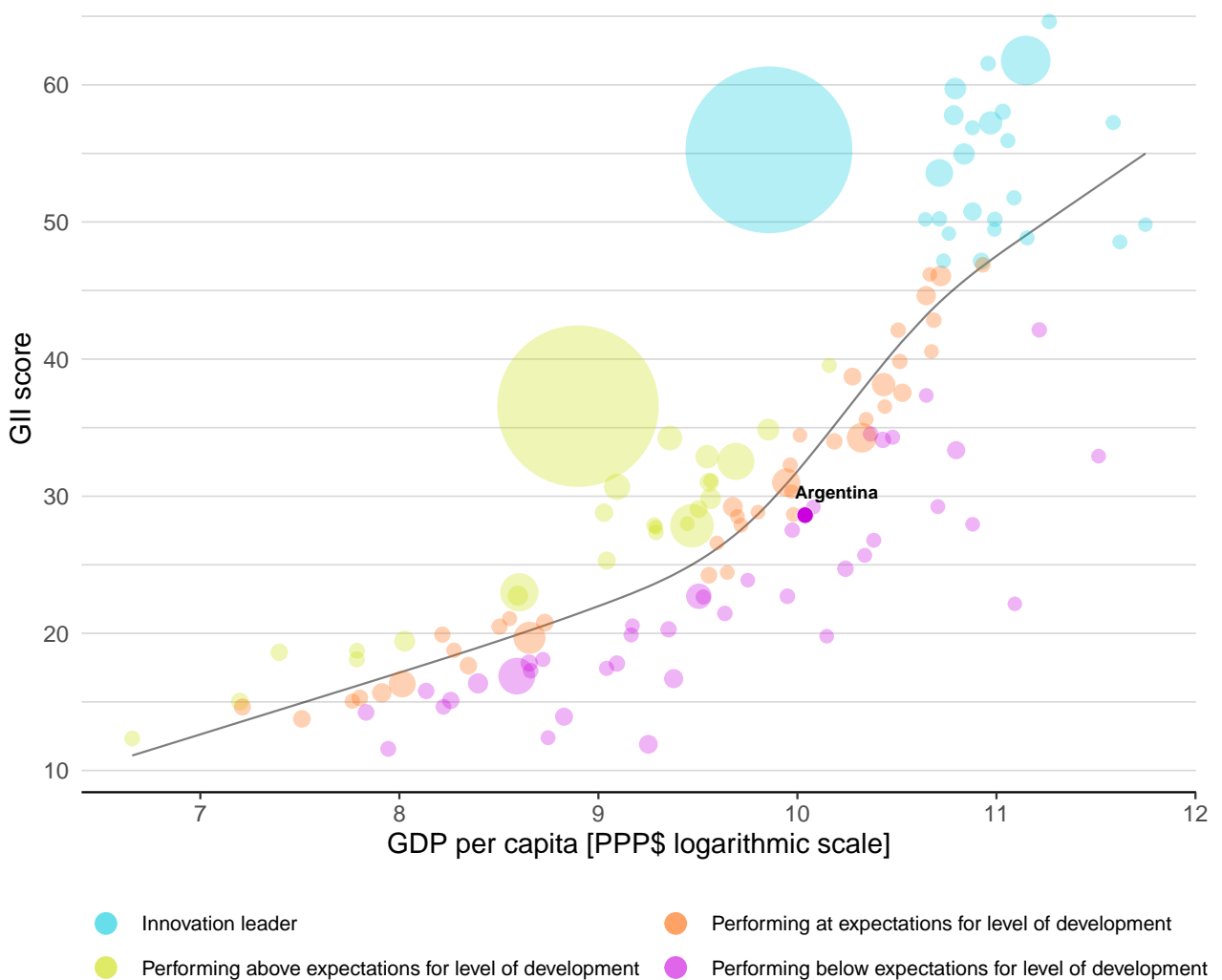


EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

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

The positive relationship between innovation and development



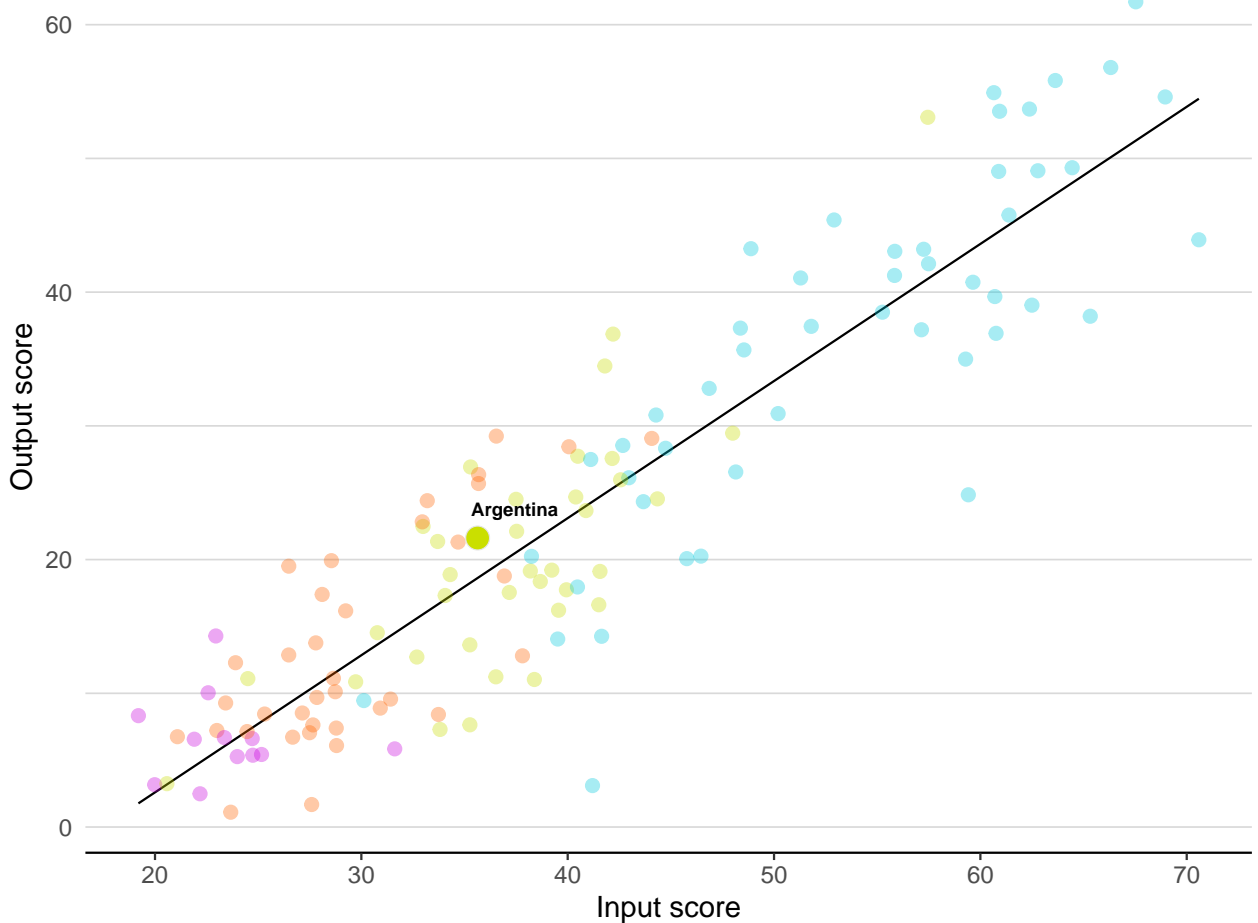


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

Argentina produces more innovation outputs relative to its level of innovation investments.

Innovation input to output performance

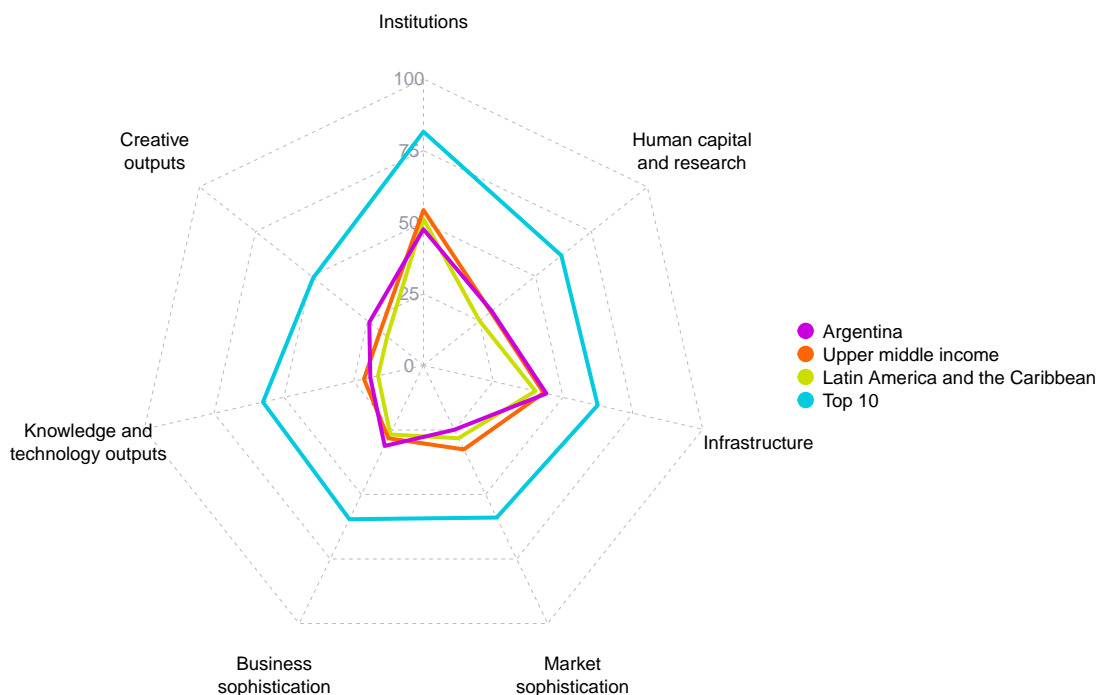


Income ● High income ● Upper middle ● Lower middle ● Low income — Fitted line



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

The seven GII pillar scores for Argentina



Upper-middle-income group economies

Argentina performs above the upper-middle-income group average in four pillars, namely: Human capital and research; Infrastructure; Business sophistication; and, Creative outputs.

Latin America and the Caribbean

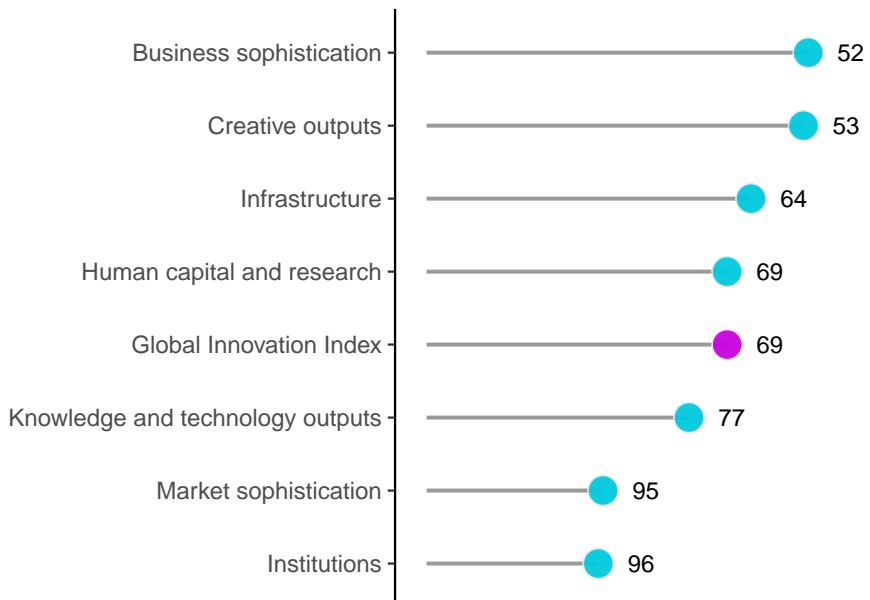
Argentina performs above the regional average in five pillars, namely: Human capital and research; Infrastructure; Business sophistication; Knowledge and technology outputs; and, Creative outputs.



OVERVIEW OF RANKINGS IN THE SEVEN GII 2022 AREAS

Argentina performs best in Business sophistication and its weakest performance is in Institutions.

The seven GII pillar ranks for Argentina



Note: The highest possible ranking in each pillar is 1.

The full WIPO Intellectual Property Statistics profile for Argentina can be found at:

https://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=AR.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the indicator strengths and weaknesses of Argentina in the GII 2022.








Strengths and weaknesses for Argentina

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.3.2	Entrepreneurship policies and culture	10	1.2.3	Cost of redundancy dismissal	120
2.1.3	School life expectancy, years	14	1.3.1	Policies for doing business	128
2.2.1	Tertiary enrolment, % gross	5	2.1.4	PISA scales in reading, maths and science	69
2.3.4	QS university ranking, top 3	28	2.3.3	Global corporate R&D investors, top 3, mn USD	38
4.3.3	Domestic market scale, bn PPP\$	27	4.1.2	Domestic credit to private sector, % GDP	115
5.3.1	Intellectual property payments, % total trade	10	4.2.1	Market capitalization, % GDP	71
5.3.3	ICT services imports, % total trade	18	4.2.2	Venture capital investors, deals/bn PPP\$ GDP	84
7.1.2	Trademarks by origin/bn PPP\$ GDP	28	4.2.3	Venture capital recipients, deals/bn PPP\$ GDP	92
7.2.1	Cultural and creative services exports, % total trade	21	6.2.1	Labor productivity growth, %	109
7.2.2	National feature films/mn pop. 15–69	17	6.2.2	New businesses/th pop. 15–64	112

Argentina

69

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
62	77	Upper middle	LCN	45.6	1,049.4	22,892

	Score/Value	Rank		Score/Value	Rank
 Institutions	47.6	96	 Business sophistication	31.2	52
1.1 Political environment	54.3	83	5.1 Knowledge workers	34.9	59
1.1.1 Political and operational stability*	63.6	81	5.1.1 Knowledge-intensive employment, %	25.3	57
1.1.2 Government effectiveness*	45.0	83	5.1.2 Firms offering formal training, %	40.2	32
1.2 Regulatory environment	44.1	119 ○ ◇	5.1.3 GERD performed by business, % GDP	0.2	56
1.2.1 Regulatory quality*	30.8	101 ◇	5.1.4 GERD financed by business, %	26.5	62
1.2.2 Rule of law*	33.9	90	5.1.5 Females employed w/advanced degrees, %	16.3	45
1.2.3 Cost of redundancy dismissal	30.3	120 ○ ◇	5.2 Innovation linkages	18.4	105
1.3 Business environment	44.3	75	5.2.1 University-industry R&D collaboration [†]	38.0	91
1.3.1 Policies for doing business [†]	12.4	128 ○ ◇	5.2.2 State of cluster development and depth [†]	40.4	103
1.3.2 Entrepreneurship policies and culture*	76.2	10 ● ◆	5.2.3 GERD financed by abroad, % GDP	0.0	49
			5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP	0.0	101
			5.2.5 Patent families/bn PPP\$ GDP	0.1	64
 Human capital and research	30.5	69	5.3 Knowledge absorption	40.3	35 ◆
2.1 Education	42.5	89	5.3.1 Intellectual property payments, % total trade	2.3	10 ● ◆
2.1.1 Expenditure on education, % GDP	4.7	49	5.3.2 High-tech imports, % total trade	10.6	33
2.1.2 Government funding/pupil, secondary, % GDP/cap	16.7	73	5.3.3 ICT services imports, % total trade	2.9	18 ● ◆
2.1.3 School life expectancy, years	17.9	14 ● ◆	5.3.4 FDI net inflows, % GDP	1.6	84
2.1.4 PISA scales in reading, maths and science	395.0	69 ○	5.3.5 Research talent, % in businesses	11.2	61
2.1.5 Pupil-teacher ratio, secondary	n/a	n/a			
2.2 Tertiary education	30.9	67	 Knowledge and technology outputs	19.0	77
2.2.1 Tertiary enrolment, % gross	95.4	5 ● ◆	6.1 Knowledge creation	13.6	62
2.2.2 Graduates in science and engineering, %	15.4	95	6.1.1 Patents by origin/bn PPP\$ GDP	1.0	65
2.2.3 Tertiary inbound mobility, %	3.5	62	6.1.2 PCT patents by origin/bn PPP\$ GDP	n/a	n/a
2.3 Research and development (R&D)	18.1	43	6.1.3 Utility models by origin/bn PPP\$ GDP	0.2	52
2.3.1 Researchers, FTE/mn pop.	1,230.8	50	6.1.4 Scientific and technical articles/bn PPP\$ GDP	10.8	80
2.3.2 Gross expenditure on R&D, % GDP	0.5	65	6.1.5 Citable documents H-index	27.8	36 ◆
2.3.3 Global corporate R&D investors, top 3, mn USD	0.0	38 ○ ◇	6.2 Knowledge impact	21.2	86
2.3.4 QS university ranking, top 3*	43.1	28 ● ◆	6.2.1 Labor productivity growth, %	-1.6	109 ○ ◇
			6.2.2 New businesses/th pop. 15-64	0.2	112 ○
			6.2.3 Software spending, % GDP	0.2	53
			6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	6.5	40
			6.2.5 High-tech manufacturing, %	25.9	48
 Infrastructure	44.0	64	6.3 Knowledge diffusion	22.3	69
3.1 Information and communication technologies (ICTs)	80.8	44	6.3.1 Intellectual property receipts, % total trade	0.4	29 ◆
3.1.1 ICT access*	90.8	38	6.3.2 Production and export complexity	35.9	71
3.1.2 ICT use*	62.2	68	6.3.3 High-tech exports, % total trade	0.9	74
3.1.3 Government's online service*	84.7	30	6.3.4 ICT services exports, % total trade	3.1	39
3.1.4 E-participation*	85.7	29			
3.2 General infrastructure	26.0	76	 Creative outputs	24.2	53
3.2.1 Electricity output, GWh/mn pop.	3,184.7	61	7.1 Intangible assets	36.9	45
3.2.2 Logistics performance*	39.1	60	7.1.1 Intangible asset intensity, top 15, %	70.7	22
3.2.3 Gross capital formation, % GDP	18.9	100	7.1.2 Trademarks by origin/bn PPP\$ GDP	68.4	28 ●
3.3 Ecological sustainability	25.3	72	7.1.3 Global brand value, top 5,000, % GDP	15.1	50
3.3.1 GDP/unit of energy use	10.1	69	7.1.4 Industrial designs by origin/bn PPP\$ GDP	1.3	60
3.3.2 Environmental performance*	41.1	67	7.2 Creative goods and services	17.0	62
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	1.4	61	7.2.1 Cultural and creative services exports, % total trade	1.4	21 ● ◆
			7.2.2 National feature films/mn pop. 15-69	7.0	17 ● ◆
			7.2.3 Entertainment and media market/th pop. 15-69	4.5	46
			7.2.4 Printing and other media, % manufacturing	n/a	n/a
			7.2.5 Creative goods exports, % total trade	0.1	102
 Market sophistication	24.9	95	7.3 Online creativity	5.9	59
4.1 Credit	17.3	94	7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	3.1	63
4.1.1 Finance for startups and scaleups*	30.5	57	7.3.2 Country-code TLDs/th pop. 15-69	6.3	48
4.1.2 Domestic credit to private sector, % GDP	16.0	115 ○ ◇	7.3.3 GitHub commit pushes received/mn pop. 15-69	7.4	50
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	7.3.4 Mobile app creation/bn PPP\$ GDP	6.8	52
4.2 Investment	4.0	87			
4.2.1 Market capitalization, % GDP	11.5	71 ○			
4.2.2 Venture capital investors, deals/bn PPP\$ GDP	0.0	84 ○			
4.2.3 Venture capital recipients, deals/bn PPP\$ GDP	0.0	92 ○			
4.2.4 Venture capital received, value, % GDP	0.0	47			
4.3 Trade, diversification, and market scale	53.4	74			
4.3.1 Applied tariff rate, weighted avg., %	6.9	101 ◇			
4.3.2 Domestic industry diversification	81.4	67			
4.3.3 Domestic market scale, bn PPP\$	1,049.4	27 ●			

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/global_innovation_index/en/2022. 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 indicators that are either missing or outdated for Argentina.

Missing data for Argentina

Code	Indicator name	Economy year	Model year	Source
2.1.5	Pupil-teacher ratio, secondary	n/a	2019	UNESCO Institute for Statistics
4.1.3	Loans from microfinance institutions, % GDP	n/a	2020	International Monetary Fund, Financial Access Survey (FAS)
6.1.2	PCT patents by origin/bn PPP\$ GDP	n/a	2021	World Intellectual Property Organization
7.2.4	Printing and other media, % manufacturing	n/a	2019	United Nations Industrial Development Organization

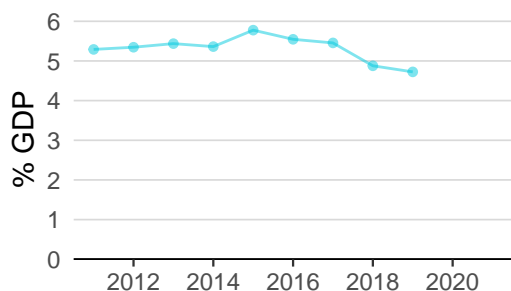
Outdated data for Argentina

Code	Indicator name	Economy year	Model year	Source
1.3.2	Entrepreneurship policies and culture	2018	2021	Global Entrepreneurship Monitor
2.1.1	Expenditure on education, % GDP	2019	2020	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2019	2020	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2019	2020	UNESCO Institute for Statistics
2.3.2	Gross expenditure on R&D, % GDP	2019	2020	UNESCO Institute for Statistics
4.1.1	Finance for startups and scaleups	2018	2021	Global Entrepreneurship Monitor
4.1.2	Domestic credit to private sector, % GDP	2017	2020	International Monetary Fund
4.2.1	Market capitalization, % GDP	2019	2020	World Federation of Exchanges
5.1.2	Firms offering formal training, %	2017	2019	World Bank Enterprise Surveys
5.1.3	GERD performed by business, % GDP	2019	2020	UNESCO Institute for Statistics
5.3.5	Research talent, % in businesses	2019	2020	UNESCO Institute for Statistics
6.2.2	New businesses/th pop. 15–64	2018	2020	World Bank, Entrepreneurship Database

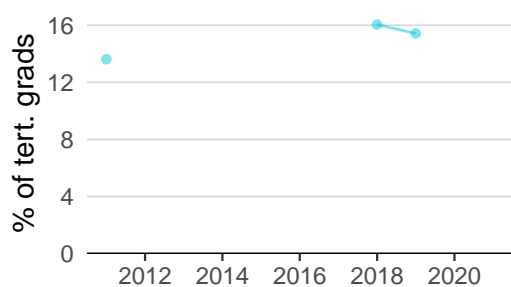
ARGENTINA'S INNOVATION SYSTEM

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

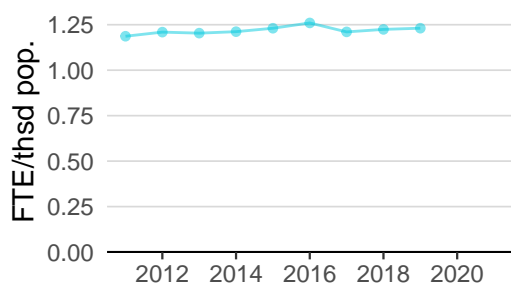
Innovation inputs



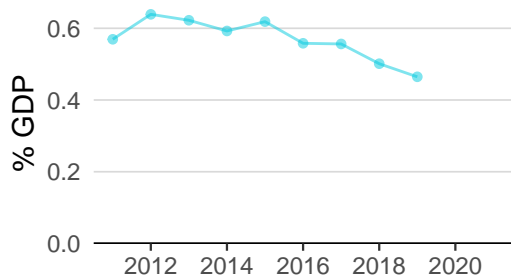
2.1.1 Expenditure on education was equal to 4.7% GDP in 2019—down by 3 percentage points from the year prior—and equivalent to an indicator rank of 49.



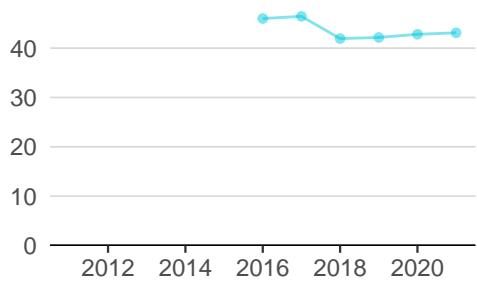
2.2.2 Graduates in science and engineering was equal to 15.4% of tert. grads in 2019—down by 4 percentage points from the year prior—and equivalent to an indicator rank of 95.



2.3.1 Researchers was equal to 1.2 FTE/thsd pop. in 2019—up by 1 percentage point from the year prior—and equivalent to an indicator rank of 50.



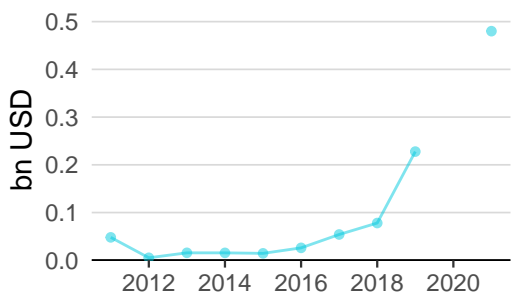
2.3.2 Gross expenditure on R&D was equal to 0.5% GDP in 2019—down by 7 percentage points from the year prior—and equivalent to an indicator rank of 65.



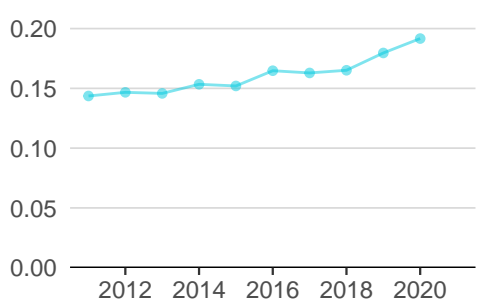
2.3.4 QS university ranking was equal to 43.1 in 2021—up by 1 percentage point from the year prior—and equivalent to an indicator rank of 28.



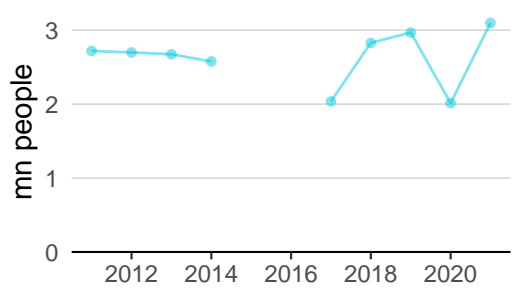
3.1.1 ICT access was equal to 9.1 in 2020 and equivalent to an indicator rank of 38.



4.2.4 Venture capital received was equal to 0.5 bn USD in 2021 and equivalent to an indicator rank of 47.

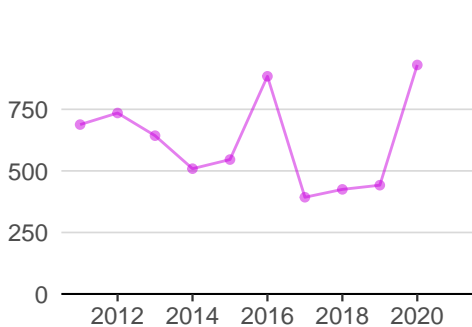


4.3.2 Domestic industry diversification was equal to 0.2 in 2020—up by 7 percentage points from the year prior—and equivalent to an indicator rank of 67.

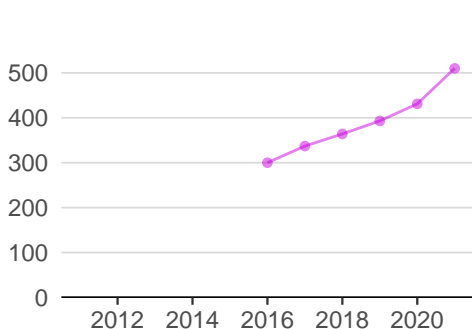


5.1.1 Knowledge-intensive employment was equal to 3.1 mn people in 2021—up by 54 percentage points from the year prior—and equivalent to an indicator rank of 57.

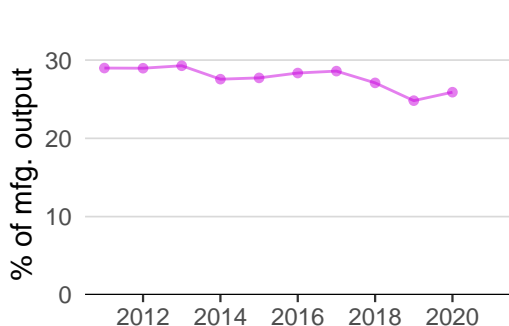
Innovation outputs



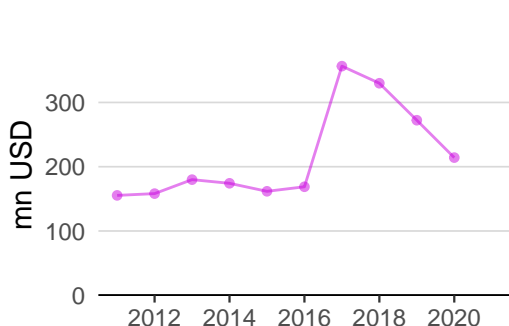
6.1.1 Patents by origin was equal to 930.0 in 2020—up by 110 percentage points from the year prior—and equivalent to an indicator rank of 65.



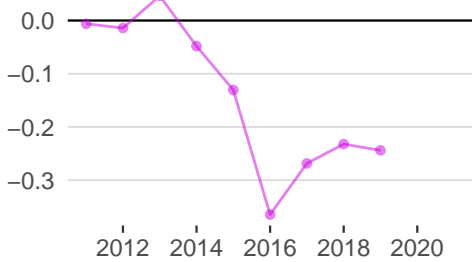
6.1.5 Citable documents H-index was equal to 510.0 in 2021—up by 18 percentage points from the year prior—and equivalent to an indicator rank of 36.



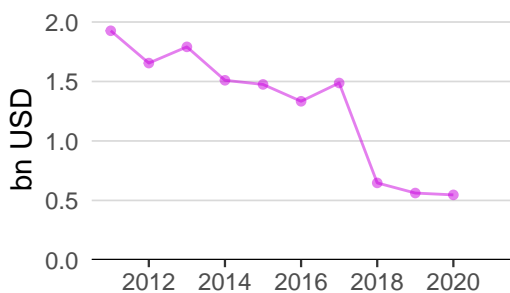
6.2.5 High-tech manufacturing was equal to 25.9% of mfg. output in 2020—up by 4 percentage points from the year prior—and equivalent to an indicator rank of 48.



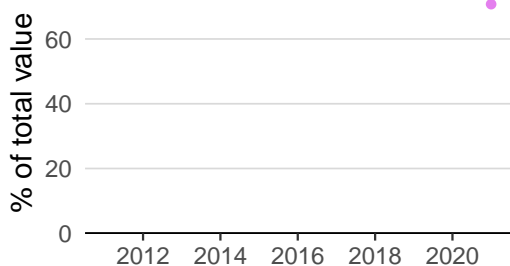
6.3.1 Intellectual property receipts was equal to 214.2 mn USD in 2020—down by 21 percentage points from the year prior—and equivalent to an indicator rank of 29.



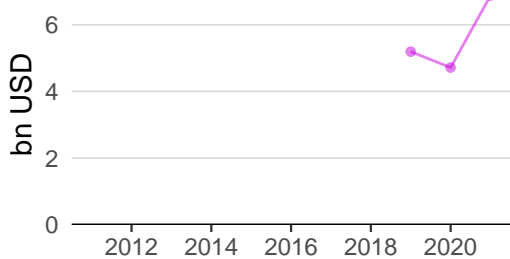
6.3.2 Production and export complexity was equal to -0.2 in 2019—down by 5 percentage points from the year prior—and equivalent to an indicator rank of 71.



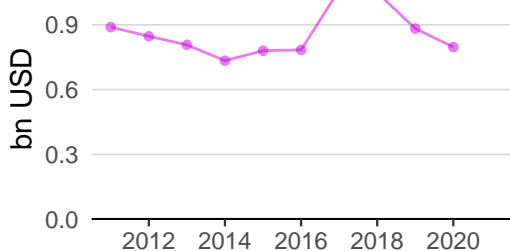
6.3.3 High-tech exports was equal to 0.5 bn USD in 2020—down by 3 percentage points from the year prior—and equivalent to an indicator rank of 74.



7.1.1 Intangible asset intensity was equal to 70.7% of total value in 2021 and equivalent to an indicator rank of 22.



7.1.3 Global brand value was equal to 6.9 bn USD in 2021—up by 46 percentage points from the year prior—and equivalent to an indicator rank of 50.



7.2.1 Cultural and creative services exports was equal to 0.8 bn USD in 2020—down by 10 percentage points from the year prior—and equivalent to an indicator rank of 21.

ARGENTINA'S INNOVATION TOP PERFORMERS

2.3.3 Global corporate R&D investors

Firm	Industry	R&D	R&D Growth	R&D Intensity	Rank
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No observations

Source: European Commission's Joint Research Centre (<https://iri.jrc.ec.europa.eu/scoreboard/2021-eu-industrial-rd-investment-scoreboard>).

2.3.4 QS university ranking

University	Score	Rank
PONTIFICIA UNIVERSIDAD CATÓLICA ARGENTINA	32.9	322=
UNIVERSIDAD DE PALERMO	28.5	391=
UNIVERSIDAD DE BUENOS AIRES	67.9	69

Source: QS Quacquarelli Symonds Ltd (<https://www.topuniversities.com/university-rankings/world-university-rankings/2022>).

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".

7.1.1 Intangible asset intensity, top 15

Firm	Rank
TELECOM ARGENTINA	1
CABLEVISION	2
CORP AMERICA AIRPORTS	3

Source: Brand Finance (<https://brandirectory.com/reports/gift-2021>).

Note: Brand Finance only provides within economy ranks.

7.1.3 Global brand value, top 5,000

Brand	Industry	Rank
MERCADOLIBRE	Retail	1
GLOBANT	Tech	2
YPF	Oil & Gas	3

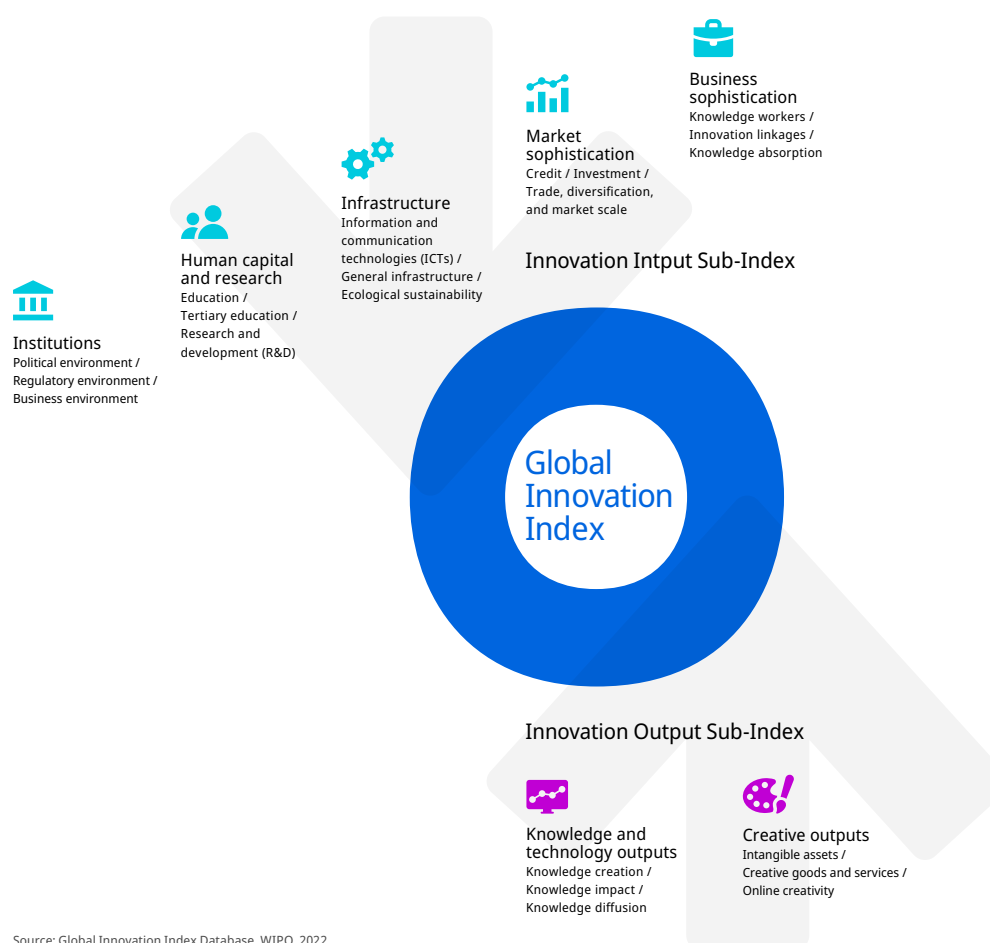
Source: Brand Finance (<https://brandirectory.com>).

Note: Rank corresponds to within economy ranks.

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.