

## ARGENTINA

**80th**

Argentina ranks 80th among the 131 economies featured in the GII 2020.

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 2020 is between ranks 69 and 80.

**Rankings of Argentina (2018–2020)**

	<b>GII</b>	<b>Innovation inputs</b>	<b>Innovation outputs</b>
<b>2020</b>	80	80	73
<b>2019</b>	73	72	75
<b>2018</b>	80	72	81

- Argentina performs better in innovation outputs than innovation inputs in 2020.
- This year Argentina ranks 80th in innovation inputs, lower than last year and lower compared to 2018.
- As for innovation outputs, Argentina ranks 73rd. This position is higher than last year and higher compared to 2018.

**25th**

Argentina ranks 25th among the 37 upper middle-income group economies.

**10th**

Argentina ranks 10th among the 18 economies in Latin America and the Caribbean.

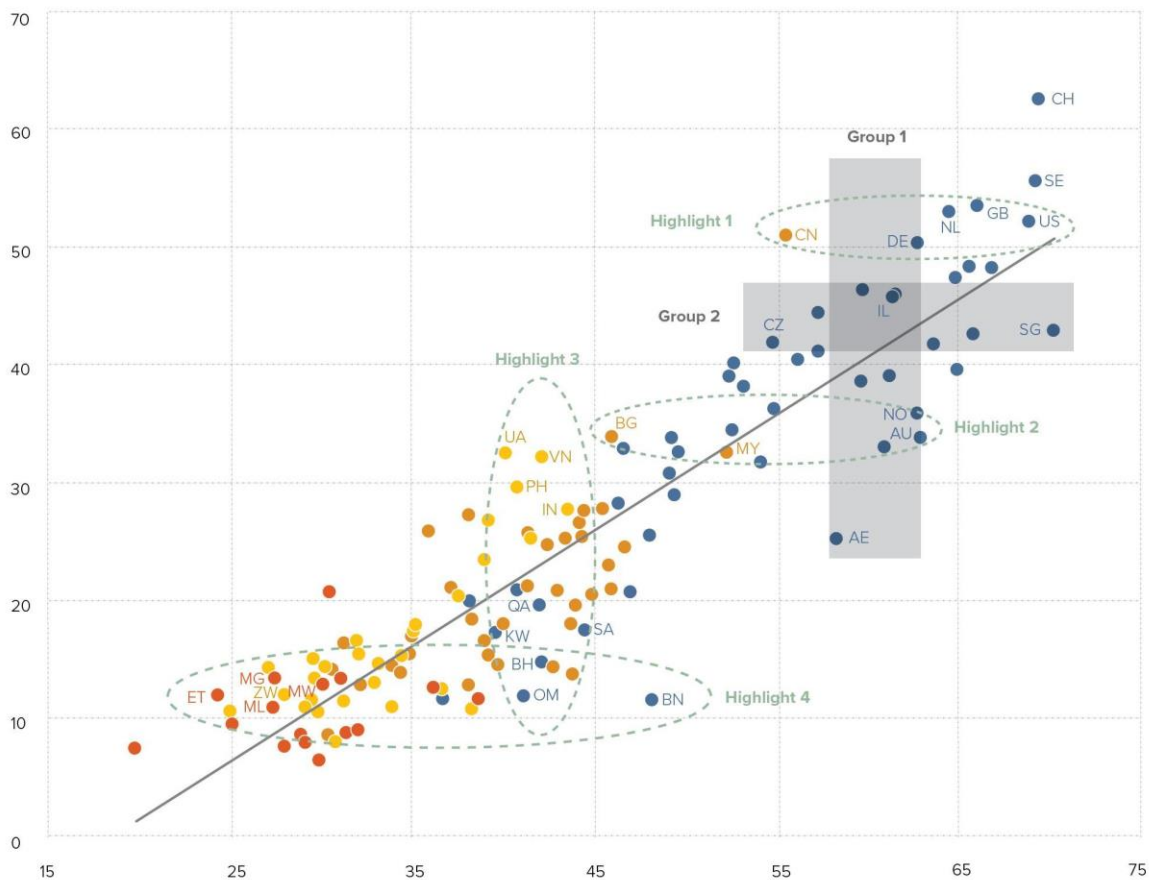


# EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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, 2020**

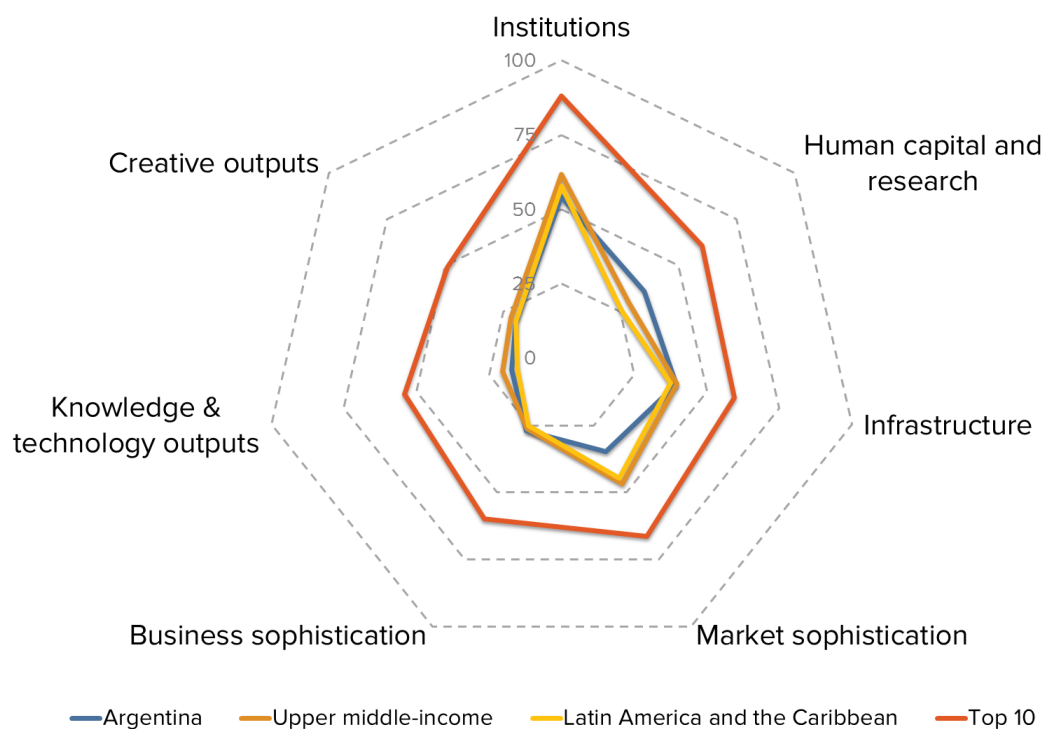


▲ Output score      ● High income group      ● Lower middle-income group      — Fitted values  
 ► Input score      ● Upper middle-income group      ● Low income group

AU	Australia	IN	India	NL	Netherlands	CH	Switzerland
BH	Bahrain	IL	Israel	NO	Norway	UA	Ukraine
BN	Brunei Darussalam	KW	Kuwait	OM	Oman	AE	United Arab Emirates
BG	Bulgaria	MG	Madagascar	PH	Philippines	GB	United Kingdom
CN	China	MW	Malawi	QA	Qatar	US	United States of America
CZ	Czech Republic	ML	Mali	SA	Saudi Arabia	VN	Viet Nam
ET	Ethiopia	MY	Malaysia	SG	Singapore	ZW	Zimbabwe
DE	Germany			SE	Sweden		

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

## Argentina's scores in the seven GII pillars



### Upper middle-income group economies

Argentina has high scores in two out of the seven GII pillars: Human capital & research and Business sophistication, which are above average for the upper middle-income group.

Conversely, Argentina scores below average for its income group in five pillars: Institutions, Infrastructure, Market sophistication, Knowledge & technology outputs and Creative outputs.

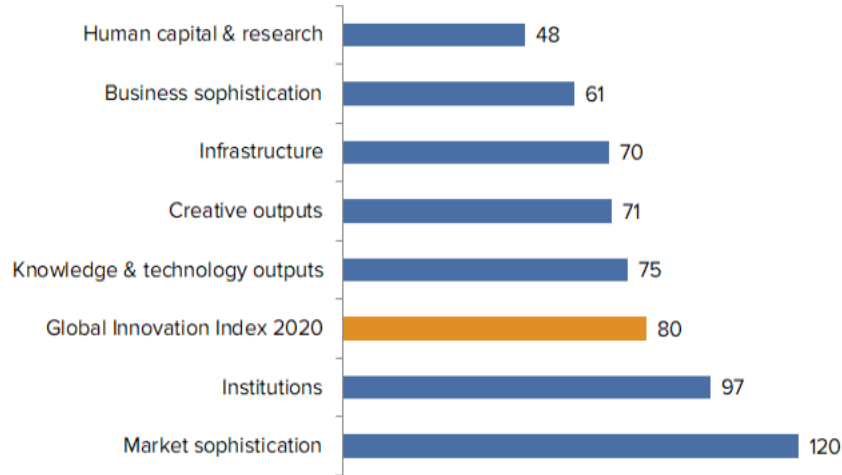
### Latin America and the Caribbean

Compared to other economies in Latin America and the Caribbean, Argentina performs:

- above average in four out of the seven GII pillars: Human capital & research, Infrastructure, Business sophistication, and Knowledge & technology outputs; and
- below average in three of the seven GII pillars: Institutions, Market sophistication, and Creative outputs.

## OVERVIEW OF ARGENTINA RANKINGS IN THE SEVEN GII AREAS

Argentina performs best in Human capital & research and its weakest performance is in Market sophistication.



\*The highest possible ranking in each pillar is 1.

## INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Argentina in the GII 2020.

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
2.1.1	Expenditure on education, % GDP	24	1.2.3	Cost of redundancy dismissal, salary weeks	118
2.1.3	School life expectancy, years	13	2.1.4	PISA scales in reading, maths & science	69
2.2.1	Tertiary enrolment, % gross	4	2.2.2	Graduates in science & engineering, %	98
2.3.3	Global R&D companies, top 3, mn US\$	34	3.2.3	Gross capital formation, % GDP	108
2.3.4	QS university ranking, average score top 3*	30	4	Market sophistication	120
4.3.3	Domestic market scale, bn PPP\$	28	4.1	Credit	121
5.3.1	Intellectual property payments, % total trade	8	4.1.2	Domestic credit to private sector, % GDP	116
7.1.1	Trademarks by origin/bn PPP\$ GDP	34	4.1.3	Microfinance gross loans, % GDP	75
7.2.1	Cultural & creative services exports, % total trade	24	4.2	Investment	123
7.2.2	National feature films/mn pop. 15–69	26	4.2.2	Market capitalization, % GDP	66
			4.3.2	Intensity of local competition†	122
			6.2.1	Growth rate of PPP\$ GDP/worker, %	113
			6.2.2	New businesses/th pop. 15–64	111

## STRENGTHS

GII strengths for Argentina are found in four of the seven GII pillars.

- Human capital & research (48): shows strengths in the indicators Expenditure on education (24), School life expectancy (13), Tertiary enrolment (4), Global R&D companies (34) and QS university ranking (30).
- Market sophistication (120): the indicator Domestic market scale (28) displays a strength.
- Business sophistication (61): the indicator Intellectual property payments (8) reveals a strength.
- Creative outputs (71): demonstrates strengths in the indicators Trademarks by origin (34), Cultural & creative services exports (24) and National feature films (26).

## WEAKNESSES

GII weaknesses for Argentina are found in five of the seven GII pillars.

- Institutions (97): exhibits weakness in the indicator Cost of redundancy dismissal (118).
- Human capital & research (48): displays weaknesses in the indicators PISA scales in reading, maths & science (69) and Graduates in science & engineering (98).
- Infrastructure (70): the indicator Gross capital formation (108) reveals a weakness.
- Market sophistication (120): shows weaknesses in the sub-pillars Credit (121) and Investment (123) and in the indicators Domestic credit to private sector (116), Microfinance gross loans (75), Market capitalization (66) and Intensity of local competition (122).
- Knowledge & technology outputs (75): displays weaknesses in the indicators Growth rate of PPP (113) and New businesses (111).

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
73	80	Upper middle	LCN	44.8	903.5	17,508.9	73
		Score/Value	Rank			Score/Value	Rank
<b>INSTITUTIONS</b> ..... 54.3 97				<b>BUSINESS SOPHISTICATION</b> ..... 26.9 61			
<b>1.1</b>	<b>Political environment</b> .....	<b>55.8</b>	<b>71</b>	<b>5.1</b>	<b>Knowledge workers</b> .....	<b>28.7</b>	<b>70</b>
1.1.1	Political and operational stability*.....	66.1	76	5.1.1	Knowledge-intensive employment, %.....	24.1	62
1.1.2	Government effectiveness*.....	50.7	69	5.1.2	Firms offering formal training, %.....	40.2	28
<b>1.2</b>	<b>Regulatory environment</b> .....	<b>46.8</b>	<b>110</b> ◊	5.1.3	GERD performed by business, % GDP.....	0.1	55
1.2.1	Regulatory quality*.....	35.4	92	5.1.4	GERD financed by business, %.....	16.5	71
1.2.2	Rule of law*.....	40.4	76	5.1.5	Females employed w/advanced degrees, %.....	14.7	46
1.2.3	Cost of redundancy dismissal, salary weeks.....	30.3	118 ○ ◊	<b>5.2</b>	<b>Innovation linkages</b> .....	<b>16.0</b>	<b>103</b>
<b>1.3</b>	<b>Business environment</b> .....	<b>60.2</b>	<b>106</b>	5.2.1	University/industry research collaboration*.....	37.4	86
1.3.1	Ease of starting a business*.....	80.4	109	5.2.2	State of cluster development.....	40.8	93
1.3.2	Ease of resolving insolvency*.....	40.0	97	5.2.3	GERD financed by abroad, % GDP.....	0.0	51
				5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	91
				5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.1	67
<b>HUMAN CAPITAL &amp; RESEARCH</b> ..... 35.9 48				<b>5.3 Knowledge absorption</b> ..... 36.0 38			
<b>2.1</b>	<b>Education</b> .....	<b>46.5</b>	<b>65</b>	5.3.1	Intellectual property payments, % total trade.....	2.7	8 ● ◆
2.1.1	Expenditure on education, % GDP.....	5.5	24 ●	5.3.2	High-tech imports, % total trade.....	9.1	43
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	20.6	47	5.3.3	ICT services imports, % total trade.....	1.5	42
2.1.3	School life expectancy, years.....	17.7	13 ● ◆	5.3.4	FDI net inflows, % GDP.....	1.6	98
2.1.4	PISA scales in reading, maths, & science.....	395.0	69 ○	5.3.5	Research talent, % in business enterprise.....	8.3	64
2.1.5	Pupil-teacher ratio, secondary.....	n/a	n/a				
<b>2.2</b>	<b>Tertiary education</b> .....	<b>33.1</b>	<b>65</b>	<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> ..... 17.2 75			
2.2.1	Tertiary enrolment, % gross.....	90.0	4 ● ◆	<b>6.1</b>	<b>Knowledge creation</b> .....	<b>12.9</b>	<b>68</b>
2.2.2	Graduates in science & engineering, %.....	13.6	98 ○ ◊	6.1.1	Patents by origin/bn PPP\$ GDP.....	0.5	83
2.2.3	Tertiary inbound mobility, %.....	2.8	67	6.1.2	PCT patents by origin/bn PPP\$ GDP.....	n/a	n/a
<b>2.3</b>	<b>Research &amp; development (R&amp;D)</b> .....	<b>28.1</b>	<b>39</b> ◆	6.1.3	Utility models by origin/bn PPP\$ GDP.....	0.2	51
2.3.1	Researchers, FTE/mn pop.....	1,192.2	50	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	7.1	68
2.3.2	Gross expenditure on R&D, % GDP.....	0.5	62	6.1.5	Citable documents H-index.....	27.2	36 ◆
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....	45.5	34 ● ◆	<b>6.2</b>	<b>Knowledge impact</b> .....	<b>13.6</b>	<b>108</b>
2.3.4	QS university ranking, average score top 3*.....	42.2	30 ● ◆	6.2.1	Growth rate of PPP\$ GDP/worker, %.....	-1.9	113 ○ ◊
				6.2.2	New businesses/th pop. 15-64.....	0.2	111 ○
				6.2.3	Computer software spending, % GDP.....	0.0	78
				6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	6.8	40
				6.2.5	High- and medium-high-tech manufacturing, %.....	n/a	n/a
<b>INFRASTRUCTURE</b> ..... 39.5 70				<b>6.3</b>	<b>Knowledge diffusion</b> .....	<b>25.2</b>	<b>62</b>
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs)</b> .....	<b>67.6</b>	<b>64</b>	6.3.1	Intellectual property receipts, % total trade.....	0.3	32 ◆
3.1.1	ICT access*.....	70.9	59	6.3.2	High-tech net exports, % total trade.....	1.8	57
3.1.2	ICT use*.....	62.3	55	6.3.3	ICT services exports, % total trade.....	2.3	45
3.1.3	Government's online service*.....	75.0	57	6.3.4	FDI net outflows, % GDP.....	0.3	90
3.1.4	E-participation*.....	62.4	85				
<b>3.2</b>	<b>General infrastructure</b> .....	<b>20.2</b>	<b>96</b>	<b>CREATIVE OUTPUTS</b> ..... 19.6 71			
3.2.1	Electricity output, kWh/mn pop.....	3,281.8	60	<b>7.1</b>	<b>Intangible assets</b> .....	<b>24.0</b>	<b>77</b>
3.2.2	Logistics performance*.....	38.3	60	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	60.6	34 ●
3.2.3	Gross capital formation, % GDP.....	18.5	108 ○	7.1.2	Global brand value, top 5,000, % GDP.....	11.7	57
<b>3.3</b>	<b>Ecological sustainability</b> .....	<b>30.7</b>	<b>60</b>	7.1.3	Industrial designs by origin/bn PPP\$ GDP.....	1.0	67
3.3.1	GDP/unit of energy use.....	9.6	62	7.1.4	ICTs & organizational model creation*.....	50.6	80
3.3.2	Environmental performance*.....	52.2	52	<b>7.2</b>	<b>Creative goods and services</b> .....	<b>12.4</b>	<b>70</b>
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	1.5	53	7.2.1	Cultural & creative services exports, % total trade.....	1.1	24 ●
				7.2.2	National feature films/mn pop. 15-69.....	7.4	26 ● ◆
				7.2.3	Entertainment & Media market/th pop. 15-69.....	5.9	47
				7.2.4	Printing and other media, % manufacturing.....	n/a	n/a
				7.2.5	Creative goods exports, % total trade.....	0.1	94
<b>MARKET SOPHISTICATION</b> ..... 34.6 120 ○ ◊				<b>7.3</b>	<b>Online creativity</b> .....	<b>17.9</b>	<b>60</b>
<b>4.1</b>	<b>Credit</b> .....	<b>21.9</b>	<b>121</b> ○ ◊	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	3.0	62
4.1.1	Ease of getting credit*.....	50.0	94	7.3.2	Country-code TLDs/th pop. 15-69.....	5.4	51
4.1.2	Domestic credit to private sector, % GDP.....	16.0	116 ○ ◊	7.3.3	Wikipedia edits/mn pop. 15-69.....	57.4	55
4.1.3	Microfinance gross loans, % GDP.....	0.0	75 ○	7.3.4	Mobile app creation/bn PPP\$ GDP.....	8.1	47
<b>4.2</b>	<b>Investment</b> .....	<b>22.9</b>	<b>123</b> ○ ◊				
4.2.1	Ease of protecting minority investors*.....	62.0	60				
4.2.2	Market capitalization, % GDP.....	12.4	66 ○				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	0.0	68				
<b>4.3</b>	<b>Trade, competition, and market scale</b> .....	<b>59.1</b>	<b>77</b>				
4.3.1	Applied tariff rate, weighted avg., %.....	7.4	100				
4.3.2	Intensity of local competition*.....	55.4	122 ○ ◊				
4.3.3	Domestic market scale, bn PPP\$.....	903.5	28 ●				

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 II 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 Argentina.

### Missing data

Code	Indicator name	Country year	Model year	Source
2.1.5	Pupil-teacher ratio, secondary	n/a	2018	UNESCO Institute for Statistics
6.1.2	PCT patents by origin/bn PPP\$ GDP	n/a	2019	World Intellectual Property Organization
6.2.5	High- & medium-high-tech manufacturing, %	n/a	2017	United Nations Industrial Development Organization
7.2.4	Printing & other media, % manufacturing	n/a	2017	United Nations Industrial Development Organization

### Outdated data

Code	Indicator name	Country year	Model year	Source
2.1.1	Expenditure on education, % GDP	2017	2018	UNESCO Institute for Statistics
2.2.2	Graduates in science & engineering, %	2011	2017	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2017	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	2017	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
4.1.2	Domestic credit to private sector, % GDP	2017	2018	International Monetary Fund
5.1.2	Firms offering formal training, %	2016	2018	World Bank
5.1.3	GERD performed by business, % GDP	2017	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
5.3.5	Research talent, % in business enterprise	2017	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
6.3.2	High-tech net exports, % total trade	2017	2018	United Nations, COMTRADE

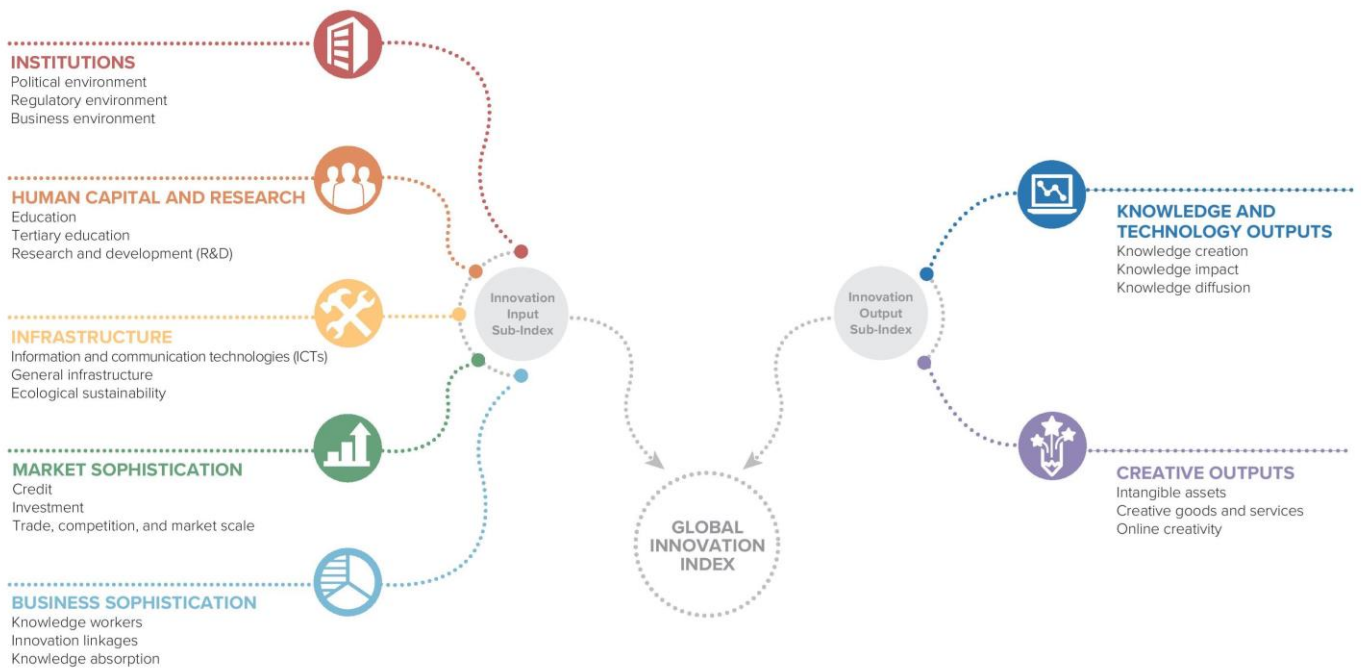


## ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2020, the GII presents its 13<sup>th</sup> edition devoted to the theme *Who Will Finance Innovation?*

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.

### Framework of the Global Innovation Index 2020



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.

