GLOBAL INNOVATION INDEX 2020

URUGUAY

69th Uruguay ranks 69th 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 Uruguay 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 Uruguay in the GII 2020 is between ranks 65 and 69.

Rankings of Uruguay (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	69	69	65
2019	62	66	61
2018	62	67	59

- Uruguay performs better in innovation outputs than innovation inputs in 2020.
- This year Uruguay ranks 69th in innovation inputs, lower than last year and lower compared to 2018.
- As for innovation outputs, Uruguay ranks 65th. This position is lower than last year and lower compared to 2018.

42nd Uruguay ranks 42nd among the 49 high-income group economies.

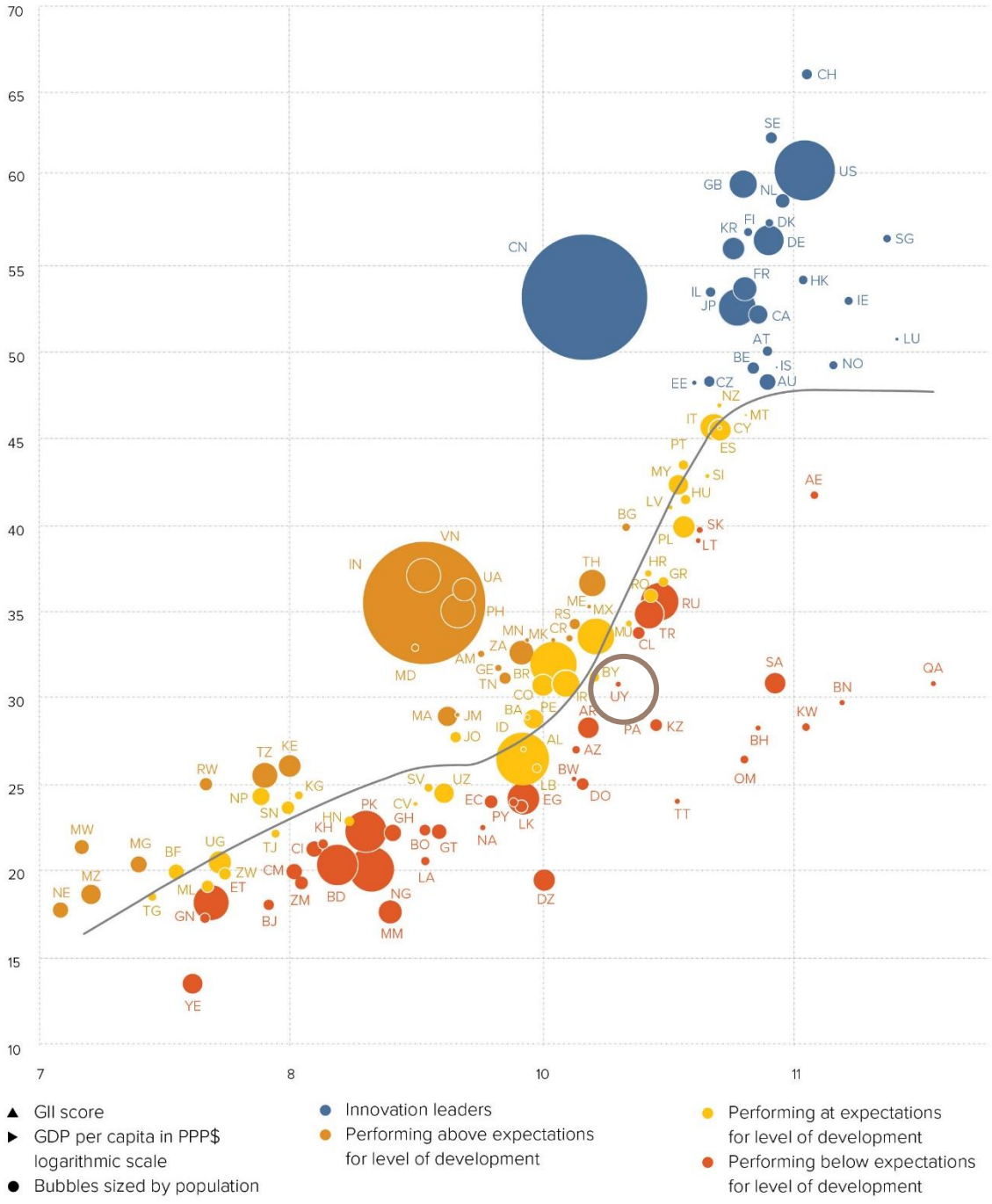
6th Uruguay ranks 6th among the 18 economies in Latin America and the Caribbean.

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

The positive relationship between innovation and development

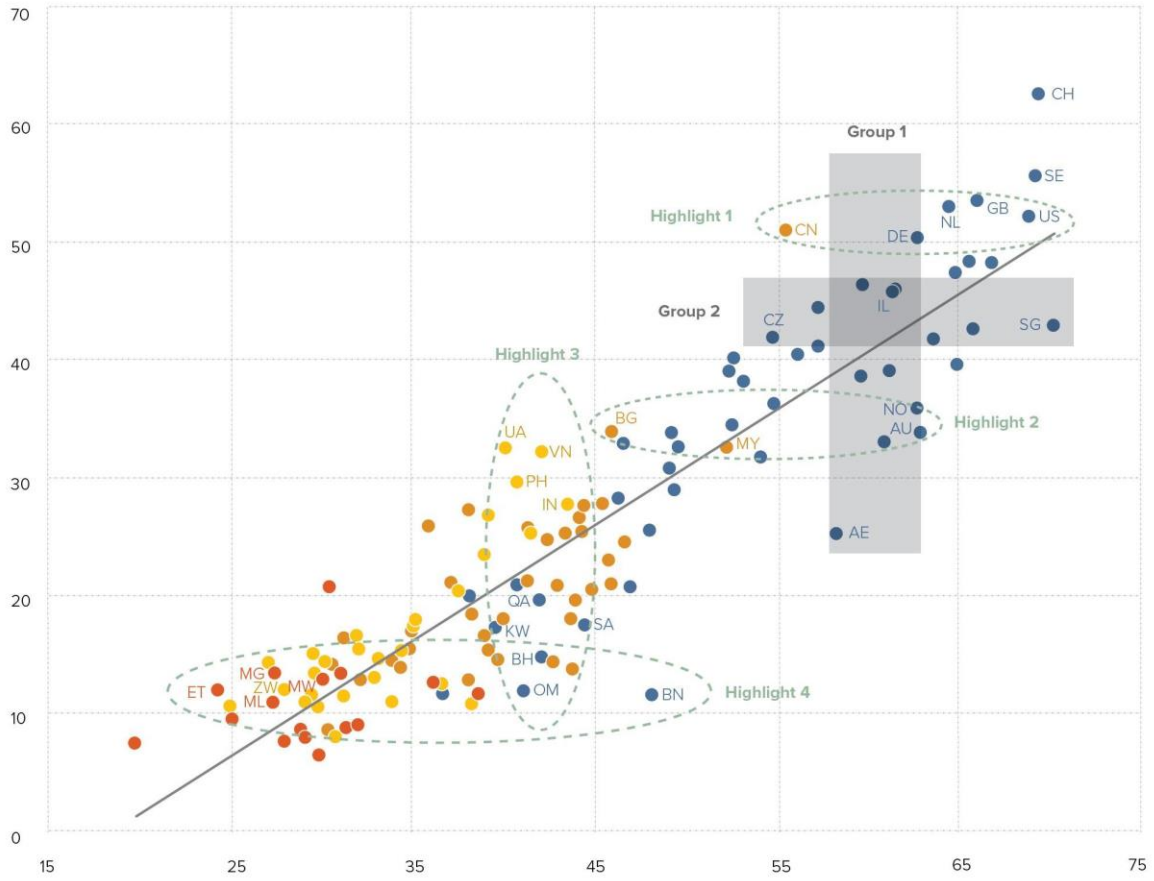


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

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

Innovation input to output performance, 2020



▲ Output score
► Input score

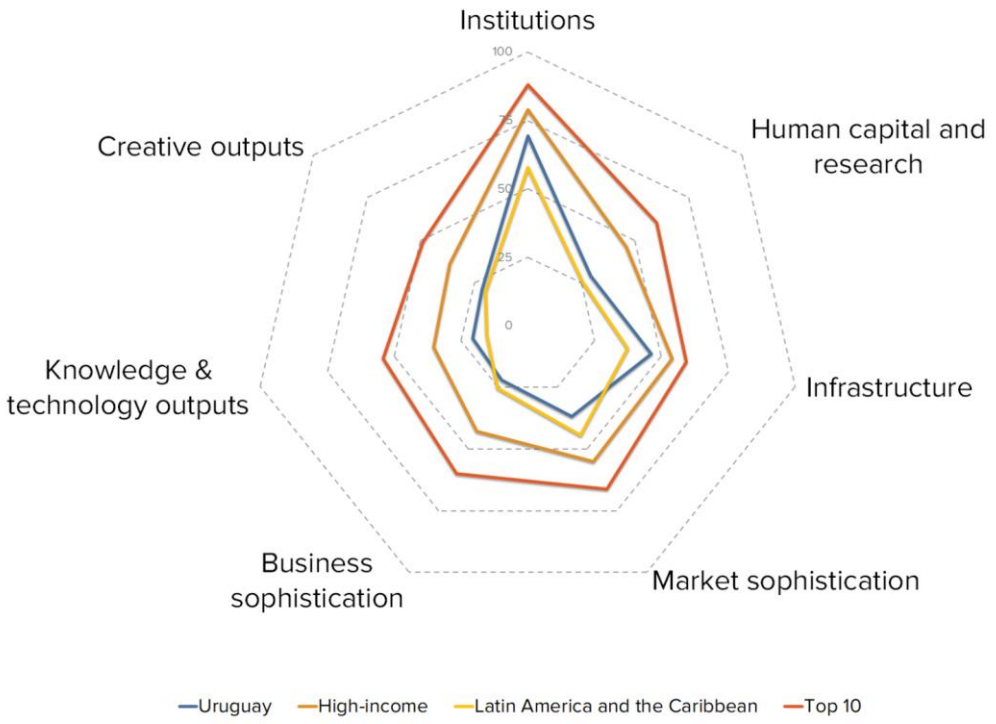
● High income group
● Upper middle-income group
● Lower middle-income group
● Low income group

— Fitted values

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

Uruguay's scores in the seven GII pillars



High-income group economies

Uruguay scores below average for its income group in all GII pillars.

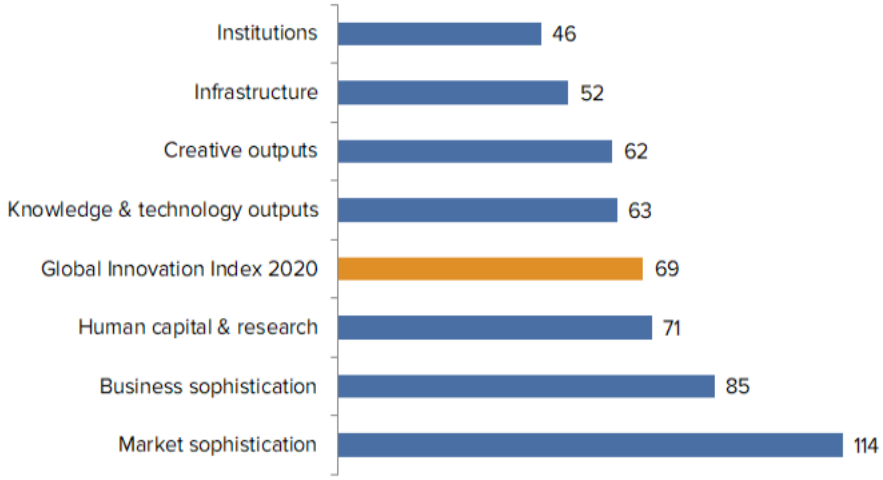
Latin America and the Caribbean

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

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

OVERVIEW OF URUGUAY RANKINGS IN THE SEVEN GII AREAS

Uruguay performs best in Institutions 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 Uruguay in the GII 2020.

Strengths

Code	Indicator name	Rank
1.1.1	Political and operational stability*	21
2.1.3	School life expectancy, years	19
3.1	Information & communication technologies (ICTs)	26
3.1.3	Government's online service*	27
3.1.4	E-participation*	26
3.3.1	GDP/unit of energy use	19
5.1.2	Firms offering formal training, %	13
5.3.3	ICT services imports, % total trade	18
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	23
6.3.4	FDI net outflows, % GDP	11
7.2.1	Cultural & creative services exports, % total trade	15

Weaknesses

Code	Indicator name	Rank
2.2.2	Graduates in science & engineering, %	82
2.3.3	Global R&D companies, top 3, mn US$	42
3.2	General infrastructure	107
3.2.3	Gross capital formation, % GDP	101
4	Market sophistication	114
4.1	Credit	111
4.1.2	Domestic credit to private sector, % GDP	99
4.1.3	Microfinance gross loans, % GDP	68
4.2	Investment	104
4.2.1	Ease of protecting minority investors*	121
4.3.2	Intensity of local competition†	102
5.1.4	GERD financed by business, %	85
5.3.5	Research talent, % in business enterprise	81
7.1.2	Global brand value, top 5000, % GDP	80
7.2.5	Creative goods exports, % total trade	111

NOTES: * indicates an index; † indicates a survey question.

STRENGTHS

GII strengths for Uruguay are found in six of the seven GII pillars.

- Institutions (46): exhibits strengths in the indicator Political and operational stability (21).
- Human capital & research (71): shows strengths in the indicator School life expectancy (19).
- Infrastructure (52): demonstrates strengths in the sub-pillar Information & communication technologies (26) and in the indicators Government's online service (27), E-participation (26) and GDP/unit of energy use (19).
- Business sophistication (85): displays strengths in the indicators Firms offering formal training (13) and ICT services imports (18).
- Knowledge & technology outputs (63): reveals strengths in the indicators ISO 9001 quality certificates (23) and FDI net outflows (11).
- Creative outputs (62): shows strengths in the indicator Cultural & creative services exports (15).

WEAKNESSES

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

- Human capital & research (71): reveals weaknesses in the indicators Graduates in science & engineering (82) and Global R&D companies (42).
- Infrastructure (52): displays weaknesses in the sub-pillar General infrastructure (107) and in the indicator Gross capital formation (101).
- Market sophistication (114): shows weaknesses in the sub-pillars Credit (111) and Investment (104) and in the indicators Domestic credit to private sector (99), Microfinance gross loans (68), Ease of protecting minority investors (121) and Intensity of local competition (102).
- Business sophistication (85): demonstrates weaknesses in the indicators GERD financed by business (85) and Research talent (81).
- Creative outputs (62): exhibits weaknesses in the indicators Global brand value (80) and Creative goods exports (111).

URUGUAY

GII 2020 rank

69

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$	GDP per capita, PPP$	GII 2019 rank
65	69	High	LCN	3.5	83.0	20,586.5	62

		Score/Value	Rank	
INSTITUTIONS		**69.3**	**46**	
1.1	**Political environment**	**69.7**	**39**	
1.1.1	Political and operational stability*	83.9	21	●
1.1.2	Government effectiveness*	62.6	42	
1.2	**Regulatory environment**	**66.6**	**60**	◇
1.2.1	Regulatory quality*	55.0	47	◇
1.2.2	Rule of law*	62.3	39	
1.2.3	Cost of redundancy dismissal, salary weeks	20.8	88	
1.3	**Business environment**	**71.6**	**65**	
1.3.1	Ease of starting a business*	89.6	56	
1.3.2	Ease of resolving insolvency*	53.6	65	
HUMAN CAPITAL & RESEARCH		**29.3**	**71**	◇
2.1	**Education**	**46.8**	**64**	
2.1.1	Expenditure on education, % GDP	4.8	47	
2.1.2	Government funding/pupil, secondary, % GDP/cap	16.2	70	◇
2.1.3	School life expectancy, years	16.8	19	●
2.1.4	PISA scales in reading, maths, & science	423.5	52	
2.1.5	Pupil-teacher ratio, secondary	12.7	59	
2.2	**Tertiary education**	**33.7**	**62**	◇
2.2.1	Tertiary enrolment, % gross	63.1	43	
2.2.2	Graduates in science & engineering, %	17.5	82	○ ◇
2.2.3	Tertiary inbound mobility, %	n/a	n/a	
2.3	**Research & development (R&D)**	**7.5**	**65**	◇
2.3.1	Researchers, FTE/mn pop	696.4	59	◇
2.3.2	Gross expenditure on R&D, % GDP	0.5	68	◇
2.3.3	Global R&D companies, avg. exp. top 3, mn $US	0.0	42	○ ◇
2.3.4	QS university ranking, average score top 3*	12.4	61	
INFRASTRUCTURE		**46.2**	**52**	◇
3.1	**Information & communication technologies (ICTs)**	**82.4**	**26**	●
3.1.1	ICT access*	75.1	43	
3.1.2	ICT use*	74.0	32	
3.1.3	Government's online service*	88.9	27	●
3.1.4	E-participation*	91.6	26	●
3.2	**General infrastructure**	**19.0**	**107**	○ ◇
3.2.1	Electricity output, kWh/mn pop	3,941.1	52	
3.2.2	Logistics performance*	28.9	84	◇
3.2.3	Gross capital formation, % GDP	19.3	101	○
3.3	**Ecological sustainability**	**37.1**	**43**	
3.3.1	GDP/unit of energy use	13.5	19	●
3.3.2	Environmental performance*	49.1	58	◇
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	2.5	33	
MARKET SOPHISTICATION		**36.9**	**114**	○ ◇
4.1	**Credit**	**28.1**	**111**	○ ◇
4.1.1	Ease of getting credit*	60.0	74	
4.1.2	Domestic credit to private sector, % GDP	27.4	99	○ ◇
4.1.3	Microfinance gross loans, % GDP	0.0	68	○
4.2	**Investment**	**27.8**	**104**	○
4.2.1	Ease of protecting minority investors*	30.0	121	○ ◇
4.2.2	Market capitalization, % GDP	n/a	n/a	
4.2.3	Venture capital deals/bn PPP$ GDP	0.1	19	
4.3	**Trade, competition, and market scale**	**54.7**	**98**	◇
4.3.1	Applied tariff rate, weighted avg., %	5.4	97	◇
4.3.2	Intensity of local competition+	61.5	102	○ ◇
4.3.3	Domestic market scale, bn PPP$	83.0	88	

		Score/Value	Rank	
BUSINESS SOPHISTICATION		**22.1**	**85**	◇
5.1	**Knowledge workers**	**27.1**	**79**	◇
5.1.1	Knowledge-intensive employment, %	22.1	69	◇
5.1.2	Firms offering formal training, %	53.3	13	● ◆
5.1.3	GERD performed by business, % GDP	0.1	59	◇
5.1.4	GERD financed by business, %	4.6	85	○ ◇
5.1.5	Females employed w/advanced degrees, %	10.2	66	◇
5.2	**Innovation linkages**	**16.8**	**97**	◇
5.2.1	University/industry research collaboration+	36.2	93	◇
5.2.2	State of cluster development+	40.8	94	◇
5.2.3	GERD financed by abroad, % GDP	0.0	57	
5.2.4	JV-strategic alliance deals/bn PPP$ GDP	0.0	66	
5.2.5	Patent families 2+ offices/bn PPP$ GDP	0.2	40	
5.3	**Knowledge absorption**	**22.4**	**92**	◇
5.3.1	Intellectual property payments, % total trade	0.8	46	
5.3.2	High-tech imports, % total trade	6.8	77	
5.3.3	ICT services imports, % total trade	2.5	18	●
5.3.4	FDI net inflows, % GDP	2.3	72	
5.3.5	Research talent, % in business enterprise	0.6	81	○ ◇
KNOWLEDGE & TECHNOLOGY OUTPUTS		**20.6**	**63**	
6.1	**Knowledge creation**	**11.7**	**73**	◇
6.1.1	Patents by origin/bn PPP$ GDP	0.3	89	
6.1.2	PCT patents by origin/bn PPP$ GDP	n/a	n/a	
6.1.3	Utility models by origin/bn PPP$ GDP	0.3	39	
6.1.4	Scientific & technical articles/bn PPP$ GDP	10.7	49	
6.1.5	Citable documents H-index	11.4	66	
6.2	**Knowledge impact**	**24.7**	**65**	
6.2.1	Growth rate of PPP$ GDP/worker, %	1.6	52	
6.2.2	New businesses/th pop. 15-64	1.3	78	
6.2.3	Computer software spending, % GDP	0.0	68	
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	12.6	23	●
6.2.5	High- and medium-high-tech manufacturing, %	13.9	71	
6.3	**Knowledge diffusion**	**25.3**	**60**	
6.3.1	Intellectual property receipts, % total trade	0.2	33	
6.3.2	High-tech net exports, % total trade	0.8	70	
6.3.3	ICT services exports, % total trade	2.9	35	
6.3.4	FDI net outflows, % GDP	4.7	11	●
CREATIVE OUTPUTS		**21.3**	**62**	◇
7.1	**Intangible assets**	**23.0**	**84**	◇
7.1.1	Trademarks by origin/bn PPP$ GDP	47.5	54	
7.1.2	Global brand value, top 5,000, % GDP	0.0	80	○ ◇
7.1.3	Industrial designs by origin/bn PPP$ GDP	0.7	79	
7.1.4	ICTs & organizational model creation+	58.4	50	
7.2	**Creative goods and services**	**14.9**	**65**	
7.2.1	Cultural & creative services exports, % total trade	1.4	15	●
7.2.2	National feature films/mn pop. 15-69	4.7	46	
7.2.3	Entertainment & Media market/th pop. 15-69	n/a	n/a	
7.2.4	Printing and other media, % manufacturing	1.1	49	
7.2.5	Creative goods exports, % total trade	0.1	111	○
7.3	**Online creativity**	**24.1**	**50**	
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	6.4	49	
7.3.2	Country-code TLDs/th pop. 15-69	11.0	40	
7.3.3	Wikipedia edits/mn pop. 15-69	70.3	39	
7.3.4	Mobile app creation/bn PPP$ GDP	10.5	44	

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 Uruguay.

Missing data

Code	Indicator name	Country year	Model year	Source
2.2.3	Tertiary inbound mobility, %	n/a	2017	UNESCO Institute for Statistics
4.2.2	Market capitalization, % GDP	n/a	2018	World Federation of Exchanges
6.1.2	PCT patents by origin/bn PPP$ GDP	n/a	2019	World Intellectual Property Organization
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	2018	PwC

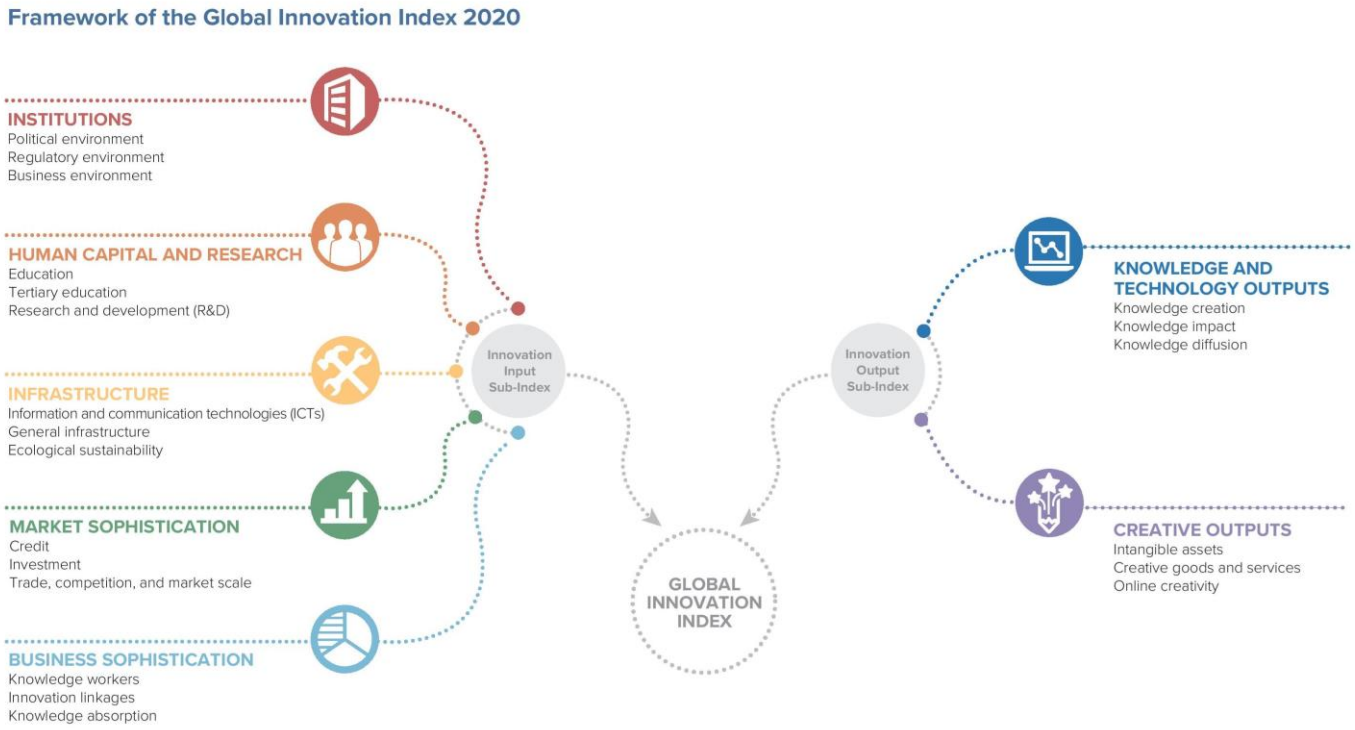
Outdated data

Code	Indicator name	Country year	Model year	Source
2.1.1	Expenditure on education, % GDP	2017	2018	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2010	2018	UNESCO Institute for Statistics
2.3.2	Gross expenditure on R&D, % GDP	2017	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
4.1.3	Microfinance gross loans, % GDP	2015	2018	Microfinance Information Exchange
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
6.1.1	Patents by origin/bn PPP$ GDP	2017	2018	World Intellectual Property Organization
6.1.3	Utility models by origin/bn PPP$ GDP	2017	2018	World Intellectual Property Organization
6.2.5	High- and medium-high-tech manufacturing, %	2014	2017	United Nations Industrial Development Organization
7.1.1	Trademarks by origin/bn PPP$ GDP	2017	2018	World Intellectual Property Organization
7.1.3	Industrial designs by origin/bn PPP$ GDP	2017	2018	World Intellectual Property Organization
7.2.2	National feature films/mn pop. 15–69	2015	2017	UNESCO Institute for Statistics
7.2.4	Printing and other media, % manufacturing	2014	2017	United Nations Industrial Development Organization

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 13th 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.



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.