



Global Innovation Index 2021



ICELAND

17th Iceland ranks 17th among the 132 economies featured in the GII 2021.

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 Iceland 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 Iceland in the GII 2021 is between ranks 16 and 18.

Rankings for Iceland (2019–2021)

	GII	Innovation inputs	Innovation outputs
2021	17	20	16
2020	21	23	19
2019	20	22	18

- Iceland performs better in innovation outputs than innovation inputs in 2021.
- This year Iceland ranks 20th in innovation inputs, higher than both 2020 and 2019.
- As for innovation outputs, Iceland ranks 16th. This position is higher than both 2020 and 2019.

16th Iceland ranks 16th among the 51 high-income group economies.

9th Iceland ranks 9th among the 39 economies in Europe.

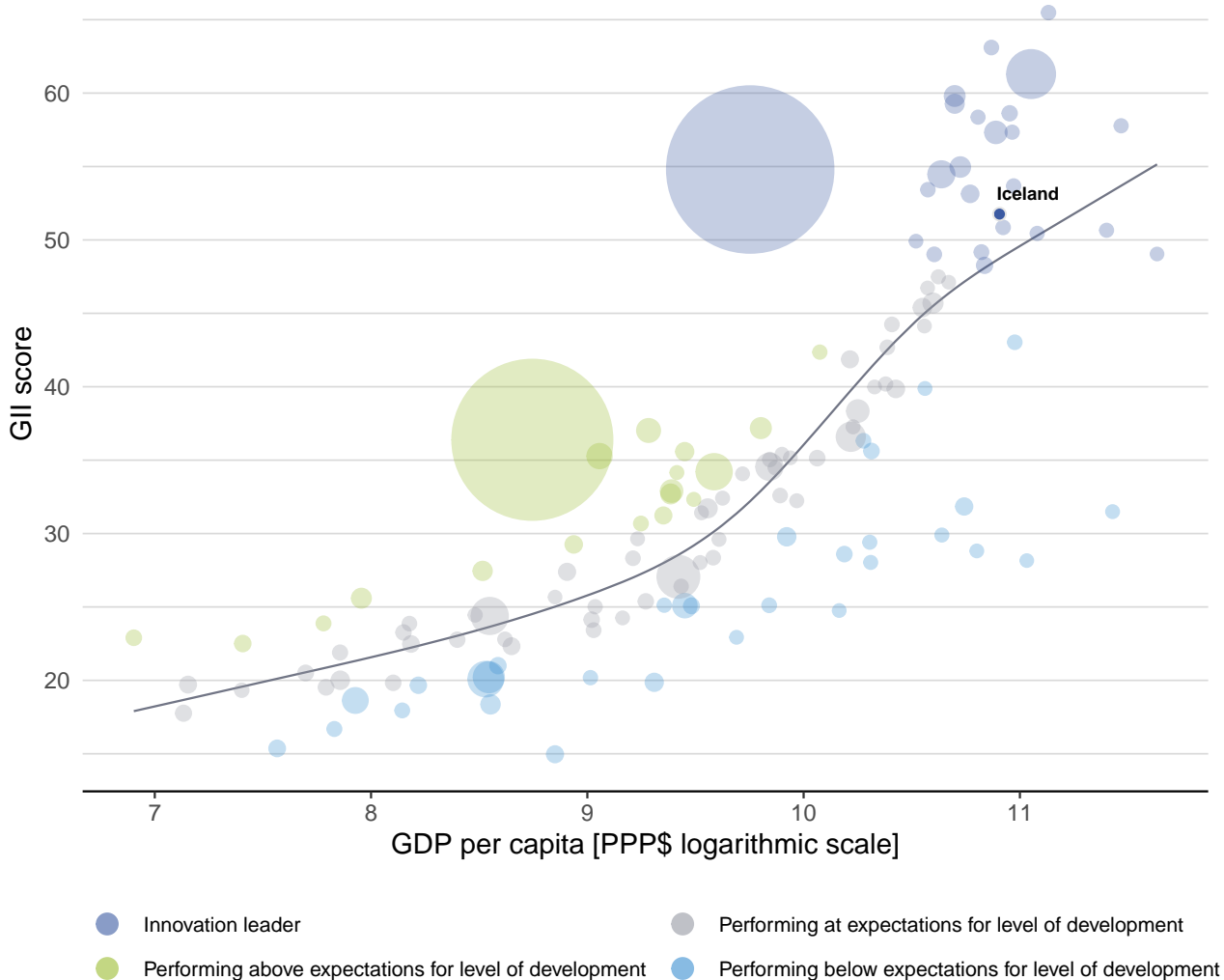


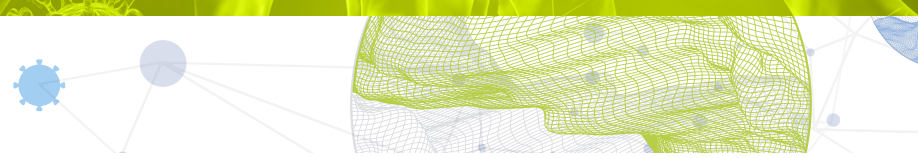
EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

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, Iceland's performance is above expectations for its level of development.

The positive relationship between innovation and development



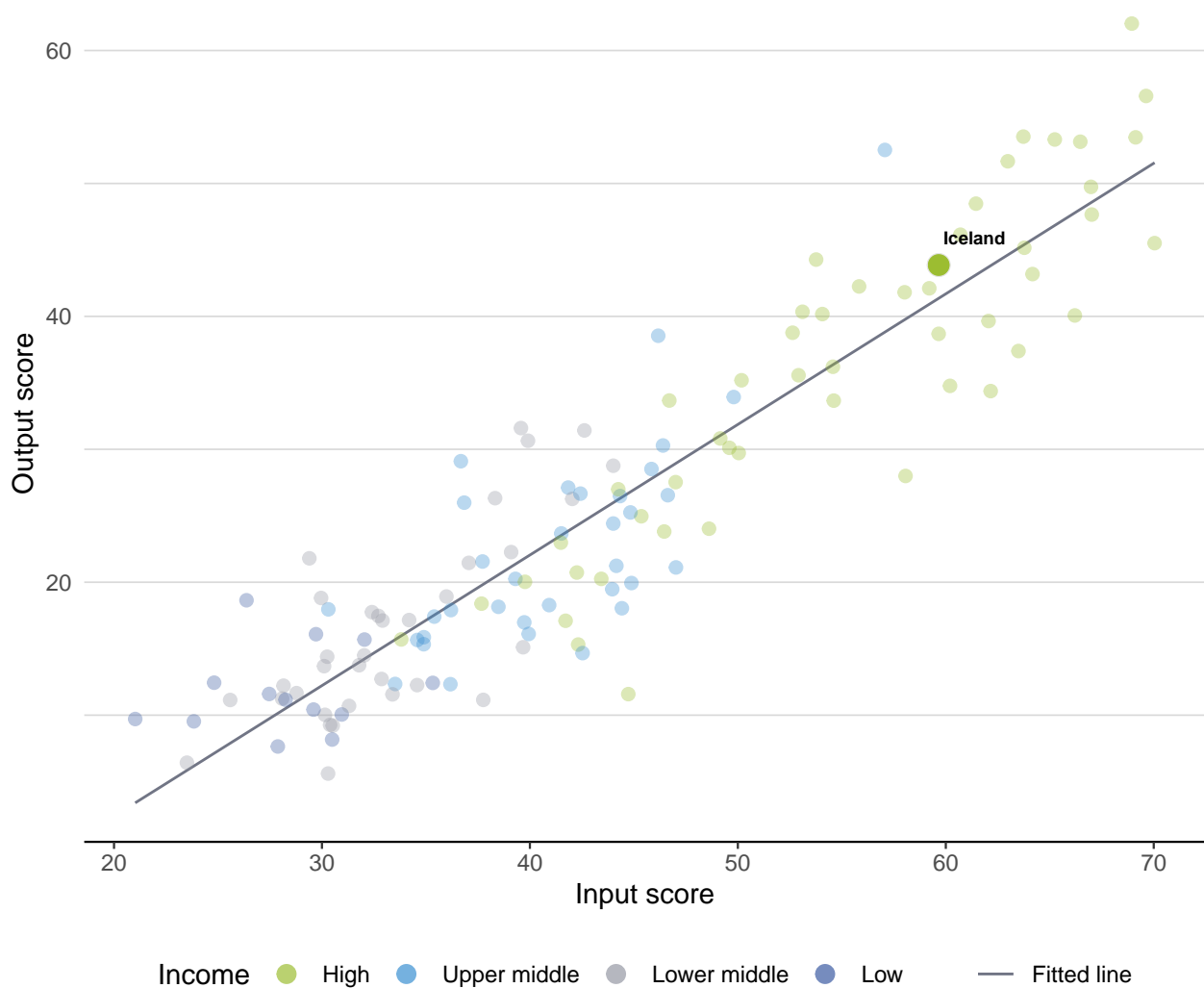


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

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

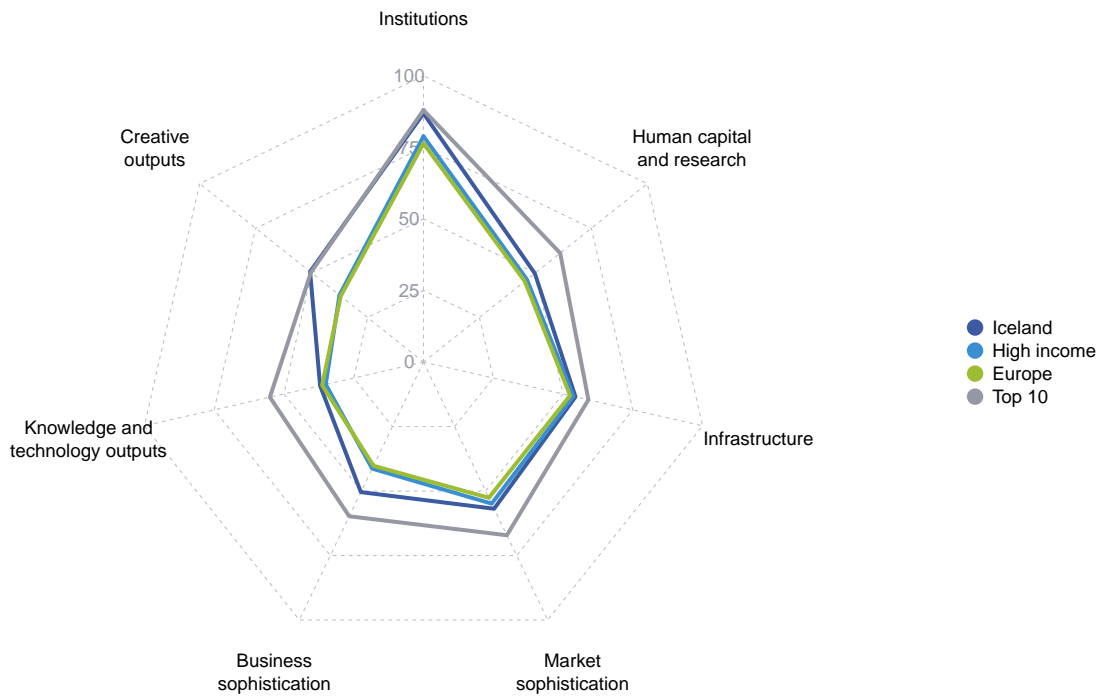
Innovation input to output performance





BENCHMARKING AGAINST OTHER HIGH-INCOME GROUP ECONOMIES AND EUROPE

The seven GII pillar scores for Iceland



High-income group economies

Iceland performs above the high-income group average in all GII pillars.

Europe

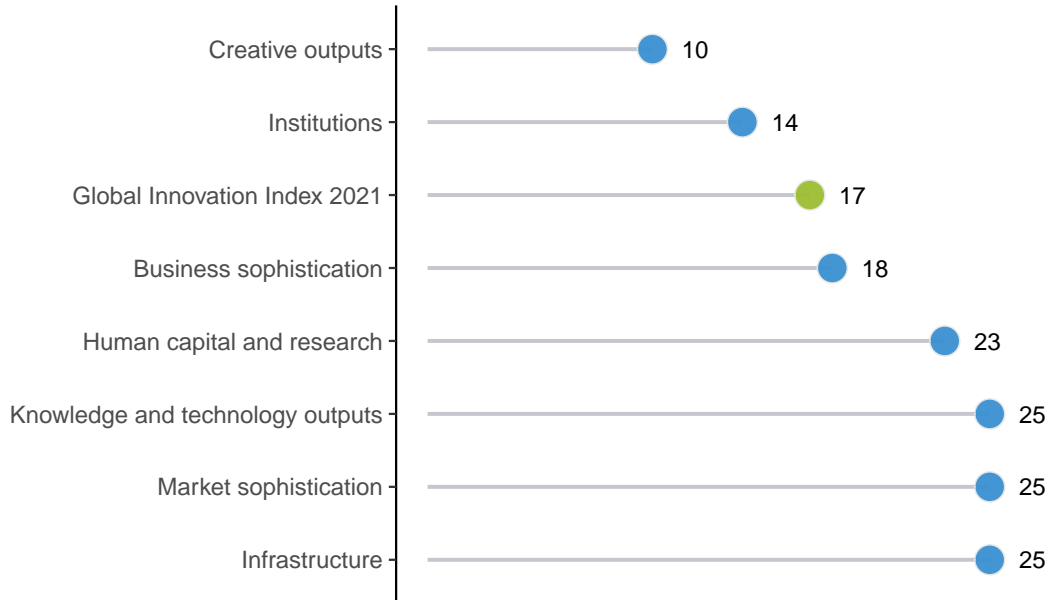
Iceland performs above the regional average in all GII pillars.



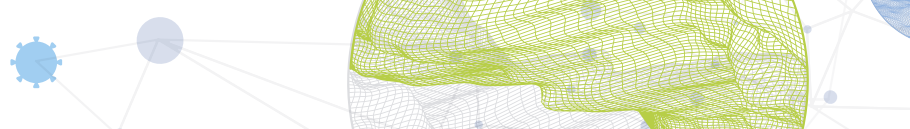
OVERVIEW OF RANKINGS IN THE SEVEN GII 2021 AREAS

Iceland performs best in Creative outputs and its weakest performance is in Infrastructure, Market sophistication, and Knowledge and technology outputs.

The seven GII pillar ranks for Iceland



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









INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Iceland in the GII 2021.

Strengths and weaknesses for Iceland

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
2.1.1	Expenditure on education, % GDP	4	2.2.2	Graduates in science and engineering, %	82
3.1.1	ICT access	4	2.3.4	QS university ranking, top 3	74
3.1.2	ICT use	4	3.3.1	GDP/unit of energy use	123
3.2.1	Electricity output, GWh/mn pop.	1	4.1.1	Ease of getting credit	88
5.2.3	GERD financed by abroad, % GDP	1	4.3	Trade, diversification, and market scale	96
6.1.4	Scientific and technical articles/bn PPP\$ GDP	1	4.3.2	Domestic industry diversification	88
7.2.2	National feature films/mn pop. 15–69	1	4.3.3	Domestic market scale, bn PPP\$	129
7.3	Online creativity	1	5.3.2	High-tech imports, % total trade	101
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	1	5.3.4	FDI net inflows, % GDP	131
7.3.2	Country-code TLDs/th pop. 15–69	5	6.2.5	High-tech manufacturing, %	75
7.3.3	Wikipedia edits/mn pop. 15–69	5	7.2.5	Creative goods exports, % total trade	105

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$	GII 2020 rank
16	20	High	EUR	0.3	19.8	54,482	21

	Score/Value	Rank		Score/Value	Rank
 Institutions	86.8	14	 Business sophistication	50.4	18
1.1 Political environment	86.0	13	5.1 Knowledge workers	58.9	19
1.1.1 Political and operational stability*	89.3	6	5.1.1 Knowledge-intensive employment, %	50.4	8
1.1.2 Government effectiveness*	84.4	15	5.1.2 Firms offering formal training, %	n/a	n/a
1.2 Regulatory environment	88.2	15	5.1.3 GERD performed by business, % GDP	1.6	13
1.2.1 Regulatory quality*	79.4	19	5.1.4 GERD financed by business, %	38.9	45
1.2.2 Rule of law*	93.3	11	5.1.5 Females employed w/advanced degrees, %	25.9	11
1.2.3 Cost of redundancy dismissal	13.0	40	5.2 Innovation linkages	58.5	8
1.3 Business environment	86.3	15	5.2.1 University-industry R&D collaboration†	58.8	26
1.3.1 Ease of starting a business*	90.6	54	5.2.2 State of cluster development and depth†	50.3	45
1.3.2 Ease of resolving insolvency*	82.0	11	5.2.3 GERD financed by abroad, % GDP	0.7	1
			5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP	0.2	17
			5.2.5 Patent families/bn PPP\$ GDP	2.3	16
 Human capital and research	49.7	23	5.3 Knowledge absorption	33.9	46
2.1 Education	72.2	7	5.3.1 Intellectual property payments, % total trade	1.1	34
2.1.1 Expenditure on education, % GDP	7.7	4	5.3.2 High-tech imports, % total trade	5.8	101
2.1.2 Government funding/pupil, secondary, % GDP/cap	20.6	46	5.3.3 ICT services imports, % total trade	3.1	8
2.1.3 School life expectancy, years	19.2	7	5.3.4 FDI net inflows, % GDP	-11.0	131
2.1.4 PISA scales in reading, maths and science	481.4	30	5.3.5 Research talent, % in businesses	42.7	31
2.1.5 Pupil-teacher ratio, secondary	9.4	23			
2.2 Tertiary education	35.4	58	 Knowledge and technology outputs	37.0	25
2.2.1 Tertiary enrolment, % gross	73.1	26	6.1 Knowledge creation	50.9	13
2.2.2 Graduates in science and engineering, %	18.6	82	6.1.1 Patents by origin/bn PPP\$ GDP	4.6	19
2.2.3 Tertiary inbound mobility, %	8.0	32	6.1.2 PCT patents by origin/bn PPP\$ GDP	2.6	15
2.3 Research and development (R&D)	41.6	24	6.1.3 Utility models by origin/bn PPP\$ GDP	n/a	n/a
2.3.1 Researchers, FTE/mn pop.	6,088.3	7	6.1.4 Scientific and technical articles/bn PPP\$ GDP	65.0	1
2.3.2 Gross expenditure on R&D, % GDP	2.4	12	6.1.5 Citable documents H-index	19.8	42
2.3.3 Global corporate R&D investors, top 3, mn US\$	46.6	33	6.2 Knowledge impact	28.4	69
2.3.4 QS university ranking, top 3*	0.0	74	6.2.1 Labor productivity growth, %	0.5	55
			6.2.2 New businesses/th pop. 15–64	9.9	17
			6.2.3 Software spending, % GDP	0.3	48
			6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	3.4	69
			6.2.5 High-tech manufacturing, %	15.0	75
 Infrastructure	54.5	25	6.3 Knowledge diffusion	31.8	30
3.1 Information and communication technologies (ICTs)	84.7	23	6.3.1 Intellectual property receipts, % total trade	2.4	10
3.1.1 ICT access*	92.8	4	6.3.2 Production and export complexity	n/a	n/a
3.1.2 ICT use*	89.2	4	6.3.3 High-tech exports, % total trade	2.9	49
3.1.3 Government's online service*	79.4	42	6.3.4 ICT services exports, % total trade	3.6	24
3.1.4 E-participation*	77.4	51			
3.2 General infrastructure	50.8	9	 Creative outputs	50.7	10
3.2.1 Electricity output, GWh/mn pop.	56,175.6	1	7.1 Intangible assets	51.3	17
3.2.2 Logistics performance*	54.7	39	7.1.1 Trademarks by origin/bn PPP\$ GDP	61.9	33
3.2.3 Gross capital formation, % GDP	20.9	82	7.1.2 Global brand value, top 5,000, % GDP	n/a	n/a
3.3 Ecological sustainability	27.9	67	7.1.3 Industrial designs by origin/bn PPP\$ GDP	0.8	76
3.3.1 GDP/unit of energy use	3.1	123	7.1.4 ICTs and organizational model creation†	75.5	13
3.3.2 Environmental performance*	72.3	17	7.2 Creative goods and services	27.6	29
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	1.5	57	7.2.1 Cultural and creative services exports, % total trade	0.4	54
			7.2.2 National feature films/mn pop. 15–69	55.3	1
			7.2.3 Entertainment and media market/th pop. 15–69	n/a	n/a
			7.2.4 Printing and other media, % manufacturing	1.3	33
			7.2.5 Creative goods exports, % total trade	0.1	105
 Market sophistication	56.8	25	7.3 Online creativity	72.5	1
4.1 Credit	46.0	46	7.3.1 Generic top-level domains (TLDs)/th pop. 15–69	100.0	1
4.1.1 Ease of getting credit*	55.0	88	7.3.2 Country-code TLDs/th pop. 15–69	94.5	5
4.1.2 Domestic credit to private sector, % GDP	90.6	29	7.3.3 Wikipedia edits/mn pop. 15–69	85.5	5
4.1.3 Microfinance gross loans, % GDP	n/a	n/a	7.3.4 Mobile app creation/bn PPP\$ GDP	5.0	56
4.2 Investment	64.8	12			
4.2.1 Ease of protecting minority investors*	72.0	27			
4.2.2 Market capitalization, % GDP	n/a	n/a			
4.2.3 Venture capital investors, deals/bn PPP\$ GDP	0.2	14			
4.2.4 Venture capital recipients, deals/bn PPP\$ GDP	0.2	6			
4.3 Trade, diversification, and market scale	59.7	96			
4.3.1 Applied tariff rate, weighted avg., %	1.5	19			
4.3.2 Domestic industry diversification	75.6	88			
4.3.3 Domestic market scale, bn PPP\$	19.8	129			

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 IV 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

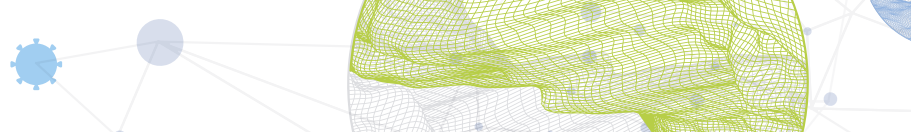
The following tables list data that are either missing or outdated for Iceland.

Missing data for Iceland

Code	Indicator name	Economy year	Model year	Source
4.1.3	Microfinance gross loans, % GDP	n/a	2018	Microfinance Information Exchange
4.2.2	Market capitalization, % GDP	n/a	2019	World Federation of Exchanges
5.1.2	Firms offering formal training, %	n/a	2019	World Bank
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2019	World Intellectual Property Organization
6.3.2	Production and export complexity	n/a	2018	Growth Lab, Harvard University
7.1.2	Global brand value, top 5,000, % GDP	n/a	2020	Brand Finance
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2020	PwC

Outdated data for Iceland

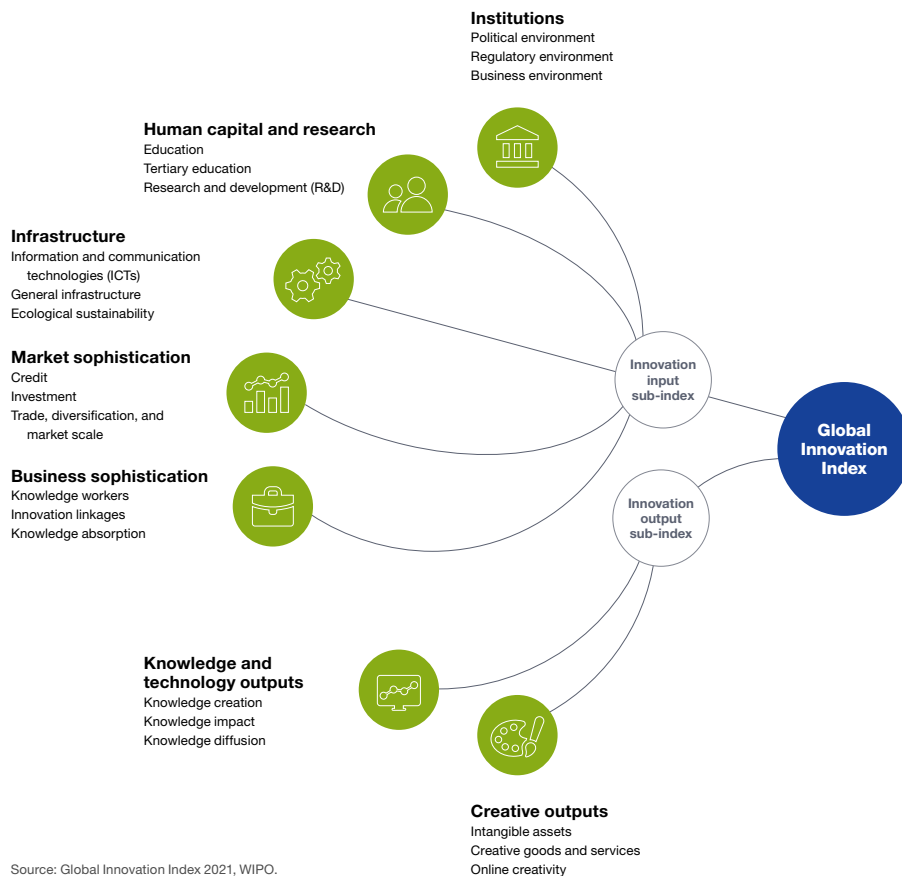
Code	Indicator name	Economy year	Model year	Source
2.1.5	Pupil-teacher ratio, secondary	2018	2019	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
4.3.2	Domestic industry diversification	2017	2018	United Nations Industrial Development Organization
5.3.5	Research talent, % in businesses	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators



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.