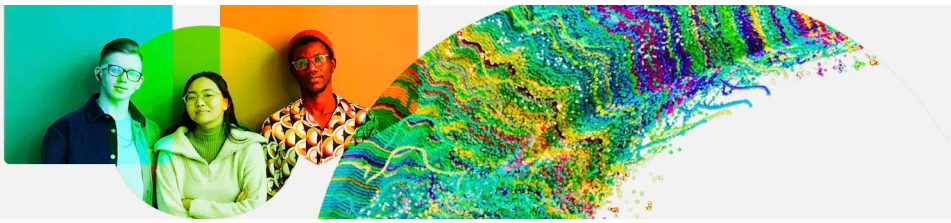
Global Innovation Index 2024



Iceland ranking in the Global Innovation Index 2024

Iceland ranks 22nd 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.

Iceland ranks 21st among the 51 high-income group economies.

Iceland ranks 14th among the 39 economies in Europe.

Iceland GII Ranking (2020-2024)

The table shows the rankings of Iceland 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 Iceland in the GII 2024 is between ranks 20 and 24.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	21st	23rd	19th
2021	17th	20th	16th
2022	20th	24th	17th
2023	20th	20th	25th
2024	22nd	15th	29th

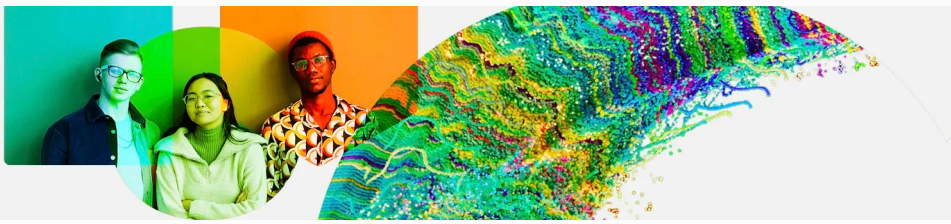
Iceland performs worse in innovation outputs than innovation inputs in 2024.

This year **Iceland ranks 15th in innovation inputs.** This position is higher than last year.

Iceland ranks 29th in innovation outputs. This position is lower than last year.

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

For Iceland, 7 indicators have improved in the short-term and 4 indicators have worsened.

Science and innovation investment

Scientific publications	R&D investments	Venture capital		International patent filings
		Deal numbers	Deal values	
▼ -4.7% 2022 - 2023	▲ 1.8% 2021 - 2022	▲ 5.6% 2022 - 2023	▲ 93.9% 2022 - 2023	▲ 10.3% 2022 - 2023
▲ 3.7% 2013 - 2023	▲ 3.9% 2011 - 2022	▲ 34.2% 2013 - 2023	▲ 109.2% 2013 - 2023	0% 2013 - 2023

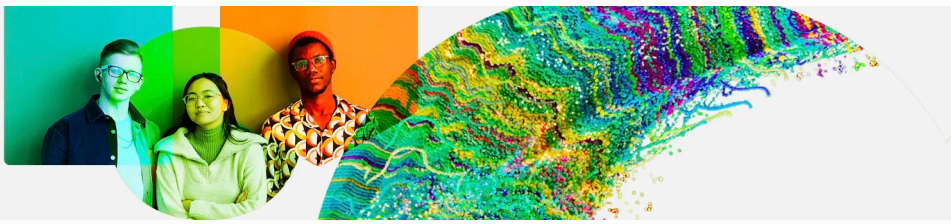
Technology adoption

Safe sanitation	Connectivity		Robots	Electric vehicles
	Fixed broadband	5G		
n/a	▼ -1.2% 2021 - 2022	▲ 11.8% 2021 - 2022	▲ 53.8% 2021 - 2022	▲ 33.3% 2022 - 2023
n/a	▲ 0.8% 2012 - 2022		▲ 24.9% 2012 - 2022	▲ 77.5% 2013 - 2023
n/a	38.2 per 100 inhabitants in 2022	95 per 100 inhabitants in 2022		18 per 100 inhabitants in 2023

Socioeconomic impact

Labor productivity	Life expectancy	Temperature change
0% 2022 - 2023	▼ -1.2% 2021 - 2022	▲ 0.4°C 2023
▲ 1.3% 2013 - 2023	▼ -0.1% 2012 - 2022	n/a
127,022 USD in 2023	82.2 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.



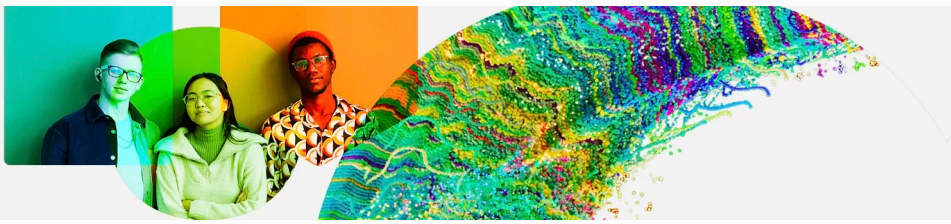
Expected vs. observed innovation performance

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.

Iceland is an innovation leader, ranking in the top 25 of the GII.

> Innovation overperformers relative to their economic development

Global Innovation Index 2024



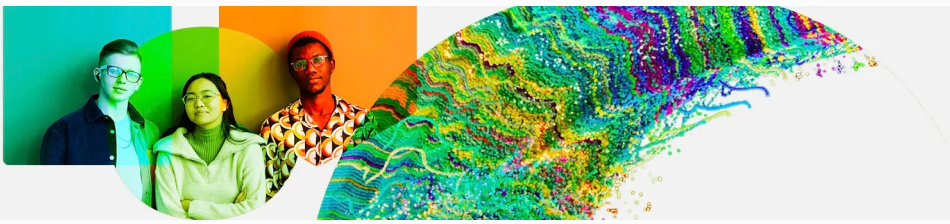
Effectively translating innovation investments into innovation outputs

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 less innovation outputs relative to its level of innovation investments.

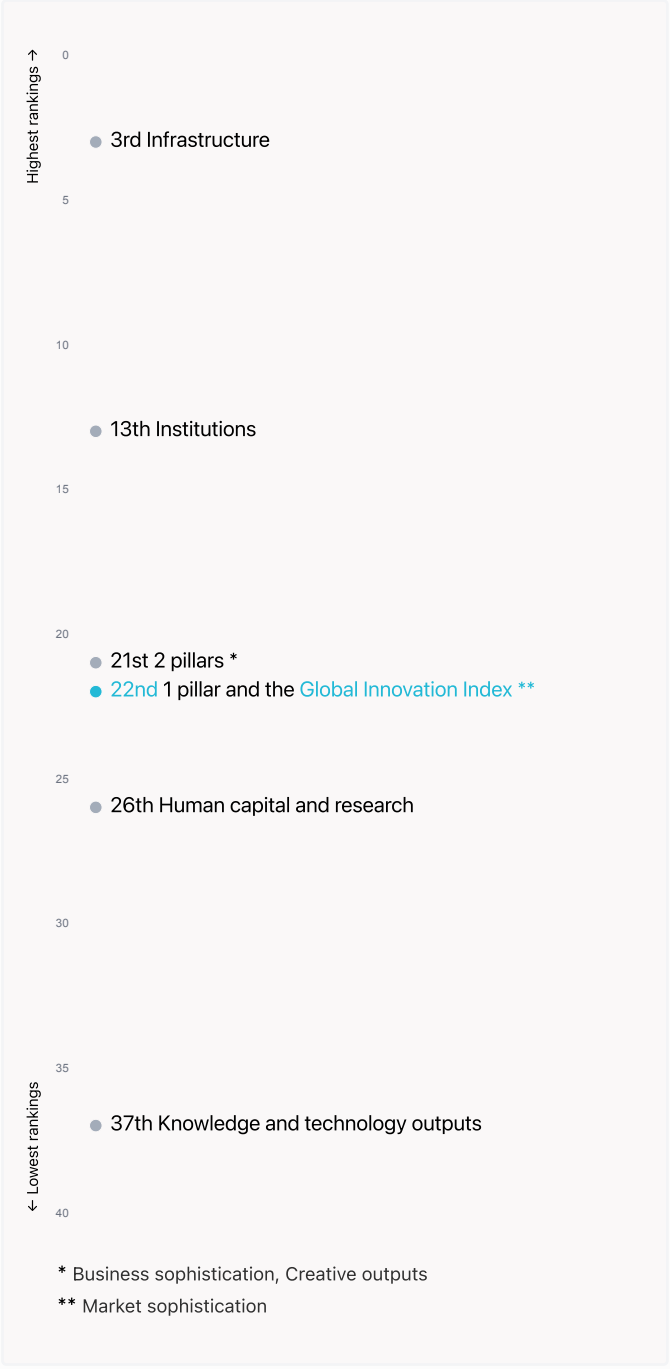
> Relationship between innovation inputs and outputs

Global Innovation Index 2024



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



Highest rankings

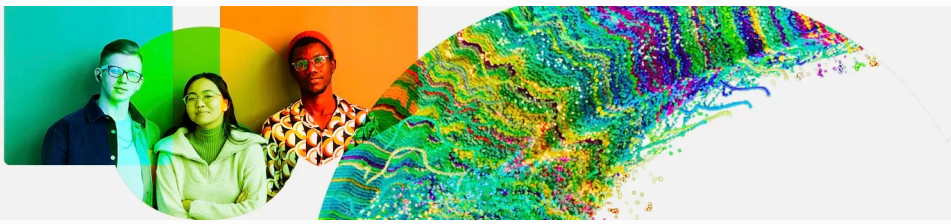
Iceland ranks highest in Infrastructure (3rd), Institutions (13th) and Business sophistication, Creative outputs (21st).

Lowest rankings

Iceland ranks lowest in Knowledge and technology outputs (37th), Human capital and research (26th) and Market sophistication, GII Index (22nd).

The full WIPO Intellectual Property Statistics profile for Iceland can be found on this link.

Global Innovation Index 2024



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

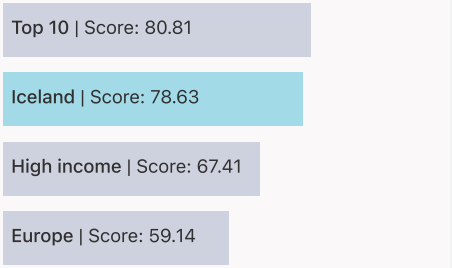
The charts shows the relative position of Iceland (blue bar) against other economy groupings (grey bars), for each of the seven areas of the GII Index.

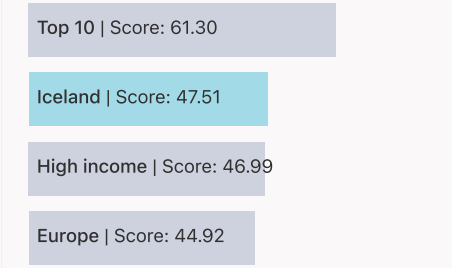
High-Income economies

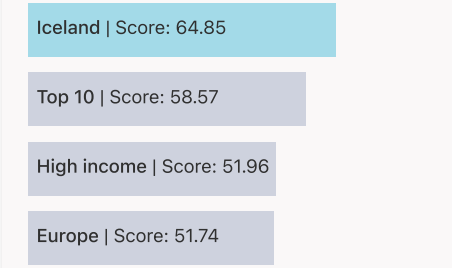
Iceland performs above the high-income group average in Institutions, Human capital and research, Infrastructure, Market sophistication, Business sophistication, Creative outputs.

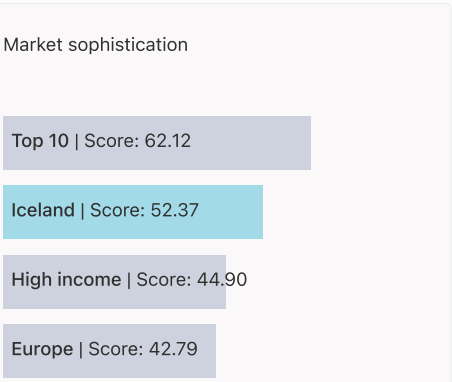
Europe

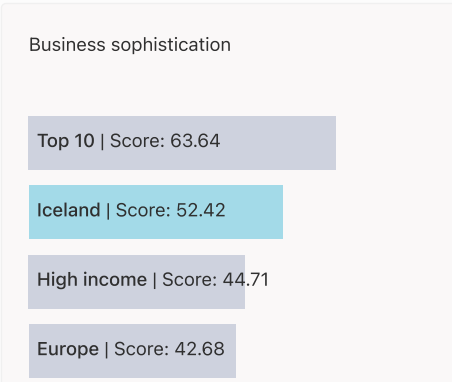
Iceland performs above the regional average in Institutions, Human capital and research, Infrastructure, Market sophistication, Business sophistication, Creative outputs.

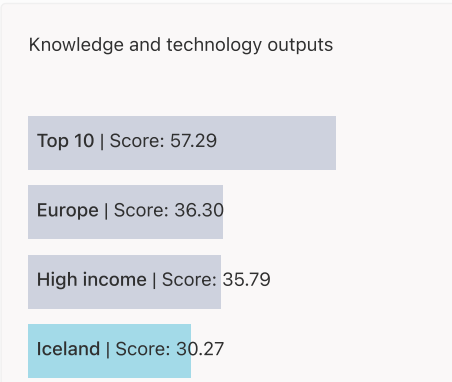


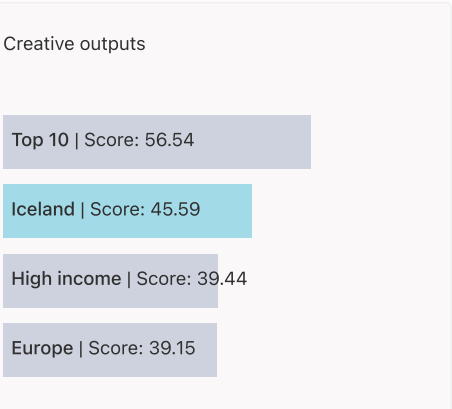




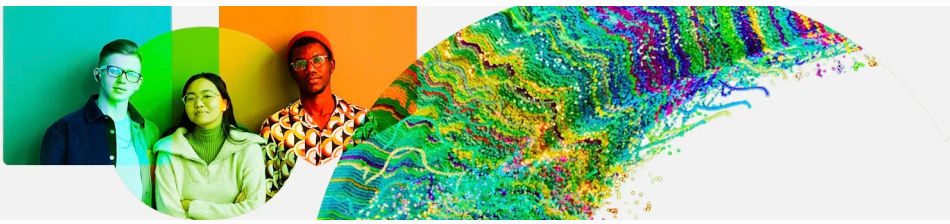








Global Innovation Index 2024



Innovation strengths and weaknesses in Iceland

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

Iceland's main innovation strengths are **Electricity output, GWh/mn pop.** (rank 1), **National feature films/mn pop. 15–69** (rank 1) and **Low-carbon energy use, %** (rank 1).

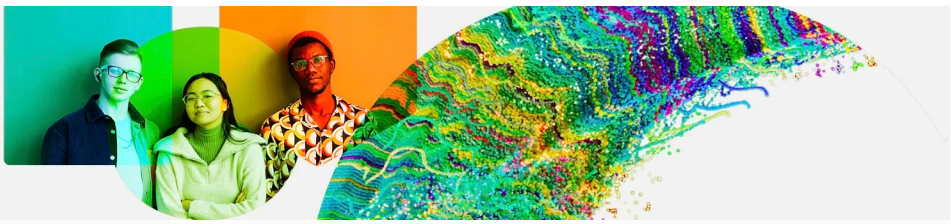
Strengths

Rank	Code	Indicator name
1	3.2.1	Electricity output, GWh/mn pop.
1	7.2.2	National feature films/mn pop. 15–69
1	3.3.2	Low-carbon energy use, %
1	6.1.4	Scientific and technical articles/bn PPP$ GDP
1	4.2.3	VC recipients, deals/bn PPP$ GDP
3	1.1.1	Operational stability for businesses*
3	7.3.1	Top-level domains (TLDs)/th pop. 15–69
5	2.1.1	Expenditure on education, % GDP
6	5.1.1	Knowledge-intensive employment, %
7	2.1.3	School life expectancy, years
8	7.3.2	GitHub commits/mn pop. 15–69

Weaknesses

Rank	Code	Indicator name
128	4.3.3	Domestic market scale, bn PPP$
126	3.3.1	GDP/unit of energy use
119	5.3.4	FDI net inflows, % GDP
97	7.2.4	Creative goods exports, % total trade
96	4.3.2	Domestic industry diversification
93	2.2.2	Graduates in science and engineering, %
90	7.1.4	Industrial designs by origin/bn PPP$ GDP
75	7.1.3	Global brand value, top 5,000, % GDP
75	2.3.4	QS university ranking, top 3*
49	6.2.2	Unicorn valuation, % GDP

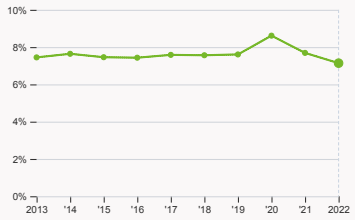
Global Innovation Index 2024



Iceland's innovation system

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

Innovation inputs in Iceland

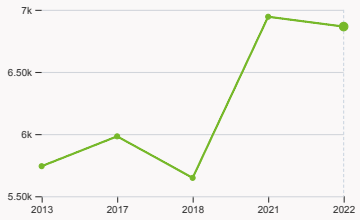


2.1.1 **Expenditure on education**

was equal to 7.14 % GDP in 2022, down by 0.55 percentage points from the year prior – and equivalent to an indicator rank of 5.

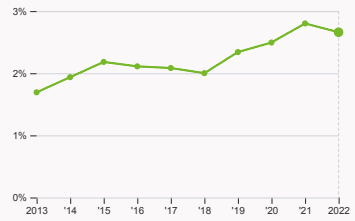
2.2.2 **Graduates in science and engineering**

was equal to 17.04 % of total graduates in 2021, down by 1.13 percentage points from the year prior – and equivalent to an indicator rank of 93.



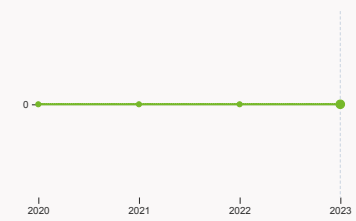
2.3.1 **Researchers**

was equal to 6865.15 FTE per million population in 2022, down by 1.14% from the year prior – and equivalent to an indicator rank of 8.



2.3.2 **Gross expenditure on R&D**

was equal to 2.66 % GDP in 2022, down by 0.14 percentage points from the year prior – and equivalent to an indicator rank of 13.



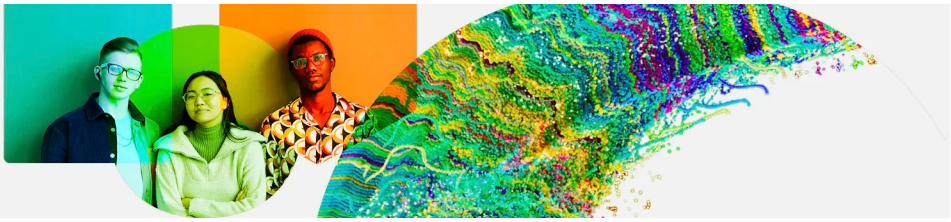
2.3.4 **QS university ranking**

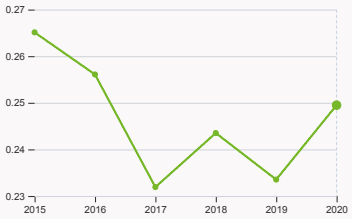
was equal to an average score of 0 for the top three universities in 2023 with no change from the year prior – and equivalent to an indicator rank of 75.

4.2.4 **VC received, value**

was equal to 160.7 thousand USD in 2023, up by 93.87% from the year prior – and equivalent to an indicator rank of 8.

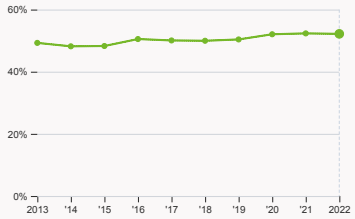
Global Innovation Index 2024





4.3.2 Domestic industry diversification

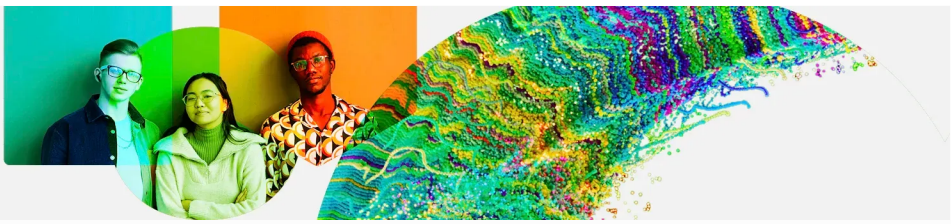
was equal to an index score of 0.25 in 2020, up by 6.84% from the year prior – and equivalent to an indicator rank of 96.



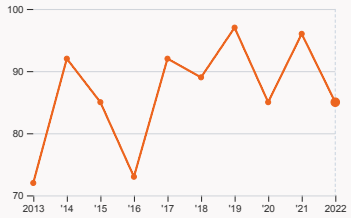
5.1.1 Knowledge-intensive employment

was equal to 52.18 % in 2022, down by 0.15 percentage points from the year prior – and equivalent to an indicator rank of 6.

Global Innovation Index 2024

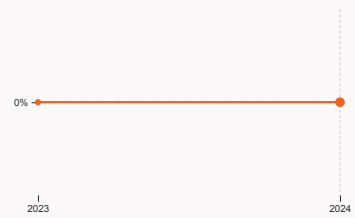


Innovation outputs in Iceland



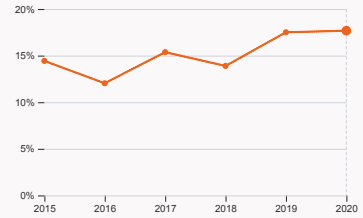
6.1.1 Patents by origin

was equal to 85 patents in 2022, down by 11.46% from the year prior – and equivalent to an indicator rank of 22.



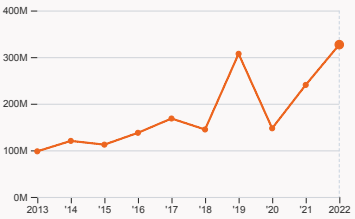
6.2.2 Unicorn valuation

was equal to 0 % GDP in 2024 with no change from the year prior – and equivalent to an indicator rank of 49.



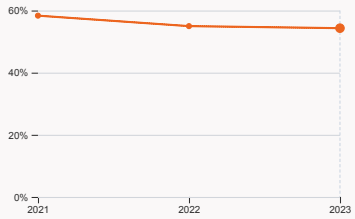
6.2.4 High-tech manufacturing

was equal to 17.67 % of total manufacturing output in 2020, up by 0.17 percentage points from the year prior – and equivalent to an indicator rank of 65.



6.3.3 High-tech exports

was equal to 326.8 million USD in 2022, up by 35.97% from the year prior – and equivalent to an indicator rank of 53.

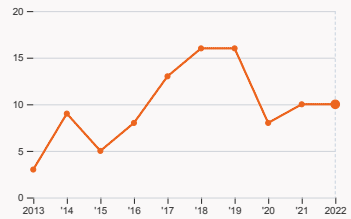


7.1.1 Intangible asset intensity

was equal to 54.32 % for the top 15 companies in 2023, down by 0.66 percentage points from the year prior – and equivalent to an indicator rank of 40.

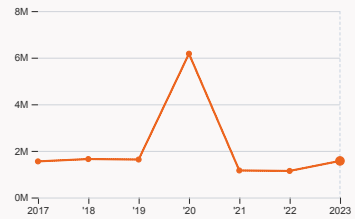
7.1.3 Global brand value

was equal to 0 million USD for the brands in the top 5,000 in 2024, down by 100% from the year prior – and equivalent to an indicator rank of 75.



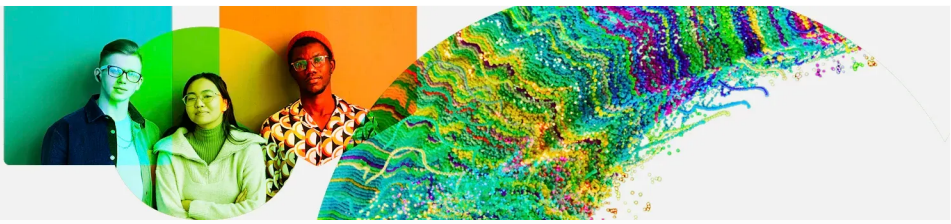
7.2.2 National feature films

was equal to 10 films in 2022 with no change from the year prior – and equivalent to an indicator rank of 1.



7.3.3 Mobile app creation

was equal to 1.57 million global downloads of mobile apps in 2023, up by 37.72% from the year prior – and equivalent to an indicator rank of 88.



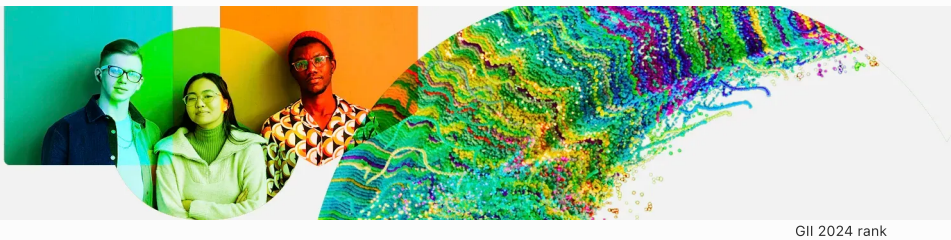
Iceland's innovation top performers

7.1.1 Top 15 intangible-asset intensive companies in Iceland

Rank	Firm	Intensity, %
1	MAREL HF.	82.84
2	OSSUR HF.	86.84
3	SILDARVINNSLAN HF.	78.65

Source: Brand Finance (https://brandirectory.com/reports/gift-2022).
Note: Brand Finance only provides within economy ranks.

Global Innovation Index 2024



Iceland

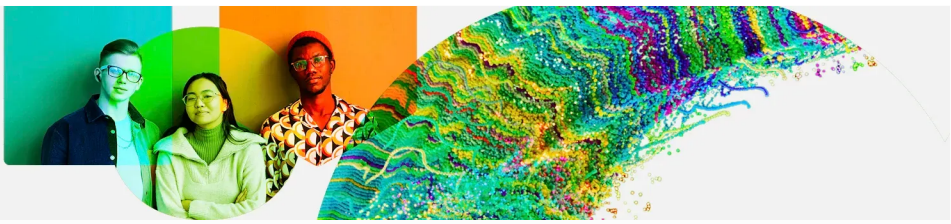
GII 2024 rank **22**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
29	15	High	EUR	0.4	27.1	69,833.1

	Score / Value	Rank	
Institutions	**78.6**	**13**	
1.1 Institutional environment	**88.4**	**6**	●◆
1.1.1 Operational stability for businesses*	92	3	●◆
1.1.2 Government effectiveness*	84.8	12	
1.2 Regulatory environment	**84.4**	**14**	
1.2.1 Regulatory quality*	76.2	20	
1.2.2 Rule of law*	92.7	9	
1.3 Business environment	**63.1**	**[28]**	
1.3.1 Policy stability for doing business†	63.1	37	
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	**47.5**	**26**	◇
2.1 Education	**68.4**	**7**	●◆
2.1.1 Expenditure on education, % GDP	7.1	5	●◆
2.1.2 Government funding/pupil, secondary, % GDP/cap	24	29	
2.1.3 School life expectancy, years	19.1	7	●◆
2.1.4 PISA scales in reading, maths and science	447.3	41	◇
2.1.5 Pupil–teacher ratio, secondary	9.3	23	
2.2 Tertiary education	**34.2**	**63**	◇
2.2.1 Tertiary enrolment, % gross	86.5	16	
2.2.2 Graduates in science and engineering, %	17	93	○◇
2.2.3 Tertiary inbound mobility, %	7.9	36	
2.3 Research and development (R&D)	**39.9**	**26**	◇
2.3.1 Researchers, FTE/mn pop.	6,865.2	8	
2.3.2 Gross expenditure on R&D, % GDP	2.7	13	
2.3.3 Global corporate R&D investors, top 3, mn USD	46.6	35	◇
2.3.4 QS university ranking, top 3*	0	75	○◇
Infrastructure	**64.9**	**3**	●◆
3.1 Information and communication technologies (ICTs)	**89.5**	**14**	
3.1.1 ICT access*	100	9	
3.1.2 ICT use*	91.6	15	
3.1.3 Government's online service*	87.5	16	
3.1.4 E-participation*	79.1	17	
3.2 General infrastructure	**65**	**5**	●◆
3.2.1 Electricity output, GWh/mn pop.	52,670.2	1	●◆
3.2.2 Logistics performance*	68.2	25	◇
3.2.3 Gross capital formation, % GDP	22.5	81	
3.3 Ecological sustainability	**40**	**17**	
3.3.1 GDP/unit of energy use	3.3	126	○◇
3.3.2 Low-carbon energy use, %	83.7	1	●◆
3.3.3 ISO 14001 environment/bn PPP$ GDP	2.2	48	
Market sophistication	**52.4**	**22**	
4.1 Credit	**34.6**	**[42]**	
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	96.6	24	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**71.5**	**4**	●◆
4.2.1 Market capitalization, % GDP	n/a	n/a	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	0.7	10	
4.2.3 VC recipients, deals/bn PPP$ GDP	0.6	1	●◆
4.2.4 VC received, value, % GDP	0.006	8	
4.3 Trade, diversification and market scale	**51.1**	**78**	◇
4.3.1 Applied tariff rate, weighted avg., %	1.1	20	
4.3.2 Domestic industry diversification	61.8	96	○◇
4.3.3 Domestic market scale, bn PPP$	27.1	128	○

	Score / Value	Rank	
Business sophistication	**52.4**	**21**	
5.1 Knowledge workers	**69.7**	**10**	
5.1.1 Knowledge-intensive employment, %	52.2	6	●◆
5.1.2 Firms offering formal training, %	n/a	n/a	
5.1.3 GERD performed by business, % GDP	1.9	12	
5.1.4 GERD financed by business, %	52.5	24	
5.1.5 Females employed w/advanced degrees, %	26.5	15	
5.2 Innovation linkages	**46.8**	**26**	◇
5.2.1 Public Research-Industry co-publications, %	4.9	14	
5.2.2 University-industry R&D collaboration†	68	29	
5.2.3 State of cluster development†	58.4	42	◇
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.07	21	
5.2.5 Patent families/bn PPP$ GDP	1.4	25	◇
5.3 Knowledge absorption	**40.8**	**28**	
5.3.1 Intellectual property payments, % total trade	0.7	57	
5.3.2 High-tech imports, % total trade	8.3	66	
5.3.3 ICT services imports, % total trade	3.2	10	
5.3.4 FDI net inflows, % GDP	-0.07	119	○
5.3.5 Research talent, % in businesses	54.6	20	
Knowledge and technology outputs	**30.3**	**37**	◇
6.1 Knowledge creation	**46.9**	**15**	
6.1.1 Patents by origin/bn PPP$ GDP	3.4	22	
6.1.2 PCT patents by origin/bn PPP$ GDP	1.6	18	
6.1.3 Utility models by origin/bn PPP$ GDP	-	-	
6.1.4 Scientific and technical articles/bn PPP$ GDP	46.9	1	●◆
6.1.5 Citable documents H-index	18.4	47	◇
6.2 Knowledge impact	**25.1**	**66**	◇
6.2.1 Labor productivity growth, %	0.8	59	
6.2.2 Unicorn valuation, % GDP	0	49	○◇
6.2.3 Software spending, % GDP	0.3	38	
6.2.4 High-tech manufacturing, %	17.7	65	◇
6.3 Knowledge diffusion	**18.7**	**61**	◇
6.3.1 Intellectual property receipts, % total trade	0.8	21	
6.3.2 Production and export complexity	n/a	n/a	
6.3.3 High-tech exports, % total trade	2.5	53	
6.3.4 ICT services exports, % total trade	3.7	30	
6.3.5 ISO 9001 quality/bn PPP$ GDP	3.3	74	
Creative outputs	**45.6**	**21**	
7.1 Intangible assets	**31**	**60**	◇
7.1.1 Intangible asset intensity, top 15, %	54.3	40	◇
7.1.2 Trademarks by origin/bn PPP$ GDP	54.5	26	
7.1.3 Global brand value, top 5,000, % GDP	0	75	○◇
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.3	90	○
7.2 Creative goods and services	**43.5**	**12**	
7.2.1 Cultural and creative services exports, % total trade	1	26	
7.2.2 National feature films/mn pop. 15–69	36.9	1	●◆
7.2.3 Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	0.1	97	○
7.3 Online creativity	**76.8**	**3**	●◆
7.3.1 Top-level domains (TLDs)/th pop. 15–69	89.3	3	●◆
7.3.2 GitHub commits/mn pop. 15–69	82	8	●◆
7.3.3 Mobile app creation/bn PPP$ GDP	59.2	88	◇

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 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 Iceland.

Iceland has missing data for eight indicators and outdated data for seven indicators.

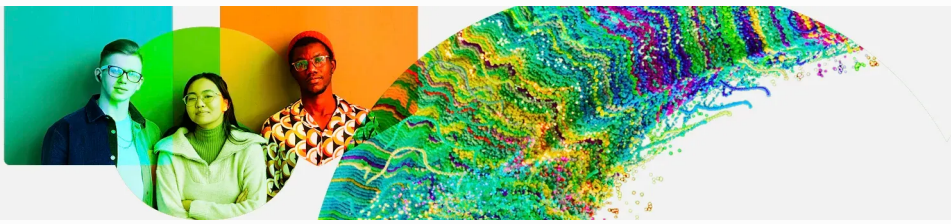
Missing data for Iceland

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture[+]	n/a	2023	Global Entrepreneurship Monitor
4.1.1	Finance for startups and scaleups[+]	n/a	2023	Global Entrepreneurship Monitor
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
5.1.2	Firms offering formal training, %	n/a	2023	World Bank Enterprise Surveys
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2022	World Intellectual Property Organization; International Monetary Fund
6.3.2	Production and export complexity	n/a	2021	Harvard University, Growth Lab
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 Iceland

Code	Indicator name	Economy Year	Model Year	Source
2.1.3	School life expectancy, years	2021	2022	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2021	2022	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2021	2022	UNESCO Institute for Statistics
2.2.3	Tertiary inbound mobility, %	2021	2022	UNESCO Institute for Statistics
4.3.2	Domestic industry diversification	2020	2021	United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database (INDSTAT) Rev.3 and 4
6.2.4	High-tech manufacturing, %	2020	2021	United Nations Industrial Development Organization
7.1.4	Industrial designs by origin/bn PPP$ GDP	2021	2022	World Intellectual Property Organization; International Monetary Fund

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.

Source: Global Innovation Index Database, WIPO, 2024.

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.