Global Innovation Index 2025

Hungary ranking in the Global Innovation Index 2025

Hungary ranks 36th among the 139 economies featured in the GII 2025.

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.

Hungary ranks 34th among the 54 High-income group economies.

Hungary ranks 23rd among the 39 economies in Europe.

Hungary GII Ranking (2020-2025)

The table shows the rankings of Hungary over the past six 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 Hungary in the GII 2025 is between ranks 32 and 36.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	35th	37th	32nd
2021	34th	34th	31st
2022	34th	36th	34th
2023	35th	36th	33rd
2024	36th	37th	35th
2025	36th	38th	33rd

Hungary performs better in innovation outputs than innovation inputs in 2025.

This year **Hungary ranks 38th in innovation inputs.** This position is lower than last year.

Hungary ranks 33rd in innovation outputs. This position is higher than last year.

Hungary has no clusters in the world's top innovation clusters of the Global Innovation Index.

Global Innovation Index 2025

> Global Innovation Tracker

The Global Innovation Tracker 2025 shows what is the current state of innovation in Hungary, how rapidly is technology being embraced and what are the resulting societal impacts.

For Hungary, 8 indicators have improved in the short-term and 3 indicators have worsened.

Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▲ 4.6 % 2023 - 2024	▼ -1.4 % 2022 - 2023	▼ -67.5 % 2023 - 2024	▲ 15.4 % 2023 - 2024
Long term (annual growth)	▲ 3.2 % 2014 - 2024	▲ 3.1 % 2013 - 2023	▼ -37.9 % 2020 - 2024	▲ 0.9 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 0.7% 2023 - 2024	▲ 0.7% 2022 - 2023	▲ 44.3% 2022 - 2023	▲ 5.7% 2022 - 2023	n/a
Long term (annual growth)	▲ 1.5% 2014 - 2024	▲ 3.2% 2013 - 2023	n/a	▲ 13% 2013 - 2023	n/a
Penetration	91.7 per 100 inhabitants in 2024	36.8 per 100 inhabitants in 2023	83.7 per 100 inhabitants in 2023	n/a	n/a

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 0.2 % 2023 - 2024	▲ 1.1 % 2022 - 2023	+ 3.3 °C 2024
Long term (annual growth)	▲ 1.9 % 2014 - 2024	▲ 0.2 % 2013 - 2023	+ 2.2 °C 2014
Level	89,756 USD in 2024	77 years in 2023	n/a

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 countries. from 1951–1980. Figures are rounded.

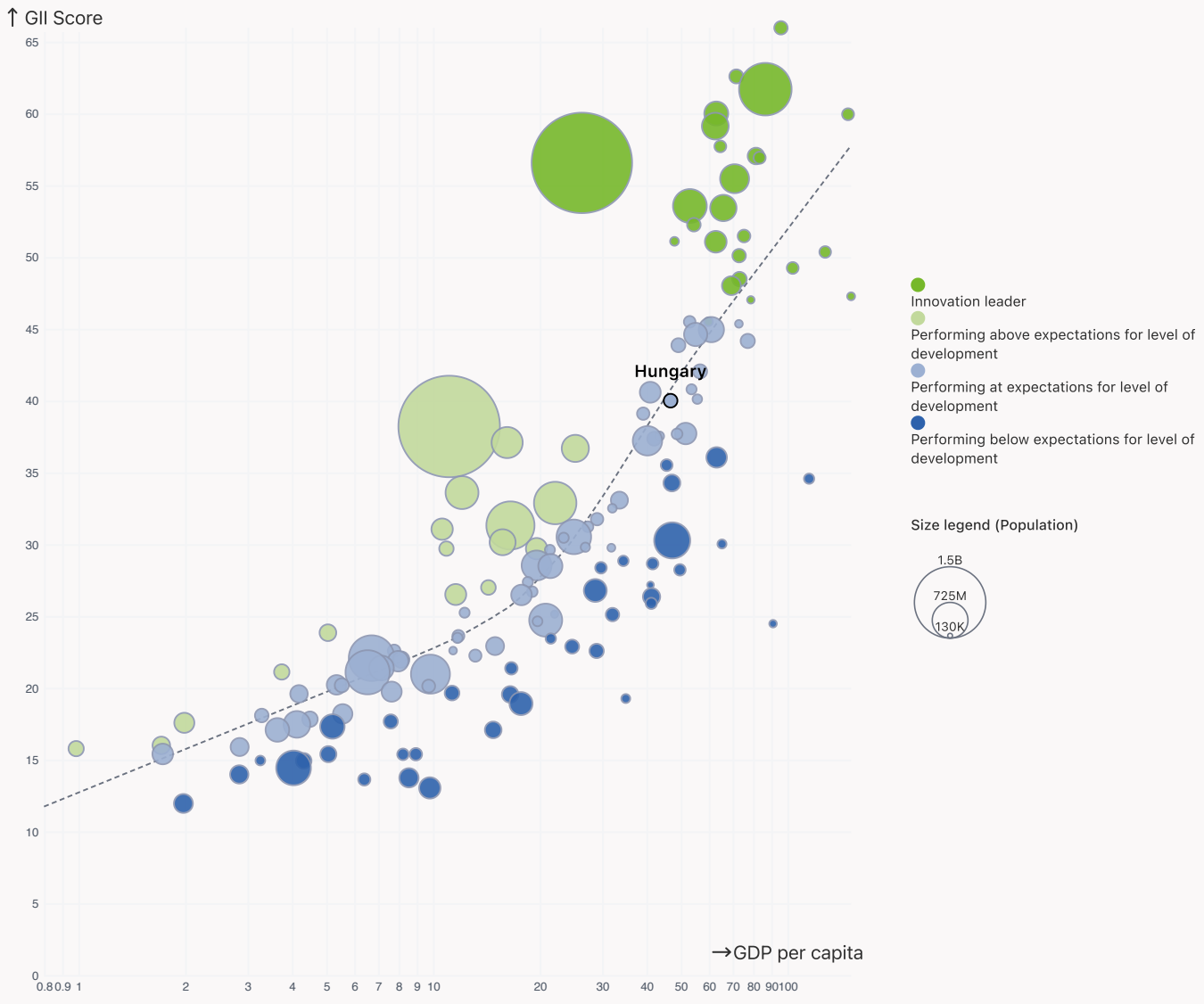
Global Innovation Index 2025

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 Hungary performs at expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2025

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.

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

> Relationship between innovation inputs and outputs

Global Innovation Index 2025

Overview of Hungary's rankings in the seven areas of the GII in 2025

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Hungary are those that rank above the GII (shown in blue) and the weakest are those that rank below.

Highest Rankings

Hungary ranks highest in Knowledge and technology outputs (26th) and Human capital and research (33rd).

Lowest Rankings

Hungary ranks lowest in Institutions (63rd), Market sophistication (49th) and Infrastructure, Creative outputs (38th).

* Infrastructure, Creative outputs

The full WIPO Intellectual Property Statistics profile for Hungary can be found on https://www.wipo.int/edocs/statistics-country-profile/en/hu.pdf

Global Innovation Index 2025

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

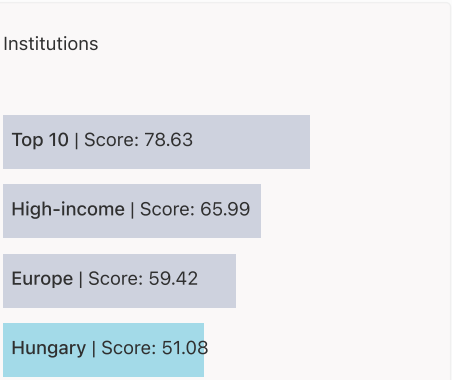
The charts shows the relative position of Hungary (blue bar) against other economy groupings (grey bars)

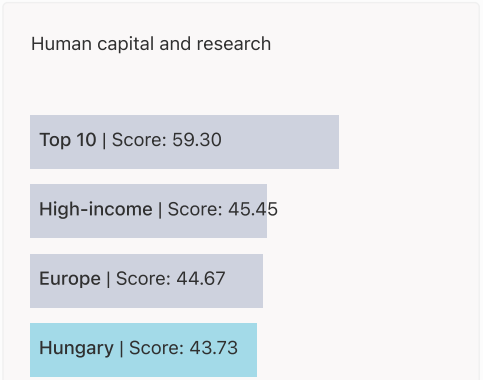
High-income economies

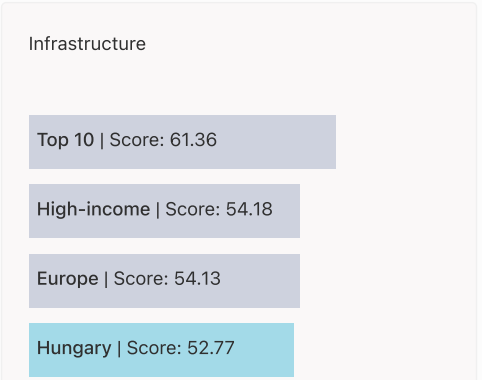
Hungary performs above the High-income group average in Knowledge and technology outputs.

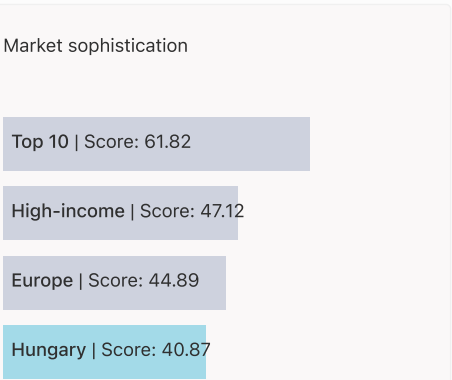
Europe

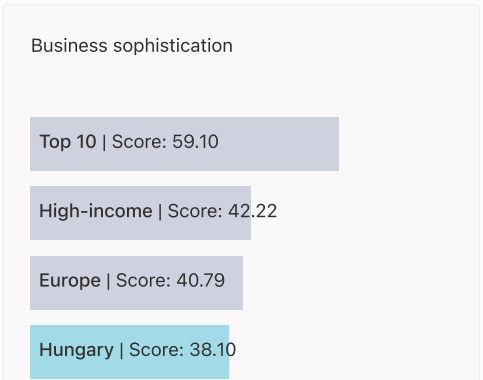
Hungary performs above the regional average in Knowledge and technology outputs.

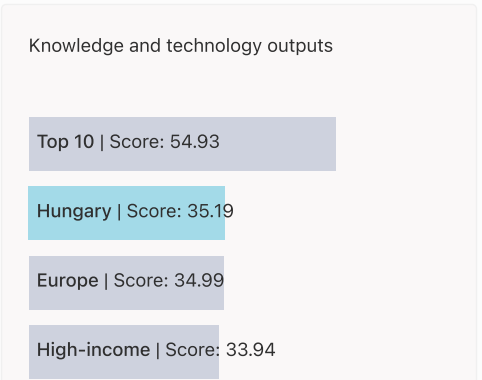


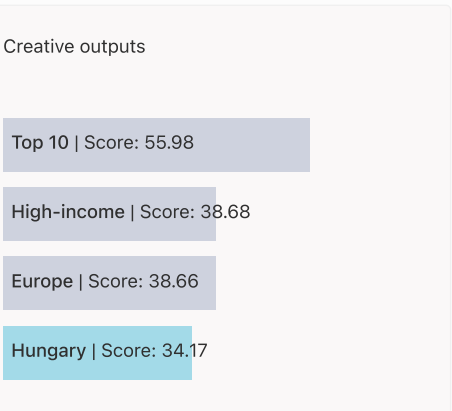












Global Innovation Index 2025

Innovation strengths and weaknesses in Hungary

The table below gives an overview of the indicator strengths and weaknesses of Hungary in the GII 2025.

Hungary's best-ranked innovation strengths are **High-tech manufacturing** (rank 7), **Creative goods exports, % total trade** (rank 9) and **High-tech exports, % total trade** (rank 9).

Strengths

Rank	Code	Indicator name
7	6.2.4	High-tech manufacturing
9	7.2.4	Creative goods exports, % total trade
9	6.3.3	High-tech exports, % total trade
10	3.3.3	ISO 14001 environment/bn PPP$ GDP
10	5.3.5	Research talent, % in businesses
11	6.3.5	ISO 9001 quality/bn PPP$ GDP
12	6.3.2	Production and export complexity
13	5.2.1	Public research–industry co-publications, %
14	5.3.2	High-tech imports, % total trade
19	6.3.1	Intellectual property receipts, % total trade

Weaknesses

Rank	Code	Indicator name
134	5.3.4	FDI net inflows, % GDP
122	5.2.4	State of cluster development†
120	5.1.3	Youth demographic dividend, %
107	1.3.1	Policy stability for doing business†
90	4.1.2	Domestic credit to private sector, % GDP
83	7.1.2	Trademarks by origin/bn PPP$ GDP
67	4.2.1	Market capitalization, % GDP
55	2.1.2	Government funding/pupil, secondary, % GDP/cap
54	1.3.2	Entrepreneurship policies and culture†
53	6.2.2	Unicorn valuation, % GDP

Global Innovation Index 2025

Hungary's innovation system

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

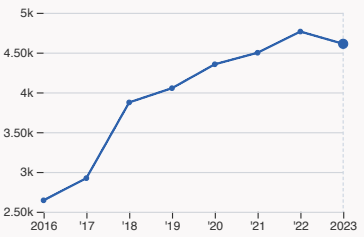
Innovation inputs in Hungary

2.1.1 Expenditure on education

was equal to 5.07 % GDP in 2022, up by 0.39 percentage points from the year prior – and equivalent to an indicator rank of 37.

2.2.2 Graduates in science and engineering

was equal to 24.13 % of total graduates in 2022, up by 2.56 percentage points from the year prior – and equivalent to an indicator rank of 49.



2.3.1 Researchers

was equal to 4610.42 FTE per million population in 2023, down by 3.24% from the year prior – and equivalent to an indicator rank of 26.

2.3.2 Gross expenditure on R&D

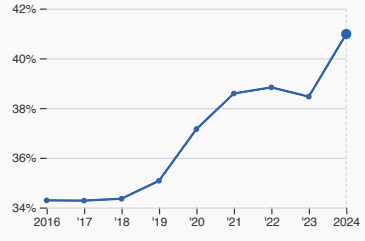
was equal to 1.39 % GDP in 2023, down by 0.004 percentage points from the year prior – and equivalent to an indicator rank of 33.

2.3.4 QS university ranking

was equal to an average score of 21.8 for the top three universities in 2024, up by 21.99% from the year prior – and equivalent to an indicator rank of 51.

4.3.2 Domestic industry diversification

was equal to an index score of 0.1 in 2022, down by 0.15% from the year prior – and equivalent to an indicator rank of 25.



5.1.1 Knowledge-intensive employment

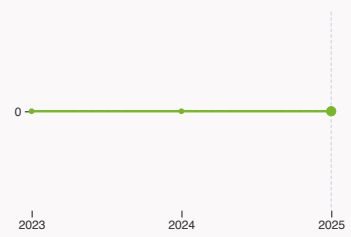
was equal to 40.98 % in 2024, up by 2.52 percentage points from the year prior – and equivalent to an indicator rank of 32.

Global Innovation Index 2025

Innovation outputs in Hungary

6.1.1 Patents by origin

was equal to 490 patents in 2023, down by 4.11% from the year prior – and equivalent to an indicator rank of 49.

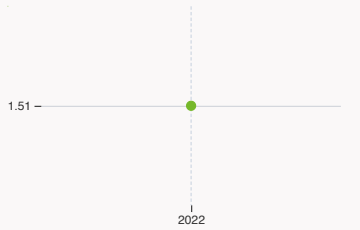


6.2.2 Unicorn valuation

The country does not have unicorns in 2025.

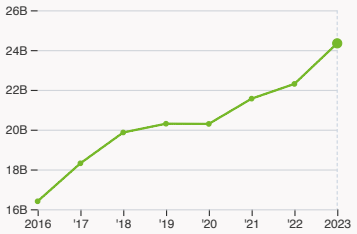
6.2.4 High-tech manufacturing

was equal to 82.35 high-tech manufacturing output in billion USD in 2022, up by 6.81% from the year prior – and equivalent to an indicator rank of 7.



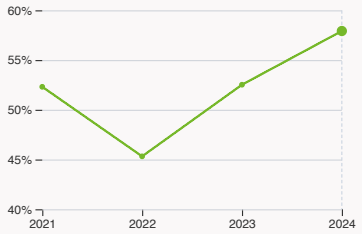
6.3.2 Production and export complexity

was equal to a score of 1.51 in 2022 – and equivalent to an indicator rank of 12.



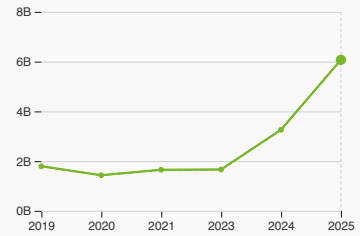
6.3.3 High-tech exports

was equal to 24.34 billion USD in 2023, up by 9.15% from the year prior – and equivalent to an indicator rank of 9.



7.1.1 Intangible asset intensity, top 15

was equal to 57.92 % for the top 15 companies in 2024, up by 5.4 percentage points from the year prior – and equivalent to an indicator rank of 38.



7.1.3 Global brand value, top 5,000

was equal to 6.07 billion USD for the brands in the top 5,000 in 2025, up by 86.2% from the year prior – and equivalent to an indicator rank of 41.

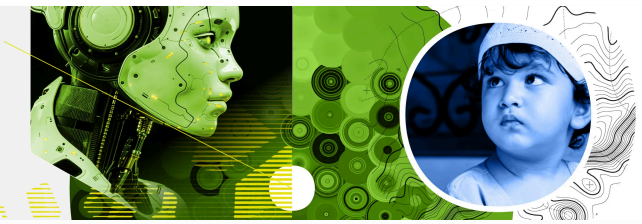
7.2.2 National feature films

was equal to 22 films in 2023, up by 4.76% from the year prior – and equivalent to an indicator rank of 43.

7.3.3 Mobile app creation

was equal to 100.09 million global downloads of mobile apps in 2024, up by 8.3% from the year prior – and equivalent to an indicator rank of 61.

Global Innovation Index 2025



Hungary's innovation top performers

Data not available for 6.2.2 Top Unicorn Companies.

Disclaimer: This section contains only the top performers per country. For the complete list, please visit the GII Innovation Ecosystems and Data Explorer website.

2.3.3 Global corporate R&D investors from Hungary

Rank	Firm	Industry	R&D [mn EUR]	R&D Growth [%]	R&D Intensity [%]
1	RICHTER GEDEON	Pharmaceuticals & Biotechnology	204	4	10

Source: WIPO, based on European Commission's Joint Research Centre (https://iri.jrc.ec.europa.eu/scoreboard/2024-eu-industrial-rd-investment-scoreboard) and Orbis database (https://www.moodys.com/web/en/us/capabilities/company-reference-data/orbis.html).
Note: Data is based on the 2024 EU Industrial R&D Investment Scoreboard from the European Commission's Joint Research Centre, which ranks the top 2,000 firms by R&D investment annually. For countries not represented in the Scoreboard, companies from Orbis with R&D expenditure above USD 50 million were identified and used to complement the dataset.

2.3.4 QS university ranking of Hungary's top universities

Rank	University	Score
564	EOTVOS LORAND UNIVERSITY	22.10
570	UNIVERSITY OF SZEGED	21.80
574	UNIVERSITY OF DEBRECEN	21.50

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2024).
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'.

5.2.3 University industry and international engagement, top 5 universities

Rank	University	Score
1	SEMMELWEIS UNIVERSITY	76.60
2	UNIVERSITY OF DEBRECEN	54.40
3	UNIVERSITY OF SZEGED	52.15

Source: Times Higher Education (THE), World University Rankings 2025.
Note: Rank corresponds to within economy ranks. The score is calculated as the average of the International Outlook score (encompassing international staff, students, and co-authorship) and the industry score (reflecting industry income and patent citations). The 2025 ranking corresponds to data from the academic year that ended in 2022.

7.1.1 Top 15 intangible-asset intensive companies in Hungary

Rank	Firm	Intensity, %
1	RICHTER GEDEON VEGYESZETI GYAR NYILVANOSAN MUKODO RT.	50.53
2	OTP BANK NYRT.	14.43
3	4IG NYRT.	45.53

Source: Brand Finance (https://brandirectory.com/reports/gift-2024).
Note: Brand Finance only provides within economy ranks.

7.1.3 Top 5,000 companies in Hungary with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	OTP BANK	Banking	2,020
2	MOL	Oil & Gas	1,156.8
3	YETTEL	Telecoms	810.9

Source: Brand Finance (https://brandirectory.com).
Note: Rank corresponds to within economy ranks.

Hungary

GII 2025 rank **36**

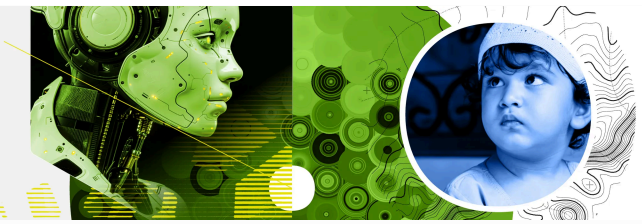
Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
33	38	High	Europe	9.7	448.5	46,807.2

	Score / Value	Rank	
Institutions	**51.1**	**63**	◇
1.1 Institutional environment	**64.1**	**42**	
1.1.1 Operational stability for businesses*	76	32	
1.1.2 Government effectiveness*	52.2	55	
1.2 Regulatory environment	**58.3**	**53**	◇
1.2.1 Regulatory quality*	54.1	57	◇
1.2.2 Rule of law*	62.6	47	
1.3 Business environment	**30.8**	**98**	◇
1.3.1 Policy stability for doing business†	28.7	107	○ ◇
1.3.2 Entrepreneurship policies and culture†	32.9	54	○
Human capital and research	**43.7**	**33**	
2.1 Education	**58.1**	**43**	
2.1.1 Expenditure on education, % GDP	5.1	37	
2.1.2 Government funding/pupil, secondary, % GDP/cap	17.7	55	○
2.1.3 School life expectancy, years	15.6	42	
2.1.4 PISA scales in reading, maths and science	477.2	29	
2.1.5 Pupil–teacher ratio, secondary	9.9	30	
2.2 Tertiary education	**38.2**	**39**	
2.2.1 Tertiary enrolment, % gross	56.6	59	
2.2.2 Graduates in science and engineering, %	24.1	49	
2.2.3 Tertiary inbound mobility, %	14.4	17	
2.3 Research and development (R&D)	**35**	**30**	
2.3.1 Researchers, FTE/mn pop.	4,610.4	26	
2.3.2 Gross expenditure on R&D, % GDP	1.4	33	
2.3.3 Global corporate R&D investors, top 3, mn USD	51.5	32	
2.3.4 QS university ranking, top 3*	22.3	51	
Infrastructure	**52.8**	**38**	
3.1 Information and communication technologies (ICTs)	**80.4**	**56**	
3.1.1 ICT access*	96.1	34	
3.1.2 ICT use*	79.3	60	
3.1.3 Government's online service*	65.6	72	
3.2 General infrastructure	**38**	**50**	
3.2.1 Electricity output, GWh/mn pop.	3,703.9	59	
3.2.2 Logistics performance*	50	50	
3.2.3 Gross capital formation, % GDP	27.7	33	
3.3 Ecological sustainability	**39.9**	**18**	
3.3.1 GDP/unit of energy use	13.8	44	
3.3.2 Low-carbon energy use, %	25.5	49	
3.3.3 ISO 14001 environment/bn PPP$ GDP	7	10	●
Market sophistication	**40.9**	**49**	
4.1 Credit	**32.5**	**58**	
4.1.1 Finance for startups and scaleups†	54.6	40	
4.1.2 Domestic credit to private sector, % GDP	33	90	○ ◇
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**9.7**	**49**	
4.2.1 Market capitalization, % GDP	16.2	67	○
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.2	39	
4.2.3 Late-stage VC deal count, % global VC	0.05	43	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.3	41	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.2	33	
4.3 Trade, diversification and market scale	**80.4**	**27**	
4.3.1 Applied tariff rate, weighted avg., %	1.3	24	
4.3.2 Domestic industry diversification	93.6	25	
4.3.3 Domestic market scale, bn PPP$	448.5	52	

	Score / Value	Rank	
Business sophistication	**38.1**	**37**	
5.1 Knowledge workers	**43.5**	**41**	
5.1.1 Knowledge-intensive employment, %	41	32	
5.1.2 Females employed w/advanced degrees, %	19.4	39	
5.1.3 Youth demographic dividend, %	24.9	120	○
5.1.4 GERD performed by business, % GDP	1	25	
5.1.5 GERD financed by business, %	44.9	35	
5.2 Innovation linkages	**33.2**	**45**	
5.2.1 Public research–industry co-publications, %	5.3	13	●
5.2.2 University–industry R&D collaboration†	37.9	60	
5.2.3 University industry & international engagement, top 5*	42.3	43	
5.2.4 State of cluster development†	23.6	122	○ ◇
5.2.5 Patent families/bn PPP$ GDP	0.3	41	
5.3 Knowledge absorption	**37.6**	**33**	
5.3.1 Intellectual property payments, % total trade	0.9	42	
5.3.2 High-tech imports, % total trade	15.7	14	●
5.3.3 ICT services imports, % total trade	1.6	57	
5.3.4 FDI net inflows, % GDP	-5.6	134	○ ◇
5.3.5 Research talent, % in businesses	62.7	10	●
Knowledge and technology outputs	**35.2**	**26**	
6.1 Knowledge creation	**24.2**	**42**	
6.1.1 Patents by origin/bn PPP$ GDP	1.1	49	
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	0.6	30	
6.1.3 Utility models by origin/bn PPP$ GDP	0.4	31	
6.1.4 Scientific and technical articles/bn PPP$ GDP	19.5	35	
6.1.5 Citable documents H-index	28.9	35	
6.2 Knowledge impact	**34.4**	**40**	
6.2.1 Labor productivity growth, %	0.8	71	
6.2.2 Unicorn valuation, % GDP	0	53	○ ◇
6.2.3 Software spending, % GDP	0.2	61	
6.2.4 High-tech manufacturing	56.1	7	●
6.3 Knowledge diffusion	**47**	**18**	
6.3.1 Intellectual property receipts, % total trade	0.9	19	●
6.3.2 Production and export complexity	82.6	12	●
6.3.3 High-tech exports, % total trade	14.6	9	●
6.3.4 ICT services exports, % total trade	2.1	60	
6.3.5 ISO 9001 quality/bn PPP$ GDP	16.2	11	●
Creative outputs	**34.2**	**38**	
7.1 Intangible assets	**32.2**	**54**	
7.1.1 Intangible asset intensity, top 15, %	57.9	38	
7.1.2 Trademarks by origin/bn PPP$ GDP	22.8	83	○
7.1.3 Global brand value, top 5,000, % GDP	2.5	41	
7.1.4 Industrial designs by origin/bn PPP$ GDP	1.5	45	
7.2 Creative goods and services	**31.1**	**29**	
7.2.1 Cultural and creative services exports, % total trade	0.9	35	
7.2.2 National feature films/mn pop. 15–69	3.2	43	
7.2.3 Entertainment and media market/th pop. 15–69	13.5	31	◇
7.2.4 Creative goods exports, % total trade	5.7	9	●
7.3 Online creativity	**41.1**	**35**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	28	28	
7.3.2 GitHub commits/mn pop. 15–69	28.6	36	
7.3.3 Mobile app creation/bn PPP$ GDP	66.8	61	

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.

Global Innovation Index 2025



Data Availability

The following tables list indicators that are either missing or outdated for Hungary.

Hungary has missing data for one indicator and outdated data for one indicator.

Missing data for Hungary

Code	Indicator name	Economy year	Model year	Source
4.1.3	Loans from microfinance institutions, % GDP	n/a	2023	International Monetary Fund, Financial Access Survey (FAS)

Outdated data for Hungary

Code	Indicator name	Economy year	Model year	Source
2.1.1	Expenditure on education, % GDP	2022	2023	UNESCO Institute for Statistics

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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 140 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.