Global Innovation Index 2025

Poland ranking in the Global Innovation Index 2025

Poland ranks 39th 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.

Poland ranks 36th among the 54 High-income group economies.

Poland ranks 25th among the 39 economies in Europe.

Poland GII Ranking (2020-2025)

The table shows the rankings of Poland 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 Poland in the GII 2025 is between ranks 38 and 41.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	38th	38th	40th
2021	40th	37th	42nd
2022	38th	41st	36th
2023	41st	50th	36th
2024	40th	45th	38th
2025	39th	45th	36th

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

This year **Poland ranks 45th in innovation inputs.** This position is the same as last year.

Poland ranks 36th in innovation outputs. This position is higher than last year.

Poland has 1 cluster 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 Poland, how rapidly is technology being embraced and what are the resulting societal impacts.

For Poland, 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 % 2023 - 2024	▲ 8.5 % 2022 - 2023	▼ -40 % 2023 - 2024	▼ -8.1 % 2023 - 2024
Long term (annual growth)	▲ 3.3 % 2014 - 2024	▲ 9.8 % 2013 - 2023	▼ -17.7 % 2020 - 2024	▼ -0.2 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	0% 2023 - 2024	▲ 10.6% 2022 - 2023	▲ 9.5% 2022 - 2023	▲ 8.8% 2022 - 2023	▲ 20.2% 2023 - 2024
Long term (annual growth)	▲ 0.2% 2014 - 2024	▲ 3.7% 2013 - 2023	n/a	▲ 16.8% 2013 - 2023	▲ 53.6% 2015 - 2024
Penetration	97.8 per 100 inhabitants in 2024	26.1 per 100 inhabitants in 2023	69 per 100 inhabitants in 2023	n/a	1.1 per 100 cars in 2024

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 4.8 % 2023 - 2024	▲ 0.9 % 2022 - 2023	+ 3.4 °C 2024
Long term (annual growth)	▲ 2.8 % 2014 - 2024	▲ 0.2 % 2013 - 2023	+ 2.4 °C 2014
Level	103,465.3 USD in 2024	78.6 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.

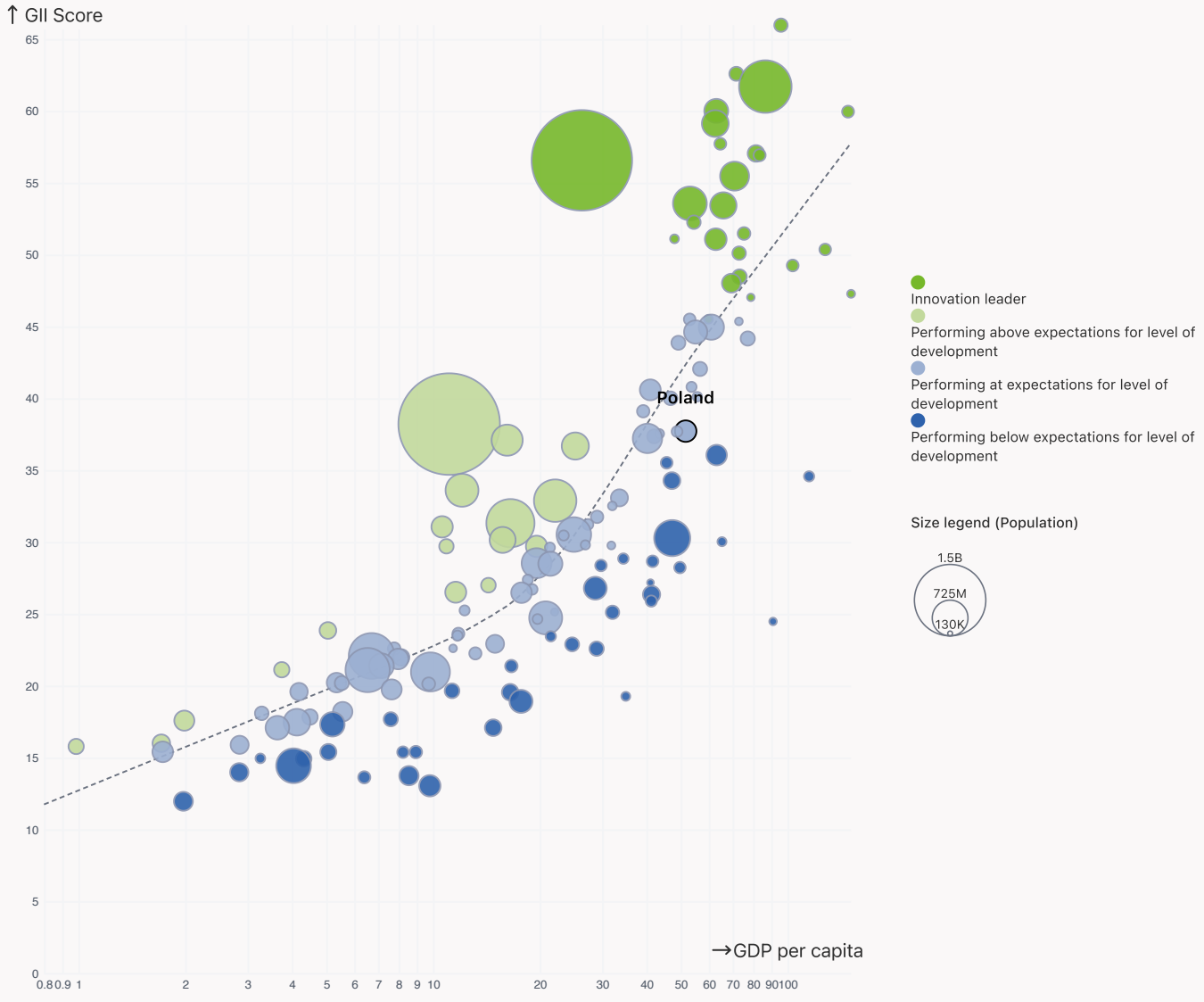
Global Innovation Index 2025

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 Poland 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.

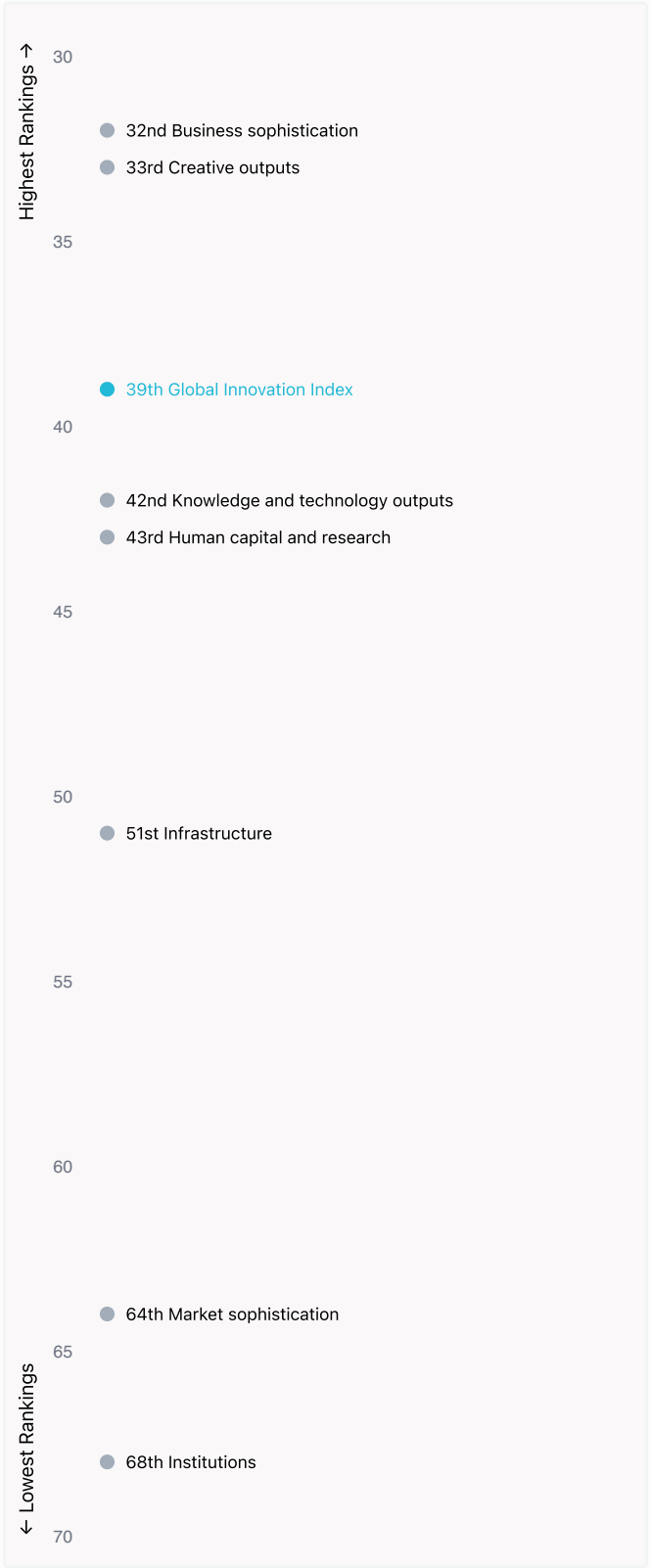
Poland produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

Global Innovation Index 2025

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



Highest Rankings

Poland ranks highest in Business sophistication (32nd) and Creative outputs (33rd).

Lowest Rankings

Poland ranks lowest in Institutions (68th), Market sophistication (64th) and Infrastructure (51st).

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

Global Innovation Index 2025

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

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

High-income economies

Poland performs below the High-income group average in all pillars.

Europe

Poland performs below the regional average in all pillars.

Institutions

- Top 10 | Score: 78.63
- High-income | Score: 65.99
- Europe | Score: 59.42
- Poland | Score: 49.66

Human capital and research

- Top 10 | Score: 59.30
- High-income | Score: 45.45
- Europe | Score: 44.67
- Poland | Score: 38.57

Infrastructure

- Top 10 | Score: 61.36
- High-income | Score: 54.18
- Europe | Score: 54.13
- Poland | Score: 48.09

Market sophistication

- Top 10 | Score: 61.82
- High-income | Score: 47.12
- Europe | Score: 44.89
- Poland | Score: 37.66

Business sophistication

- Top 10 | Score: 59.10
- High-income | Score: 42.22
- Europe | Score: 40.79
- Poland | Score: 39.47

Knowledge and technology outputs

- Top 10 | Score: 54.93
- Europe | Score: 34.99
- High-income | Score: 33.94
- Poland | Score: 28.49

Creative outputs

- Top 10 | Score: 55.98
- High-income | Score: 38.68
- Europe | Score: 38.66
- Poland | Score: 36.96

Global Innovation Index 2025

Innovation strengths and weaknesses in Poland

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

Poland's best-ranked innovation strengths are **Domestic industry diversification** (rank 11), **Creative goods exports, % total trade** (rank 13) and **PISA scales in reading, maths and science** (rank 14).

Strengths

Rank	Code	Indicator name
11	4.3.2	Domestic industry diversification
13	7.2.4	Creative goods exports, % total trade
14	2.1.4	PISA scales in reading, maths and science
15	3.1.2	ICT use*
19	5.1.2	Females employed w/advanced degrees, %
20	4.3.3	Domestic market scale, bn PPP$
21	2.1.3	School life expectancy, years
23	5.1.1	Knowledge-intensive employment, %
24	7.1.4	Industrial designs by origin/bn PPP$ GDP
24	6.1.1	Patents by origin/bn PPP$ GDP
26	6.1.5	Citable documents H-index

Weaknesses

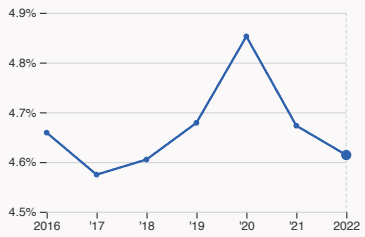
Rank	Code	Indicator name
124	5.1.3	Youth demographic dividend, %
109	1.3.1	Policy stability for doing business†
108	3.2.3	Gross capital formation, % GDP
91	3.3.2	Low-carbon energy use, %
87	2.2.2	Graduates in science and engineering, %
73	1.3.2	Entrepreneurship policies and culture†
54	4.2.1	Market capitalization, % GDP
54	4.1.3	Loans from microfinance institutions, % GDP
53	6.2.2	Unicorn valuation, % GDP
44	2.3.3	Global corporate R&D investors, top 3, mn USD

Global Innovation Index 2025

Poland's innovation system

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

Innovation inputs in Poland

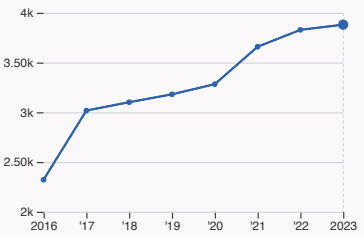


2.1.1 Expenditure on education

was equal to 4.61 % GDP in 2022, down by 0.06 percentage points from the year prior – and equivalent to an indicator rank of 53.

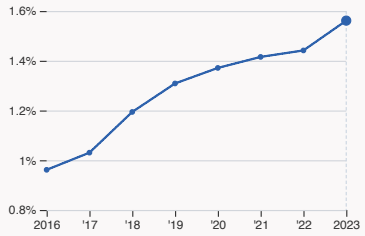
2.2.2 Graduates in science and engineering

was equal to 19.43 % of total graduates in 2022, down by 0.21 percentage points from the year prior – and equivalent to an indicator rank of 87.



2.3.1 Researchers

was equal to 3881.06 FTE per million population in 2023, up by 1.37% from the year prior – and equivalent to an indicator rank of 28.



2.3.2 Gross expenditure on R&D

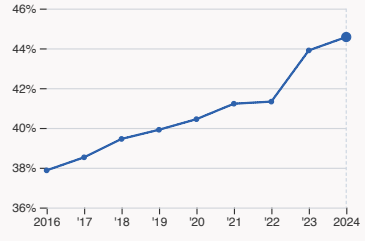
was equal to 1.56 % GDP in 2023, up by 0.12 percentage points from the year prior – and equivalent to an indicator rank of 26.

2.3.4 QS university ranking

was equal to an average score of 32.67 for the top three universities in 2024, up by 5.29% from the year prior – and equivalent to an indicator rank of 42.

4.3.2 Domestic industry diversification

was equal to an index score of 0.09 in 2022, up by 15.57% from the year prior – and equivalent to an indicator rank of 11.



5.1.1 Knowledge-intensive employment

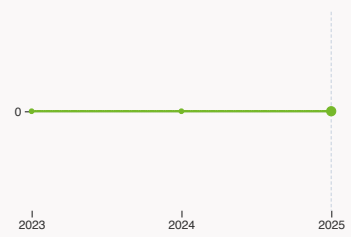
was equal to 44.57 % in 2024, up by 0.67 percentage points from the year prior – and equivalent to an indicator rank of 23.

Global Innovation Index 2025

Innovation outputs in Poland

6.1.1 Patents by origin

was equal to 4.62 thousand patents in 2023, up by 20% from the year prior – and equivalent to an indicator rank of 24.

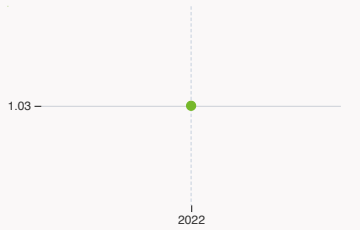


6.2.2 Unicorn valuation

The country does not have unicorns in 2025.

6.2.4 High-tech manufacturing

was equal to 142.54 high-tech manufacturing output in billion USD in 2022, up by 8.73% from the year prior – and equivalent to an indicator rank of 41.

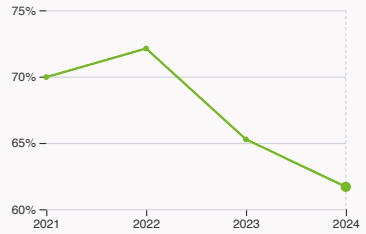


6.3.2 Production and export complexity

was equal to a score of 1.03 in 2022 – and equivalent to an indicator rank of 27.

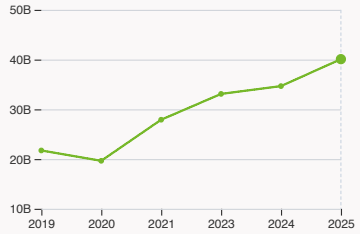
6.3.3 High-tech exports

was equal to 31.69 billion USD in 2023, up by 7.79% from the year prior – and equivalent to an indicator rank of 32.



7.1.1 Intangible asset intensity, top 15

was equal to 61.69 % for the top 15 companies in 2024, down by 3.58 percentage points from the year prior – and equivalent to an indicator rank of 32.



7.1.3 Global brand value, top 5,000

was equal to 40.09 billion USD for the brands in the top 5,000 in 2025, up by 15.63% from the year prior – and equivalent to an indicator rank of 35.

7.2.2 National feature films

was equal to 55 films in 2023, down by 34.52% from the year prior – and equivalent to an indicator rank of 58.

7.3.3 Mobile app creation

was equal to 980.49 million global downloads of mobile apps in 2024, up by 3.23% from the year prior – and equivalent to an indicator rank of 33.

Global Innovation Index 2025

Poland's innovation top performers

Data not available for 2.3.3 Global corporate R&D investors and 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.

2.3.4 QS university ranking of Poland's top universities

Rank	University	Score
258	UNIVERSITY OF WARSAW	39.80
312	JAGIELLONIAN UNIVERSITY	35.00
527	WARSAW UNIVERSITY OF TECHNOLOGY	23.20

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	AGH UNIVERSITY OF KRAKOW	50.80
2	JAGIELLONIAN UNIVERSITY	47.65
3	LODZ UNIVERSITY OF TECHNOLOGY	47.40

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 Poland

Rank	Firm	Intensity, %
1	DINO POLSKA S.A.	81.69
2	POWSZECHNA KASA OSZCZEDNOSCI BANK POLSKI SPOLKA AKCYJNA	31.38
3	LPP SA	76.14

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 Poland with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	BIEDRONKA	Retail	4,577.8
2	PKO BANK POLSKI	Banking	4,051.3
3	PZU	Insurance	3,697.5

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

Poland

GII 2025 rank **39**

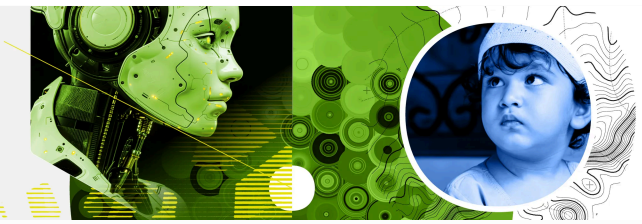
Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
36	45	High	Europe	38.5	1,890.7	51,628.8

	Score / Value	Rank	
Institutions	**49.7**	**68**	◇
1.1 Institutional environment	**60.7**	**50**	
1.1.1 Operational stability for businesses*	68	47	
1.1.2 Government effectiveness*	53.4	49	
1.2 Regulatory environment	**64.1**	**40**	
1.2.1 Regulatory quality*	64.7	35	
1.2.2 Rule of law*	63.4	43	
1.3 Business environment	**24.2**	**113**	◇
1.3.1 Policy stability for doing business†	27.5	109	○ ◇
1.3.2 Entrepreneurship policies and culture†	20.9	73	○ ◇
Human capital and research	**38.6**	**43**	
2.1 Education	**60.9**	**37**	
2.1.1 Expenditure on education, % GDP	4.6	53	
2.1.2 Government funding/pupil, secondary, % GDP/cap	19.7	47	
2.1.3 School life expectancy, years	17	21	●
2.1.4 PISA scales in reading, maths and science	492.3	14	●
2.1.5 Pupil–teacher ratio, secondary	10.1	35	
2.2 Tertiary education	**30.9**	**65**	
2.2.1 Tertiary enrolment, % gross	76.9	30	
2.2.2 Graduates in science and engineering, %	19.4	87	○
2.2.3 Tertiary inbound mobility, %	6.6	47	
2.3 Research and development (R&D)	**23.8**	**44**	
2.3.1 Researchers, FTE/mn pop.	3,881.1	28	
2.3.2 Gross expenditure on R&D, % GDP	1.6	26	
2.3.3 Global corporate R&D investors, top 3, mn USD	0	44	○ ◇
2.3.4 QS university ranking, top 3*	33.5	42	
Infrastructure	**48.1**	**51**	
3.1 Information and communication technologies (ICTs)	**88.2**	**33**	
3.1.1 ICT access*	96.1	35	
3.1.2 ICT use*	92.2	15	●
3.1.3 Government's online service*	76.4	50	
3.2 General infrastructure	**36.4**	**53**	
3.2.1 Electricity output, GWh/mn pop.	4,378.5	51	
3.2.2 Logistics performance*	68.2	25	
3.2.3 Gross capital formation, % GDP	19.2	108	○ ◇
3.3 Ecological sustainability	**19.6**	**73**	
3.3.1 GDP/unit of energy use	13.8	42	
3.3.2 Low-carbon energy use, %	10.9	91	○
3.3.3 ISO 14001 environment/bn PPP$ GDP	1.9	51	
Market sophistication	**37.7**	**64**	
4.1 Credit	**20.4**	**89**	◇
4.1.1 Finance for startups and scaleups†	47.6	51	
4.1.2 Domestic credit to private sector, % GDP	34.8	85	◇
4.1.3 Loans from microfinance institutions, % GDP	0.2	54	○
4.2 Investment	**6.9**	**60**	
4.2.1 Market capitalization, % GDP	26.4	54	○
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.1	52	
4.2.3 Late-stage VC deal count, % global VC	0.1	24	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.1	61	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.08	51	
4.3 Trade, diversification and market scale	**85.7**	**11**	
4.3.1 Applied tariff rate, weighted avg., %	1.3	24	
4.3.2 Domestic industry diversification	96	11	●
4.3.3 Domestic market scale, bn PPP$	1,890.7	20	●

	Score / Value	Rank	
Business sophistication	**39.5**	**32**	
5.1 Knowledge workers	**50.7**	**28**	
5.1.1 Knowledge-intensive employment, %	44.6	23	●
5.1.2 Females employed w/advanced degrees, %	25.4	19	●
5.1.3 Youth demographic dividend, %	24.4	124	○
5.1.4 GERD performed by business, % GDP	1	26	
5.1.5 GERD financed by business, %	54.8	21	
5.2 Innovation linkages	**27.6**	**59**	
5.2.1 Public research–industry co-publications, %	1.9	48	
5.2.2 University–industry R&D collaboration†	35.1	68	
5.2.3 University industry & international engagement, top 5*	29.7	57	◇
5.2.4 State of cluster development†	48.4	62	
5.2.5 Patent families/bn PPP$ GDP	0.3	40	
5.3 Knowledge absorption	**40.1**	**27**	
5.3.1 Intellectual property payments, % total trade	1	36	
5.3.2 High-tech imports, % total trade	8.9	53	
5.3.3 ICT services imports, % total trade	2.4	29	
5.3.4 FDI net inflows, % GDP	5.2	29	
5.3.5 Research talent, % in businesses	56.4	18	
Knowledge and technology outputs	**28.5**	**42**	
6.1 Knowledge creation	**24.6**	**41**	
6.1.1 Patents by origin/bn PPP$ GDP	2.6	24	●
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	0.2	42	
6.1.3 Utility models by origin/bn PPP$ GDP	0.4	33	
6.1.4 Scientific and technical articles/bn PPP$ GDP	17.3	40	
6.1.5 Citable documents H-index	37	26	●
6.2 Knowledge impact	**29.1**	**52**	
6.2.1 Labor productivity growth, %	1.9	31	
6.2.2 Unicorn valuation, % GDP	0	53	○ ◇
6.2.3 Software spending, % GDP	0.3	53	
6.2.4 High-tech manufacturing	30	41	
6.3 Knowledge diffusion	**31.7**	**38**	
6.3.1 Intellectual property receipts, % total trade	0.3	38	
6.3.2 Production and export complexity	71.8	27	
6.3.3 High-tech exports, % total trade	7.1	32	
6.3.4 ICT services exports, % total trade	3.7	36	
6.3.5 ISO 9001 quality/bn PPP$ GDP	6.4	39	
Creative outputs	**37**	**33**	
7.1 Intangible assets	**40.1**	**32**	
7.1.1 Intangible asset intensity, top 15, %	61.7	32	
7.1.2 Trademarks by origin/bn PPP$ GDP	27.5	73	
7.1.3 Global brand value, top 5,000, % GDP	4.4	35	
7.1.4 Industrial designs by origin/bn PPP$ GDP	3.3	24	●
7.2 Creative goods and services	**23.5**	**49**	
7.2.1 Cultural and creative services exports, % total trade	1.1	24	
7.2.2 National feature films/mn pop. 15–69	2	58	
7.2.3 Entertainment and media market/th pop. 15–69	11.2	33	◇
7.2.4 Creative goods exports, % total trade	3.7	13	●
7.3 Online creativity	**44.2**	**33**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	19.8	36	
7.3.2 GitHub commits/mn pop. 15–69	41.4	26	
7.3.3 Mobile app creation/bn PPP$ GDP	71.5	33	

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 Poland.

Poland has missing data for zero indicators and outdated data for one indicator.

Outdated data for Poland

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

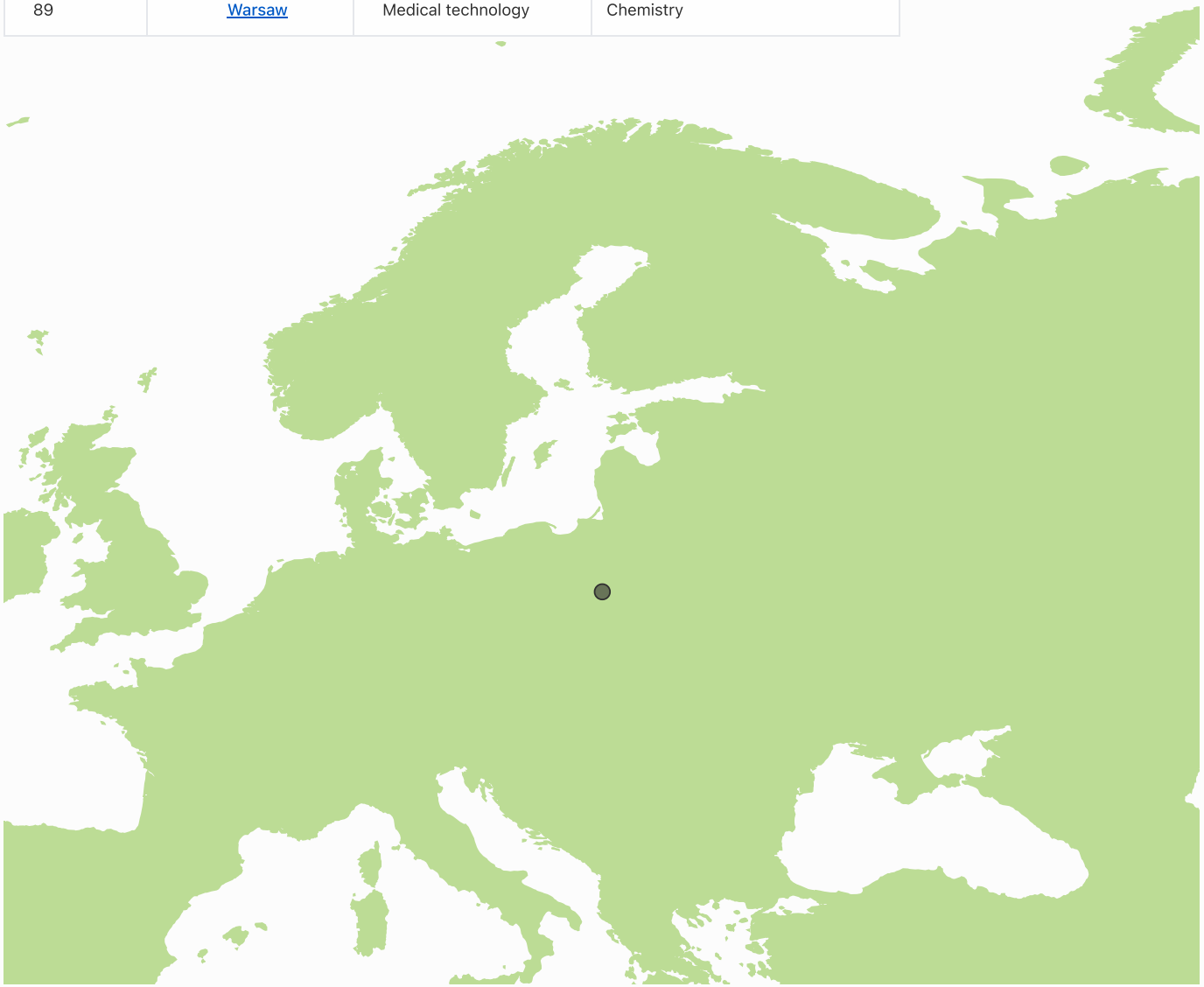
Global Innovation Index 2025

Top innovation clusters in Poland

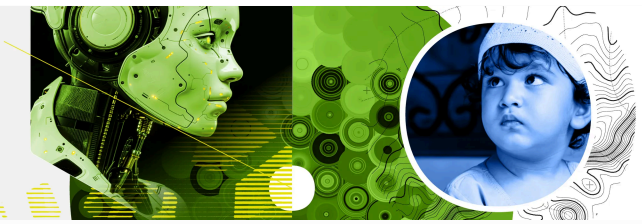
Poland has 1 cluster in the world's top innovation clusters of the Global Innovation Index

The table and map below give an overview of the top innovation clusters in Poland.

Rank	Cluster name	Top patent field	Top academic subject
89	Warsaw	Medical technology	Chemistry

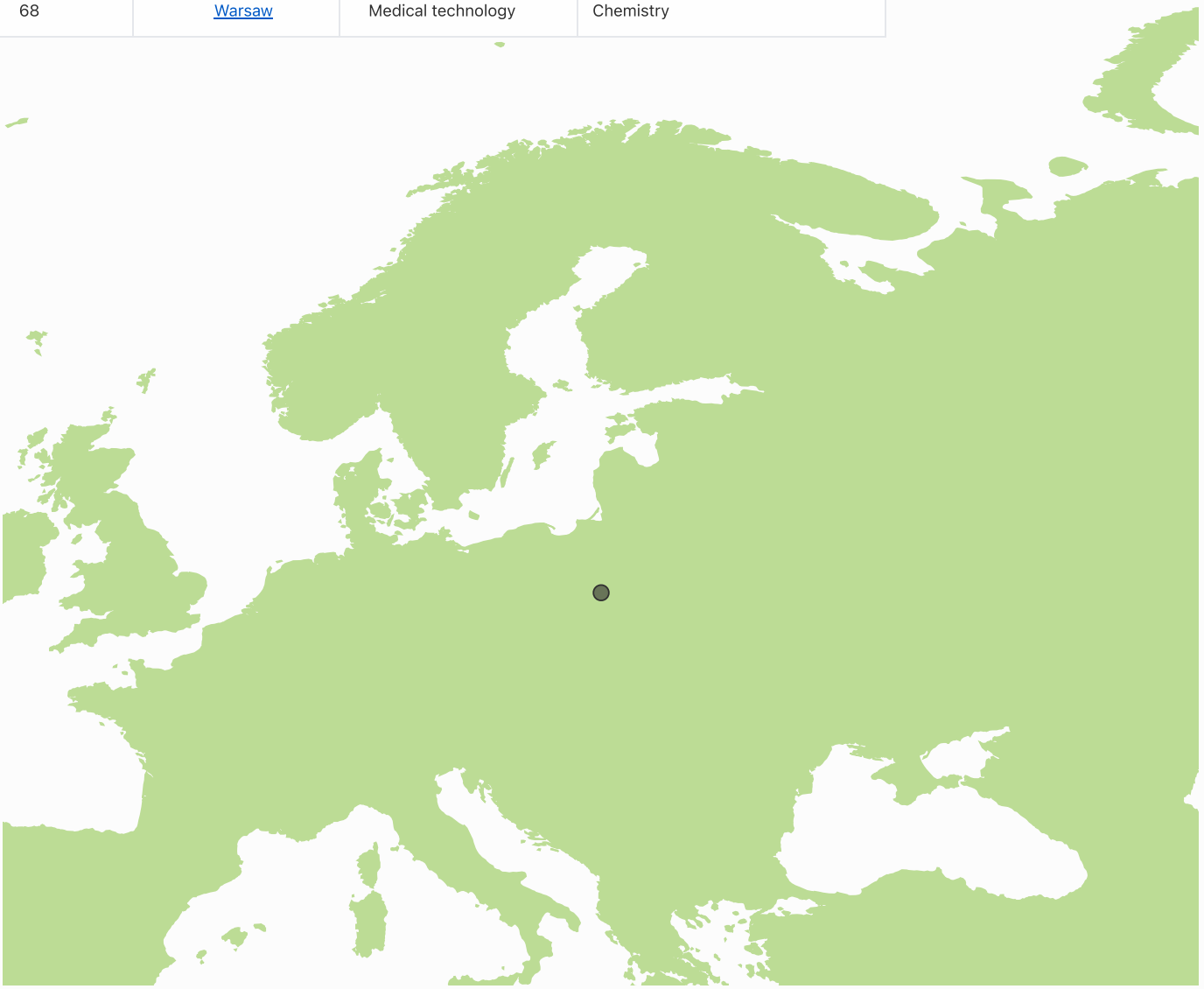


Global Innovation Index 2025



The table and map below give an overview by intensity of the top innovation clusters in Poland.

Rank	Cluster name	Top patent field	Top academic subject
68	Warsaw	Medical technology	Chemistry



Global Innovation Index 2025

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.