

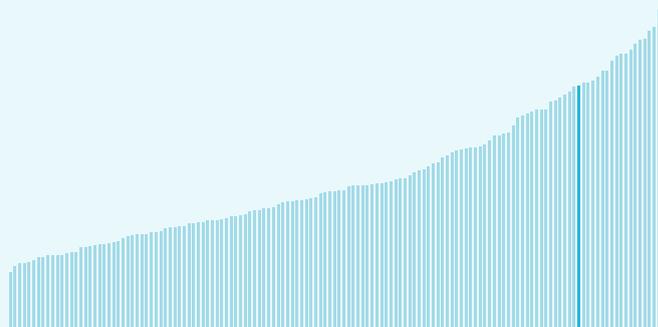
Global Innovation Index 2025



Ireland ranking in the Global Innovation Index 2025

Ireland ranks **18th** among the 139 economies featured in the GII 2025.

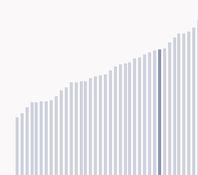
The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.



Ireland ranks 17th among the 54 High-income group economies.



Ireland ranks 10th among the 39 economies in Europe.



> Ireland GII Ranking (2020-2025)

The table shows the rankings of Ireland 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 Ireland in the GII 2025 is between ranks 16 and 19.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	15th	20th	11th
2021	19th	22nd	19th
2022	23rd	25th	19th
2023	22nd	26th	18th
2024	19th	25th	15th
2025	18th	21st	17th

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

This year Ireland ranks 21st in innovation inputs. This position is higher than last year.

Ireland ranks 17th in innovation outputs. This position is lower than last year.

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



For Ireland, 7 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	▲ 6.5 % 2023 - 2024	▼ -2.4 % 2022 - 2023	▲ 1.7 % 2023 - 2024	▼ -5.2 % 2023 - 2024
Long term (annual growth)	▲ 4 % 2014 - 2024	▲ 8.5 % 2013 - 2023	▼ -1.9 % 2020 - 2024	▲ 5.2 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 0.3% 2023 - 2024	▲ 2.8% 2022 - 2023	▲ 7.6% 2022 - 2023	▲ 16% 2022 - 2023	n/a
Long term (annual growth)	▲ 0.9% 2014 - 2024	▲ 3.4% 2013 - 2023	n/a	▲ 13.2% 2013 - 2023	n/a
Penetration	81.3 per 100 inhabitants in 2024	31.9 per 100 inhabitants in 2023	85 per 100 inhabitants in 2023	n/a	n/a

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	0 % 2023 - 2024	▲ 0.4 % 2022 - 2023	+ 1.3 °C 2024
Long term (annual growth)	▲ 0.6 % 2014 - 2024	▲ 0.2 % 2013 - 2023	+ 1.3 °C 2014
Level	123,373 USD in 2024	82.4 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.

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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.



Ireland is an Innovation leader, ranking in the top 25 of the GII.

> Innovation overperformers relative to their economic development



Global Innovation Index 2025



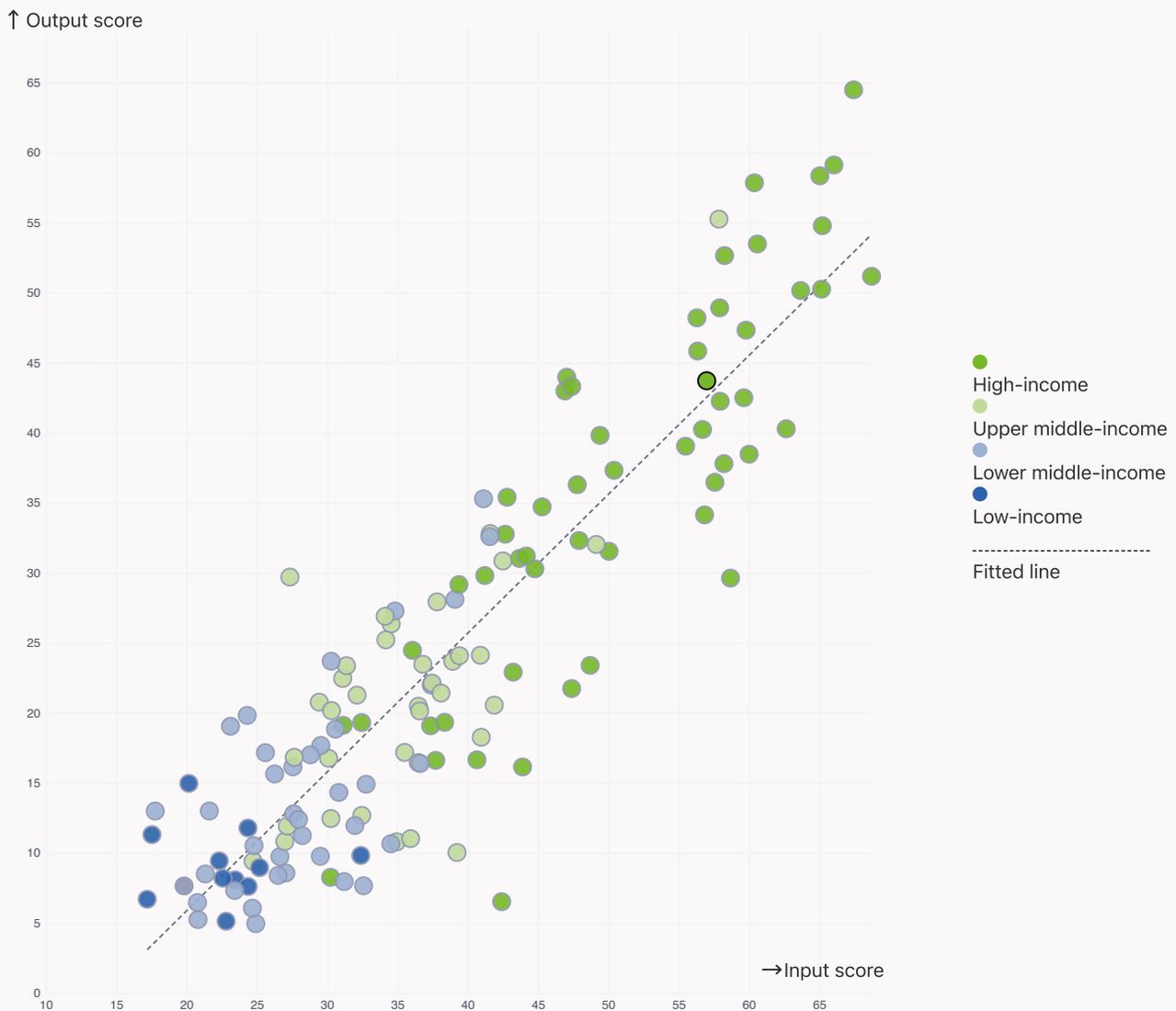
Effectively translating innovation investments into innovation outputs

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.



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

> Relationship between innovation inputs and outputs

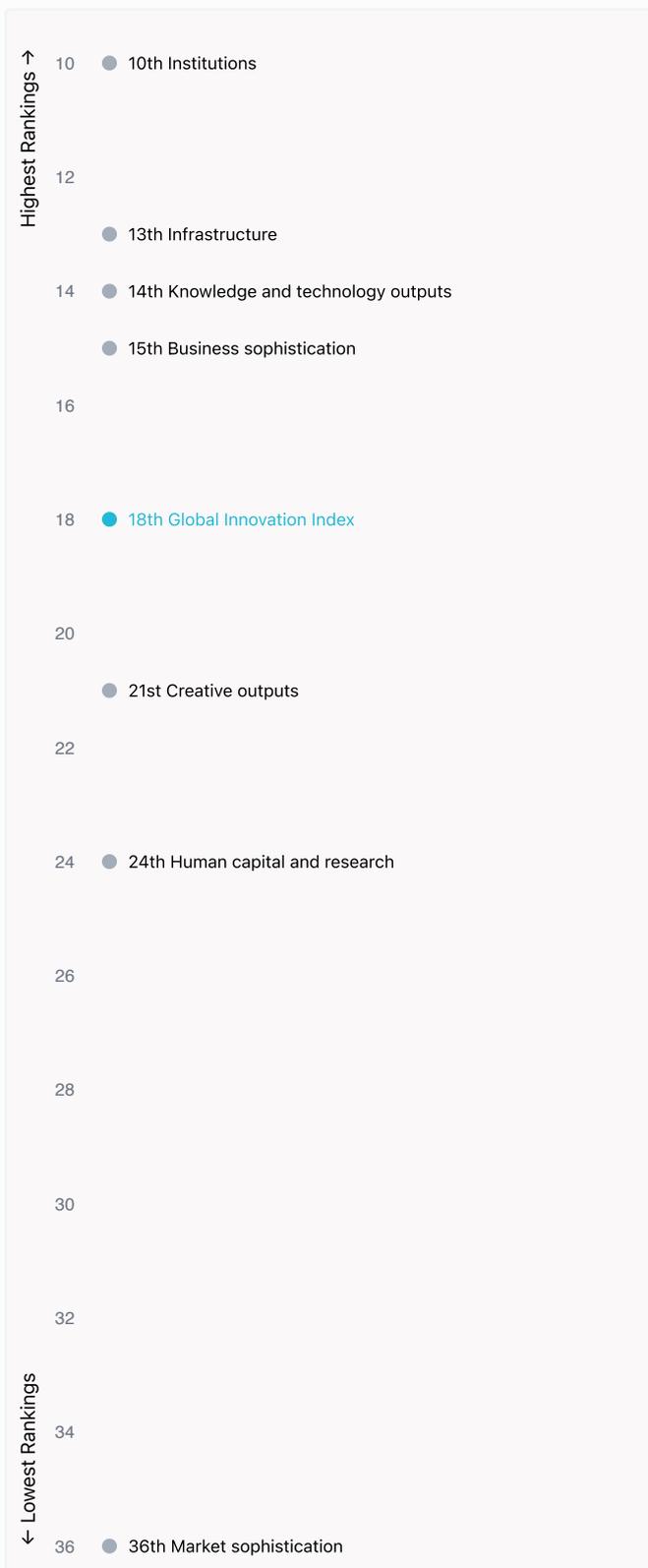


Global Innovation Index 2025



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



Highest Rankings

Ireland ranks highest in Institutions (10th), Infrastructure (13th), Knowledge and technology outputs (14th) and Business sophistication (15th).



Lowest Rankings

Ireland ranks lowest in Market sophistication (36th), Human capital and research (24th) and Creative outputs (21st).



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

Global Innovation Index 2025



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



High-income economies

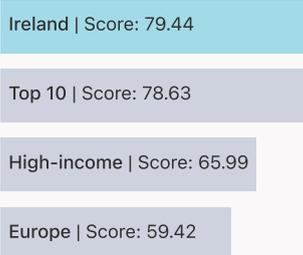
Ireland performs above the High-income group average in Institutions, Human capital and research, Infrastructure, Business sophistication, Knowledge and technology outputs, Creative outputs.



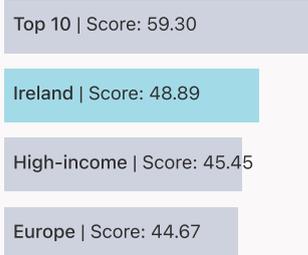
Europe

Ireland performs above the regional average in Institutions, Human capital and research, Infrastructure, Business sophistication, Knowledge and technology outputs, Creative outputs.

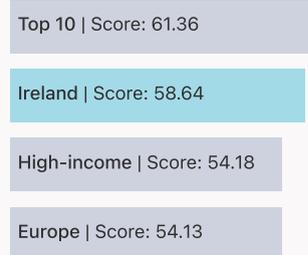
Institutions



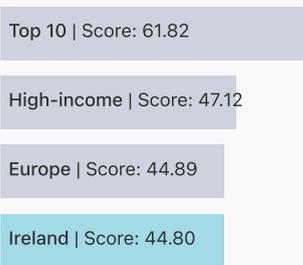
Human capital and research



Infrastructure



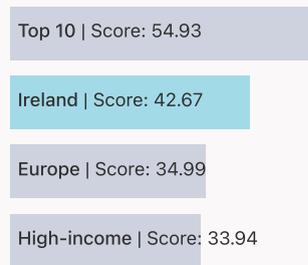
Market sophistication



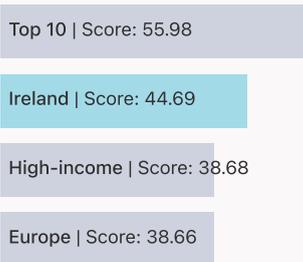
Business sophistication



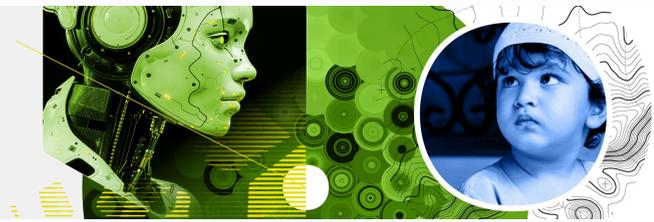
Knowledge and technology outputs



Creative outputs



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Innovation strengths and weaknesses in Ireland

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



Ireland's best-ranked innovation strengths are **Females employed w/advanced degrees, % (rank 1)**, **GDP/unit of energy use (rank 1)** and **ICT services exports, % total trade (rank 1)**.

Strengths

Rank	Code	Indicator name
1	5.1.2	Females employed w/advanced degrees, %
1	3.3.1	GDP/unit of energy use
1	6.3.4	ICT services exports, % total trade
1	5.3.1	Intellectual property payments, % total trade
2	7.1.1	Intangible asset intensity, top 15, %
3	6.2.3	Software spending, % GDP
5	2.1.3	School life expectancy, years
8	1.2.1	Regulatory quality*
10	6.3.3	High-tech exports, % total trade
10	6.3.1	Intellectual property receipts, % total trade

Weaknesses

Rank	Code	Indicator name
135	5.3.4	FDI net inflows, % GDP
110	2.1.1	Expenditure on education, % GDP
107	6.2.1	Labor productivity growth, %
106	4.1.2	Domestic credit to private sector, % GDP
83	5.3.2	High-tech imports, % total trade
81	5.1.3	Youth demographic dividend, %
81	3.2.3	Gross capital formation, % GDP
80	2.1.2	Government funding/pupil, secondary, % GDP/cap
77	7.1.4	Industrial designs by origin/bn PPP\$ GDP
70	2.1.5	Pupil-teacher ratio, secondary

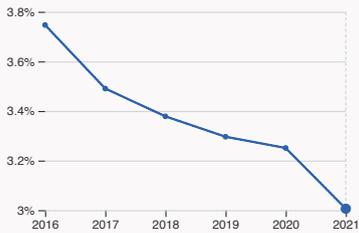
Global Innovation Index 2025



Ireland's innovation system

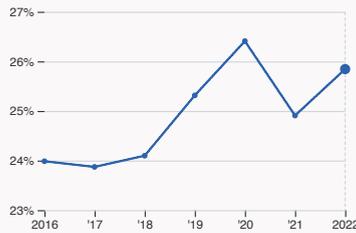
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Ireland



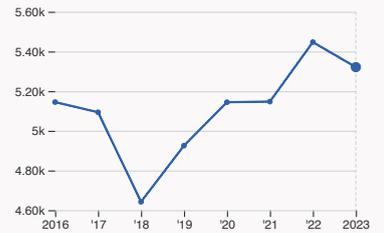
2.1.1 Expenditure on education

was equal to 3.006 % GDP in 2021, down by 0.24 percentage points from the year prior – and equivalent to an indicator rank of 110.



2.2.2 Graduates in science and engineering

was equal to 25.84 % of total graduates in 2022, up by 0.94 percentage points from the year prior – and equivalent to an indicator rank of 39.



2.3.1 Researchers

was equal to 5320.98 FTE per million population in 2023, down by 2.32% from the year prior – and equivalent to an indicator rank of 17.



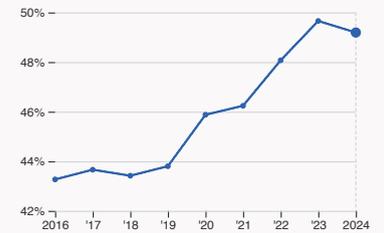
2.3.2 Gross expenditure on R&D

was equal to 1.58 % GDP in 2023, up by 0.05 percentage points from the year prior – and equivalent to an indicator rank of 25.



2.3.4 QS university ranking

was equal to an average score of 52.07 for the top three universities in 2024, up by 5.34% from the year prior – and equivalent to an indicator rank of 21.



5.1.1 Knowledge-intensive employment

was equal to 49.19 % of total workforce in 2024, down by 0.47 percentage points from the year prior – and equivalent to an indicator rank of 14.

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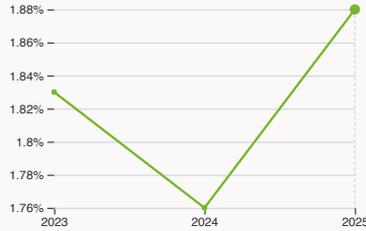


> Innovation outputs in Ireland



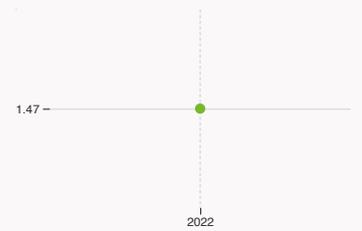
6.1.1 Patents by origin

was equal to 1.15 thousand patents in 2023, down by 5.74% from the year prior – and equivalent to an indicator rank of 31.



6.2.2 Unicorn valuation

was equal to 1.88 % GDP in 2025, up by 0.12 percentage points from the year prior – and equivalent to an indicator rank of 22.



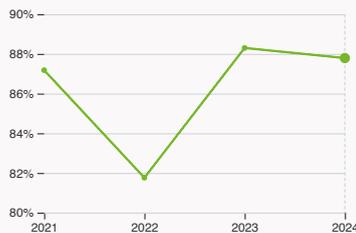
6.3.2 Production and export complexity

was equal to a score of 1.47 in 2022 – and equivalent to an indicator rank of 14.



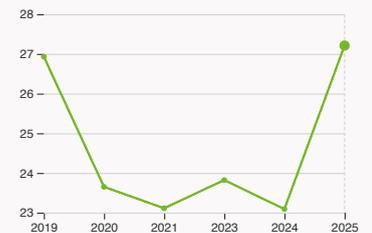
6.3.3 High-tech exports

was equal to 93.14 billion USD in 2023, down by 0.13% from the year prior – and equivalent to an indicator rank of 10.



7.1.1 Intangible asset intensity, top 15

was equal to 87.79 % for the top 15 companies in 2024, down by 0.51 percentage points from the year prior – and equivalent to an indicator rank of 2.



7.1.3 Global brand value, top 5,000

was equal to 27.21 billion USD in 2025, up by 17.84% from the year prior – and equivalent to an indicator rank of 34.



7.2.2 National feature films

was equal to 31 films in 2023, up by 24% from the year prior – and equivalent to an indicator rank of 16.



7.3.3 Mobile app creation

was equal to 399.12 million global downloads of mobile apps in 2024, down by 19.63% from the year prior – and equivalent to an indicator rank of 29.

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Ireland's innovation top performers

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 Ireland

Rank	Firm	Industry	R&D [mn EUR]	R&D Growth [%]	R&D Intensity [%]
1	MEDTRONIC PUBLIC LIMITED	Health Care Equipment & Services	2,491	1	8
2	ACCENTURE	Support Services	1,183	16	2
3	APTIV	Automobiles & Parts	1,174	15	6
4	JAZZ PHARMACEUTICALS	Pharmaceuticals & Biotechnology	774	46	22

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 Ireland's top universities

Rank	University	Score
87	TRINITY COLLEGE DUBLIN	62.90
126	UNIVERSITY COLLEGE DUBLIN (UCD)	55.00
273	UNIVERSITY COLLEGE CORK	38.30

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	TRINITY COLLEGE DUBLIN	87.55
2	RCSI UNIVERSITY OF MEDICINE AND HEALTH SCIENCES	86.00
3	UNIVERSITY OF GALWAY	82.75

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.

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6.2.2 Top Unicorn Companies in Ireland

Rank	Unicorn Company	Industry	City	Valuation, bn USD
1	BROWSERSTACK	Enterprise Tech	Dublin	4
2	WAYFLYER	Financial Services	Dublin	2
3	FLIPDISH	Consumer & Retail	Dublin	1

Source: CBInsights, Tracker – The Complete List of Unicorn Companies: <https://www.cbinsights.com/research-unicorn-companies>.

7.1.1 Top 15 intangible-asset intensive companies in Ireland

Rank	Firm	Intensity, %
1	ACCENTURE PLC	94.92
2	PDD HOLDINGS INC.	70.27
3	EATON CORPORATION PLC	94.69

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 Ireland with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	GUINNESS	Beers	3,402
2	ALLIED IRISH BANKS (AIB)	Banking	3,344.3
3	RYANAIR	Airlines	2,976.5

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

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
17	21	High	Europe	5.3	691.9	127,750.2
Score / Value Rank				Score / Value Rank		
Institutions				Business sophistication		
79.4 10				53.3 15		
1.1 Institutional environment				5.1 Knowledge workers		
81.1 15				60.7 10		
1.1.1 Operational stability for businesses*				5.1.1 Knowledge-intensive employment, %		
80 21				49.2 14		
1.1.2 Government effectiveness*				5.1.2 Females employed w/advanced degrees, %		
82.2 11				31 1 ●◆		
1.2 Regulatory environment				5.1.3 Youth demographic dividend, %		
89.5 10				31.6 81 ◆◇		
1.2.1 Regulatory quality*				5.1.4 GERD performed by business, % GDP		
87.1 8 ●				1.4 18		
1.2.2 Rule of law*				5.1.5 GERD financed by business, %		
91.9 11				● 55.5 20		
1.3 Business environment				5.2 Innovation linkages		
67.7 20				55 22		
1.3.1 Policy stability for doing business†				5.2.1 Public research–industry co-publications, %		
76.9 14				3.8 23		
1.3.2 Entrepreneurship policies and culture†				5.2.2 University–industry R&D collaboration†		
● 58.5 19				59.6 20		
Human capital and research				5.2.3 University industry & international engagement, top 5*		
48.9 24				80.3 16		
2.1 Education				5.2.4 State of cluster development†		
55.3 55 ◇				73.2 28		
2.1.1 Expenditure on education, % GDP				5.2.5 Patent families/bn PPP\$ GDP		
● 3 110 ○◇				1.5 23		
2.1.2 Government funding/pupil, secondary, % GDP/cap				5.3 Knowledge absorption		
10.6 80 ○◇				44.3 14		
2.1.3 School life expectancy, years				5.3.1 Intellectual property payments, % total trade		
● 19.2 5 ●◆				23.2 1 ●◆		
2.1.4 PISA scales in reading, maths and science				5.3.2 High-tech imports, % total trade		
503.8 8				7.4 83 ○		
2.1.5 Pupil–teacher ratio, secondary				5.3.3 ICT services imports, % total trade		
● 14.1 70 ○◇				1.8 46		
2.2 Tertiary education				5.3.4 FDI net inflows, % GDP		
41.3 30				-5.7 135 ○◇		
2.2.1 Tertiary enrolment, % gross				5.3.5 Research talent, % in businesses		
● 76.6 31				47.4 27		
2.2.2 Graduates in science and engineering, %				Knowledge and technology outputs		
25.8 39				42.7 14		
2.2.3 Tertiary inbound mobility, %				6.1 Knowledge creation		
● 11 24				23.6 44 ◇		
2.3 Research and development (R&D)				6.1.1 Patents by origin/bn PPP\$ GDP		
50.1 21				1.7 31		
2.3.1 Researchers, FTE/mn pop.				6.1.2 PCT patents by inventor origin/bn PPP\$ GDP		
5,321 17				0.8 26 ◇		
2.3.2 Gross expenditure on R&D, % GDP				6.1.3 Utility models by origin/bn PPP\$ GDP		
1.6 25				0.2 43		
2.3.3 Global corporate R&D investors, top 3, mn USD				6.1.4 Scientific and technical articles/bn PPP\$ GDP		
71.1 12				14.2 52 ◇		
2.3.4 QS university ranking, top 3*				6.1.5 Citable documents H-index		
53.3 21				35.1 28		
Infrastructure				6.2 Knowledge impact		
58.6 13				41.7 23		
3.1 Information and communication technologies (ICTs)				6.2.1 Labor productivity growth, %		
87.2 37				-0.4 107 ○		
3.1.1 ICT access*				6.2.2 Unicorn valuation, % GDP		
98.4 21				1.9 22		
3.1.2 ICT use*				6.2.3 Software spending, % GDP		
78.2 67 ◇				0.7 3 ●		
3.1.3 Government's online service*				6.2.4 High-tech manufacturing, %		
85.2 29				n/a n/a		
3.2 General infrastructure				6.3 Knowledge diffusion		
42 40				62.8 1 ◆		
3.2.1 Electricity output, GWh/mn pop.				6.3.1 Intellectual property receipts, % total trade		
5,862.3 36				2.6 10 ●		
3.2.2 Logistics performance*				6.3.2 Production and export complexity		
68.2 25 ◇				81.9 14		
3.2.3 Gross capital formation, % GDP				6.3.3 High-tech exports, % total trade		
22.7 81 ○				14.5 10 ●		
3.3 Ecological sustainability				6.3.4 ICT services exports, % total trade		
46.7 5 ◆				37 1 ●◆		
3.3.1 GDP/unit of energy use				6.3.5 ISO 9001 quality/bn PPP\$ GDP		
41.2 1 ●◆				4.3 60		
3.3.2 Low-carbon energy use, %				Creative outputs		
20.7 63				44.7 21		
3.3.3 ISO 14001 environment/bn PPP\$ GDP				7.1 Intangible assets		
1.8 53				45.2 24		
Market sophistication				7.1.1 Intangible asset intensity, top 15, %		
44.8 36 ◇				87.8 2 ●◆		
4.1 Credit				7.1.2 Trademarks by origin/bn PPP\$ GDP		
35.5 46 ◇				n/a n/a		
4.1.1 Finance for startups and scaleups†				7.1.3 Global brand value, top 5,000, % GDP		
● 63.5 26				4.6 34		
4.1.2 Domestic credit to private sector, % GDP				7.1.4 Industrial designs by origin/bn PPP\$ GDP		
26 106 ○◇				0.6 77 ○◇		
4.1.3 Loans from microfinance institutions, % GDP				7.2 Creative goods and services		
n/a n/a				29.5 36		
4.2 Investment				7.2.1 Cultural and creative services exports, % total trade		
23.1 26				0.9 36		
4.2.1 Market capitalization, % GDP				7.2.2 National feature films/mn pop. 15–69		
● 36.4 43 ◇				8.5 16		
4.2.2 Venture capital (VC) received, deal count/bn PPP\$ GDP				7.2.3 Entertainment and media market/th pop. 15–69		
0.5 14				45.6 16		
4.2.3 Late-stage VC deal count, % global VC				7.2.4 Creative goods exports, % total trade		
0.3 19				1 45		
4.2.4 VC investors, deal count/bn PPP\$ GDP				7.3 Online creativity		
0.5 25				58.9 24		
4.2.5 VC investor co-participation/bn PPP\$ GDP				7.3.1 Top-level domains (TLDs)/th pop. 15–69		
0.4 20				38.4 24		
4.3 Trade, diversification and market scale				7.3.2 GitHub commits/mn pop. 15–69		
75.8 48				65.7 15		
4.3.1 Applied tariff rate, weighted avg., %				7.3.3 Mobile app creation/bn PPP\$ GDP		
1.3 24				72.8 29		
4.3.2 Domestic industry diversification						
n/a n/a						
4.3.3 Domestic market scale, bn PPP\$						
691.9 41						

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 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.

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Data Availability

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



Ireland has missing data for four indicators and outdated data for nine indicators.

Missing data for Ireland

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)
4.3.2	Domestic industry diversification	n/a	2022	United Nations Industrial Development Organization (UNIDO)
6.2.4	High-tech manufacturing, %	n/a	2022	United Nations Industrial Development Organization (UNIDO)
7.1.2	Trademarks by origin/bn PPP\$ GDP	n/a	2023	World Intellectual Property Organization; International Monetary Fund

*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

Outdated data for Ireland

Code	Indicator name	Economy year	Model year*	Source
1.3.2	Entrepreneurship policies and culture [†]	2021	2024	Global Entrepreneurship Monitor
2.1.1	Expenditure on education, % GDP	2021	2023	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2022	2023	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2022	2023	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2022	2023	UNESCO Institute for Statistics
2.2.3	Tertiary inbound mobility, %	2022	2023	UNESCO Institute for Statistics
4.1.1	Finance for startups and scaleups [†]	2021	2024	Global Entrepreneurship Monitor
4.2.1	Market capitalization, % GDP	2018	2022	World Federation of Exchanges; World Bank
5.1.5	GERD financed by business, %	2021	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT

*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

Global Innovation Index 2025



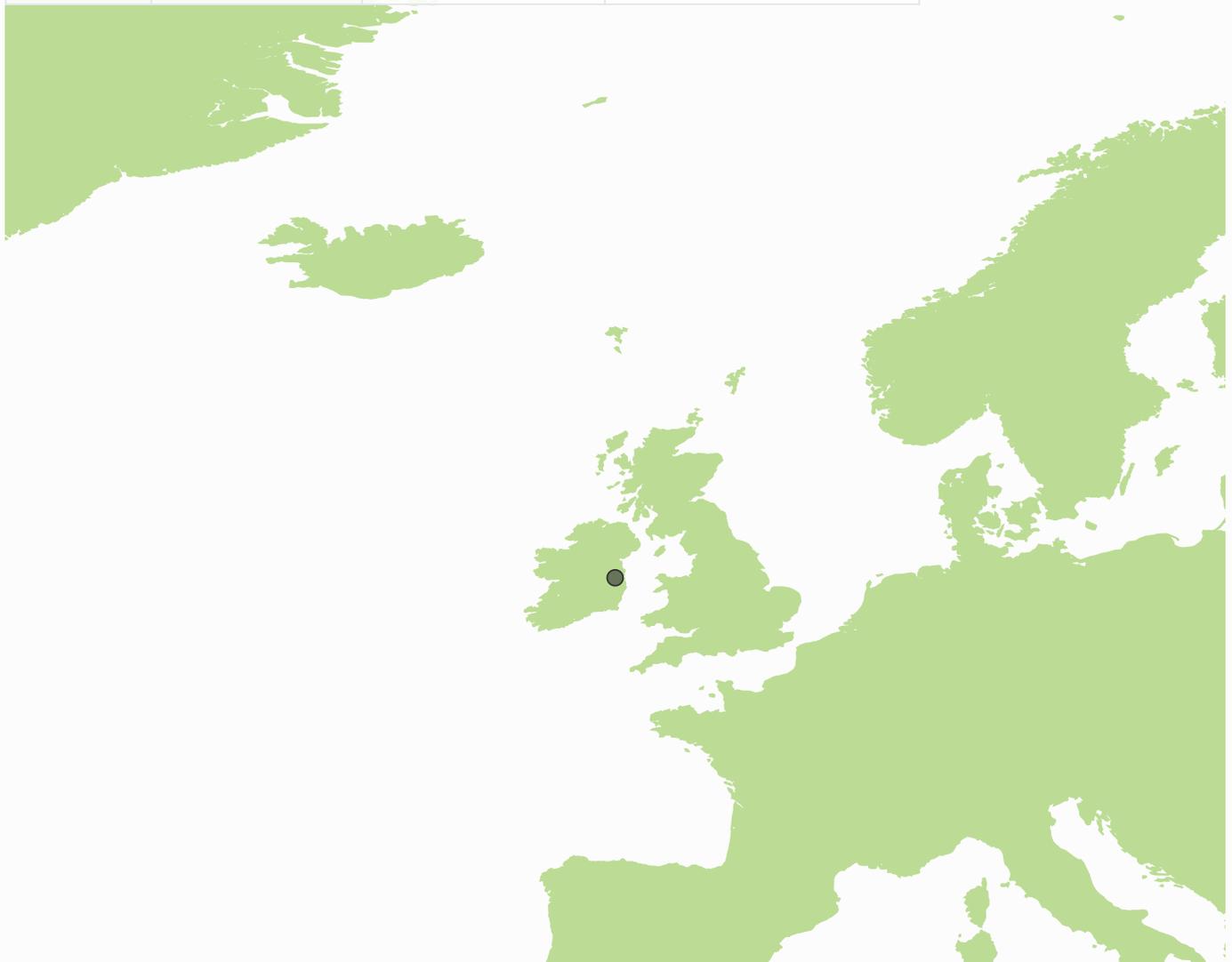
Top innovation clusters in Ireland



Ireland 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 Ireland.

Rank	Cluster name	Top patent field	Top academic subject
71	Dublin	Medical technology	Engineering

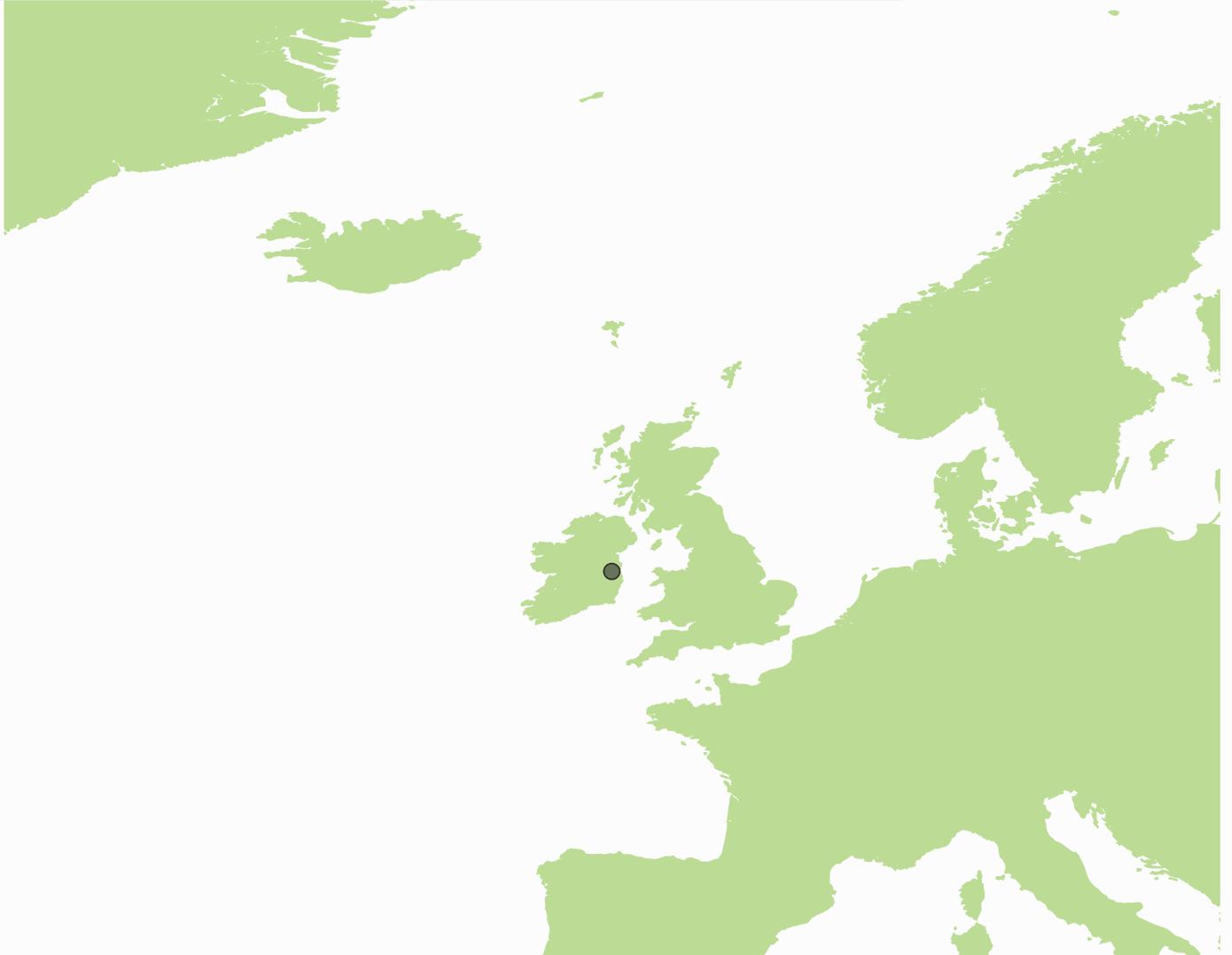


Global Innovation Index 2025



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

Rank	Cluster name	Top patent field	Top academic subject
23	Dublin	Medical technology	Engineering

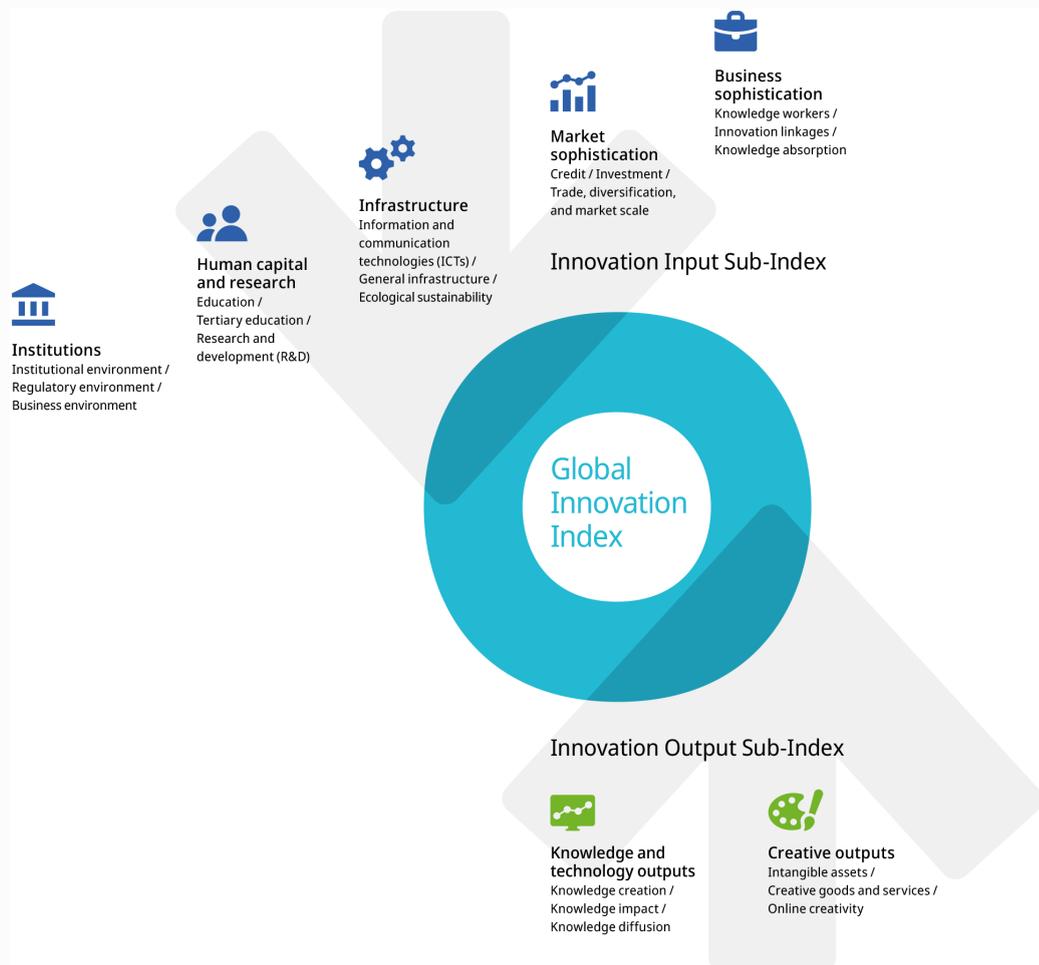


Global Innovation Index 2025



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.