Global Innovation Index 2025

Denmark ranking in the Global Innovation Index 2025

Denmark ranks 9th 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.

Denmark ranks 9th among the 54 High-income group economies.

Denmark ranks 6th among the 39 economies in Europe.

Denmark GII Ranking (2020-2025)

The table shows the rankings of Denmark 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 Denmark in the GII 2025 is between ranks 8 and 10.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	6th	5th	9th
2021	9th	5th	11th
2022	10th	8th	10th
2023	9th	7th	10th
2024	10th	7th	12th
2025	9th	7th	11th

Denmark performs worse in innovation outputs than innovation inputs in 2025.

This year Denmark ranks 7th in innovation inputs. This position is the same as last year.

Denmark ranks 11th in innovation outputs. This position is higher than last year.

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

For Denmark, 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	▲ 1 % 2023 - 2024	▲ 6.7 % 2022 - 2023	▼ -26.3 % 2023 - 2024	▲ 0.2 % 2023 - 2024
Long term (annual growth)	▲ 3.1 % 2014 - 2024	▲ 2.3 % 2013 - 2023	▼ -12.1 % 2020 - 2024	▲ 1.7 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 0.1% 2023 - 2024	▼ -1.1% 2022 - 2023	0% 2022 - 2023	▲ 11.9% 2022 - 2023	▲ 48.4% 2023 - 2024
Long term (annual growth)	▲ 0.2% 2014 - 2024	▲ 1.4% 2013 - 2023	n/a	▲ 7.6% 2013 - 2023	▲ 65.4% 2014 - 2024
Penetration	98.9 per 100 inhabitants in 2024	44 per 100 inhabitants in 2023	100 per 100 inhabitants in 2023	n/a	17 per 100 cars in 2024

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 3 % 2023 - 2024	▲ 0.8 % 2022 - 2023	+ 2.4 °C 2024
Long term (annual growth)	▲ 1.2 % 2014 - 2024	▲ 0.2 % 2013 - 2023	+ 2.7 °C 2014
Level	145,651.4 USD in 2024	81.9 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.

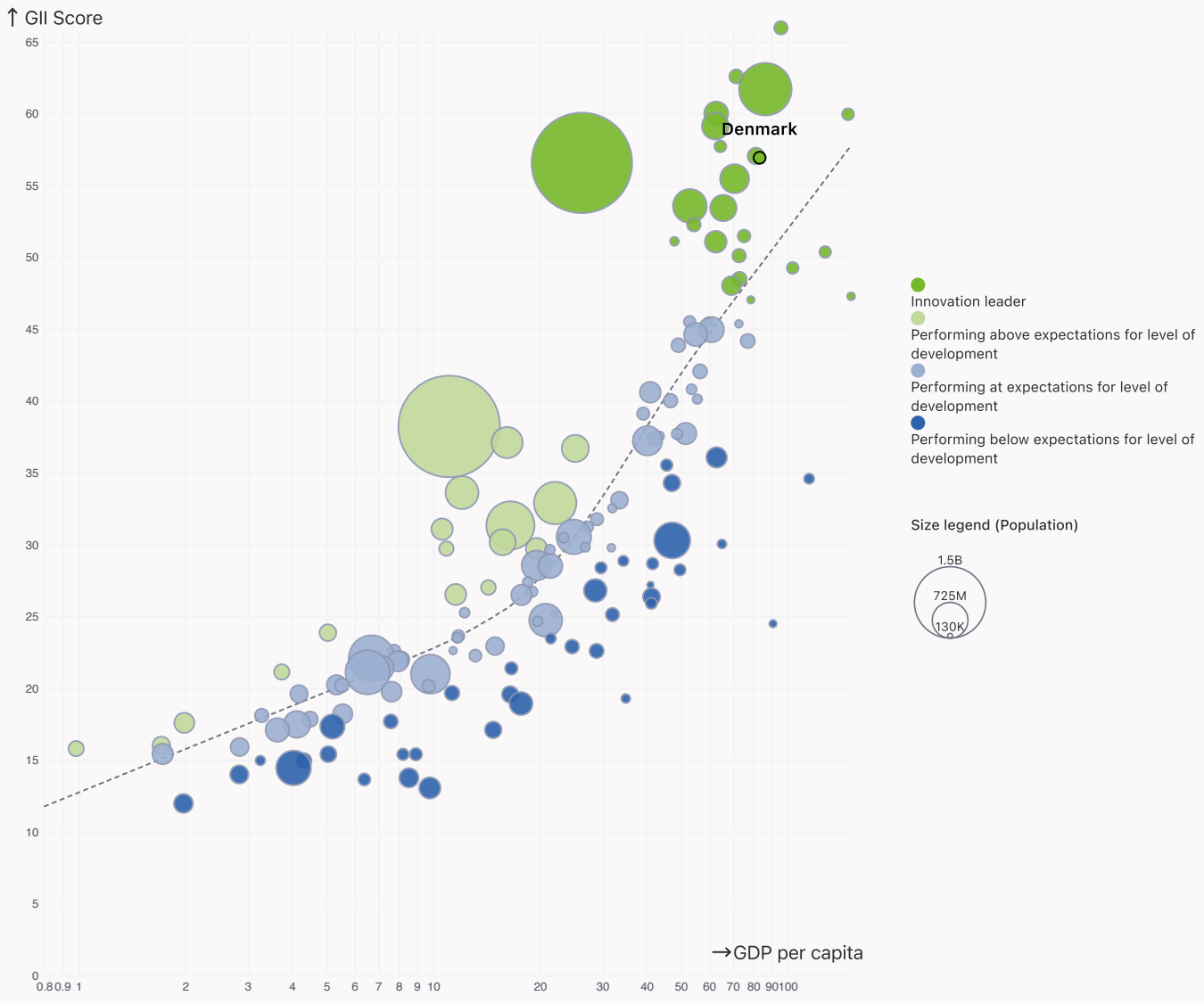
Global Innovation Index 2025

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.

Denmark 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.

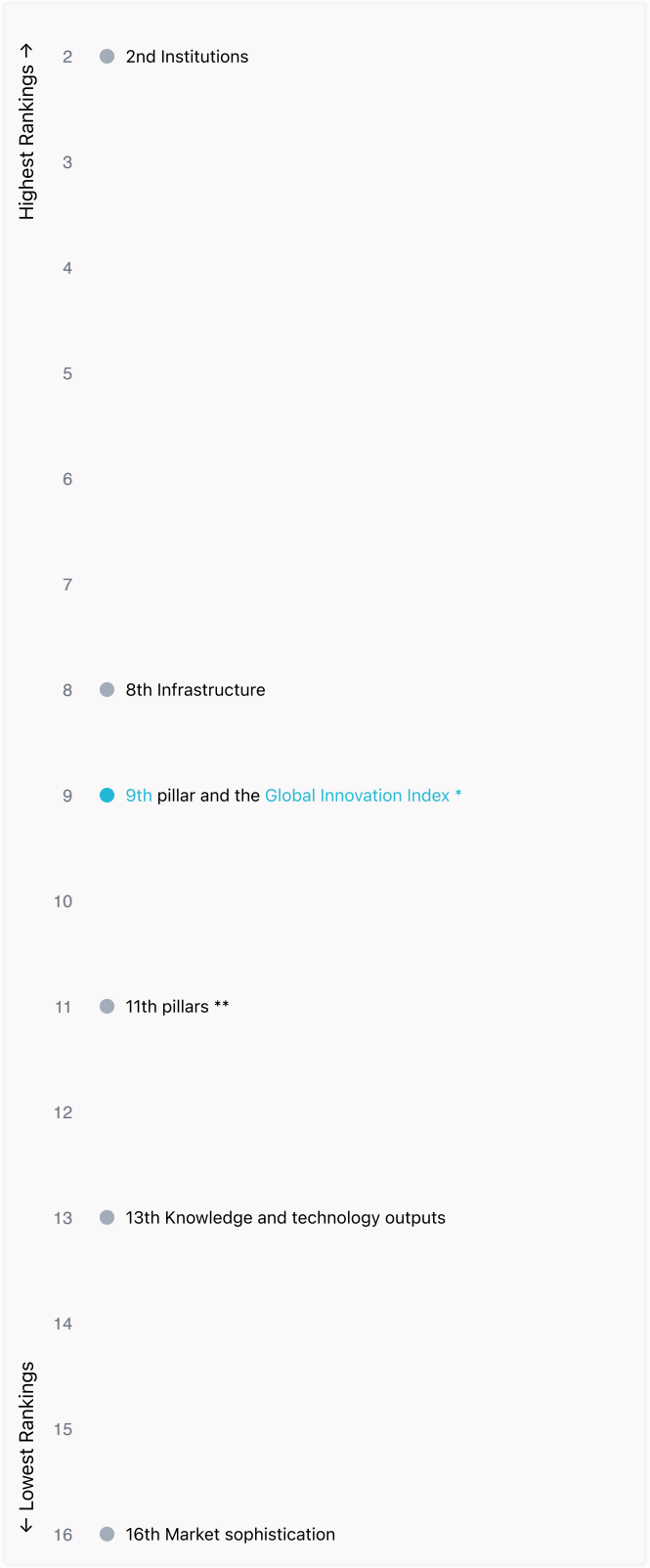
Denmark produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

Global Innovation Index 2025

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



Highest Rankings

Denmark ranks highest in Institutions (2nd), Infrastructure (8th) and Creative outputs (9th).

Lowest Rankings

Denmark ranks lowest in Market sophistication (16th), Knowledge and technology outputs (13th) and Human capital and research, Business sophistication (11th).

* Creative outputs
** Human capital and research, Business sophistication

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

Global Innovation Index 2025

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

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

High-income economies

Denmark performs above the High-income group average in all pillars.

Europe

Denmark performs above the regional average in all pillars.

Institutions

- Denmark | Score: 86.95
- Top 10 | Score: 78.63
- High-income | Score: 65.99
- Europe | Score: 59.42

Human capital and research

- Top 10 | Score: 59.30
- Denmark | Score: 57.44
- High-income | Score: 45.45
- Europe | Score: 44.67

Infrastructure

- Denmark | Score: 62.87
- Top 10 | Score: 61.36
- High-income | Score: 54.18
- Europe | Score: 54.13

Market sophistication

- Top 10 | Score: 61.82
- Denmark | Score: 55.96
- High-income | Score: 47.12
- Europe | Score: 44.89

Business sophistication

- Top 10 | Score: 59.10
- Denmark | Score: 55.31
- High-income | Score: 42.22
- Europe | Score: 40.79

Knowledge and technology outputs

- Top 10 | Score: 54.93
- Denmark | Score: 46.03
- Europe | Score: 34.99
- High-income | Score: 33.94

Creative outputs

- Top 10 | Score: 55.98
- Denmark | Score: 54.22
- High-income | Score: 38.68
- Europe | Score: 38.66

Global Innovation Index 2025

Innovation strengths and weaknesses in Denmark

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

Denmark's best-ranked innovation strengths are **ICT access*** (rank 1), **Government's online service*** (rank 2) and **Rule of law*** (rank 2).

Strengths

Rank	Code	Indicator name
1	3.1.1	ICT access*
2	3.1.3	Government's online service*
2	1.2.2	Rule of law*
3	7.1.1	Intangible asset intensity, top 15, %
3	1.1.2	Government effectiveness*
3	3.2.2	Logistics performance*
3	2.3.1	Researchers, FTE/mn pop.
3	6.1.4	Scientific and technical articles/bn PPP$ GDP
5	1.2.1	Regulatory quality*
7	1.1.1	Operational stability for businesses*
7	7.3.1	Top-level domains (TLDs)/th pop. 15–69

Weaknesses

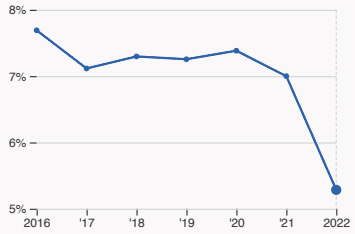
Rank	Code	Indicator name
105	5.3.2	High-tech imports, % total trade
103	5.1.3	Youth demographic dividend, %
86	7.1.2	Trademarks by origin/bn PPP$ GDP
75	3.2.3	Gross capital formation, % GDP
54	6.2.1	Labor productivity growth, %
52	6.3.5	ISO 9001 quality/bn PPP$ GDP
51	6.1.3	Utility models by origin/bn PPP$ GDP
45	7.2.1	Cultural and creative services exports, % total trade
43	4.3.2	Domestic industry diversification
37	7.2.2	National feature films/mn pop. 15–69

Global Innovation Index 2025

Denmark's innovation system

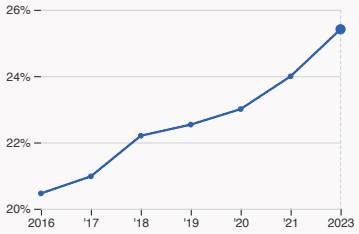
As far as practicable, the plots below present unscaled indicator data.

Innovation inputs in Denmark



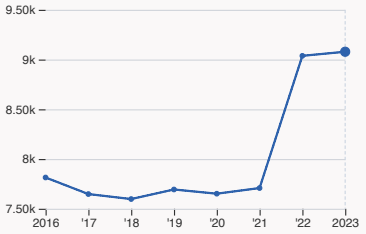
2.1.1 Expenditure on education

was equal to 5.29 % GDP in 2022, down by 1.71 percentage points from the year prior – and equivalent to an indicator rank of 30.



2.2.2 Graduates in science and engineering

was equal to 25.41 % of total graduates in 2023, up by 1.42 percentage points from the year prior – and equivalent to an indicator rank of 40.



2.3.1 Researchers

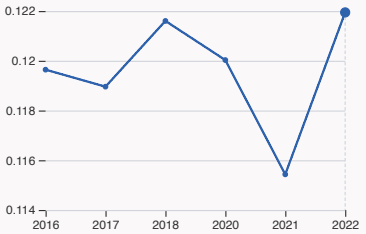
was equal to 9078.57 FTE per million population in 2023, up by 0.45% from the year prior – and equivalent to an indicator rank of 3.

2.3.2 Gross expenditure on R&D

was equal to 2.99 % GDP in 2023, up by 0.12 percentage points from the year prior – and equivalent to an indicator rank of 11.

2.3.4 QS university ranking

was equal to an average score of 57.07 for the top three universities in 2024, up by 2.51% from the year prior – and equivalent to an indicator rank of 16.



4.3.2 Domestic industry diversification

was equal to an index score of 0.12 in 2022, up by 5.64% from the year prior – and equivalent to an indicator rank of 43.

5.1.1 Knowledge-intensive employment

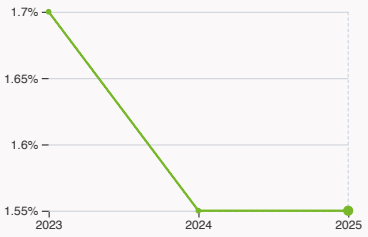
was equal to 48.51 % in 2024, down by 0.6 percentage points from the year prior – and equivalent to an indicator rank of 15.

Global Innovation Index 2025

Innovation outputs in Denmark

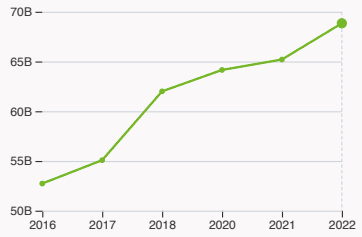
6.1.1 Patents by origin

was equal to 3.68 thousand patents in 2023, down by 0.81% from the year prior – and equivalent to an indicator rank of 10.



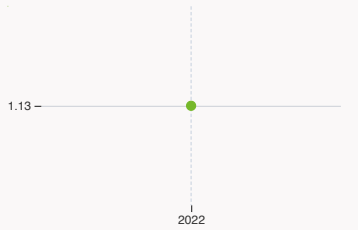
6.2.2 Unicorn valuation

was equal to 1.55 % GDP in 2025 with no change from the year prior – and equivalent to an indicator rank of 29.



6.2.4 High-tech manufacturing

was equal to 68.84 high-tech manufacturing output in billion USD in 2022, up by 5.58% from the year prior – and equivalent to an indicator rank of 14.

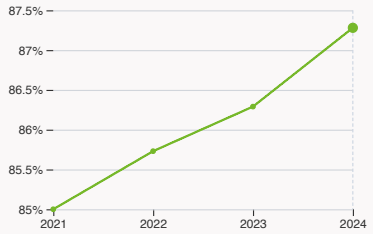


6.3.2 Production and export complexity

was equal to a score of 1.13 in 2022 – and equivalent to an indicator rank of 23.

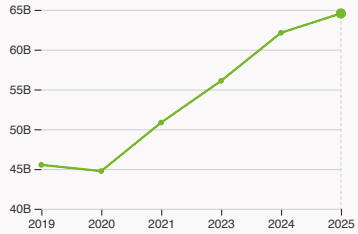
6.3.3 High-tech exports

was equal to 16.78 billion USD in 2023, up by 9.24% from the year prior – and equivalent to an indicator rank of 35.



7.1.1 Intangible asset intensity, top 15

was equal to 87.28 % for the top 15 companies in 2024, up by 0.99 percentage points from the year prior – and equivalent to an indicator rank of 3.



7.1.3 Global brand value, top 5,000

was equal to 64.55 billion USD for the brands in the top 5,000 in 2025, up by 3.91% from the year prior – and equivalent to an indicator rank of 8.

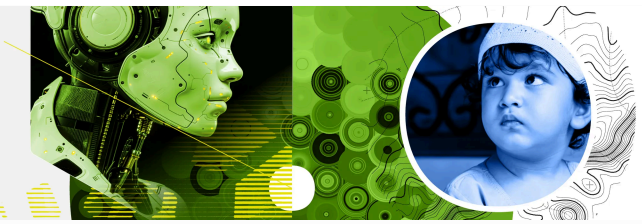
7.2.2 National feature films

was equal to 17 films in 2023, down by 22.73% from the year prior – and equivalent to an indicator rank of 37.

7.3.3 Mobile app creation

was equal to 369.71 million global downloads of mobile apps in 2024, down by 9.76% from the year prior – and equivalent to an indicator rank of 25.

Global Innovation Index 2025



Denmark'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 Denmark

Rank	Firm	Industry	R&D [mn EUR]	R&D Growth [%]	R&D Intensity [%]
1	NOVO NORDISK	Pharmaceuticals & Biotechnology	3,941	35	13
2	GENMAB	Pharmaceuticals & Biotechnology	858	46	39
3	DANSKE BANK	Banks	547	-0.4	7
4	DANFOSS	Industrial Engineering	507	5	5

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 Denmark's top universities

Rank	University	Score
100	UNIVERSITY OF COPENHAGEN	59.60
109	TECHNICAL UNIVERSITY OF DENMARK	58.30
144	AARHUS UNIVERSITY	53.30

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	TECHNICAL UNIVERSITY OF DENMARK	96.00
2	AARHUS UNIVERSITY	89.55
3	UNIVERSITY OF SOUTHERN DENMARK	85.90

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.

6.2.2 Top Unicorn Companies in Denmark

Rank	Unicorn Company	Industry	City	Valuation, bn USD
1	PLEO	Enterprise Tech	Copenhagen	5
2	LUNAR	Financial Services	Aarhus	2

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 Denmark

Rank	Firm	Intensity, %
1	NOVO NORDISK A/S	98.71
2	DSV A/S	90.19
3	COLOPLAST A/S	95.47

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 Denmark with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	LEGO	Toys	11,080
2	NOVO NORDISK	Pharma	5,451.2
3	MAERSK	Logistics	4,660.4

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

Denmark

GII 2025 rank **9**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
11	7	High	Europe	6.0	496.7	83,454.4

	Score / Value	Rank	
Institutions	**86.9**	**2**	
1.1 Institutional environment	**90**	**3**	
1.1.1 Operational stability for businesses*	87.3	7	●
1.1.2 Government effectiveness*	92.6	3	●
1.2 Regulatory environment	**93.9**	**2**	
1.2.1 Regulatory quality*	89.2	5	●
1.2.2 Rule of law*	98.6	2	●
1.3 Business environment	**77**	**[8]**	
1.3.1 Policy stability for doing business†	77	13	
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	**57.4**	**11**	
2.1 Education	**65.2**	**16**	
2.1.1 Expenditure on education, % GDP	5.3	30	
2.1.2 Government funding/pupil, secondary, % GDP/cap	22.3	34	
2.1.3 School life expectancy, years	18.3	13	
2.1.4 PISA scales in reading, maths and science	490.6	16	
2.1.5 Pupil–teacher ratio, secondary	10.2	36	
2.2 Tertiary education	**40.9**	**31**	
2.2.1 Tertiary enrolment, % gross	81.2	20	
2.2.2 Graduates in science and engineering, %	25.4	40	
2.2.3 Tertiary inbound mobility, %	9.9	29	
2.3 Research and development (R&D)	**66.2**	**9**	
2.3.1 Researchers, FTE/mn pop.	9,078.6	3	●
2.3.2 Gross expenditure on R&D, % GDP	3	11	
2.3.3 Global corporate R&D investors, top 3, mn USD	72.1	11	
2.3.4 QS university ranking, top 3*	58.4	16	
Infrastructure	**62.9**	**8**	
3.1 Information and communication technologies (ICTs)	**98.1**	**3**	
3.1.1 ICT access*	100	1	●
3.1.2 ICT use*	94.5	8	
3.1.3 Government's online service*	99.9	2	●
3.2 General infrastructure	**49.8**	**24**	
3.2.1 Electricity output, GWh/mn pop.	5,705.9	40	
3.2.2 Logistics performance*	90.9	3	●
3.2.3 Gross capital formation, % GDP	23.2	75	○
3.3 Ecological sustainability	**40.7**	**15**	
3.3.1 GDP/unit of energy use	22.6	8	
3.3.2 Low-carbon energy use, %	41.1	23	
3.3.3 ISO 14001 environment/bn PPP$ GDP	2.4	39	
Market sophistication	**56**	**16**	
4.1 Credit	**57.5**	**[16]**	
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	146.6	8	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**31.3**	**17**	
4.2.1 Market capitalization, % GDP	n/a	n/a	
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.7	10	
4.2.3 Late-stage VC deal count, % global VC	0.2	21	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.8	17	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.4	18	
4.3 Trade, diversification and market scale	**79**	**33**	
4.3.1 Applied tariff rate, weighted avg., %	1.3	24	
4.3.2 Domestic industry diversification	88.6	43	○
4.3.3 Domestic market scale, bn PPP$	496.7	51	

	Score / Value	Rank	
Business sophistication	**55.3**	**11**	
5.1 Knowledge workers	**59**	**14**	
5.1.1 Knowledge-intensive employment, %	48.5	15	
5.1.2 Females employed w/advanced degrees, %	26.2	18	
5.1.3 Youth demographic dividend, %	27.6	103	○
5.1.4 GERD performed by business, % GDP	1.8	14	
5.1.5 GERD financed by business, %	59.6	12	
5.2 Innovation linkages	**65.6**	**9**	
5.2.1 Public research–industry co-publications, %	5.5	10	
5.2.2 University–industry R&D collaboration†	65.7	9	
5.2.3 University industry & international engagement, top 5*	86.2	13	
5.2.4 State of cluster development†	79.5	18	
5.2.5 Patent families/bn PPP$ GDP	4	9	
5.3 Knowledge absorption	**41.3**	**26**	
5.3.1 Intellectual property payments, % total trade	0.8	48	
5.3.2 High-tech imports, % total trade	5.9	105	○
5.3.3 ICT services imports, % total trade	4	8	
5.3.4 FDI net inflows, % GDP	4.3	33	
5.3.5 Research talent, % in businesses	58.3	17	
Knowledge and technology outputs	**46**	**13**	
6.1 Knowledge creation	**51.5**	**11**	
6.1.1 Patents by origin/bn PPP$ GDP	7.7	10	
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	3.1	8	
6.1.3 Utility models by origin/bn PPP$ GDP	0.1	51	○
6.1.4 Scientific and technical articles/bn PPP$ GDP	40.9	3	●
6.1.5 Citable documents H-index	51.5	15	
6.2 Knowledge impact	**46.5**	**12**	
6.2.1 Labor productivity growth, %	1.2	54	○
6.2.2 Unicorn valuation, % GDP	1.6	29	
6.2.3 Software spending, % GDP	0.6	8	
6.2.4 High-tech manufacturing	46.1	14	
6.3 Knowledge diffusion	**40.1**	**26**	
6.3.1 Intellectual property receipts, % total trade	2.3	11	
6.3.2 Production and export complexity	74.2	23	
6.3.3 High-tech exports, % total trade	6.5	35	
6.3.4 ICT services exports, % total trade	3.4	40	
6.3.5 ISO 9001 quality/bn PPP$ GDP	4.9	52	○
Creative outputs	**54.2**	**9**	
7.1 Intangible assets	**55.5**	**13**	
7.1.1 Intangible asset intensity, top 15, %	87.3	3	●
7.1.2 Trademarks by origin/bn PPP$ GDP	21.4	86	○
7.1.3 Global brand value, top 5,000, % GDP	15	8	
7.1.4 Industrial designs by origin/bn PPP$ GDP	2.9	28	
7.2 Creative goods and services	**30**	**33**	
7.2.1 Cultural and creative services exports, % total trade	0.7	45	○
7.2.2 National feature films/mn pop. 15–69	4.1	37	○
7.2.3 Entertainment and media market/th pop. 15–69	67.6	4	
7.2.4 Creative goods exports, % total trade	1.3	39	
7.3 Online creativity	**75.9**	**5**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	79.6	7	●
7.3.2 GitHub commits/mn pop. 15–69	74.3	10	
7.3.3 Mobile app creation/bn PPP$ GDP	73.9	25	

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 Denmark.

Denmark has missing data for four indicators and outdated data for four indicators.

Missing data for Denmark

Code	Indicator name	Economy year	Model year	Source
1.3.2	Entrepreneurship policies and culture†	n/a	2024	Global Entrepreneurship Monitor
4.1.1	Finance for startups and scaleups†	n/a	2024	Global Entrepreneurship Monitor
4.1.3	Loans from microfinance institutions, % GDP	n/a	2023	International Monetary Fund, Financial Access Survey (FAS)
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank

Outdated data for Denmark

Code	Indicator name	Economy year	Model year	Source
2.1.1	Expenditure on education, % GDP	2022	2023	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2022	2023	UNESCO Institute for Statistics
5.1.5	GERD financed by business, %	2019	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
7.2.1	Cultural and creative services exports, % total trade	2022	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development

Global Innovation Index 2025

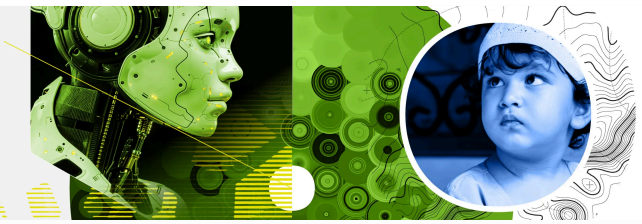
Top innovation clusters in Denmark

Denmark 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 Denmark.

Rank	Cluster name	Top patent field	Top academic subject
42	Copenhagen	Medical technology	Technology

Global Innovation Index 2025



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

Rank	Cluster name	Top patent field	Top academic subject
12	Copenhagen	Medical technology	Technology

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.