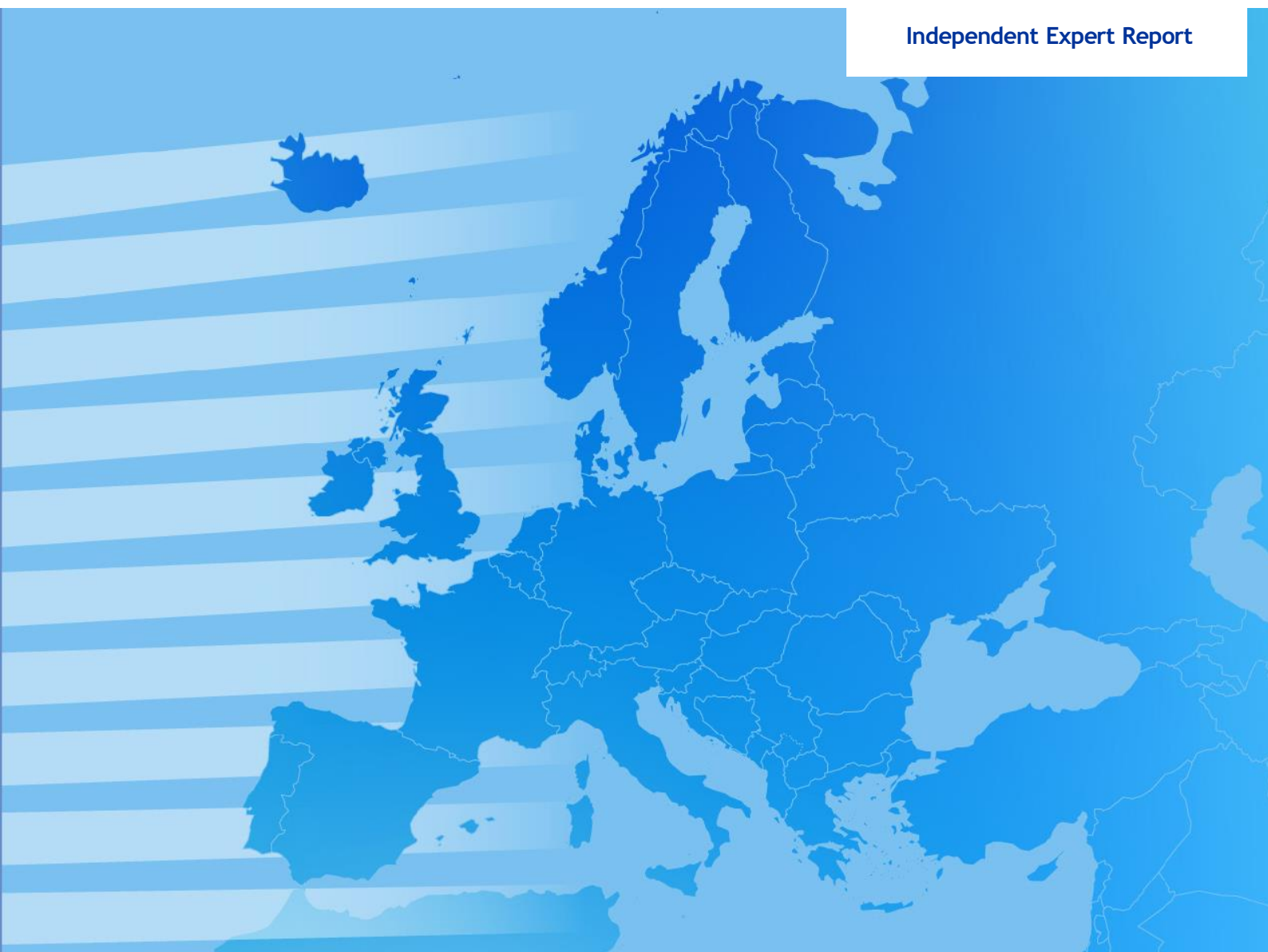


European Innovation Scoreboard 2025

Country profile Sweden

Independent Expert Report



European Innovation Scoreboard 2025 – Country profile Sweden

European Commission

Directorate-General for Research and Innovation

Directorate G – Common Policy Centre

Unit G.1 – Common R&I Strategy & Foresight Service

Contact Paolo Pasimeni, Chief Economist and Head of Unit G.1
Athina Karvounaraki
Alexis Stevenson

Email RTD-STATISTICS@ec.europa.eu
RTD-PUBLICATIONS@ec.europa.eu

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Directorate A – Strategy and Economic Analysis

Unit A.1 – Chief Economist

Contact Román Arjona, Chief Economist and Head of Unit A.1
Xosé-Luís Varela-Irimia

Email GROW-A1@ec.europa.eu

European Commission

B-1049 Brussels

Manuscript completed in July 2025

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European Innovation Scoreboard 2025

Country profile Sweden

The report was prepared by

Fabian Landes, 4Front

for the European Commission, Directorate-General for Research and Innovation under the Specific Contract LC-03213706
implementing framework contract European Innovation Scoreboard (EIS) and the Regional Innovation Scoreboard (RIS)
2024-2027 N° FW-00154786

Innovation Leader ●

Summary innovation index (indexed to EU in 2025): **138.1**

Change vs 2018: ▲ +12.9 Change vs 2024: ▲ +2.0

Current benchmarking

Indicator	Performance indexed to the EU in 2025	Rank among EU Member States
SUMMARY INNOVATION INDEX	138.1	1
Human resources	170.7	2
New doctorate graduates	139.2	2
Population with tertiary education	158.2	6
Population involved in lifelong learning	220.0	1
Attractive research systems	172.6	4
International scientific co-publications	236.0	4
Scientific publications among the top 10% most cited	136.6	4
Foreign doctorate students as a % of all doctorate students	167.7	9
Digitalisation	125.8	7
High-speed internet access	116.4	10
Individuals with above basic overall digital skills	139.4	7
Finance and support	134.5	3
R&D expenditure in the public sector	133.3	4
Venture capital expenditures	228.0	4
Direct and indirect government support of business R&D	71.2	12
Firm investments	149.0	1
R&D expenditure in the business sector	160.7	1
Non-R&D innovation expenditures	122.8	5
Innovation expenditures per person employed	154.0	1
Investments in information technologies	162.1	1
Cloud Computing	155.9	1
Employed ICT specialists	169.0	1
Innovators	131.8	4
SMEs introducing product innovations	157.1	3
SMEs introducing business process innovations	111.8	7
Linkages	181.1	4
Innovative SMEs collaborating with others	238.9	1
Public-private co-publications	402.0	3
Job-to-job mobility of HRST	41.7	23
Intellectual assets	131.8	2
PCT patent applications	160.0	1
Trademark applications	118.8	10
Design applications	102.1	10
Sales and employment impacts	112.2	9
Sales of new-to-market and new-to-firm innovations	111.9	8
Employment in innovative enterprises	112.4	12
Trade impacts	94.6	5
Exports of medium and high-tech products	87.6	10
Knowledge-intensive services exports	105.0	5
High-tech imports from outside the EU	91.7	5
Resource and labour productivity	126.6	9
Resource productivity	57.0	20
Production-based CO2 productivity	173.0	1
Labour productivity	161.9	4

Sweden is an Innovation Leader, performing at 138.1% of the EU average in 2025.

It ranks 1st among EU Member States, and 2nd among the EU and neighbouring countries.

Its performance is above the average of Innovation Leaders in the EU (138.1% vs 131.9% of the EU average in 2025).

Relative strengths

- Public-private co-publications
- Innovative SMEs collaborating with others
- International scientific co-publications

Relative weaknesses

- Job-to-job mobility of HRST
- Resource productivity
- Direct and indirect government support of business R&D

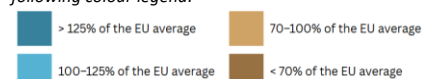
Highest ranked indicators among EU Member States

- Innovative SMEs collaborating with others
- Population involved in lifelong learning
- Production-based CO2 productivity

Lowest ranked indicators among EU Member States

- Job-to-job mobility of HRST
- Resource productivity
- Direct and indirect government support of business R&D

Footnote: Scores are indexed to the EU average in 2025. Relative strengths (purple) and weaknesses (red) refer to the three indicators where the country's scores are furthest above or below the EU average in 2025. These highlight the areas where the country stands out most positively or faces the greatest relative challenges compared to the EU. The highest (purple) and lowest (red) ranked indicators are those where the country achieves its highest and lowest ranks among EU Member States. These show how the country compares to others, regardless of the EU average, by indicating its best and worst positions in the rankings. Relative performance compared to the EU average in 2025 is indicated using the following colour legend:



Performance trends

Indicator	Performance indexed to the EU in 2018	Performance change 2018-2025	Performance change 2024-2025
SUMMARY INNOVATION INDEX	155.5	+12.9	+2.0
Human resources	182.3	-9.6	+5.7
New doctorate graduates	123.1	-46.2	+11.6
Population with tertiary education	185.4	+33.8	+2.0
Population involved in lifelong learning	275.0	0	0
Attractive research systems	195.1	+14.6	+5.7
International scientific co-publications	321.9	+61.1	+20.7
Scientific publications among the top 10% most cited	129.8	-2.2	+1.2
Foreign doctorate students as a % of all doctorate students	218.6	+8.5	+1.6
Digitalisation	180.0	+18.6	+12.1
High-speed internet access	225.2	+37.4	+22.6
Individuals with above basic overall digital skills	144.8	+3.7	+3.7
Finance and support	152.3	+43.0	-7.1
R&D expenditure in the public sector	135.6	-5.1	+1.7
Venture capital expenditures	331.3	+244.8	-47.4
Direct and indirect government support of business R&D	79.6	-1.5	+2.7
Firm investments	150.6	+4.0	+10.4
R&D expenditure in the business sector	173.9	+7.5	0
Non-R&D innovation expenditures	97.0	+2.9	+27.5
Innovation expenditures per person employed	173.9	+1.5	+6.2
Investments in information technologies	278.6	0	0
Cloud Computing	493.4	0	0
Employed ICT specialists	193.8	0	0
Innovators	152.6	+43.0	-16.6
SMEs introducing product innovations	162.8	+40.2	-7.7
SMEs introducing business process innovations	142.5	+45.8	-25.3
Linkages	246.0	+56.5	+31.5
Innovative SMEs collaborating with others	329.4	+181.9	+158.6
Public-private co-publications	489.6	+80.7	+18.8
Job-to-job mobility of HRST	58.8	-61.8	-70.6
Intellectual assets	109.4	-15.1	-3.7
PCT patent applications	139.5	0	0
Trademark applications	114.4	-8.7	-12.1
Design applications	69.7	-37.6	-2.1
Sales and employment impacts	113.9	+22.4	-9.4
Sales of new-to-market and new-to-firm innovations	107.2	+42.5	+9.8
Employment in innovative enterprises	120.2	+2.9	-28.2
Trade impacts	96.1	+5.4	-0.1
Exports of medium and high-tech products	88.4	+3.6	+0.8
Knowledge-intensive services exports	109.5	+10.3	+1.9
High-tech imports from outside the EU	91.9	+2.9	-3.0
Resource and labour productivity	169.1	+13.7	+3.4
Resource productivity	78.6	+12.5	+6.8
Production-based CO2 productivity	273.6	+16.6	0
Labour productivity	169.2	+11.6	+2.5

Summary innovation index (indexed to EU in 2018): **155.5**

Performance since 2018 is increasing more than the EU (+12.9%-points vs +12.6%-points for the EU).

Strong increases since 2018

- Venture capital expenditures
- Innovative SMEs collaborating with others
- Public-private co-publications

Strong decreases since 2018

- Job-to-job mobility of HRST
- New doctorate graduates
- Design applications

Strong increases since 2024

- Innovative SMEs collaborating with others
- Non-R&D innovation expenditures
- High-speed internet access

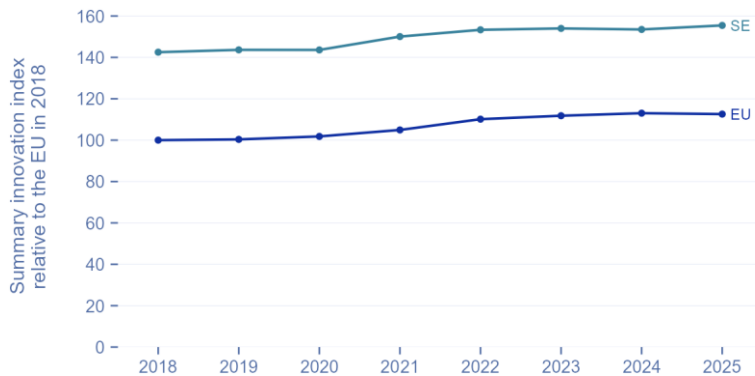
Strong decreases since 2024

- Job-to-job mobility of HRST
- Venture capital expenditures
- Employment in innovative enterprises

Footnote: Scores are indexed to the EU in 2018. Changes over time are shown in purple (positive) and red (negative).

Note on performance score: A value of 0 in the Current Benchmarking or Performance Trend tables means that the country had the lowest performance for that indicator, or was identified as a negative outlier and rescaled to 0 during the rescaling phase (see Methodology Report for details). Multiple countries can receive a score of 0 for the same indicator. If multiple countries receive the same score, they share the same rank. As a result, the lowest rank (e.g. 27 or 39) may not always appear.

Performance indicators



Summary innovation index

The line chart shows the evolution of the innovation performance of Sweden over time, indexed to the performance of the EU in 2018.

Footnote: All performance scores (SII and dimensions below) are indexed to the EU in 2018.

Framework conditions

Sweden is one of the top-performing EU27 Member States across all framework conditions, including human resources (170.7% of the EU average in 2025), the attractiveness of its research system (172.6%), and digitalisation (125.8%). A key benefit of Sweden is its highly educated workforce, indicated by 54.4% of population aged 25-34 having completed tertiary education, and 37.5% of the population aged 25-64 participating in lifelong learning. Sweden ranks first among all EU27 Member States in participation in lifelong learning. Although Sweden still ranks high on the number of doctorate graduates, and there is a slight increase compared to 2024, the number of doctorate graduates is 46.2%-points lower compared to 2018. At the same time, the share of foreign doctorate students of the total doctorate students increased by 8.5%-points compared to 2018, proving the attractiveness of Sweden's education and research system. As highlighted by the 2025 European Semester Report, Sweden faces a shortage of supply of highly skilled STEM graduates to supply the labour market demands.

Another indicator proving the strong attractiveness of Sweden's research system is indicated by a steady increase of international scientific co-publications, which rose by 20.7%-points compared to 2024. In addition, 12% of Sweden's scientific publications are among the top 10% cited, marking it the fourth best country behind the Netherlands, Luxembourg and Denmark despite a downward trend compared to 2018.

Sweden's population has above average digital skills and enjoys high connectivity through high-speed internet access with an increasing trend both in the population share with above average digital skills (+22.6%-points compared to 2018) and high-speed internet access (+3.7%-points compared to 2018).

Human resources



Attractive research systems



Digitalisation



Investments

Sweden has a very strong finance and support environment, with both R&D expenditure in the public sector (0.92% of GDP in 2025) and Venture Capital expenditures (0.33% of GDP in 2025) significantly above the EU average.

Sweden has below average direct and indirect government support of business R&D, lying at 71.2% of the 2025 EU average. This is reflected for example by findings from the OECD R&D tax incentive data, which shows that the implied tax subsidy rate for R&D expenditure in Sweden is at moderate 11% (OECD 2025). Despite relatively low direct and indirect government support for business R&D, Sweden ranks second overall in firm investments, with the highest R&D expenditure in the business sector as percentage of GDP and the highest innovation expenditures per person employed of all EU27 Member States.

Swedish enterprises are the best in among all EU27 Member States when it comes to investments into information technologies. In Sweden, 71.6% of companies make use at least one intermediate or sophisticated cloud computing services, which accounts for the best performance in EU27 Member States, ranking at 155.9% of the EU average. No other EU27 Member State has a higher share of ICT specialists in employment than Sweden, with Sweden scoring 169% of the EU average performance for this indicator.

Finance and support



Firm investments



Investments in information tech



Innovation activities

Sweden is strong in innovation activities, driven by the growing role of SMEs in innovation and the integration of the innovation system. Although there has been a slight decrease compared to 2024, the share of SMEs introducing innovations was above average in Sweden, reaching 36.5% of SMEs for product innovations (or 157.1% of the EU average) and 45% for business process innovations (or 111.8% of the EU average). Almost a third of innovative SMEs collaborate with others, which makes Sweden the frontrunner in SME collaboration, and represents 238.9% of the EU average in 2025. Collaboration is also visible through the number of public-private co-publications which is among the highest in the EU, reaching 402.0% of the EU average in 2025.

However, job-to-job mobility of human resources in science and technology has been strongly declining since 2024 (-70.6%-points), placing Sweden near the lower end of the rankings among the EU27 Member States (rank 23). Limited labour mobility is highlighted in the European Semester report (2025) pointing at shortages in affordable housing and insufficient integration of low-skilled workers into the labour market.

Sweden generates above-average intellectual assets, which is driven by Sweden's strong performance in PCT patent applications. In Sweden, 8.9 PCT patent applications were filed per billion GDP (in PPS), which was the highest score in all EU27 Member States (160.0% of EU average). While Trademark and Design applications have been decreasing in Sweden, they are still above the EU average. Compared to 2018, Trademark applications have declined by 8.7%-points compared to 2018, and Design applications by 37.6%-points compared to 2018.

Innovators



Linkages



Intellectual assets



Impacts

Despite strong framework conditions and excellent performance in investments and innovation activities, Sweden's performance in innovation impacts is rather mixed. While both Sales of new-to-market and new-to-firm innovations and Employment in innovative enterprises are above the EU average, there has been a 28.2%-point decrease in the latter indicator since 2024, placing Sweden in the mid-field of EU27 Member States when it comes to employment in innovative companies (rank 12).

Regarding trade, impacts are not as high as might be expected. Sweden performs at 94.6% of the EU average due to exports of medium and high technology products and high-tech imports from outside the EU27 (respectively 87.6% and 91.7% of the EU average). Knowledge-intensive service exports remain above the EU average (105.0%).

The modest 13th rank in resource and labour productivity is driven by Sweden's poor performance in resource productivity. Sweden is one of the lowest performing countries in the EU27 regarding resource productivity, performing at 57.0% of the EU average and ranking 20th. On the other hand, Sweden has the lowest production-based CO2 emissions in all EU27 Member States (173.0% of EU average), and innovation activity seems to support strong performance in labour productivity (161.9%) of EU average.

Sales and employment impacts



Trade impacts



Resource and labour productivity



Structural differences

The table below presents some structural differences between Sweden and the EU.

	SE	EU
Performance and structure of the economy		
GDP per capita (2022-2024 average)	113	100
Average annual GDP growth (2022-2024 average)	0.4	0.8
Employment share Manufacturing (2022-2024 average)	9.6	15.6
Employment share High and Medium high-tech (2022-2024 average)	47.4	38.1
Employment share Services (2021-2024 average)	41.3	40.2
Employment share Knowledge-intensive services (2022-2024 average)	42.3	28.5
Turnover share SMEs (2018-2020 average)	11.5	12.6
Turnover share large enterprises (2018-2020 average)	54	49.6
Foreign-controlled enterprises – share of value added (2018-2020 average)	14.9	13.3
Herfindahl-Hirschman Index of non-EU imports of high-tech goods (2022-2024)	0.2	N/A
Business and entrepreneurship		
Enterprise births (2018-2020 average)	0.5	0.8
Total Entrepreneurial Activity (2022-2024 average)	8.9	7.1
FDI net inflows (2021-2023 average)	7.2	1
Top R&D spending enterprises (2022-2024 average)	24.4	N/A
Buyer sophistication (2015-17 average)	4.6	3.6
Digital Intensity Index (2024)	55.3	34.2
Young High Growth Enterprises (2022)	0.7	0.8
Innovation profiles		
In-house product innovators with market novelties (2020)	17.2	11.7
In-house product innovators without market novelties (2020)	16.7	13.7
In-house business process innovators (2020)	19.2	17.6
Innovators that do not develop innovations themselves (2020)	9.5	6.1
Innovation active non-innovators (2020)	2.5	4.2
Non-innovators with potential to innovate (2020)	7.9	17.8
Non-innovators without disposition to innovate (2020)	26.9	30.6
HEU funding intensity per researcher (2022-2024 average)	4500.7	6194
Governance and policy frameworks		
Corruption Perceptions Index (2022-24 average)	81.7	63.3
Basic-school entrepreneurial education and training (2022-24 average)	4.1	2.4
Rule of law (2021-23 average)	1.7	1
Innovation procurement as a share of total public procurement (2024)	13.1	9.2
Environment		
Circular material use rate (2021-23 average)	10.5	11.5
Greenhouse gas emissions intensity of energy consumption (2018-20 average)	68.8	82.8
Eco-Innovation Index (2024)	165.2	127.5
Demography		
Population size (2022-24 average, in millions)	10.5	447.7
Average annual population growth (2022-24 average)	0.5	0.4
Population density (2022-24 average)	25.8	109.1



Performance and structure of the economy

Sweden's GDP per capita is 113% of the EU average. However, the Swedish economy experiences relatively low growth, with an average annual GDP growth of 0.4%, which is below the EU average of 0.8% and one of the lowest in the EU. Knowledge-intensive services account for 42.3% of employment in Sweden. Compared with the EU average, SMEs represent a slightly smaller share of total turnover, while large enterprises represent 54.0% of total turnover. The share of foreign-controlled enterprises in total value added is slightly above the EU average.



Business and entrepreneurship

Sweden has a relatively low rate of enterprise births, averaging 0.5% of enterprises annually. Nevertheless, it performs above the EU average on most other business structural indicators. The country attracts significant FDI, with net inflows reaching 7.1% of GDP, significantly exceeding the EU average. Sweden also has a significant number of enterprises investing large sums in R&D. Demand for innovation is high in Sweden, driving purchasing decisions based on performance and quality. Young High-Growth Enterprises are slightly below the EU average.



Innovation profiles

Swedish enterprises introduce more products new to the firm and new to the market, as well as innovative business processes, compared to the EU average. It has also a high rate of innovators not developing innovations themselves. Sweden counts relatively fewer non-innovative enterprises with potential to innovate and non-innovative enterprises without the disposition to innovate. This shows that Swedish companies are highly innovative and that innovation potentials are better exploited than in the EU average.



Governance and policy frameworks

Sweden benefits from a positive governance framework. The low perception level of corruption (score of 81.7/100 on the Corruption Perception Index 2024) and the significant trust in the rule of law contribute to a secure business environment. Moreover, the education and training system integrates basic school entrepreneurial education and training higher compared to the EU average. The score for rule of law is also higher compared to the EU average.



Environment

While Sweden shows a share of use of circular use of materials below the EU average, it performs remarkably well in reducing greenhouse gas emissions from energy consumption. Moreover, it is one of the best-performing EU27 Member States on the Eco-Innovation Index.



Demography

On 1 January 2025, Sweden had a population of 10.5 million inhabitants, and an average annual population growth of 0.5%. Sweden has one of the lowest population densities among EU27 Member States.

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This report provides the Country profile from the 2025 European Innovation Scoreboard for Sweden

Studies and reports