

GKI
RANK

1 /141

GKI
SCORE

68.3

WORLD
AVERAGE

47.8

COUNTRY PERFORMANCE SUMMARY

Sweden is a leading performer in terms of its knowledge infrastructure. It ranks 1st out of 141 countries in the Global Knowledge Index 2024 and 1st out of the 59 countries with very high human development.

SWEDEN

KEY INDICATORS

GDP (US\$ billions): 676.353

Population: 10,551,494

HDI: 0.952

AREAS OF STRENGTH

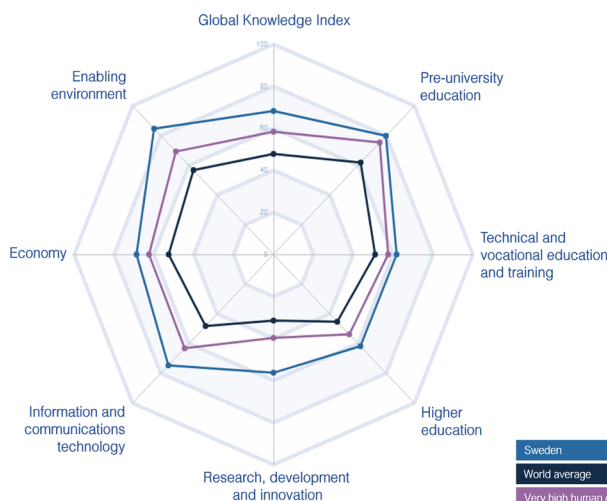
- + ICT PCT patent applications (per 100 billion GDP)
- + Trade in digitally deliverable services (% total trade)
- + Participation rate in formal and non-formal education and training
- + ICT employment (%)
- + Bank non-performing loans (%)

AREAS OF IMPROVEMENT

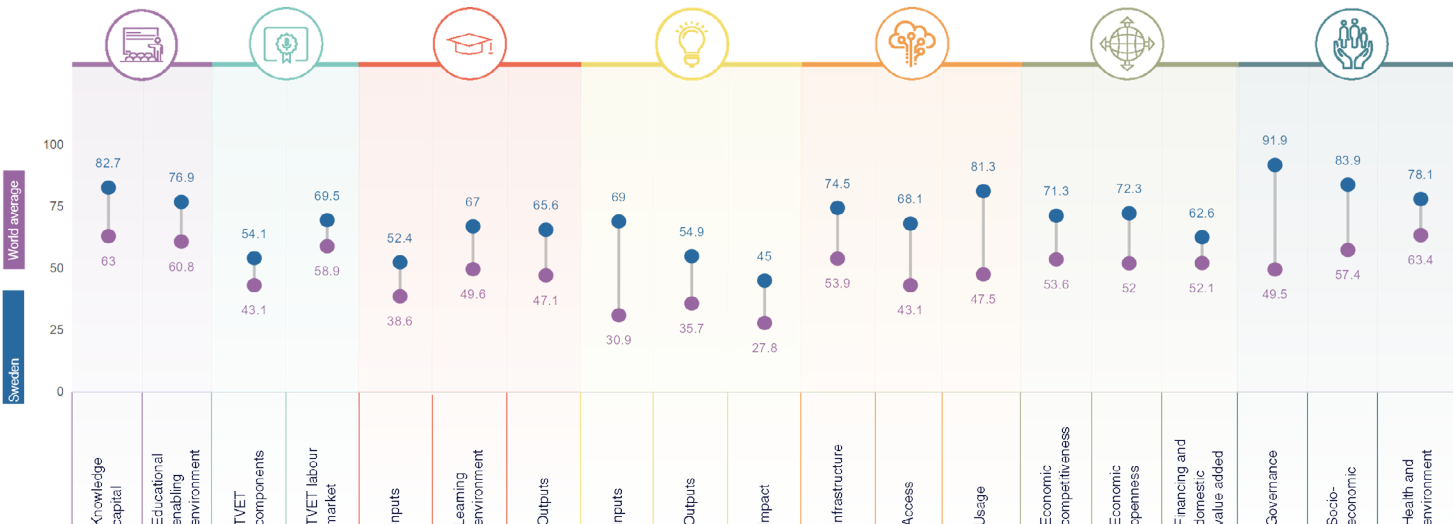
- Researchers in higher education (%)
- Share of students enrolled in post-secondary vocational programmes
- Ecological footprint per capita
- Tax and contribution rate (% profit)
- Building quality control

SECTORAL INDICES

	RANK	VALUE
PRE-UNIVERSITY EDUCATION	12	79.8
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	24	61.8
HIGHER EDUCATION	7	61.7
RESEARCH, DEVELOPMENT AND INNOVATION	2	56.3
INFORMATION AND COMMUNICATIONS TECHNOLOGY	2	74.6
ECONOMY	12	68.7
ENABLING ENVIRONMENT	4	84.7



GKI PILLARS





SWEDEN

	Rank Value	
PRE-UNIVERSITY EDUCATION	12	79.8
Knowledge capital	22	82.7
Enrolment	10	98.4
Net enrolment rate in primary education	22	98.8
Net enrolment rate in lower secondary education	20	99.3
Net enrolment rate in upper secondary education	14	97.1
Completion	57	74.4
Years of compulsory education in primary and secondary	68	69.2
Completion rate in upper secondary education	37	83.1
Gross intake ratio to the last grade of lower secondary education	22	70.8
Outcomes	13	75.2
Assessment of 15-year-old students in math, science and reading	17	62.1
Learning-adjusted years of schooling	8	88.4
Educational enabling environment	23	76.9
Expenditure	20	48.4
Government expenditure on primary education (% GDP)	23	47.2
Government expenditure on secondary education (% GDP)	17	45.7
Government funding per primary student (% GDP per capita)	21	58
Government funding per secondary student (% GDP per capita)	37	42.9
Resources	1	100
Pupil-trained teacher ratio in primary education	n/a	n/a
Pupil-trained teacher ratio in secondary education	n/a	n/a
Schools with access to computers in primary education (%)	1	100
Schools with access to computers in secondary education (%)	1	100
Early learning	43	69.5
Gross enrolment ratio in early childhood education	20	69.5
Proportion of children who are developmentally on track	n/a	n/a
Proportion of children with stimulating home learning environments	n/a	n/a
Pupil-trained teacher ratio in pre-primary education	n/a	n/a
Equity and inclusiveness	32	89.8
Completion rate in upper secondary education, gender parity	57	90.2
Completion rate in upper secondary education, wealth parity	n/a	n/a
Completion rate in upper secondary education, location parity	37	89.5
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	24	61.8
TVET components	19	54.1
Continuous training and skilling	5	77
Firms offering formal training (%)	8	77
Labour force participation rate with short-cycle tertiary education	71	65.6
Participation rate in formal and non-formal education and training	3	88.4
TVET structure	78	41.1
Government expenditure on vocational education (%)	32	38.5
Share of students enrolled in secondary vocational programmes	36	33
Share of students enrolled in post-secondary vocational programmes	76	51.7
TVET quality and qualifications	54	44.1
Extent of staff training	24	67.6
Quality of vocational training	28	64.6
Ratio of high-skill TVET occupations earnings to average wage	90	20.9
Ratio of medium-skill TVET occupations earnings to average wage	78	23.5
TVET labour market	31	69.5
Efficiency of the labour market	30	77
Firms constrained with inadequately educated workforce (%)	86	60.4
Employment educational mismatch (%)	26	78.7
Proportion of skilled production workers	9	84.1
Unemployment rate with vocational education	49	84.7
Post-TVET employment	62	46.2
Share of TVET occupations	57	61.2
Manufacturing employment (%)	76	31.2
Equity and inclusiveness	26	85.3
Enrolment in vocational education, gender parity	65	78.2
Vulnerable employment rate	14	92.5

	Rank Value	
HIGHER EDUCATION	7	61.7
Inputs	15	52.4
Expenditure	14	46.9
Government expenditure per tertiary student	6	46.9
Teaching staff compensation (% tertiary expenditure)	n/a	n/a
Enrolment	7	57.6
Enrolment in bachelor's or equivalent level (%)	42	32
Enrolment in master's, doctoral or equivalent (%)	8	83.2
Resources	94	52.8
Pupil-teacher ratio in tertiary education	39	84.3
Researchers in higher education (%)	89	21.3
Learning environment	22	67
Diversity and academic freedom	29	67
Teachers in tertiary education, gender parity	23	89.7
Inbound mobility rate	45	17.3
Academic freedom	10	93.9
Equity and inclusiveness	n/a	n/a
Gross attendance ratio for tertiary education, gender parity	n/a	n/a
Gross attendance ratio for tertiary education, wealth parity	n/a	n/a
Gross attendance ratio for tertiary education, location parity	n/a	n/a
Outputs	11	65.6
Attainment	11	55.2
Educational attainment rate, bachelor's or equivalent	19	55.1
Educational attainment rate, master's or equivalent	14	57.4
Educational attainment rate, doctoral or equivalent	17	53.1
Employment	58	82
Labour force participation rate with advanced education	72	76.3
Unemployment rate with advanced education	55	87.6
Impact	9	59.5
University-industry collaboration in R&D	13	67.5
Citable documents per R&D personnel in higher education	8	51.5
RESEARCH, DEVELOPMENT AND INNOVATION	2	56.3
Inputs	3	69
Inputs of R&D institutions	6	64.4
GERD (% GDP)	5	61.4
GERD per researcher	27	34
Researchers per thousand labour force	3	91.8
Tertiary graduates from STEM programmes (%)	25	70.5
Inputs of RDI in business enterprises	7	65.5
GERD performed by business enterprises (%)	3	53.8
GERD financed by business enterprises (%)	11	75.2
Researchers in business enterprises (%)	3	88.8
Firms that spend on R&D (%)	19	44.2
Inputs of societal innovation	2	81.6
High-skilled employment (%)	4	80.8
Intellectual property payments (% total trade)	1	100
State of cluster development	17	64
Outputs	10	54.9
Outputs of R&D institutions	18	52.8
Average documents per researcher	62	18.8
Citations per document	20	60.3
Resident patent applications (per 100 billion GDP)	8	79.3
Outputs of RDI in business enterprises	5	82.4
Intellectual property receipts (% total trade)	5	78.8
Industrial design applications (per 100 billion GDP)	32	70.1
PCT applications (per 100 billion GDP)	1	100
Firms producing new products and services (%)	11	80.7
Outputs of societal innovation	89	31.6
Trademark applications (per 100 billion GDP)	69	14
Cultural goods exports (% exports)	58	69.8
Printing and publishing output (% manufactured output)	81	11.1
Impact	9	45
Quality	31	34.7
Research institutions prominence	17	38.4
Growth of innovative companies	10	64.4
ISO 9001 quality certificates (per billion GDP)	67	11
ISO 14001 environmental certificates (per billion GDP)	30	24.9
Linkages	6	49.8
GERD financed from abroad (%)	44	19.2
Joint ventures per strategic alliance deals (per billion GDP)	7	72.9
Computer software spending (% GDP)	16	57.4
Business development	25	50.4
New business density per thousand population	16	37.9
Firms with products and services new to the market (%)	67	62.8



SWEDEN

		Rank Value	
INFORMATION AND COMMUNICATIONS TECHNOLOGY		2	74.6
Infrastructure	15	74.5	
Coverage	27	70.8	
3G/4G mobile network coverage (% population)	1	100	
Secure Internet servers per 1 million population	25	82.6	
Investment in telecommunication services (% GDP)	45	29.8	
Quality	11	61	
Mobile upload and download speeds	12	39.6	
Fixed-broadband upload and download speeds	16	60.6	
Fixed-broadband subscriptions by speed per hundred people	16	82.9	
Affordability	28	91.7	
Fixed broadband basket (% GNI per capita)	39	76.8	
Mobile broadband basket (% GNI per capita)	20	98.4	
Internet and telephony competition	1	100	
Access	10	68.1	
Subscriptions	29	70.9	
Active mobile-broadband subscriptions per hundred inhabitants	15	65.1	
International Internet bandwidth per user	79	55.4	
Households with Internet access at home (%)	42	92.1	
Skills and employment	4	65.4	
Individuals with standard ICT skills (%)	12	64.4	
Tertiary graduates from ICT programmes (%)	31	39.4	
ICT employment (%)	3	92.3	
Usage	1	81.3	
Services	8	76.7	
Government online services	25	88.4	
Fixed broadband Internet traffic per subscription	n/a	n/a	
Mobile broadband Internet traffic per subscription	13	46.5	
Internet users (%)	15	95.2	
Outcomes	2	85.9	
ICT PCT patent applications (per 100 billion GDP)	2	97.7	
E-participation	33	79.5	
Internet activities by individuals (%)	13	84.4	
Trade in digitally deliverable services (% total trade)	3	82	
ECONOMY	12	68.7	
Economic competitiveness	15	71.3	
Infrastructure investment	17	64.4	
Gross fixed capital formation (% GDP)	28	47.1	
Logistics performance	7	75	
Transport productive capacity	10	75.5	
Building quality control	109	60	
Business agility	13	78.3	
Ease of starting a business	32	93.1	
Insolvency recovery rate	22	84.9	
Entrepreneurial employee activity rate	16	49.3	
Extent of corporate transparency	12	85.7	
Economic openness	8	72.3	
Trade and diversification	22	60.5	
Trade (% GDP)	45	25.1	
High-technology trade (% total trade)	30	30.8	
Product concentration	18	90.5	
Market concentration	9	95.6	
Financial openness	6	84	
Chinn-Ito financial openness	1	100	
Foreign direct investment, net inflows (% GDP)	19	52.1	
Debt dynamics	1	100	
Financing and domestic value added	21	62.6	
Financing and taxes	37	65	
Domestic credit to private sector (% GDP)	13	50.8	
MSME financing gap (% GDP)	n/a	n/a	
Tax and contribution rate (% profit)	117	44.7	
Bank non-performing loans (%)	3	99.3	
Domestic value added	28	60.2	
Medium- and high-tech activities value added	13	53.8	
Industry and services value added (% GDP)	37	77.8	
Labour underutilization rate	86	64.1	
Output per worker	20	45.2	

		Rank Value	
ENABLING ENVIRONMENT		4	84.7
Governance	8	91.9	
Political environment	8	88.4	
Peace and stability	16	80.2	
Voice and accountability	8	96.6	
Quality of institutions	7	95.4	
Rule of law	10	93.9	
Control of corruption	6	97.6	
Government effectiveness	9	94.8	
Socio-economic	6	83.9	
Gender equity	3	92.4	
Female-to-male ratio in parliament	8	87.6	
Female-to-male labour force participation	16	89.8	
Female-to-male ratio in Internet usage	39	99.8	
Social inclusion	2	97.7	
Social protection coverage (% population)	1	100	
Adult literacy rate	n/a	n/a	
Youth not in employment, education or training (%)	4	95.5	
Standard of living	14	61.7	
Poverty headcount ratio (% population)	37	75.2	
GDP per capita	15	48.1	
Health and environment	4	78.1	
Health	5	92	
Universal health coverage	16	85.3	
Healthy life expectancy (years)	7	91.3	
Under-five mortality rate	6	99.5	
Environmental performance	40	64.2	
Renewable energy consumption (%)	32	60.1	
Ecological footprint per capita	114	57.6	
Natural hazard exposure	23	75	

* All values are normalized to a scale from 0 (worst) to 100 (best).