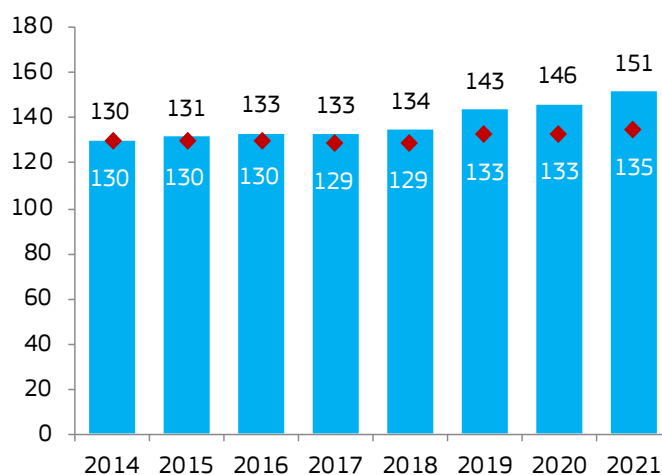




Finland is an Innovation Leader.

Over time, performance relative to the EU has increased, in particular in the last three years.



■ Relative to EU in base year ♦ Relative to EU in same year

Structural differences with the EU are shown in the table below including, compared to the EIS 2020, new information on different types of (innovating) enterprises (Innovation profiles) and environmental indicators.

	FI	EU
Performance and structure of the economy		
GDP per capita (PPS)	34,300	30,800
Average annual GDP growth (%)	-0.9	-2.5
Employment share Manufacturing (NACE C) (%)	13.1	16.5
of which High and Medium high-tech (%)	37.1	37.9
Employment share Services (NACE G-N) (%)	40.2	41.2
of which Knowledge-intensive services (%)	41.3	35.1
Turnover share SMEs (%)	39.8	36.5
Turnover share large enterprises (%)	44.7	45.7
Foreign-controlled enterprises – share of value added (%)	10.4	11.8
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	0.6	1.0
Total Entrepreneurial Activity (TEA) (%)	6.7	6.7
FDI net inflows (% GDP)	3.1	2.0
Top R&D spending enterprises per 10 million population	62.2	16.2
Buyer sophistication (1 to 7 best)	4.6	3.7
Innovation profiles		
In-house product innovators with market novelties	22.9	10.7
In-house product innovators without market novelties	10.0	12.3
In-house business process innovators	12.8	11.0
Innovators that do not develop innovations themselves	9.9	11.6
Innovation active non-innovators	6.2	3.3
Non-innovators with potential to innovate	4.3	19.9
Non-innovators without disposition to innovate	33.8	31.3
Governance and policy framework		
Ease of starting a business (0 to 100 best)	80.1	76.5
Basic school entrepreneurial education and training	2.4	2.0
Govt. procurement of advanced tech. products	3.9	3.5
Rule of law (-2.5 to 2.5 best)	2.0	1.1
Climate change indicators		
Circular material use rate	5.9	11.7
Greenhouse gas emissions intensity of energy consumption	74.8	86.6
Eco-Innovation Index	145.0	100.0
Demography		
Population size	5.5	446.7
Average annual population growth (%)	0.1	0.1
Population density	18.1	108.8

Finland's strengths are in *Use of information technologies*, *Intellectual assets* and *Linkages*. The top-3 indicators include Lifelong learning, PCT patent applications, and International scientific co-publications.

The performance increase between 2019 and 2021 is the result of improved performance for Venture capital from (0.121% to 0.254% of GDP), Sales of innovative products, and Resource productivity.

Finland has an above average share of In-house product innovators with market novelties and is showing close to average scores on the Climate change related indicators.

Finland	Relative to EU 2021 in 2021	Relative to EU 2014 in 2014	Relative to EU 2021 in 2021
SUMMARY INNOVATION INDEX	134.5	129.9	151.4
Human resources	169.0	168.5	179.1
Doctorate graduates	138.9	134.5	123.0
Population with tertiary education	116.7	136.4	150.4
Lifelong learning	278.8	262.2	306.7
Attractive research systems	137.1	118.6	154.3
International scientific co-publications	161.7	163.5	212.0
Most cited publications	126.4	112.0	124.2
Foreign doctorate students	121.2	75.3	143.9
Digitalisation	152.7	159.8	211.2
Broadband penetration	130.2	144.9	197.5
People with above basic overall digital skills	186.4	177.8	227.8
Finance and support	119.5	115.6	142.3
R&D expenditures in the public sector	138.2	150.9	133.3
Venture capital expenditures	180.8	130.5	304.1
Government support for business R&D	35.5	56.8	41.1
Firm investments	104.0	126.7	125.7
R&D expenditure in the business sector	126.2	180.3	140.2
Non-R&D Innovation expenditures	68.3	52.7	77.6
Innovation expenditures per employee	107.8	132.5	142.3
Use of information technologies	203.5	228.4	235.1
Enterprises providing ICT training	220.0	220.0	220.0
Employed ICT specialists	189.3	238.1	252.4
Innovators	128.4	127.6	175.6
Product innovators (SMEs)	131.0	144.7	184.9
Business process innovators (SMEs)	125.9	112.6	167.5
Linkages	177.5	166.8	239.4
Innovative SMEs collaborating with others	237.4	172.6	347.8
Public-private co-publications	204.7	209.2	229.5
Job-to-job mobility of HRST	117.9	130.8	169.2
Intellectual assets	167.2	141.8	144.9
PCT patent applications	254.9	225.2	221.2
Trademark applications	121.4	105.3	127.5
Design applications	138.3	103.9	94.8
Employment impacts	140.5	119.9	143.1
Employment in knowledge-intensive activities	135.4	130.7	148.0
Employment in innovative enterprises	144.7	112.3	139.7
Sales impacts	103.0	78.5	104.9
Medium and high tech goods exports	73.6	59.1	80.7
Knowledge-intensive services exports	120.4	96.3	127.4
Sales of innovative products	126.4	83.0	109.9
Environmental sustainability	79.3	89.7	82.6
Resource productivity	30.3	24.6	44.8
Air emissions by fine particulate matter	95.7	97.0	101.8
Environment-related technologies	106.9	118.9	80.3

The colours show normalised performance in 2021 relative to that of the EU in 2021: dark green: above 125%; light green: between 100% and 125%; yellow: between 70% and 100%; orange: below 70%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.