

France	Performance relative to EU in 2022	Performance change 2015-2022	Performance change 2021-2022
SUMMARY INNOVATION INDEX	105.4	-1.0	-1.0
Human resources	125.5	-14.5	-4.8
Doctorate graduates	114.8	-34.3	-11.4
Population with tertiary education	155.7	0.0	0.0
Lifelong learning	102.2	0.0	0.0
Attractive research systems	119.8	-2.3	1.5
International scientific co-publications	84.1	25.4	5.3
Most cited publications	90.2	-14.1	0.8
Foreign doctorate students	221.2	-2.4	-0.5
Digitalisation	112.8	7.9	7.9
Broadband penetration	105.1	15.2	15.2
People with above basic overall digital skills	122.7	0.0	0.0
Finance and support	132.5	15.0	9.5
R&D expenditures in the public sector	97.0	0.0	8.1
Venture capital expenditures	128.3	49.3	20.5
Government support for business R&D	183.4	0.0	0.0
Firm investments	86.7	-1.3	-7.6
R&D expenditure in the business sector	102.0	9.3	9.3
Non-R&D Innovation expenditures	47.4	-29.7	-25.9
Innovation expenditures per employee	104.3	17.1	-5.4
Use of information technologies	83.7	-19.6	-19.6
Enterprises providing ICT training	68.8	-37.5	-37.5
Employed ICT specialists	100.0	0.0	0.0
Innovators	104.5	8.4	-0.5
Product innovators (SMEs)	98.9	2.8	-28.5
Business process innovators (SMEs)	109.5	14.5	29.3
Linkages	121.4	43.0	-2.7
Innovative SMEs collaborating with others	137.2	28.2	25.2
Public-private co-publications	113.1	22.9	9.4
Job-to-job mobility of HRST	112.5	64.7	-32.4
Intellectual assets	80.9	-10.0	-0.1
PCT patent applications	103.0	-6.9	-1.5
Trademark applications	69.0	0.8	1.0
Design applications	63.5	-21.8	0.7
Employment impacts	110.5	-5.4	3.9
Employment in knowledge-intensive activities	116.9	0.0	0.0
Employment in innovative enterprises	105.5	-10.3	7.5
Sales impacts	79.4	-21.8	-5.4
Medium and high-tech goods exports	96.9	-7.4	-6.9
Knowledge-intensive services exports	91.7	12.2	13.8
Sales of innovative products	41.8	-79.9	-25.7
Environmental sustainability	117.4	8.9	2.8
Resource productivity	150.7	49.5	10.2
Air emissions by fine particulate matter	107.0	4.5	2.7
Environment-related technologies	100.1	-13.5	-2.1

The second column shows performance relative to that of the EU in 2022. Colours next to the column show matching colour codes: dark green: above 125% of the performance of the EU in 2022; 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. The next columns show performance change over time between 2015 and 2022 and between 2021 and 2022, with scores relative to those of the EU in 2015. Positive performance changes are shown in green, negative performance changes in red.

FRANCE is a **Strong Innovator** with performance at 105.4% of the EU average. Performance is below the average of the Strong Innovators (114.5%). Performance is decreasing (-1.0%-points) and is lower than the rate of increase of the EU (9.9%-points). The country's performance lead over the EU is becoming smaller.

Relative strengths

- Foreign doctorate students
- Government support for business R&D
- Population with tertiary education
- Resource productivity
- Innovative SMEs collaborating with others

Relative weaknesses

- Sales of innovative products
- Non-R&D Innovation expenditures
- Design applications
- Enterprises providing ICT training
- Trademark applications

Strong increases since 2015

- Job-to-job mobility of HRST
- Resource productivity
- Venture capital expenditures

Strong decreases since 2015

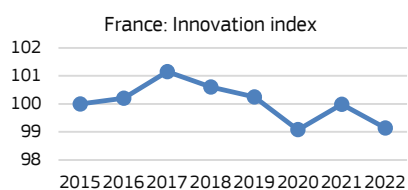
- Sales of innovative products
- Enterprises providing ICT training
- Doctorate graduates

Strong increases since 2021

- Business process innovators
- Innovative SMEs collaborating with others
- Venture capital expenditures

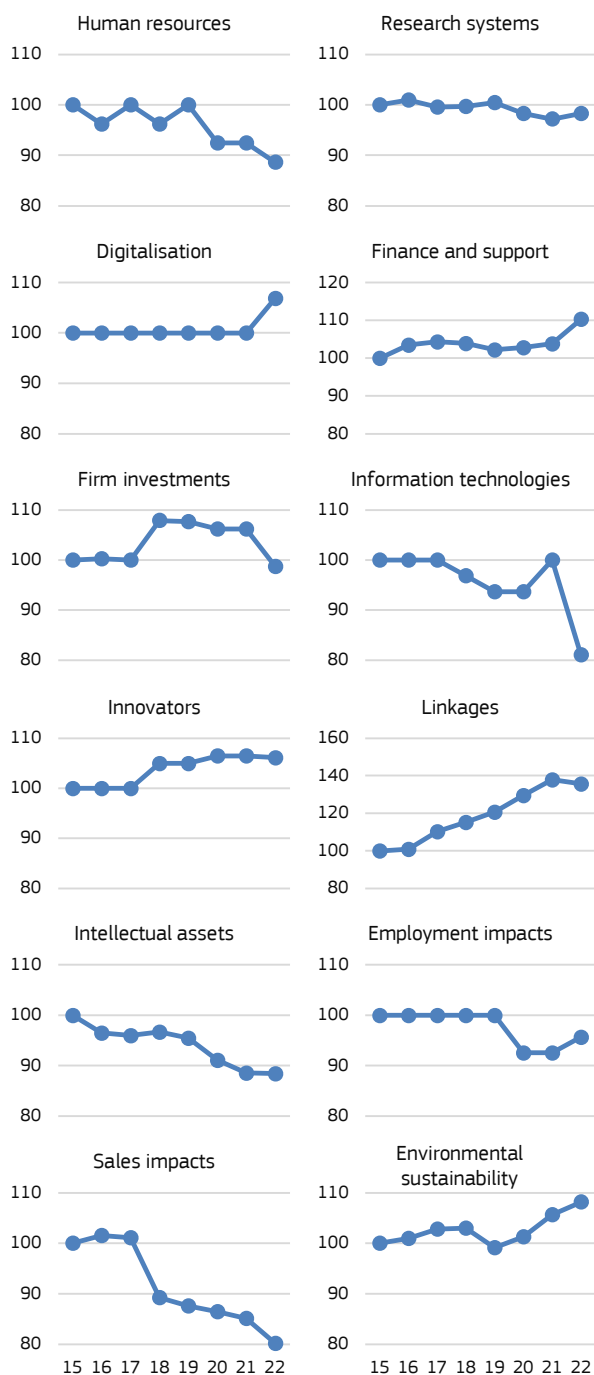
Strong decreases since 2021

- Enterprises providing ICT training
- Job-to-job mobility of HRST
- Product innovators



The graph on the left shows the evolution of **innovation performance over time** against the performance of the country in 2015. Innovation performance has declined over time. After an initial increase between 2015 and 2017, performance declined until 2020, followed by an increase in 2021 and a further decline in 2022.

The graphs below show the evolution of innovation performance in the different **innovation dimensions** against the performance of the country in 2015. Performance increased strongest for Intellectual assets, almost did not change for Research systems and Firm investments, and declined for Human resources, Information technologies, Intellectual assets, Employment impacts and Sales impacts.



Performance is measured relative to that of the country in 2015 (=100).

Structural differences with the EU are shown below:

- France has higher per capita income but a slower growing economy. Business services takes up a larger share of the economy, with large enterprises accounting for a larger share of turnover.
- Entrepreneurial activity and FDI net inflows add positively to the innovation climate, enterprise births add negatively.
- France has a much higher share of In-house product innovators with market novelties.
- Entrepreneurial training and government procurement are below the EU average as drivers of research and innovation.
- France shows a mixed performance on Climate change related indicators with a lower share of material resources coming from recycled waste materials but an above average score on environmental innovation.

	FR	EU
Performance and structure of the economy		
GDP per capita (PPS)	32,700	31,200
Average annual GDP growth (%)	-1.1	-0.4
Employment share Manufacturing (NACE C) (%)	11.6	16.4
of which High and Medium high-tech (%)	35.1	38.0
Employment share Services (NACE G-N) (%)	41.5	41.1
of which Knowledge-intensive services (%)	39.0	35.8
Turnover share SMEs (%)	25.3	34.8
Turnover share large enterprises (%)	60.1	48.2
Foreign-controlled enterprises – share of value added (%)	7.2	11.7
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	0.4	1.0
Total Entrepreneurial Activity (TEA) (%)	7.7	7.3
FDI net inflows (% GDP)	1.8	1.0
Top R&D spending enterprises per 10 mln. population	18.6	18.3
Buyer sophistication (1 to 7 best)	4.1	3.7
Innovation profiles		
In-house product innovators with market novelties	20.2	10.7
In-house product innovators without market novelties	6.2	12.3
In-house business process innovators	8.9	11.0
Innovators that do not develop innovations themselves	12.0	11.6
Innovation active non-innovators	3.8	3.3
Non-innovators with potential to innovate	12.9	19.9
Non-innovators without disposition to innovate	36.0	31.3
Governance and policy framework		
Ease of starting a business (0 to 100 best)	76.5	76.5
Basic school entrepreneurial education and training	2.9	3.5
Govt. procurement of advanced tech. products	3.8	3.5
Rule of law (-2.5 to 2.5 best)	1.4	1.1
Climate change indicators		
Circular material use rate	9.9	12.2
Greenhouse gas emissions intensity of energy consumption	79.5	82.8
Eco-Innovation Index	107.6	100.0
Demography		
Population size	67.4	447.0
Average annual population growth (%)	0.4	0.1
Population density	105.9	108.8