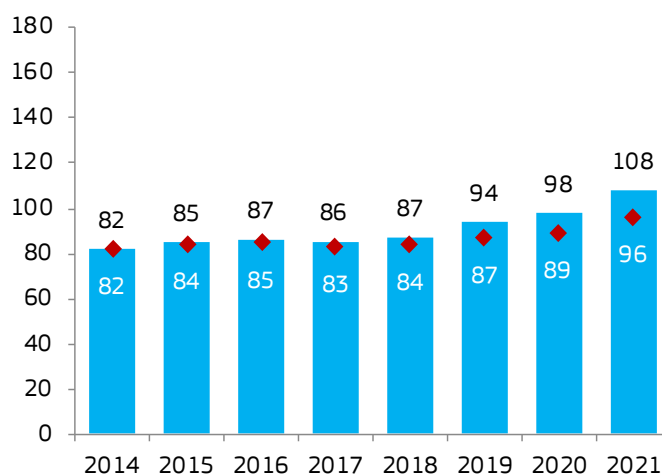




### Italy is a Moderate Innovator.

Over time, performance relative to the EU has increased strongly.



■ 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.

	IT	EU
<b>Performance and structure of the economy</b>		
GDP per capita (PPS)	29,800	30,800
Average annual GDP growth (%)	-4.1	-2.5
Employment share Manufacturing (NACE C) (%)	18.6	16.5
of which High and Medium high-tech (%)	33.8	37.9
Employment share Services (NACE G-N) (%)	45.0	41.2
of which Knowledge-intensive services (%)	37.3	35.1
Turnover share SMEs (%)	41.9	36.5
Turnover share large enterprises (%)	31.0	45.7
Foreign-controlled enterprises – share of value added (%)	6.7	11.8
<b>Business and entrepreneurship</b>		
Enterprise births (10+ employees) (%)	1.1	1.0
Total Entrepreneurial Activity (TEA) (%)	3.8	6.7
FDI net inflows (% GDP)	1.1	2.0
Top R&D spending enterprises per 10 million population	6.4	16.2
Buyer sophistication (1 to 7 best)	3.8	3.7
<b>Innovation profiles</b>		
In-house product innovators with market novelties	10.0	10.7
In-house product innovators without market novelties	22.3	12.3
In-house business process innovators	16.0	11.0
Innovators that do not develop innovations themselves	8.4	11.6
Innovation active non-innovators	5.2	3.3
Non-innovators with potential to innovate	7.4	19.9
Non-innovators without disposition to innovate	30.8	31.3
<b>Governance and policy framework</b>		
Ease of starting a business (0 to 100 best)	73.0	76.5
Basic school entrepreneurial education and training	2.0	2.0
Govt. procurement of advanced tech. products	2.9	3.5
Rule of law (-2.5 to 2.5 best)	0.3	1.1
<b>Climate change indicators</b>		
Circular material use rate	18.8	11.7
Greenhouse gas emissions intensity of energy consumption	84.9	86.6
Eco-Innovation Index	112.0	100.0
<b>Demography</b>		
Population size	60.0	446.7
Average annual population growth (%)	-0.7	0.1
Population density	202.6	108.8

Italy's strengths are in *Innovators*, *Employment impacts* and *Environmental sustainability*. The top-3 indicators include Resource productivity, Sales of innovative products, and Design applications.

The strong increase between 2019 and 2021 is due to improved performance on the indicators using innovation survey data and Broadband penetration.

Italy has above average shares of In-house product innovators without market novelties and In-house business process innovators. Italy is showing above average scores on the Climate change related indicators.

Italy	Relative to EU		
	2021 in	2014 in	
<b>SUMMARY INNOVATION INDEX</b>	<b>96.0</b>	<b>82.0</b>	<b>108.1</b>
<b>Human resources</b>	<b>56.2</b>	<b>51.9</b>	<b>59.6</b>
Doctorate graduates	74.0	77.0	65.5
Population with tertiary education	25.0	3.3	32.2
Lifelong learning	72.7	63.3	80.0
<b>Attractive research systems</b>	<b>99.6</b>	<b>86.7</b>	<b>112.0</b>
International scientific co-publications	91.5	85.0	120.0
Most cited publications	113.9	97.6	112.0
Foreign doctorate students	86.0	66.2	102.1
<b>Digitalisation</b>	<b>68.7</b>	<b>71.4</b>	<b>95.1</b>
Broadband penetration	75.2	70.7	114.0
People with above basic overall digital skills	59.1	72.2	72.2
<b>Finance and support</b>	<b>82.5</b>	<b>56.5</b>	<b>98.2</b>
R&D expenditures in the public sector	60.0	63.2	57.9
Venture capital expenditures	50.9	75.0	85.7
Government support for business R&D	140.2	34.5	162.2
<b>Firm investments</b>	<b>77.7</b>	<b>66.3</b>	<b>93.8</b>
R&D expenditure in the business sector	61.0	61.4	67.7
Non-R&D Innovation expenditures	107.0	78.6	121.6
Innovation expenditures per employee	97.9	61.3	129.3
<b>Use of information technologies</b>	<b>76.9</b>	<b>62.2</b>	<b>88.8</b>
Enterprises providing ICT training	66.7	33.3	66.7
Employed ICT specialists	85.7	95.2	114.3
<b>Innovators</b>	<b>144.2</b>	<b>149.3</b>	<b>197.3</b>
Product innovators (SMEs)	134.5	139.9	189.7
Business process innovators (SMEs)	153.3	157.6	204.0
<b>Linkages</b>	<b>86.2</b>	<b>64.4</b>	<b>116.2</b>
Innovative SMEs collaborating with others	118.9	47.6	174.3
Public-private co-publications	119.3	104.5	133.7
Job-to-job mobility of HRST	42.9	46.2	61.5
<b>Intellectual assets</b>	<b>110.4</b>	<b>89.3</b>	<b>95.6</b>
PCT patent applications	68.1	57.8	59.1
Trademark applications	109.3	93.7	114.7
Design applications	159.2	113.0	109.1
<b>Employment impacts</b>	<b>126.5</b>	<b>110.3</b>	<b>128.8</b>
Employment in knowledge-intensive activities	104.9	101.3	114.7
Employment in innovative enterprises	143.9	116.6	138.9
<b>Sales impacts</b>	<b>93.2</b>	<b>83.3</b>	<b>95.0</b>
Medium and high tech goods exports	85.3	91.3	93.5
Knowledge-intensive services exports	61.8	75.7	65.5
Sales of innovative products	151.7	81.7	131.9
<b>Environmental sustainability</b>	<b>124.6</b>	<b>103.5</b>	<b>129.8</b>
Resource productivity	196.1	161.0	290.4
Air emissions by fine particulate matter	104.0	100.8	110.6
Environment-related technologies	78.6	72.7	59.0

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.