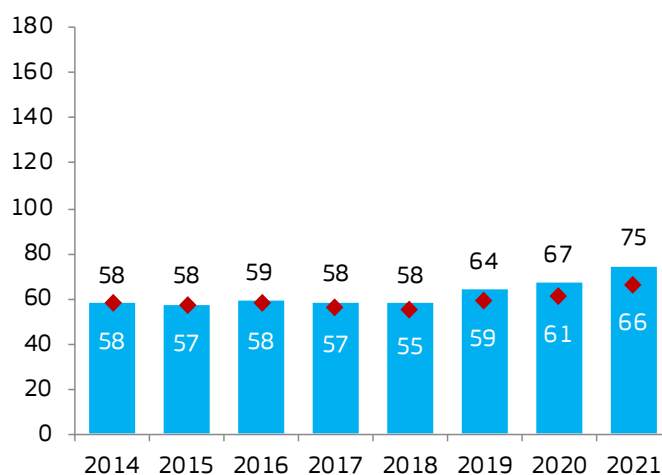




Serbia is an **Emerging Innovator**. Over time, performance relative to the EU has increased.



■ 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.

	RS	EU
Performance and structure of the economy		
GDP per capita (PPS)	12,300	30,800
Average annual GDP growth (%)	2.0	-2.5
Employment share Manufacturing (NACE C) (%)	18.8	16.5
of which High and Medium high-tech (%)	25.5	37.9
Employment share Services (NACE G-N) (%)	36.5	41.2
of which Knowledge-intensive services (%)	36.5	35.1
Turnover share SMEs (%)	45.2	36.5
Turnover share large enterprises (%)	n/a	45.7
Foreign-controlled enterprises – share of value added (%)	n/a	11.8
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	1.8	1.0
Total Entrepreneurial Activity (TEA) (%)	n/a	6.7
FDI net inflows (% GDP)	7.1	2.0
Top R&D spending enterprises per 10 million population	0.0	16.2
Buyer sophistication (1 to 7 best)	2.5	3.7
Innovation profiles		
In-house product innovators with market novelties	11.5	10.7
In-house product innovators without market novelties	16.5	12.3
In-house business process innovators	6.7	11.0
Innovators that do not develop innovations themselves	18.9	11.6
Innovation active non-innovators	0.1	3.3
Non-innovators with potential to innovate	21.6	19.9
Non-innovators without disposition to innovate	24.7	31.3
Governance and policy framework		
Ease of starting a business (0 to 100 best)	74.4	76.5
Basic school entrepreneurial education and training	n/a	2.0
Govt. procurement of advanced tech. products	2.8	3.5
Rule of law (-2.5 to 2.5 best)	-0.2	1.1
Climate change indicators		
Circular material use rate	n/a	11.7
Greenhouse gas emissions intensity of energy consumption	n/a	86.6
Demography		
Population size	7.0	446.7
Average annual population growth (%)	-0.5	0.1
Population density	91.0	108.8

Serbia's strengths are in *Innovators*, *Firm investments* and *Employment impacts*. The top-3 indicators include Non-R&D innovation expenditures, Product innovators, and Employment in innovative enterprises.

The improvement in innovation performance in the last two years is the result of improved performance for Broadband penetration, Venture capital, Product and Business process innovators, Design applications, and Employment in innovative enterprises.

Serbia has above average shares of In-house product innovators without market novelties and Innovators that do not develop innovations themselves.

Serbia	Relative to EU 2021 in	Relative to EU 2014 in	
	2021	2014	2021
SUMMARY INNOVATION INDEX	66.2	57.8	74.5
Human resources	54.0	32.0	57.2
Doctorate graduates	61.1	31.1	54.0
Population with tertiary education	61.5	27.3	79.3
Lifelong learning	34.3	38.9	37.8
Attractive research systems	44.7	36.0	50.3
International scientific co-publications	59.8	50.5	78.5
Most cited publications	35.9	29.9	35.2
Foreign doctorate students	38.6	30.2	45.9
Digitalisation	68.4	37.5	94.7
Broadband penetration	80.8	54.8	122.5
People with above basic overall digital skills	50.0	16.7	61.1
Finance and support	30.4	26.1	36.2
R&D expenditures in the public sector	65.5	57.9	63.2
Venture capital expenditures	7.0	0.0	11.7
Government support for business R&D	14.4	1.1	16.7
Firm investments	105.2	123.0	127.1
R&D expenditure in the business sector	21.3	12.6	23.6
Non-R&D Innovation expenditures	206.1	234.2	234.2
Innovation expenditures per employee	109.1	144.0	144.0
Use of information technologies	62.7	78.3	72.4
Enterprises providing ICT training	73.3	113.3	73.3
Employed ICT specialists	53.6	38.1	71.4
Innovators	136.7	112.2	187.0
Product innovators (SMEs)	165.8	104.3	234.0
Business process innovators (SMEs)	109.5	119.2	145.7
Linkages	76.8	65.0	103.6
Innovative SMEs collaborating with others	96.5	84.1	141.4
Public-private co-publications	58.6	44.6	65.8
Job-to-job mobility of HRST	73.2	66.7	105.1
Intellectual assets	13.0	11.2	11.3
PCT patent applications	0.0	8.8	0.0
Trademark applications	26.8	24.6	28.1
Design applications	6.8	0.1	4.7
Employment impacts	102.7	61.4	104.6
Employment in knowledge-intensive activities	48.8	45.3	53.3
Employment in innovative enterprises	145.9	72.8	140.9
Sales impacts	76.5	60.2	77.9
Medium and high tech goods exports	68.5	65.7	75.1
Knowledge-intensive services exports	67.8	57.8	71.8
Sales of innovative products	102.3	55.7	88.9
Environmental sustainability	36.1	64.7	37.6
Resource productivity	5.0	4.2	7.4
Air emissions by fine particulate matter	0.0	8.8	0.0
Environment-related technologies	138.1	172.3	103.7

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.