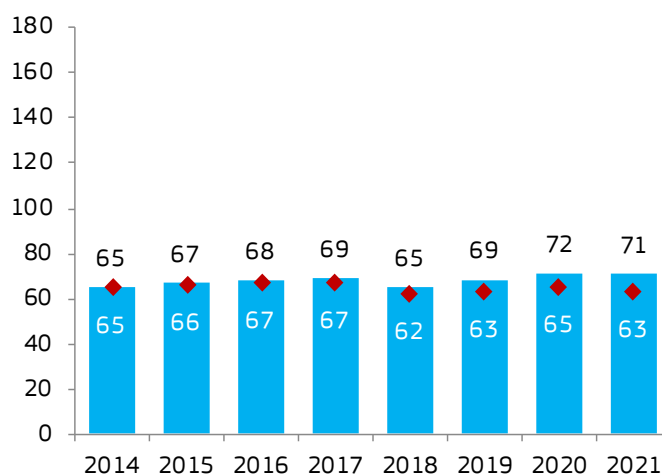




### Slovakia is an **Emerging Innovator**.

Over time, performance relative to the EU has decreased.



■ 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.

	SK	EU
<b>Performance and structure of the economy</b>		
GDP per capita (PPS)	21,700	30,800
Average annual GDP growth (%)	-1.3	-2.5
Employment share Manufacturing (NACE C) (%)	24.7	16.5
of which High and Medium high-tech (%)	45.1	37.9
Employment share Services (NACE G-N) (%)	34.3	41.2
of which Knowledge-intensive services (%)	30.8	35.1
Turnover share SMEs (%)	34.9	36.5
Turnover share large enterprises (%)	42.5	45.7
Foreign-controlled enterprises – share of value added (%)	21.2	11.8
<b>Business and entrepreneurship</b>		
Enterprise births (10+ employees) (%)	1.5	1.0
Total Entrepreneurial Activity (TEA) (%)	12.4	6.7
FDI net inflows (% GDP)	n/a	2.0
Top R&D spending enterprises per 10 million population	0.0	16.2
Buyer sophistication (1 to 7 best)	3.0	3.7
<b>Innovation profiles</b>		
In-house product innovators with market novelties	5.3	10.7
In-house product innovators without market novelties	3.6	12.3
In-house business process innovators	5.5	11.0
Innovators that do not develop innovations themselves	4.5	11.6
Innovation active non-innovators	2.7	3.3
Non-innovators with potential to innovate	29.5	19.9
Non-innovators without disposition to innovate	49.0	31.3
<b>Governance and policy framework</b>		
Ease of starting a business (0 to 100 best)	75.4	76.5
Basic school entrepreneurial education and training	1.8	2.0
Govt. procurement of advanced tech. products	3.1	3.5
Rule of law (-2.5 to 2.5 best)	0.6	1.1
<b>Climate change indicators</b>		
Circular material use rate	5.4	11.7
Greenhouse gas emissions intensity of energy consumption	83.9	86.6
Eco-Innovation Index	62.0	100.0
<b>Demography</b>		
Population size	5.5	446.7
Average annual population growth (%)	0.1	0.1
Population density	111.8	108.8

Slovakia's strengths are in *Environmental sustainability*, *Sales impacts* and *Use of information technologies*. The top-3 indicators include Environment-related technologies, Medium and high-tech goods exports, and Air emissions by fine particulate matter.

In recent years performance increases for Tertiary education, International scientific co-publications, Most-cited publications, Venture capital, Government support for business R&D, ICT specialists, and Environment-related technologies, have been offset by reduced performance for Digital skills, Enterprises providing ICT training, Design applications, and Sales of innovative products.

Slovakia has above average shares of Non-innovators and is showing below average scores on the Climate change related indicators.

Slovakia	Relative to EU 2021 in 2021	Relative to EU 2014 in 2014	Relative to EU 2021 in 2021
<b>SUMMARY INNOVATION INDEX</b>	<b>63.1</b>	<b>65.1</b>	<b>71.0</b>
<b>Human resources</b>	<b>74.9</b>	<b>70.9</b>	<b>79.4</b>
Doctorate graduates	87.0	111.5	77.0
Population with tertiary education	98.7	49.6	127.3
Lifelong learning	27.3	25.6	30.0
<b>Attractive research systems</b>	<b>56.5</b>	<b>36.8</b>	<b>63.5</b>
International scientific co-publications	77.1	62.4	101.1
Most cited publications	42.6	15.7	41.8
Foreign doctorate students	51.6	48.3	61.3
<b>Digitalisation</b>	<b>81.2</b>	<b>94.7</b>	<b>112.3</b>
Broadband penetration	80.8	94.9	122.5
People with above basic overall digital skills	81.8	94.4	100.0
<b>Finance and support</b>	<b>25.5</b>	<b>31.1</b>	<b>30.4</b>
R&D expenditures in the public sector	36.4	50.9	35.1
Venture capital expenditures	14.9	11.3	25.0
Government support for business R&D	24.1	17.9	27.8
<b>Firm investments</b>	<b>48.2</b>	<b>55.6</b>	<b>58.2</b>
R&D expenditure in the business sector	28.4	22.0	31.5
Non-R&D Innovation expenditures	93.0	103.5	105.7
Innovation expenditures per employee	42.1	50.6	55.6
<b>Use of information technologies</b>	<b>83.8</b>	<b>73.8</b>	<b>96.8</b>
Enterprises providing ICT training	73.3	80.0	73.3
Employed ICT specialists	92.9	66.7	123.8
<b>Innovators</b>	<b>27.2</b>	<b>49.1</b>	<b>37.2</b>
Product innovators (SMEs)	29.9	36.1	42.2
Business process innovators (SMEs)	24.6	60.6	32.8
<b>Linkages</b>	<b>49.1</b>	<b>54.6</b>	<b>66.2</b>
Innovative SMEs collaborating with others	63.1	72.9	92.4
Public-private co-publications	75.6	65.6	84.8
Job-to-job mobility of HRST	23.2	33.3	33.3
<b>Intellectual assets</b>	<b>48.3</b>	<b>36.0</b>	<b>41.8</b>
PCT patent applications	18.0	13.8	15.6
Trademark applications	75.9	59.2	79.7
Design applications	40.4	32.9	27.7
<b>Employment impacts</b>	<b>46.2</b>	<b>44.7</b>	<b>47.1</b>
Employment in knowledge-intensive activities	64.6	58.7	70.7
Employment in innovative enterprises	31.4	34.9	30.4
<b>Sales impacts</b>	<b>90.5</b>	<b>104.9</b>	<b>92.2</b>
Medium and high tech goods exports	129.7	127.4	142.2
Knowledge-intensive services exports	41.7	37.5	44.1
Sales of innovative products	96.2	155.4	83.6
<b>Environmental sustainability</b>	<b>110.4</b>	<b>107.5</b>	<b>114.9</b>
Resource productivity	73.5	77.5	108.9
Air emissions by fine particulate matter	103.3	92.9	109.9
Environment-related technologies	166.3	144.0	125.0

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.