



### European Innovation Scoreboard 2023 - Country profile Iceland

European Commission

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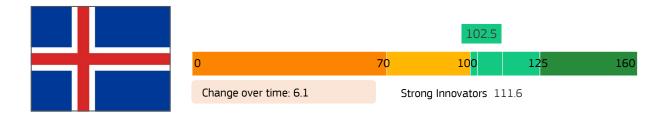
# European Innovation Scoreboard 2023 Country profile Iceland

# The report was prepared by

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The European Innovation Scoreboard report and annexes, and the indicators database are available at: https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard\_en



|  | Performance | Performance  | Performance |
|--|-------------|--------------|-------------|
| Iceland  |             | change 2016- | -           |
|  | in 2023     | 2023         | 2023        |
| SUMMARY INNOVATION INDEX                       | 102.5       | 6.1          | 3.3         |
| Human resources                                | 135.7       | 11.3         | 6.4         |
| Doctorate graduates                            | 85.2        | 11.4         |             |
| Population with tertiary education             | 89.6        | -7.8         | -7.8        |
| Lifelong learning                              | 249.0       | 35.2         | 35.2        |
| Attractive research systems                    | 189.5       | 31.3         | 21.4        |
| International scientific co-publications       | 274.9       | 9.4          |             |
| Most cited publications                        | 109.8       | -10.1        | 27.4        |
| Foreign doctorate students                     | 244.6       | 146.7        | 27.5        |
| Digitalisation                                 | 153.1       | 0.0          | 0.0         |
| Broadband penetration                          | N/A         | N/A          | N/A         |
| People with above basic overall digital skills | 181.6       | 0.0          | 0.0         |
| Finance and support                            | 78.5        | 7.0          | 0.0         |
| R&D expenditures in the public sector          | 104.7       | 4.8          |             |
| Venture capital expenditures                   | N/A         | N/A          | N/A         |
| Government support for business R&D            | 58.4        | 9.5          | 0.0         |
| Firm investments                               | 87.6        | 21.0         | 7.9         |
| R&D expenditure in the business sector         | 134.0       | 61.5         | 23.1        |
| Non-R&D Innovation expenditures                | 81.5        | 0.0          | 0.0         |
| Innovation expenditures per employee           | 47.6        | 0.0          | 0.0         |
| Use of information technologies                | 88.7        | 10.6         | 10.6        |
| Enterprises providing ICT training             | N/A         | N/A          | N/A         |
| Employed ICT specialists                       | 90.0        | 10.3         | 10.3        |
| Innovators                                     | 102.2       | -18.0        | 0.0         |
| Product innovators (SMEs)                      | 103.5       | -41.6        | 0.0         |
| Business process innovators (SMEs)             | 101.1       | 7.1          | 0.0         |
| Linkages                                       | 228.0       | 11.8         |             |
| Innovative SMEs collaborating with others      | 205.6       | 23.2         | 0.0         |
| Public-private co-publications                 | 468.0       | 14.7         | 0.0         |
| Job-to-job mobility of HRST                    | 143.8       | 0.0          | 0.0         |
| Intellectual assets                            | 66.6        | -19.0        |             |
| PCT patent applications                        | 92.9        | -8.5         | 3.5         |
| Trademark applications                         | 72.4        | -71.7        | 1.4         |
| Design applications                            | 22.3        | 8.9          | 16.9        |
| Employment impacts                             | 126.2       | -8.9         | 0.0         |
| Employment in knowledge-intensive activities   |             | 0.0          |             |
| Employment in innovative enterprises           | 125.0       | -17.3        | 0.0         |
| Sales impacts                                  | 39.1        | 0.2          | -7.4        |
| Medium and high-tech goods exports             | 0.0         | 0.0          | 0.0         |
| Knowledge-intensive services exports           | 91.9        | 0.7          | -22.5       |
| Sales of innovative products                   | 39.0        | 0.0          | 0.0         |
| Environmental sustainability                   | 57.9        | 20.7         | -1.2        |
| Resource productivity                          | 104.2       | 69.9         | 0.0         |
| Air emissions by fine particulate matter       | 36.0        | -3.3         | -3.8        |
| Environment-related technologies               | 43.4        | 15.8         | 0.9         |

The second column shows performance relative to that of the EU in 2023. Colours next to the column show matching colour codes: dark green: above 125% of the performance of the EU in 2023; light green: between 100% and 125%; light orange: between 70% and 100%; dark orange: below 70%. The next columns show performance change over time between 2016 and 2023 and between 2022 and 2023, with scores relative to those of the EU in 2016. Positive (negative) performance changes are shown in green (red).

**ICELAND** is a **Strong Innovator** with performance at 102.5% of the EU average. Performance is below the average of the Strong Innovators. Performance is increasing at a rate lower than that of the EU (8.5%-points). The country's performance lead over the EU is becoming smaller.

### **Relative strengths**

Public-private co-publications
International scientific co-publications
Lifelong learning
Foreign doctorate students
Innovative SMEs collaborating with others

### Relative weaknesses

Medium and high-tech goods exports
Design applications
Air emissions by fine particulate matter
Sales of innovative products
Environment-related technologies

# Strong increases since 2016

Foreign doctorate students
Resource productivity
R&D expenditure in the business sector

### Strong decreases since 2016

Trademark applications
Product innovators
Employment in innovative enterprises

### Strong increases since 2022

Lifelong learning
Foreign doctorate students
Most cited publications

# Strong decreases since 2022

Knowledge-intensive services exports Population with tertiary education Air emissions by fine particulate matter



120

100

80

120

100

The graph on the left shows the evolution of **innovation performance over time** against the performance of the country in 2016. Innovation performance declined between 2016 and 2018, followed by performance increase from 2019 up until 2023, resulting in a 6% increase in 2023.

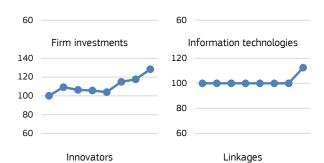
The graphs below show the evolution of innovation performance in the different **innovation dimensions** against the performance of the country in 2016. Performance increased most strongly for Environmental sustainability. Performance declined for Innovators, Intellectual assets and Employment impacts.

# Human resources Research systems 120 100 100 80 80 Digitalisation Research systems 60 Finance and support

120

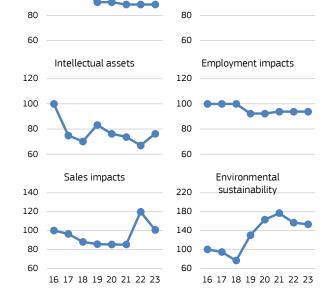
100

80



120

100



Performance is measured relative to that of the country in 2016 (=100).

### Structural differences with the EU are shown below:

- Iceland has higher per capita income but a slower growing economy. Both manufacturing and business services take up a smaller share of the economy, with SMEs accounting for a larger share of turnover.
- Top R&D spenders and Buyer sophistication add positively to the innovation climate, Enterprise births, and FDI net inflows add negatively.
- Information on Innovation profiles is not available.
- Government procurement is above the EU average as driver of research and innovation.
- Climate change related indicators show that Iceland has a much higher reduction in greenhouse gas emissions.

| riigher reduction in greenhouse gas emissions.            |        |        |
|---|--------|--------|
|   | IS     | EU     |
| Performance and structure of the economy                  |        |        |
| GDP per capita (PPS)                                      | 37,100 | 32,600 |
| Average annual GDP growth (%)                             | 3.5    | 4.4    |
| Employment share Manufacturing (NACE C) (%)               | 7.6    | 16.4   |
| of which High and Medium high-tech (%)                    | 31.2   | 38.0   |
| Employment share Services (NACE G-N) (%)                  | 38.5   | 41.1   |
| of which Knowledge-intensive services (%)                 | 39.2   | 35.8   |
| Turnover share SMEs (%)                                   | 47.4   | 34.1   |
| Turnover share large enterprises (%)                      | 29.4   | 49.6   |
| Foreign-controlled enterprises – share of value added (%) | n/a    | 11.8   |
| Business and entrepreneurship                             |        |        |
| Enterprise births (10+ employees) (%)                     | 0.9    | 1.0    |
| Total Entrepreneurial Activity (TEA) (%)                  | n/a    | 6.8    |
| FDI net inflows (% GDP)                                   | -2.0   | 2.1    |
| Top R&D spending enterprises per 10 mln. population       | 27.5   | 20.3   |
| Buyer sophistication (1 to 7 best)                        | 4.1    | 3.7    |
| Innovation profiles                                       |        |        |
| In-house product innovators with market novelties         | n/a    | 12.2   |
| In-house product innovators without market novelties      | n/a    | 12.8   |
| In-house business process innovators                      | n/a    | 16.5   |
| Innovators that do not develop innovations themselves     | n/a    | 6.5    |
| Innovation active non-innovators                          | n/a    | 4.1    |
| Non-innovators with potential to innovate                 | n/a    | 17.2   |
| Non-innovators without disposition to innovate            | n/a    | 30.7   |
| Governance and policy framework                           |        |        |
| Corruption Perceptions Index (0 to 100 best)              | 74.3   | 64.0   |
| Basic school entrepreneurial education and training       | n/a    | 3.3    |
| Govt. procurement of advanced tech. products              | 3.6    | 3.5    |
| Rule of law (-2.5 to 2.5 best)                            | 1.8    | 1.0    |
| Climate change indicators                                 |        |        |
| Circular material use rate                                | n/a    |        |
| Greenhouse gas emissions intensity of energy consumption  | 44.0   | 82.8   |
| Eco-Innovation Index                                      | n/a    | 100.0  |
| Demography  |        |        |
| Population size   | 0.4    |        |
| Average annual population growth (%)                      | 1.6    | -0.1   |
| Population density  | 3.5    | 108.8  |

This report provides the Country profile from the 2023 European Innovation Scoreboard for Iceland.

Studies and reports