European Innovation Scoreboard 2023
Country profile
Norway
European Innovation Scoreboard 2023 – Country profile Norway

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European Innovation Scoreboard 2023
Country profile Norway

The report was prepared by

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(Maastricht University / UNU-MERIT)

as part of the European Innovation Scoreboard project
for the European Commission, Directorate-General for Research and Innovation under

The European Innovation Scoreboard report and annexes, and the indicators database are available at:
NORWAY is a Strong Innovator with performance at 119.4% of the EU average. Performance is well above the average of the Strong Innovators. Performance is increasing at a rate higher than that of the EU (8.5%-points). The country’s performance lead over the EU is becoming larger.

**Norway**

<table>
<thead>
<tr>
<th>Category</th>
<th>Performance relative to EU in 2023</th>
<th>Performance change 2016-2023</th>
<th>Performance change 2022-2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY INNOVATION INDEX</td>
<td>119.4</td>
<td>16.9</td>
<td>-0.7</td>
</tr>
<tr>
<td>Human resources</td>
<td>159.7</td>
<td>-4.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Doctorate graduates</td>
<td>114.8</td>
<td>-22.9</td>
<td>-11.4</td>
</tr>
<tr>
<td>Population with tertiary education</td>
<td>178.6</td>
<td>5.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Lifelong learning</td>
<td>190.2</td>
<td>17.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Attractive research systems</td>
<td>162.4</td>
<td>27.2</td>
<td>0.6</td>
</tr>
<tr>
<td>International scientific co-publications</td>
<td>272.6</td>
<td>147.4</td>
<td>11.1</td>
</tr>
<tr>
<td>Most cited publications</td>
<td>112.0</td>
<td>-14.7</td>
<td>-6.6</td>
</tr>
<tr>
<td>Foreign doctorate students</td>
<td>129.8</td>
<td>11.1</td>
<td>7.3</td>
</tr>
<tr>
<td>Digitalisation</td>
<td>139.4</td>
<td>13.2</td>
<td>8.1</td>
</tr>
<tr>
<td>Broadband penetration</td>
<td>115.8</td>
<td>26.0</td>
<td>15.9</td>
</tr>
<tr>
<td>People with above basic overall digital skills</td>
<td>171.8</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Finance and support</td>
<td>129.0</td>
<td>55.9</td>
<td>-2.7</td>
</tr>
<tr>
<td>R&amp;D expenditures in the public sector</td>
<td>121.9</td>
<td>17.7</td>
<td>21.0</td>
</tr>
<tr>
<td>Venture capital expenditures</td>
<td>134.9</td>
<td>93.2</td>
<td>13.3</td>
</tr>
<tr>
<td>Government support for business R&amp;D</td>
<td>129.6</td>
<td>69.0</td>
<td>5.4</td>
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<tr>
<td>Firm investments</td>
<td>78.6</td>
<td>4.5</td>
<td>-2.6</td>
</tr>
<tr>
<td>R&amp;D expenditure in the business sector</td>
<td>68.8</td>
<td>9.2</td>
<td>-13.8</td>
</tr>
<tr>
<td>Non-R&amp;D innovation expenditures</td>
<td>89.4</td>
<td>2.2</td>
<td>7.4</td>
</tr>
<tr>
<td>Innovation expenditures per employee</td>
<td>79.4</td>
<td>2.0</td>
<td>-0.5</td>
</tr>
<tr>
<td>Use of information technologies</td>
<td>142.9</td>
<td>-15.9</td>
<td>-1.5</td>
</tr>
<tr>
<td>Enterprises providing ICT training</td>
<td>168.4</td>
<td>-21.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Employed ICT specialists</td>
<td>116.7</td>
<td>-10.3</td>
<td>-10.5</td>
</tr>
<tr>
<td>Innovators</td>
<td>155.6</td>
<td>73.7</td>
<td>-1.7</td>
</tr>
<tr>
<td>Product innovators (SMEs)</td>
<td>176.8</td>
<td>67.5</td>
<td>-2.7</td>
</tr>
<tr>
<td>Business process innovators (SMEs)</td>
<td>136.9</td>
<td>80.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>Linkages</td>
<td>244.7</td>
<td>68.2</td>
<td>-6.2</td>
</tr>
<tr>
<td>Innovative SMEs collaborating with others</td>
<td>243.7</td>
<td>91.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Public-private co-publications</td>
<td>468.0</td>
<td>144.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Job-to-job mobility of HRST</td>
<td>150.0</td>
<td>11.8</td>
<td>-14.7</td>
</tr>
<tr>
<td>Intellectual assets</td>
<td>57.4</td>
<td>3.9</td>
<td>-3.1</td>
</tr>
<tr>
<td>PCT patent applications</td>
<td>92.0</td>
<td>-2.0</td>
<td>-4.1</td>
</tr>
<tr>
<td>Trademark applications</td>
<td>53.1</td>
<td>17.6</td>
<td>-1.5</td>
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<tr>
<td>Design applications</td>
<td>121.1</td>
<td>0.7</td>
<td>-3.1</td>
</tr>
<tr>
<td>Employment impacts</td>
<td>133.5</td>
<td>20.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Employment in knowledge-intensive activities</td>
<td>120.5</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Employment in innovative enterprises</td>
<td>144.2</td>
<td>39.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Sales impacts</td>
<td>55.3</td>
<td>0.5</td>
<td>-3.9</td>
</tr>
<tr>
<td>Medium and high-tech goods exports</td>
<td>0.0</td>
<td>-5.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Knowledge-intensive services exports</td>
<td>141.8</td>
<td>8.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Sales of innovative products</td>
<td>42.8</td>
<td>-1.2</td>
<td>-17.7</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>82.8</td>
<td>1.4</td>
<td>4.1</td>
</tr>
<tr>
<td>Resource productivity</td>
<td>70.2</td>
<td>-1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Air emissions by fine particulate matter</td>
<td>76.0</td>
<td>10.1</td>
<td>-1.1</td>
</tr>
<tr>
<td>Environment-related technologies</td>
<td>105.3</td>
<td>-6.7</td>
<td>13.1</td>
</tr>
</tbody>
</table>

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).
The graph on the left shows the evolution of innovation performance over time against the performance of the country in 2016. Innovation performance increased moderately between 2016 and 2018 and then strongly in 2019. From 2020 onwards performance increased at more moderate rates, but declined in 2023, leading to an overall improvement of 15% between 2016 and 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 Finance and support and Innovators. Performance declined for Human resources and Information technologies.

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

- Norway has higher per capita income, but a slower growing economy. Business services takes up a larger share of the economy, with SMEs accounting for a larger share of turnover.
- Buyer sophistication adds positively to the innovation climate, Enterprise births, Entrepreneurial Activity, FDI net inflows, and Top R&D spenders add negatively.
- Information on Innovation profiles is not available.
- Entrepreneurial training and government procurement are above the EU average as drivers of research and innovation.
- Climate change related indicators show that Norway has a below average reduction in greenhouse gas emissions.

Performance is measured relative to that of the country in 2016 (=100).
This report provides the Country profile from the 2023 European Innovation Scoreboard for Norway.

Studies and reports