European Commission

Research and Innovation

European Innovation Scoreboard 2025

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Executive Summary

1. A quarter of a century of tracking trends in innovation performance

This year is the 25th anniversary of the European Innovation Scoreboard (EIS), first published in 2001 (following a pilot edition in 2000). Over the past quarter of a century, the EIS has become the central tool for monitoring innovation performance and supporting evidence-based policymaking across the European Union (EU) as well as for neighbouring countries and with respect to the EU's global (partners and) competitors. It helps stakeholders assess areas in which they need to concentrate their efforts to boost innovation performance, considering the national socio-economic context, which is captured by a complementary set of structural indicators to help interpret the results.

Over the last decades, the EIS indicator framework has evolved to better reflect the factors influencing innovation performance, the changing socio-economic and geopolitical context, and the corresponding policy responses. Based on a revision process undertaken in late 2024 and early 2025, the EIS 2025 applies a revised indicator framework to the one used for 2021-2024. Five indicators were updated to align with new data and evolving EU R&I policy priorities. These include two digitalisation indicators and measures of external high-tech dependence, CO_2 productivity, and labour productivity.

All performance scores described in this report are relative to that of the EU in 2018 and in 2025, facilitating the tracking of progress and trends and enabling policymakers to identify specific areas requiring attention through strategies and programmes at national level.

2. Europe's innovation performance remains strong, but the growth has been slowing down

SINCE 2018, THE EU'S INNOVATION PERFORMANCE HAS INCREASED BY 12.6%-POINTS

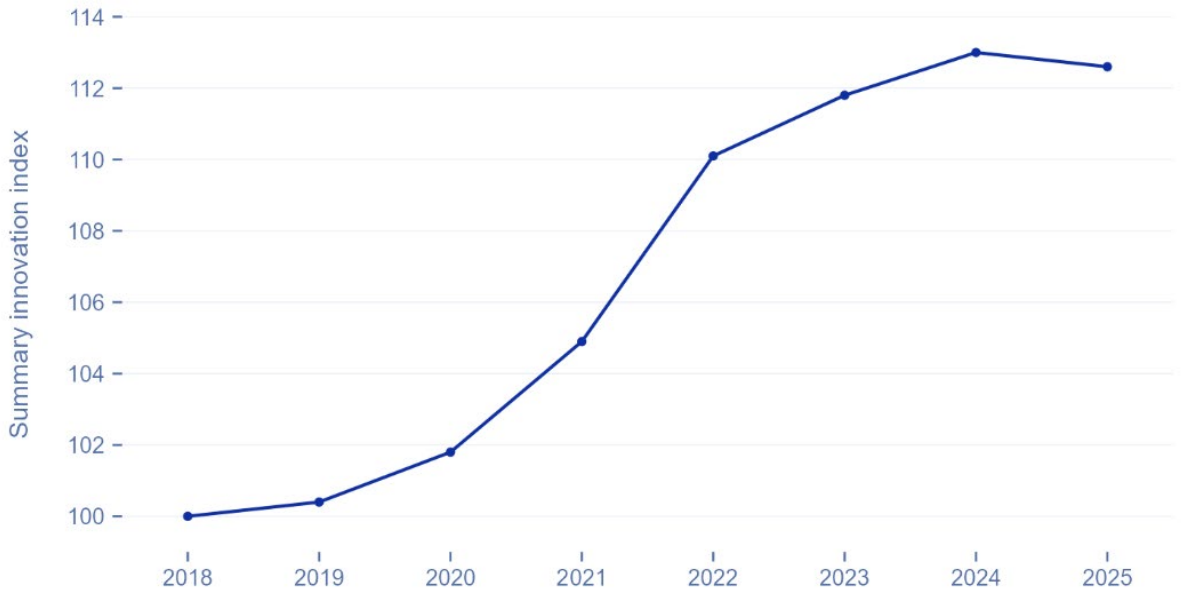
All countries within the EU have increased their innovation performance from the base year of 2018; nonetheless, the scale of these increases varies widely, from Luxembourg at +0.9%-points to Estonia at

+30.0%-points. The innovation performance of 14 countries has increased more significantly compared to the EU. Conversely, 13 countries have had a smaller increase in their innovation performance in comparison to the EU.

NO SIGNIFICANT CHANGE TO THE EU'S INNOVATION PERFORMANCE SINCE 2024

The EU's annual innovation performance has declined marginally at a rate of -0.4%-points from 2024 to 2025, continuing **a trend of relative stability** observed over the past three years. Thirteen Member States increased their score in comparison to last year, Malta and Luxembourg the most by +7.6%-points and +5.0%-points, respectively. However, the score of 14 members decreased more than that of the EU, with the most significant declines seen in Czechia (-8.4%-points) and Cyprus (-14.6%-points).

Figure 1: Change in performance of the EU over time

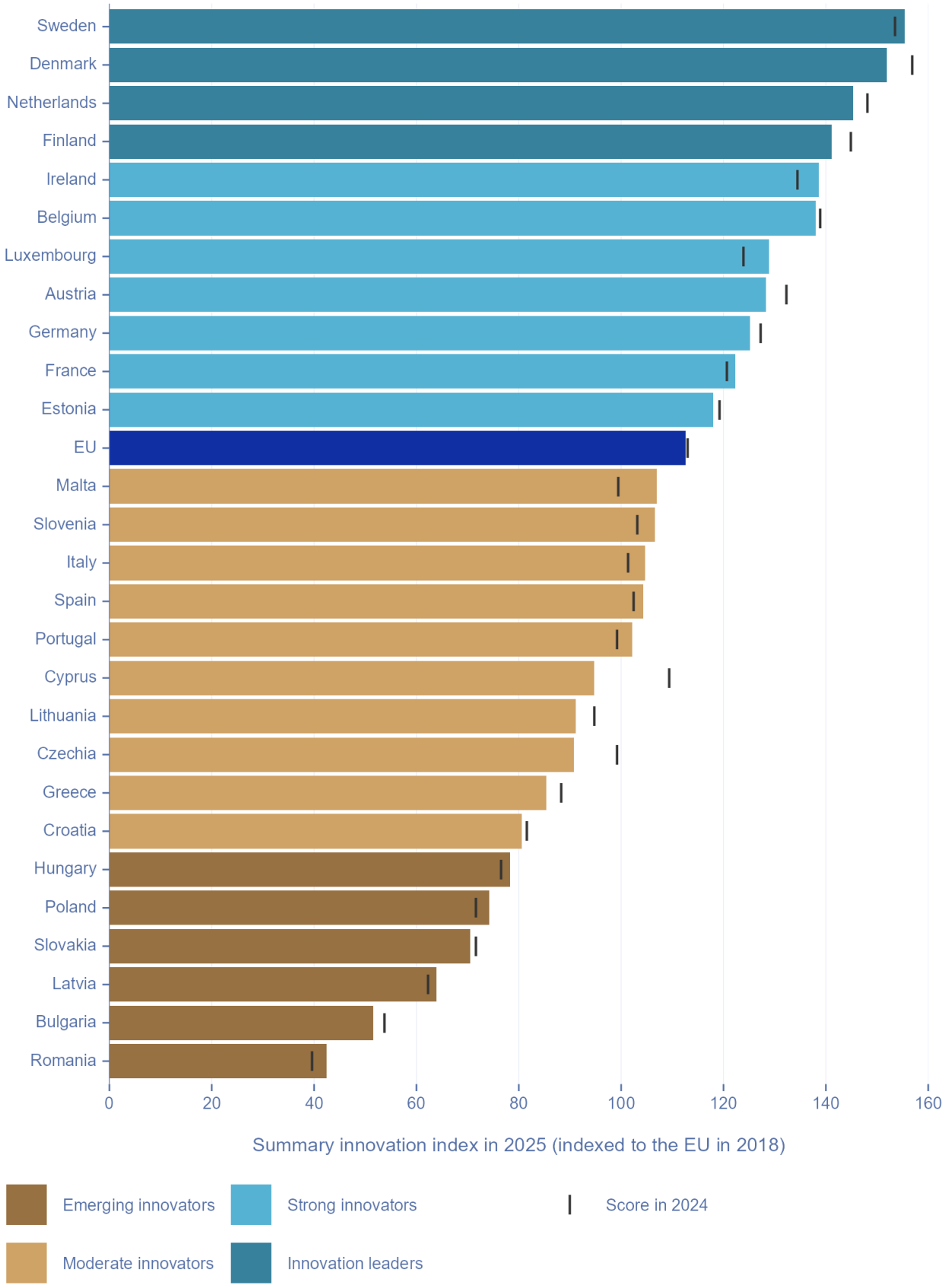


A PERSISTENT INNOVATION GAP ACROSS THE EU DESPITE A SLIGHT REDUCTION IN DISPARITIES

Based on their performance relative to the EU average in 2025, the EU27 Member States fall into four different performance groups. In performance order, Sweden, Denmark, the Netherlands, and Finland are **Innovation Leaders** with innovation performance above 125% of the EU average. Ireland, Belgium, Luxembourg, Austria, Germany, France and Estonia perform above the EU average and are **Strong Innovators**. Malta, Slovenia, Italy, Spain, Portugal, Cyprus, Lithuania, Czechia, Greece and Croatia are **Moderate Innovators** with performance below the EU average. Hungary, Poland, Slovakia, Latvia, Bulgaria, and Romania are **Emerging Innovators** with performance below 70% of the EU average.

The analysis of innovation performance across EU Member States **reveals a moderate reduction in performance disparities from 2018 to 2025**, suggesting slight convergence at the EU level. However, divergence persists within specific performance groups. Innovation Leaders show growing disparities, driven by Denmark and Sweden pulling ahead. The Strong and Moderate Innovators' groups were both becoming more homogeneous, however, recently there is has been a renewed divergence due to faster improvements in certain countries. Similarly, the gaps between Emerging Innovators have slightly increase, as some countries advance more quickly than others.

Figure 2: Innovation performance of the EU Member States in 2025 and 2024, relative to the EU in 2018



3. Performance within the EU – Sweden in the top spot, Ireland and Croatia on the rise

SWEDEN RETURNS TO THE TOP SPOT OF EU INNOVATORS

Sweden regains its position as the most innovative Member State, ahead of Denmark, which had been the leading EU Member State from 2020 to 2024. Sweden has increased its score by 12.9%-points in comparison to 2018, and by 2.0%-points in the last year. Sweden ranks first in eight of the 32 EIS indicators, including *R&D expenditure in the business sector*, *Cloud computing in enterprises,* and *Production-based CO_2 productivity*.

IRELAND MOVES UP TO TOP THE STRONG INNOVATORS GROUP

Ireland ranks top of the Strong Innovators group in 2025, although only just ahead of Belgium by 0.5%-points. Ireland's performance has grown by 13.3%-points from 2018, and by 4.1%-points in the last year. Ireland has been on a steady upward trajectory since 2020. Indicators significantly contributing to Ireland's performance growth since 2018 include *Cloud computing in enterprises*, *Production-based C02 productivity,* and *Innovative SMEs collaborating with others*.

CHANGES IN PERFORMANCE GROUPS: CROATIA MOVES UP, WHILE CYPRUS AND HUNGARY DROP

Croatia has improved its innovation performance by 19.4%-points from 2018 to 2025, moving up from the Emerging Innovators group to the Moderate Innovators group. The top three indicators contributing to this improvement over the past year are *Innovation expenditures per person employed*, *Cloud computing in enterprises,* and *New doctorate graduates*.

Cyprus has dropped from the Strong Innovators to the Moderate Innovators performance group. While the Cypriot score increased by 17.6%-points since 2018, it fell by 14.6%-points in the last year. This outcome can be attributed to large drops in several indicators, notably *Innovative SMEs collaborating with others*, *SMEs introducing business process innovations*, and *Employment in innovative enterprises*.

Hungary has dropped from the Moderate Innovators to the Emerging Innovators performance group, despite increasing its score by 16.2%-points since 2018, and by 1.7%-points since 2024. In comparison to last year, Hungary recorded a strong performance in *Cloud computing in enterprises*. However, *Non-R&D innovation expenditure* and *Venture capital expenditures* decreased by around 20%-points.

4. Performance of the EU's neighbouring countries and global competitors

SWITZERLAND IS THE MOST INNOVATIVE EUROPEAN COUNTRY, THE UK BECOMES A LEADER

An extended analysis covering the EU27 and 12 other European countries finds that Switzerland is, for the eighth year in a row, the most innovative European country due to improving performance on several indicators, notably *Venture capital expenditures*, *Sales of new-to-market and new-to-firm innovations,* and *Population involved in lifelong learning*. The United Kingdom has moved up a group to become an Innovation Leader and is now ranked 5th amongst European countries; this is driven by strong increases in *Venture capital expenditure*, *High-speed internet access* and *Cloud computing*.

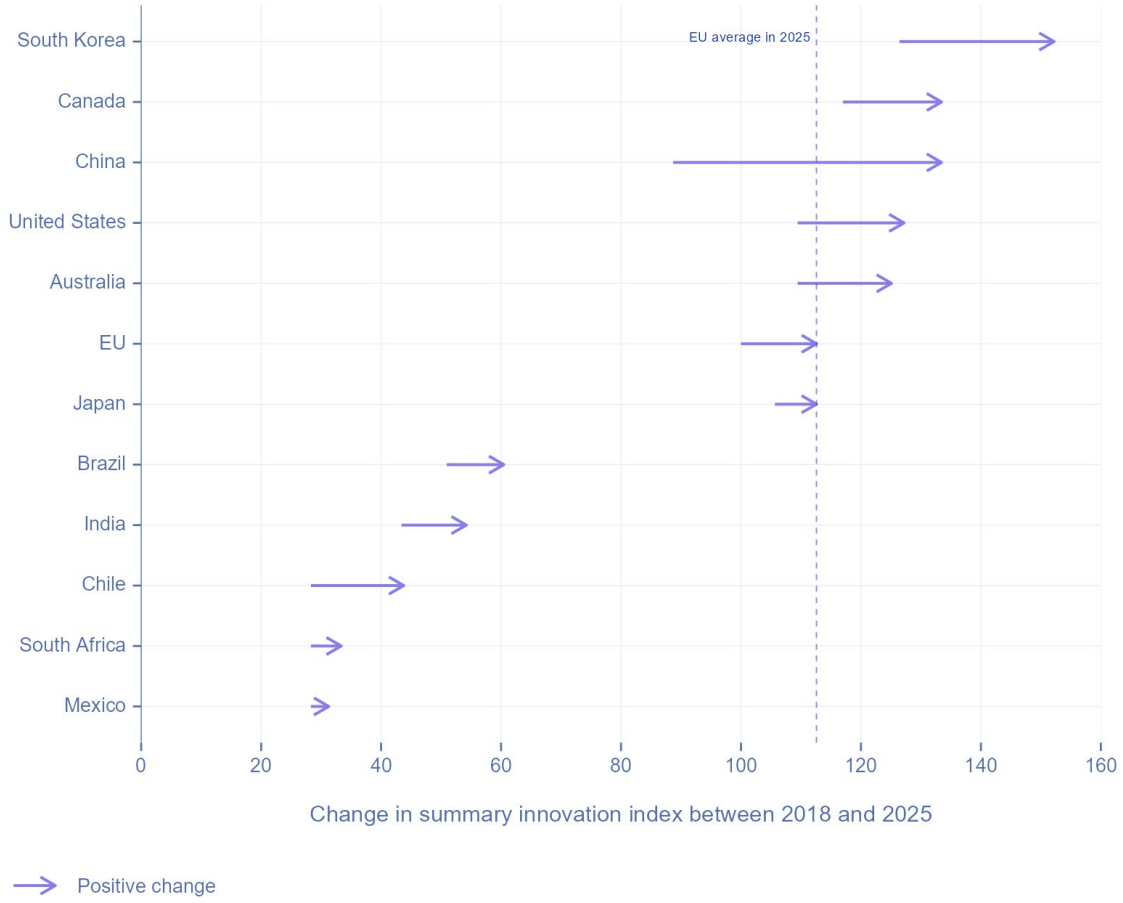
SUSTAINED PROGRESS FOR THE MAJORITY OF THE WESTERN BALKAN COUNTRIES

Eight neighbouring countries are in the group of Emerging Innovators. An improvement in innovation performance from 2024 to 2025 is observed for most of the Western Balkan accession countries, namely Albania (+4.4%-points), Montenegro (+3.1%-points), Bosnia & Herzegovina (+3.0%-points) and Serbia (+2.3%-points). Serbia has the strongest growth in the group since 2018 (+10.9% points), followed by North Macedonia (+9.2%-points).

CHINA HAS OVERTAKEN THE EU AND USA AND IS FAST CATCHING SOUTH KOREA IN 2025

South Korea remains the most innovative global competitor in 2025, outperforming the EU by 35.2%-points. Four other competitors, Canada, China, the United States and Australia lead the EU. Compared to EIS 2024, China has overtaken the EU and the US and moved into equal second place globally. Since 2018, China has increased the most its innovation performance (+44.7%-points), followed by South Korea (+25.8-% points). China's performance improvement can be partly explained by new data becoming available for 2017-2022 for *Direct and indirect government support of business R&D*, leading to a large upward shift.

Figure 3: Innovation performance change from 2018 to 2025 – EU versus global competitors



Note: Performance change is measured as the difference between 2025 and 2018 scores, relative to that of the EU in 2018. Due to limited data availability for global competitors, scores are calculated using a smaller set of indicators.

5. The EIS: applying the best-available data and a robust and replicable methodology

Data for the EIS is sourced primarily from Eurostat and other international statistical providers, with input from national statistical offices where needed. The Scoreboard team works closely with data providers to ensure the data included is as up to date and robust as possible. Since the 2024 edition, the data collection and calculation process for the EIS has been automated. The 2025 summary innovation index was calculated using the COINr package developed by the European Commission's Competence Centre for Composite Indicators and Scoreboards. The approach provides a highly replicable and easy to follow data pipeline that feeds into the COINr package and automatically provides the main outputs of the EIS. Moreover, the European Commission's Joint Research Centre audited the statistical robustness of the SII composite indicator to ensure transparency and reliability.

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