



# European Innovation Scoreboard 2024

Questions and Answers

Independent  
Expert  
Report

Innovation

## European Innovation Scoreboard 2024 – Questions and Answers

European Commission

Directorate-General for Research and Innovation

Directorate G – Common Policy Centre

Unit G.1 – Common R&I Strategy & Foresight Service

Contact Alexandr Hobza, Chief Economist and Head of Unit G.1

Athina Karvounaraki

Alexis Stevenson

Email [RTD-STATISTICS@ec.europa.eu](mailto:RTD-STATISTICS@ec.europa.eu)

[RTD-PUBLICATIONS@ec.europa.eu](mailto:RTD-PUBLICATIONS@ec.europa.eu)

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Directorate A – Strategy and Economic Analysis

Unit A.1 – Chief Economist

Contact Román Arjona, Chief Economist and Head of Unit A.1

Xosé-Luís Varela-Irimia

Email [GROW-A1@ec.europa.eu](mailto:GROW-A1@ec.europa.eu)

European Commission

B-1049 Brussels

Manuscript completed in July 2024

This document has been prepared for the European Commission, however it reflects the views only of the authors, and the European Commission shall not be liable for any consequence stemming from the reuse.

© European Union, 2024



The Commission's reuse policy is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39, ELI: <http://data.europa.eu/eli/dec/2011/833/oj>). Unless otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed, provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders.

## Questions and Answers

*Alasdair Reid (EFIS Centre) and Paresa Markianidou (Technopolis Group)*

*& William Becker*

2024

## **What is the European Innovation Scoreboard (EIS)?**

The annual European Innovation Scoreboard (EIS) provides a comparative assessment of research and innovation performance of the EU Member States and selected third countries, and the relative strengths and weaknesses of their research and innovation systems.

The EIS covers the EU Member States as well as Albania, Bosnia and Herzegovina, Iceland, Moldova, Montenegro, North Macedonia, Norway, Serbia, Switzerland, Türkiye, Ukraine and the United Kingdom. On a more limited number of globally available indicators, the EIS compares the EU with Australia, Brazil, Canada, Chile, China, India, Japan, South Korea, Mexico, South Africa, and the United States.

## **How can the EIS help users in understanding the nature and impact of innovation?**

The EIS is a useful tool for policymakers, but also for scientists, academics, innovators, and the general public.

Policymakers and public authorities at the EU, national, or regional levels can use the EIS to address various questions, such as: What drives innovation? What factors hinder it? Where is action needed to boost performance? What recommendations can be derived for future research and innovation policies? While the EIS does not explain directly the reasons behind the trends, it helps policymakers identify strengths and weaknesses, guiding strategic interventions and policy formulation. Overall, the EIS serves as an evidence base for making informed decisions.

Researchers, think tanks, and the media can also benefit from consulting the EIS to enhance their understanding of innovation trends and their socio-economic impact. The EIS data can be used and built upon to help address relevant policy questions, such as: What is the impact of innovation on an industry, market, or economy? How is innovation performance related to employment rates, productivity gains, or well-being?

Well-designed R&I policies play a crucial role in ensuring that the benefits of innovation are distributed fairly throughout society. Yet, achieving this requires a comprehensive understanding of the innovation landscape in Europe, its Member States, and its regions. The 2024 EIS report first assesses the performance of EU Member States (Section 2), then looks at the performance of innovation groups in each dimension and over time (Section 3), then evaluates the performance of the EU as a whole and compares it to its global competitors and neighbours (Section 4), and finally discusses how the EIS can help interpret the past, current and future innovation landscape in the EU and beyond (Section 5).

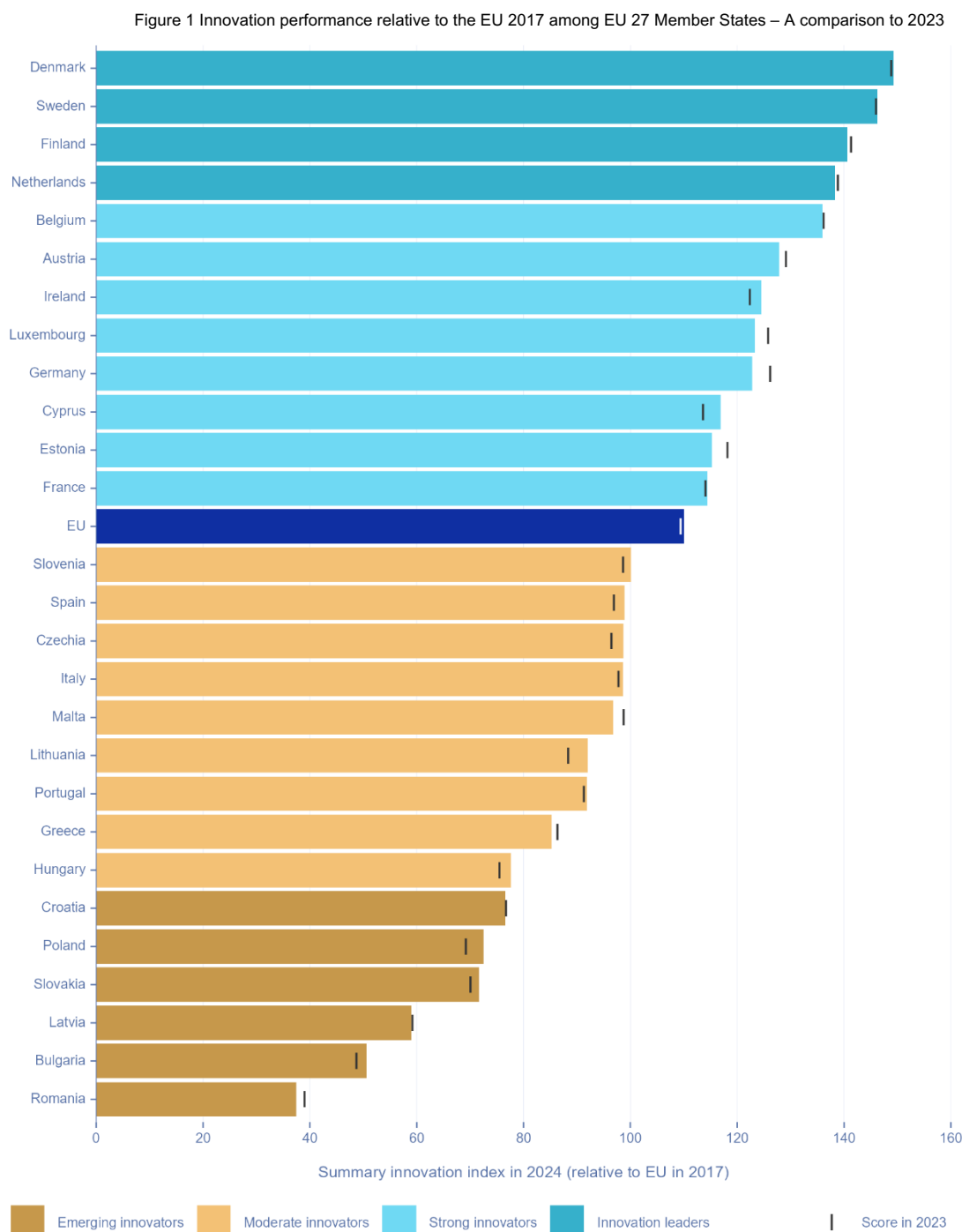
## **Which indicators are used for the EIS?**

The main measurement framework of the EIS 2024 is composed of 32 performance indicators, distinguishing between 12 innovation dimensions in four main categories (for a full overview of the indicators, see Annex E of the European Innovation Scoreboard 2024):

- Framework conditions capture the main drivers of innovation performance external to the firm and cover three innovation dimensions: human resources, attractive research systems, and digitalisation.
- Investments capture investments made in both the public and business sector and differentiates between three innovation dimensions: finance and support, firm investments, and use of information technologies.
- Innovation activities capture different aspects of innovation in the business sector and differentiates between three innovation dimensions: innovators, linkages, and intellectual assets.
- Impacts capture the effects of enterprises' innovation activities and differentiate between three innovation dimensions: employment impacts, sales impacts and environmental sustainability

## What are the results of the EIS 2024 and how should I interpret the figures in the report, country profiles and online interactive tool?

The overall performance of each national innovation system is summarised by a composite score, the Summary Innovation Index (SII) (Figure 1). The methodology used for calculating the SII is detailed in the methodological report.



Source: EIS 2024

Based on their scores, EU countries fall into four performance groups:

- Innovation Leaders include four Member States whose performance is above 125% of the EU average in 2024 (equal to 110.0). This group includes (by order of performance) Denmark, Sweden, Finland, and the Netherlands.
- Strong Innovators include eight Member States with a performance between 100% and 125% of the EU average in 2024 (equal to 110.0). This group includes (by order of performance) Belgium, Austria, Ireland, Luxembourg, Germany, Cyprus, Estonia, and France.
- Moderate Innovators include nine Member States whose performance is between 70% and 100% of the EU average in 2024 (equal to 110.0). This group includes (by order of performance) Slovenia, Spain, Czechia, Italy, Malta, Lithuania, Portugal, Greece and Hungary.
- Emerging Innovators include six Member States that show a performance level below 70% of the EU average in 2024 (equal to 110.0). This group includes (by order of performance) Croatia, Poland, Slovakia, Latvia, Bulgaria and Romania.

All performance scores described in the report are relative to that of the EU in 2017 to facilitate the tracking of progress and trends that enable policymakers to identify specific areas requiring attention through strategies and programmes at national level. This report applies the same logic and exact methodology as previous EIS editions, advancing by one year compared to the 2023 EIS which included performance scores relative to the EU in 2016.

The coloured bars (Figure 1) show countries' performance in 2024 using the most recent data for 32 indicators (indexed to the EU in 2017). The individual vertical lines in black show performance in 2023, using the next most recent data (which is also indexed to the EU in 2017).

## **What are the main changes compared to the EIS 2023?**

The main changes compared to the EIS 2023 are briefly described below.

### Denmark retains its position as the top EU innovation performer

Denmark retained the first position as the most innovative Member State, ahead of Sweden which has been the leading EU Member State in many past EIS editions.

### Estonia becomes a strong innovator following a steady growth pattern since 2017

Estonia has moved up to the Strong Innovators group, with a performance increase of 26.8%-points (compared to the EU's increase of 10%-points) during the period 2017-2024.

### Belgium moves from innovation leader to strong innovator

Belgium is retaining the fifth position leading the group of strong innovators in 2024, which however, represents a change in its performance group from leading to strong innovator. This change is explained partly by Belgium's close proximity to the cut-off value used for the performance groups.

### Switzerland ranks as the most innovative European country

An extended analysis, which also includes 12 other European countries, shows that Switzerland is the most innovative European country due to high performance on several sub-dimension levels including human resources, attractive research systems, firm investments and intellectual assets.

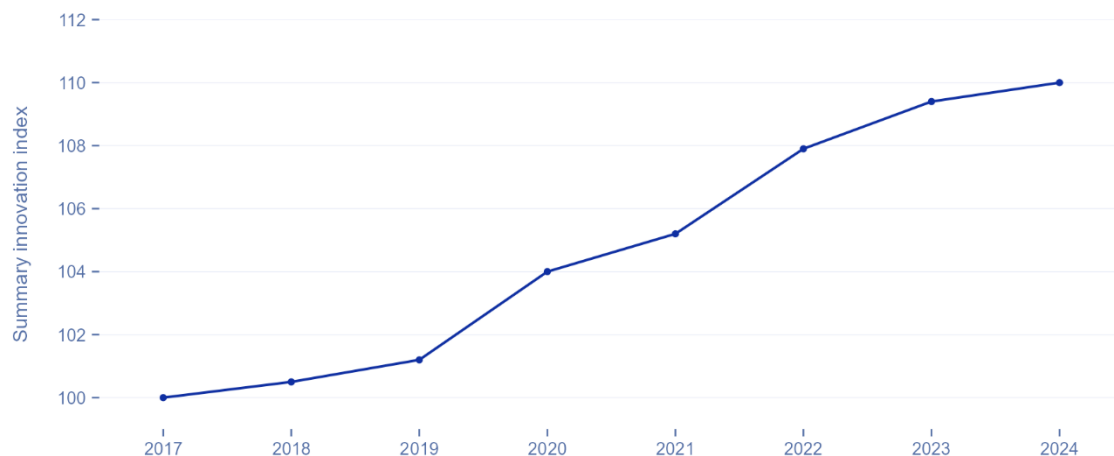
### South Korea remains the most innovative country in 2024

Based on the EIS results, South Korea remains the most innovative country in 2024, outperforming the EU by 21.1 points. Three other competitors, Canada, the United States and Australia lead over the EU, similarly to 2023.

## Have Member States improved their innovation performance?

Over the past eight years, the EU's innovation performance has increased by 10%-points. Although all Member States, except Luxembourg, have experienced an increase in their innovation performance since 2017, the extent to which they have improved varies strongly. On the one hand, Romania, France, Ireland, Slovakia, Latvia, Bulgaria, Germany, Portugal, Austria and Slovenia displayed increases of less than 5%-points over the period 2017-2024. On the other hand, 11 Member States experienced faster performance growth than the EU over the same period.

Figure 2 Improvement in performance of the EU over time



Source: EIS 2024

Estonia and Cyprus have achieved the strongest performance increase, with SII increasing by 26.8 and 38.8%-points, respectively. As a result, the two countries jumped, respectively, from ranks 15 and 19 in 2017, to ranks 10 and 11 in 2024. Greece, Czechia and Lithuania have also significantly improved their performance since 2017, gaining 16%-points, with small consequent improvements on the ranking (1 or 2 ranks). Similar performance progress is visible in Belgium and Italy (+15%-points), Croatia (+14%-points), and Poland (+13%-points).

Among the Innovation Leaders, the ranking has remained similar between 2017 and 2024, except for Denmark which has overtaken Sweden to take the lead in the ranking. All of the top performers exhibit strong performance improvements between 2017 and 2024 (at least +7%-points). A similar consistency can be observed at the bottom of the ranking with Latvia, Bulgaria and Romania consistently closing the ranking, despite an improvement in their innovation performance of 1.5 to 3 %-points.

## How does the EU's performance compare to other countries?

South Korea remains the most innovative global competitor in 2024 outperforming the EU by 21.1 points. Three other competitors, Canada, the United States and Australia lead over the EU, similarly to 2023. China has shown a notable increase in innovation performance: it has increased the most since 2017 (+28.2 % points), it has overtaken Japan, and it is catching up with the EU.



Source: EIS 2024

In 2024, the EU maintains a robust position, demonstrating strong performance in 10 out of 19 indicators<sup>1</sup> across the four main categories (*framework conditions*, *investments*, *innovation activities* and *impacts*). Despite showing strong competitiveness in several key indicators, the EU still faces challenges in areas such as the application of trademarks or collaboration among innovative SMEs.

## Has the EIS measurement framework changed?

After the revision of the measurement framework in 2021, no fundamental changes have been made to the methodology in the 2024 report. Country coverage has increased as Moldova has been added. Israel is not included due to a lack of data. The full list of indicators can be found in the European Innovation Scoreboard 2024 main report. A full description of the measurement framework is provided in the accompanying EIS 2024 Methodology Report.

<sup>1</sup> Due to limited data availability for global competitors compared to European countries, a more restricted set of 19 indicators has been used for calculating the summary innovation index.

## GETTING IN TOUCH WITH THE EU

### In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online ([european-union.europa.eu/contact-eu/meet-us\\_en](https://european-union.europa.eu/contact-eu/meet-us_en)).

### On the phone or in writing

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: [european-union.europa.eu/contact-eu/write-us\\_en](https://european-union.europa.eu/contact-eu/write-us_en).

## FINDING INFORMATION ABOUT THE EU

### Online

Information about the European Union in all the official languages of the EU is available on the Europa website ([european-union.europa.eu](https://european-union.europa.eu)).

### EU publications



You can view or order EU publications at [op.europa.eu/en/publications](https://op.europa.eu/en/publications). Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre ([european-union.europa.eu/contact-eu/meet-us\\_en](https://european-union.europa.eu/contact-eu/meet-us_en)).

### EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex ([eur-lex.europa.eu](https://eur-lex.europa.eu)).

### EU open data

The portal [data.europa.eu](https://data.europa.eu) provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.



This report provides answers to several questions on the 2024 edition of the European Innovation Scoreboard.

*Studies and reports*