

THE EU-Cybersecurity Index 2024 EU-level insights and next steps



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INTRODUCTION

The EU Cybersecurity Index (EU-CSI) is a tool, developed by ENISA in collaboration with the Member States, to describe the cybersecurity posture of Member States and the EU.

The intent of this publication is two-fold:

- Presenting key EU-level insights of the 2024 EU Cybersecurity Index (EU-CSI), which have been used, among other sources, to conduct the analysis of the first <u>Report</u> on the State of Cybersecurity in the Union published in December 2024.
- Accounting for the work that ENISA and the Member States have been carrying out, while setting the basis for the next edition of the EU-CSI in 2026.

Disclaimer:

The data collection for the 2024 EU-CSI took place in a period before October 2024, e.g. the deadline of the transposition of the <u>Directive (EU) 2022/2555</u> on measures for a high common level of cybersecurity across the Union ("NIS2 Directive"). We acknowledge that this is likely to lead to observations and results that may not reflect the respective status after the transposition of this Directive.

This publication only refers to EU-level data. National data has limited disclosure.



As per above, the EU-CSI is a tool to describe the cybersecurity posture of Member States and the EU. Making the most of the available data and information, the EU-CSI provides insights on the respective cybersecurity maturity and capabilities while helping detect opportunities for peer-learning between Member States. It also serves as basis for the quantitative and qualitative assessment of the level of maturity of cybersecurity capabilities and resources across the Union stipulated in the Article 18 of the NIS2 Directive.

The EU-CSI is a composite index, with a hierarchical structure. Simplifying as much as possible¹, it comprises a set of qualitative and quantitative indicators that are scaled to a score from 0 to 100. These indicators, and their respective scores, are grouped into cybersecurity areas that score from 0 to 100. In turn, these areas, and their respective scores, are grouped into a single overall score up to 100.

An index score quantifies multidimensional concepts that cannot be measured directly, by integrating multiple factors into a single value. 0 is the lowest score: it means that for a specific indicator or an area the EU is achieving suboptimal results. 100 is the highest score: it means that for that specific indicator or an area the EU is achieving very good results².

The data included in the EU-CSI were collected from the relevant authorities in the Member States, data reported to ENISA per applicable legal frameworks such as incident reporting, the Cybersecurity Threat Landscape report of ENI-SA, and from other publications of ENISA and the European Commission.

The EU-CSI is a biennial index, which, in the current form, started in 2024. Accordingly, while the data have been collected in 2024, in some cases, where recent data were not available, older data sources were used. The next edition of the EU-CSI will be run in 2026.

NEXT STEPS

The EU-CSI is developed and implemented by ENISA in collaboration with Member States, as represented in the <u>ENISA</u> <u>National Liaison Officers (NLO) Network</u> according to the guidelines and recommendations in the OECD/JRC's handbook on constructing composite indicators³.

ENISA and the Member States are currently working to further refine the EU-CSI to reflect the lessons learnt from 2024 and to integrate the feed-back received by Member States. Feed-back has been sought also through a <u>public consultation</u>.

In particular, for the next edition, the current structure would be simplified by optimising the list of indicators and the way how they are calculated, with further improvement of data sources and further alignment of the EU-CSI to the NIS2 Directive.

The further refinement of the EU-CSI is part of the continuous effort to improve the available knowledge on the cybersecurity posture MS, which is essential to achieve a high common level of cybersecurity across the Union and to support the EU and Member States to increase their cybersecurity capabilities.

¹ A more detailed explanation can be found in the methodological note here: <u>https://www.enisa.europa.eu/topics/state-of-cybersecuri-ty-in-the-eu</u>

² More on the use of indexes to measure cybersecurity in OECD (2024), "New perspectives on measuring cybersecurity", OECD Digital Economy Papers, No. 366, OECD Publishing, Paris, <u>https://doi.org/10.1787/b1e31997-en</u>

³ https://www.oecd.org/en/publications/handbook-on-constructing-composite-indicators-methodology-and-user-guide_9789264043466-en.html



Key insights

EU-CYBERSECURITY INDEX IN 2024

The **overall index value** for the EU is 62.65 (out of 100). Almost all Member States score within 10.00 units of the EU average. The average deviation from the EU average is **3.76** units, indicating a general alignment across the Union in the indicators considered. The Member States' overall index score deviations range from a **minimum** of **▼13.18** units below the EU average to a **maximum** of **▲7.45** units above the EU average.



The **cybersecurity capacity area**, which measures the ability of society to recognise threats and prevent cybersecurity incidents score **64.51**. The majority of Member States score within a 10-point range of the EU average. The average deviation of Member States' scores from the EU average is 4.73 points, ranging from a **minimum** of **V14.29** units to a **maximum** of **▲11.42** units.



The **cybersecurity market/industry area**, which measures the private sector's ability to prevent, detect, and analyse cyber threats, score **62.36**. Notably, all 27 EU Member States showing scores fell within a 10-point range of the EU average. The average deviation of Member States' scores from the EU average is **2.78** points, ranging from a **minimum** of **▼7.06** units to a **maximum** of **▲7.54** units. The market/industry area exhibits the **strongest alignment across the EU** compared to the other index areas.

(Operations	This area describes the ability of a MS to carry out operations to ensure resilience.	= 23 EU AVG 57.63	Policy	This area describes the state of policy development and implementation

The **cybersecurity operations area**, which measures Member States' ability to conduct cybersecurity operations and ensure resilience, score **57.63**, falling below the overall index value. Despite this, a high degree of consistency is observed among Member States, with the majority of Member States scoring within 10 points pf the EU average. The average deviation of Member States' scores from the EU average is **6.24** units, ranging from a minimum of **\bigvee11.72** units to a **maximum** of **\checkmark15.14** units.

The **cybersecurity policy area**, which measures the state of cybersecurity policy development and implementation, attained the **highest EU average score compared to the other index areas**, at **66.09**. Despite this, it exhibits the **lowest level of alignment among Member States**, indicating significant variability, in particular with regards to vulnerability disclosure and supervisory measures for essential and important entities. The average deviation of Member States' scores from the EU average is **9.45** units, ranging from a **minimum** of **▼27.28** units to a **maximum** of **▲17.45** units.

EU AVG

66.09



TOP-SCORING INDICATORS

In the reporting period, Member States demonstrate high convergence in areas with the highest EU average scores. Specifically, the **five indicators with the highest EU average score** exhibit low average deviation.



Most SMEs in the EU did not experience incidents leading to disclosure of confidential data (e.g. due to intrusion, pharming, phishing, actions by own employees intentionally or unintentionally) with an average score of 98.02 units and, an average deviation of 0.79 units. The minimum deviation is **V2.42** units, whereas the maximum one is **1.28** units.



Similarly, the EU exhibits a high score of 94.99 for SMEs that did not experience incidents leading to destruction or corruption of data (e.g. due to infection of malicious software or unauthorized intrusion, hardware or software failures), with MS deviations averaging 1.22 units. The minimum deviation is \bigvee 3.79 units and the maximum one is \blacktriangle 3.41 units. However, the high scores for the above indicators may be inflated due to underreporting of security incidents by enterprises, particularly SMEs, stemming from limited awareness, fear of reputational damage, or complex reporting requirements.



This indicator refers to the way users in the EU behave when they use internet. The EU average for this indicator is at 93.29 units, while Member States exhibit an average deviation of 2.69 units. The minimum deviation is **▼7.36** units, while the maximum is **▲5.69** units.



Likewise, the large enterprises in EU that did not experience incidents leading to disclosure of confidential data (e.g. due to intrusion, pharming, phishing, actions by own employees intentionally or unintentionally) demonstrate a high average score of 93.83, with Member State deviations averaging 2.81 units. These deviations range from a minimum of \bigvee 10.93 to a maximum of \bigstar 5.17 units.



The score for the indicator measuring CSIRTs in EU Member States being FIRST members and TI listed/accredited/certified is 97.62, with an average deviation of 2.87 units. This indicates that all Member States show score within a narrow range (within 10 units) of the EU average. The country with the **lowest** value deviates from the EU average by **\nabla7.62** units and the country with **highest** value deviates by **\Delta2.38** units.



LEAST-SCORING INDICATORS

The **five indicators with the lowest EU average score** in the reporting period, designating areas for improvement are the following.



Most of the enterprises in the EU do not utilise AI technologies for ICT security, with the relevant indicator showing an average score of 3.18. This low score is consistent across Member States, with all 27 falling within 10.00 units of the EU average and demonstrating an average deviation of 1.67 units. The country with the lowest value deviates by ▼2.78 units, while the country with highest value deviates by ▲7.22 units.



Similarly, there is potential for increase in the **cybersecurity investments by essential/important entities as part of their overall IT budgets/spending**. The EU average score for this indicator is 7.14, with an average deviation of 0.54, ranging from a **minimum** of **V1.24** units to a **maximum** of **1.46** units.



The EU average score for **CSIRT(s) certification** is also low at 10.31. The average deviation is 10.58 units, with a **minimum** deviation of **\bigvee10.31** units and a **maximum** deviation of **\bigstar27.19** units. These results underscore the need for targeted efforts to improve both the score for this indicator and the alignment among Member States.



Likewise, the indicator measuring enterprises conducting cybersecurity risk assessment has an average value of 32.01, with an average deviation of 9.76. The maximum deviation reaches $\blacktriangle 26.89$, while the minimum deviation is $\lor 21.31$.



The indicator measuring the distribution of EU R&D funding awarded per country related to cybersecurity also reflects relatively low performance, with an EU average of 24.93 units and an average deviation of 13.19 units. The minimum deviation is \vee 24.93 units, while the maximum deviation reaches \triangleleft 30.90 units.

ABOUT ENISA

The European Union Agency for Cybersecurity, ENISA, is the Union's agency dedicated to achieving a high common level of cybersecurity across Europe. Established in 2004 and strengthened by the EU Cybersecurity Act, the European Union Agency for Cybersecurity contributes to EU cyber policy, enhances the trustworthiness of ICT products, services and processes with cybersecurity certification schemes, cooperates with Member States and EU bodies, and helps Europe prepare for the cyber challenges of tomorrow. Through knowledge sharing, capacity building and awareness raising, the Agency works together with its key stakeholders to strengthen trust in the connected economy, to boost resilience of the Union's infrastructure, and, ultimately, to keep Europe's society and citizens digitally secure. More information about ENISA and its work can be found here: www.enisa.europa.eu.

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