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PART 8/27

COMMISSION STAFF WORKING DOCUMENT

Digital Decade 2026 country report

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

State of the Digital Decade 2026: Closing structural gaps and mobilising investments for 2030 and beyond

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European Commission

DIGITAL DECADE COUNTRY REPORT 2026

Estonia

Estonia

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Executive summary

Overall, Estonia has a strong record in digitalisation, with excellent digital public services, strong take-up of advanced technologies and a vibrant tech start-up ecosystem. However, there is still room for improvement when it comes to connectivity and the implementation of cybersecurity measures by businesses. The number of ICT specialists, while currently above the EU average, is still a crucial area of development to meet demand on Estonia's job market, with a growing emphasis not only on quantity but on the quality of skills and the progression from advanced to top-level expertise. Additionally, while the overall level of basic digital skills in Estonia is above the EU average, it has stagnated over recent years and certain groups, such as older individuals are less digitally skilled than their EU counterparts.

While Estonia has performed well overall in its digital transition, its connectivity weaknesses in the area of very high capacity networks (VHCNs), are having an impact on its **competitiveness**, as strong digital infrastructure is the foundation for a thriving digital society. Low levels of implementation of cybersecurity measures by businesses also represent a significant risk, especially in the current geo-political environment. Estonia has identified that a shortage in ICT specialists is the key bottleneck to ongoing digitalisation efforts and the adoption of advanced technologies across all sectors in the country. By increasing the supply of ICT specialists on the employment market, combined with stronger and more systematic emphasis on skills development, Estonia could further improve its competitiveness through increased digitalisation.

Estonia is a **digital leader** in several areas. It is home to one of the most digitised governments in the EU thanks to the early implementation of digital public services. Additionally, Estonia's public policies have strongly shifted towards the adoption of AI, including by building local AI infrastructure through a Nordic-wide consortium and the adoption of AI in education and throughout the public and private sector with initiatives such as the AI Leap and Eesti.ai. Estonia has also committed to large public investments in its start-up sector, building on one of the existing strengths of the country. In the area of emerging technologies such as semiconductors and quantum computing, Estonia is an active participant in EU-level initiatives while simultaneously cooperating with neighbouring countries.

Estonia in the Digital Decade

Estonia shows a high level of ambition in its contribution to the Digital Decade having set 14 national targets (out of 14 possible), 93% of which aligned with the EU 2030 targets. In its national roadmap, Estonia provided 12 trajectory points for 2025 (out of 13 analysed). The country is following them well with 83% considered on track. Estonia addressed 86% of the 7 recommendations issued by the Commission in 2025, either by implementing significant policy changes (29%) or making some changes (57%) through new measures. According to the national roadmap, by the end of 2026, 0% of the measures will come to an end.

According to the special **Eurobarometer on 'the Digital Decade' 2026**, **71% of Estonian people consider that digital policy should have a very high/high priority for the EU** in shaping our future in Europe. They also think that, in the next ten years, the EU should cooperate with Member States to reinforce cybersecurity and protection from online threats (93%), promote digital education and skills

programs (88%), and strengthen the regulation of online platforms (e.g. online social networks, marketplaces, app stores, etc.) (80%).

In addition, **69% of Estonian respondents think that the EU should reduce its dependencies on digital from third countries**, and 70% that EU should prioritise investments in digital infrastructure and services that are developed and controlled in Europe. Meanwhile, 35% would be willing to switch to an EU-based digital service provider even if it means slightly higher costs.

Funding for digital and Multi-Country Projects

Estonia allocates 24% of its total recovery and resilience plan to digital (EUR 0.2 billion). In addition, under cohesion policy, EUR 0.4 billion, representing 10% of the country's total cohesion policy funding, is dedicated to advancing Estonia's digital transformation.

Estonia is a member of the Local Digital Twins towards a CitiVERSE EDIC. Estonia is a participating state of the EuroHPC Joint Undertaking (JU) and of the Chips JU.

Digital Decade KPI (1)	Estonia				EU		Digital Decade target by 2030	
	Last available data (2)	DESI 2026 (year 2025)	Annual progress	National trajectory 2025 (3)	DESI 2026	Annual progress	EE	EU
Fixed Very High Capacity Network coverage	76.3%	81.1%	6.4%	78.5%	85.5%	3.7%	100.0%	100%
Fibre to the Premises (FTTP) coverage	76.3%	81.1%	6.4%	78.5%	74.1%	7.1%	100.0%	-
Basic 5G coverage	91.5%	100.0%	9.2%	95.0%	96.8%	2.6%	100.0%	100%
Edge Nodes (estimate, new methodology)	-	28	-	0	7451	-	5	10000
SMEs with at least a basic level of digital intensity *	55.9%	72.1%	13.6%	65.0%	71.4%	11.0%	90.0%	90%
Cloud *	52.6%	56.2%	3.4%	58.0%	46.7%	9.5%	75.0%	75%
Artificial Intelligence	13.9%	23.4%	68.5%	20.0%	20.0%	48.0%	75.0%	75%
Data analytics *	25.6%	56.0%	48.0%	35.0%	39.9%	9.5%	75.0%	75%
AI or Cloud or Data analytics *	60.6%	75.0%	11.3%	-	63.2%	7.5%	-	75%
Unicorns	2	2	0.0%	-	324	10.2%	5	500
At least basic digital skills *	62.6%	62.5%	-0.1%	67.0%	60.4%	4.3%	80.0%	80%
ICT specialists	7.2%	6.8%	-5.6%	7.5%	5.0%	2.0%	10.0%	~10%
e-ID scheme notification		Yes						
Digital public services for citizens	96.1	97.2	1.1%	100.0	84.6	2.8%	100.0	100
Digital public services for businesses	97.5	97.5	0.0%	100.0	88.6	2.7%	100.0	100
Access to electronic health records	100.0	100.0	0.0%	100.0	86.5	4.6%	100.0	100

(1) Indicators full description, metadata and sources in the DESI 2026 methodological note

(2) Last available data is DESI2025 (reference year 2024) except for indicators marked with a star * for which it is DESI2024 (reference year 2023)

(3) National trajectory value for 2025, if set by the country in its Digital Decade national roadmap

A competitive, sovereign and resilient EU based on technological leadership

Estonia has a mixed performance in **connectivity**, with its fibre and basic 5G coverage above the EU average after impressive growth over the last two years. However, its VHCN coverage remains below the EU average. To address this, Estonia has implemented support measures to increase its VHCN coverage, specifically targeting rural areas.

On the business side, basic digitalisation in **SMEs** is above the EU average. Moreover, Estonian businesses have demonstrated impressive take-up of data analytics and cloud computing. Building on an already strong uptake of **advanced technologies** by businesses, Estonia has embraced the goal of becoming a global leader in AI. The country is aiming to use the technology to grow its economy by 50% by 2035 through the launch of Eesti.ai and other initiatives. However, the Eesti.ai initiative is still in its initial stages and will need additional definition and further implementation to achieve its high goals. In its transition to AI, Estonia is also supported by its historically strong **start-up ecosystem** which grew significantly in 2025. However, the number of newly formed companies and overall investment in the sector has declined over several years, warranting further support.

Protecting and empowering EU people and society

In Estonia, the overall level of basic **digital skills** is above the EU average but has stagnated over recent years and among certain groups. For example, older individuals in Estonia have lower digital skills than their EU counterparts. The need for digital skills is all the more crucial given the high degree of **digitalisation of public services** in Estonia, creating increased barriers to participation in public life especially for vulnerable groups. Further work to ensure the accessibility of public services is crucial in Estonia. While the share of **ICT specialists** remains above the EU average, Estonia has nevertheless identified the number of ICT specialists as a key factor limiting its digital transition across all sectors.

Recommendations

- **ICT specialists**: Further implement measures to educate ICT specialists, particularly in critical fields such as AI and cybersecurity, and reverse the decline in ICT specialists in employment, including by (i) providing lifelong learning opportunities, (ii) offering courses specifically targeted at upskilling junior ICT specialists and recent ICT graduates, (iii) decreasing the dropout rate of ICT-related courses, and (iv) renewing efforts to attract more women to the ICT sector.
- **AI uptake**: Continue implementing measures to position Estonia as a future AI leader by advancing AI adoption in education, the economy and the public sector. This should be done by (i) further developing the AI Leap programme in education, (ii) accelerating the implementation of Eesti.ai and similar initiatives to boost AI uptake across the business sector, (iii) further adopting AI in the public sector to increase usability and reduce the cost of digital public services, and (iv) strengthening local AI infrastructure through initiatives such as the Nordic AI consortium.
- **Basic digital skills:** Continue implementing measures to increase digital skills throughout society by (i) consolidating the fragmented efforts of the digital skills development system, (ii) expanding access to and the range of free e-learning opportunities, (iii) providing in-person digital training targeted at older adults and rural communities, and (iv) introducing measures aimed at increasing the fact-checking skills of the public.
- **Cybersecurity:** Step up efforts to support companies, especially SMEs and entities that operate in critical infrastructure to implement cybersecurity measures. Pursue efforts to minimise the impact of online fraud by organising awareness-raising campaigns targeting the general public and particularly vulnerable groups in society.
- **Unicorns**: Support the Estonian start-up ecosystem by (i) further developing accelerator programmes and start-up incubators to foster the formation of new start-ups, (ii) better

leveraging public investment in R&I and addressing obstacles to commercialisation of R&I, and (iii) improving access to finance for scaling up of start-ups.

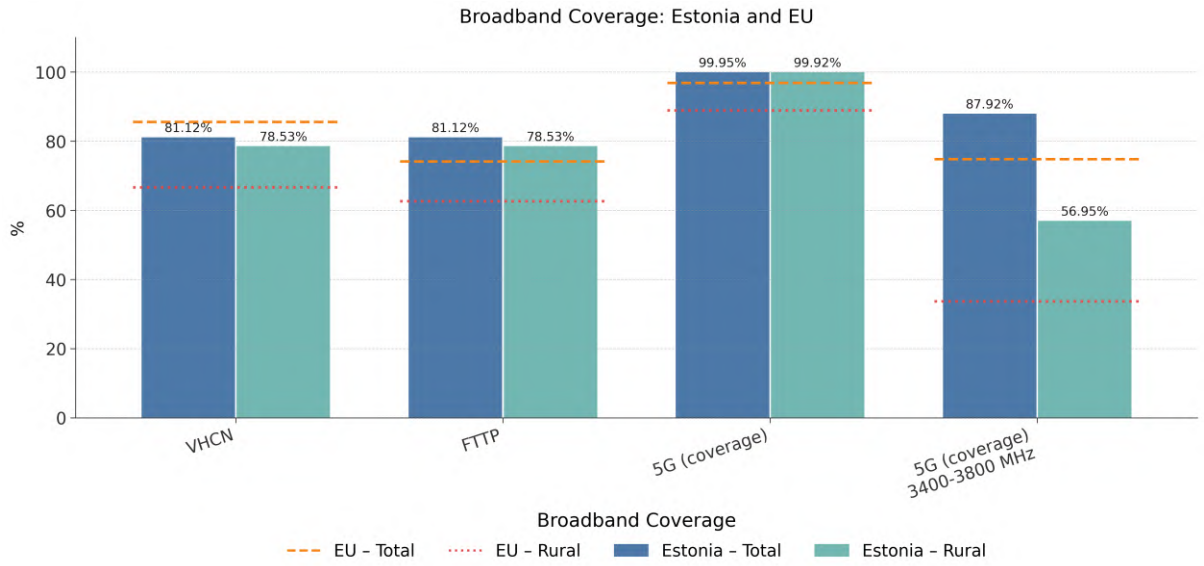
- **Green transition:** Follow up on the sustainability initiatives of the Digital Society Development plan 2035, particularly by (i) institutionalising the measurement of the ICT carbon footprint of each public sector institution, and (ii) consolidating ICT management across the public sector.

A competitive, sovereign and resilient EU based on technological leadership

Building technological leadership: digital infrastructure and technologies

Connectivity infrastructure

Performance assessment



In 2025, Estonia's very high capacity network (VHCN) reached 81.12% coverage, below the EU average of 85.54%, after an increase of 6.4%. In terms of annual growth, Estonia outperformed the EU (3.7%). Estonia's VHCN coverage in sparsely populated areas increased to 78.53%, as compared with the EU average of 66.66%. For Estonia, this represents an annual rate of increase in sparsely populated areas of 9.3%, higher than the EU average of 7.7%. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

Estonia's fibre-to-the-premises (FTTP) coverage increased to 81.12% (+6.4% since 2024), well above the EU average of 74.13%. However, the annual rate of increase in Estonia of 6.4% was lower than the EU average of 7.1%. In sparsely populated areas, Estonia's coverage increased to 78.53%, above the EU average of 62.61%. For Estonia, the annual rate of increase in sparsely populated areas of 9.3% was higher than the EU average 6.5%. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

In 2025, Estonia's 5G coverage increased to 99.95% (+9.2% since 2024), surpassing the EU average of 96.79%. Estonia's annual rate of increase of 9.2% was significantly higher than the EU average of 2.6%. In sparsely populated areas, Estonia's 5G coverage increased to 99.92%, as compared with the EU average of 88.88%. While Estonia's annual rate of increase in sparsely populated areas of 8.2% was lower than the EU average 11.7%, this can be explained by the fact that 5G coverage in Estonia is reaching the saturation point. Estonia's 5G coverage in the 3.4-3.8 GHz band was 87.92%, above the EU average of 74.75%. Estonia's annual rate of increase of 26.4% is significantly higher than the EU average of 10.6%. In sparsely populated areas, Estonia's coverage in the 3.4-3.8 GHz band increased to

56.95%, surpassing the EU average of 33.71%. Estonia's annual rate of increase in sparsely populated areas of 15.7% was significantly lower than the EU average of 32.9%. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

Estonia's performance has been strong in terms of increasing coverage of FTTP, 5G, and 5G in the 3.4-3.8 GHz band, both nationwide and in sparsely populated areas, consistently surpassing the EU average. While the rate of increase for these indicators in Estonia is lower than the EU average, this can be explained by the fact that Estonia's overall good performance has brought the country close to saturation point. In terms of overall VHCN coverage, Estonia is lagging slightly behind the EU average, although it is still on track to reach its national target. This suggests that Estonia may need to focus further on expanding its VHCN coverage, to maintain its competitive edge in the digital economy.

The table presenting VHCN, FTTP and 5G coverage across NUTS-2 regions has been omitted for Estonia, as the country has no administrative subdivisions classified under NUTS levels.

In Estonia, the share of the population with a 5G SIM card was 36.17% in 2025, representing an increase of 54.4% but still below the EU average of 55.55%. In 2024, the figure for Estonia was 23.42%, which was also below the EU average of 35.56%. The annual rate of increase for the EU as a whole was 56.2%.

Estonia has a subscription rate of 0.51% for fixed broadband >= 1 Gbps in 2025, representing an increase of 65.7% but below the EU average of 26.97%. In 2024, the figure for Estonia was 0.31%, which was significantly lower than the EU average of 22.25%. The annual rate of increase for the EU as a whole was 21.2%.

Broadband uptake indicators show a below average performance by Estonia. Estonia is lagging behind the EU average in terms of the share of the population with a 5G SIM card and fixed broadband subscriptions of >= 1 Gbps and is not showing strong rate of increase in either. Policy measures should focus on accelerating the roll-out of 5G SIM cards and increasing fixed broadband subscriptions to align more closely with the EU average.

Policy context and assessment of recommendations

Estonia is continuing to support its domestic connectivity infrastructure with new initiatives particularly targeting rural areas. Over the past 3 years, Estonia's two main measures, namely the RRF support scheme and the local village networks initiative have been supporting VHCN deployment in the country. To further increase VHCN coverage, the Estonian Consumer Protection and Technical Regulatory Authority (ECPTRA) launched the Broadband Phase Five support measure, which will fund VHCN construction in rural and small-town settlements. This measure will run from 2025-2029 with a total budget of EUR 45 million financed from the European Regional Development Fund (ERDF). Additionally, Estonia has introduced a support scheme for the development of 5G in key transport corridors, guided by a 2024 study identifying white areas. This initiative allocates EUR 9.37 million in ERDF funding and is scheduled for implementation between 2026 and 2030.

In terms of FTTP, the operator Elisa expanded its FTTP network by 18 000 households in 2025. Meanwhile, Telia has launched a large-scale fibre-optic development programme covering the period 2025-2032, funded by nearly EUR 100 million of private investment, with no state support. The initiative aims to expand the current FTTP network by an additional 136 000 Estonian households (approximately 300 000 people). In addition to the expansion of new networks, Estonia is phasing out its old copper networks, with full shutdown planned by 2030.

Estonia

Estonia's connectivity relies on multiple undersea cables linking Estonia's mainland to its islands as well as to Sweden and Finland. In 2025, five incidents occurred which affected these cables although none of them resulted in major service disruption as data traffic was successfully rerouted via alternative connections.

In 2025, Estonia's basic 5G coverage reached almost 100% of the population, the result of rapid network expansion over the previous four years. The foundation for this growth was laid in summer 2022 when spectrum auctions were held, awarding 5G licences to all three major operators and triggering an aggressive commercial rollout. As ECPTRA reports, Estonia has a healthy competitive market, with all three main operators having broadly similar market shares, thereby incentivising continuous network investment. Additionally, the last remaining 3G network was closed in 2025, freeing up both spectrum and capital for 5G deployment.

Estonia's widespread broadband coverage provides a critical springboard for business digitalisation and may help to explain the country's above-average performance in this area.

2025 recommendation on connectivity: Continue and establish new measures that target enhancing VHCN, and 5G coverage.
Estonia addressed fully the recommendation by putting significant policy actions into place in 2025. As mentioned above, Estonia introduced several new measures for expanding its VHCN. Additionally, Estonia has also announced a new measure to expand 5G coverage in key transport corridors, on top of achieving near 100% 5G population coverage in 2025.

Semiconductors

As a small country, Estonia is focusing on collaborating with other countries to strengthen its semiconductors sector. In October 2025, Estonia, alongside Latvia and Lithuania, signed a Memorandum of Understanding (MoU) to strengthen cooperation between their national chip competence centres. This exemplifies the type of international cooperation that will be required if the EU is to achieve its target under the European Chips Act of doubling the region's semiconductor capacity by 2030. Under the MoU, the Baltic countries aim to boost innovation and global visibility through joint international representation, promote research and education through shared training programmes, and provide support for start-ups and SMEs accessing pilot lines and R&D infrastructure. Expanding on this Baltic partnership, a second Memorandum of Understanding was signed between the Baltic and Nordic (Finland, Sweden, Norway, and Denmark) chips competence centres, further increasing collaboration in education, research and industrial support. Through such collaboration and initiatives, Estonia's semiconductor industry is expected to grow by approximately 3.7% annually between 2023 and 2028 and increase in value from EUR 5.3 million to EUR 6.7 million over this period.

Edge nodes

Performance assessment

According to the Edge Node Observatory, Estonia is estimated to have deployed a total of 28 edge nodes by 2025. Due to a change in methodology, this number cannot be compared to previous estimates.

Policy context and assessment of recommendations

In 2025, there were no policy developments in Estonia concerning edge nodes.

Quantum technologies

Estonia is part of the Nordic Quantum Communication Infrastructure (NordicQCI) project which was launched in January 2026. The initiative aims to establish cross-border, quantum-secured connections between Estonia, Finland and Sweden. It is a crucial step towards the development of a pan-European quantum communication infrastructure, which aims to fortify Europe's communication system for the era of quantum cryptography. Additionally, Estonia is a member of the international Quantum-Resistant Cryptography in Practice (QARC) project, which aims to accelerate the transition to quantum-resistant cryptography through facilitating close collaboration between universities, industry and the public sector. On the national level, Estonia released its roadmap for post-quantum cryptography in spring 2026. This document provides clear guidance on preparing for the transition of the Estonian digital state to a new cryptographic standard to prepare the country for a future in which quantum computing will be able to break current encryption methods.

A skilled workforce is crucial to widespread adoption of quantum technologies. To address this need, the University of Tartu introduced a Quantum Computing Micro-Degree in February 2026, aiming to provide a broader audience with fundamental knowledge and practical skills in quantum computing.

Supporting EU-wide digital ecosystems and scaling up innovative enterprises

SMEs with at least basic digital intensity

Performance assessment

In Estonia, 72.12% of SMEs now have at least a basic level of digital intensity index, up 13.6% year-on-year between 2023 and 2025 and above the EU average of 71.39%. In 2023, the figure for Estonia was 55.93%, slightly below the EU average of 57.9%. The annual rate of increase in Estonia (13.6%) is higher than the EU average (11.0%), indicating robust improvement in the digitalisation of Estonian SMEs. However, only 7.87% of SMEs had a very high level of digital intensity index, in Estonia in 2025, below the EU average of 9.07%, despite an annual rate of increase of 44.5%, exceeding that of the EU (43.9%). This suggests that while Estonia is making major strides, there is still room for further improvement, particularly for achieving higher levels of digital intensity among SMEs. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

Policy context and assessment of recommendations

The Estonian digital innovation hub 'AI and Robotics Estonia' (AIRE) has been granted funding to continue its activities supporting SMEs in their digitalisation journey for the period 2025-2028. During its previous three-year term, AIRE supported over 270 Estonian SMEs by attracting EUR 62 million of public and private investments to fund AI and digitalisation initiatives. Additionally, AIRE trained more than 1 200 SME employees and hosted networking events to promote AI innovation attended by some 3 000 people. For 2025-2028, AIRE aims to continue these services with a particular emphasis on raising awareness of AI and translating the technology into tangible economic impacts.

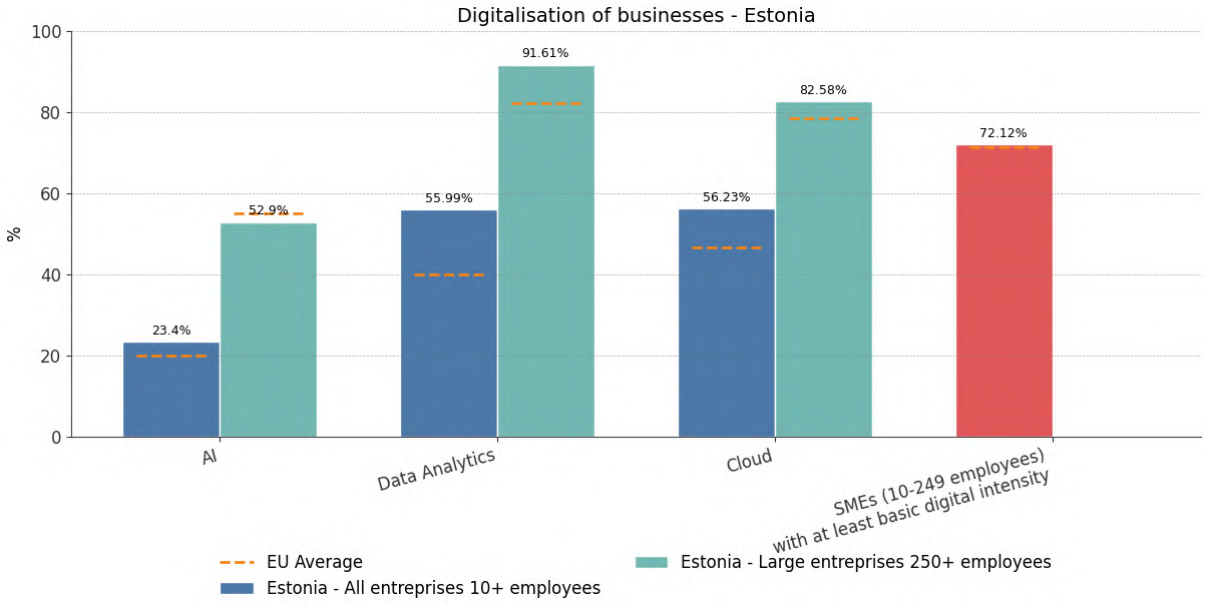
The Estonian government continues to provide grants to businesses to facilitate their digitalisation under the provision 'Supporting the development of enterprise digitalisation, solutions of the real-time economy and use cases of the data economy.' Through the RTE Grant for Data-Driven Reporting and Data Exchange Software Development, Estonia is offering companies support worth EUR 5 million for designing new business software for secure data exchange. Projects looking to benefit from this grant must include a state agency or a local authority as a cooperation partner, to ensure that the

solution developed meets national standards and is suitable for interfacing with national data exchange solutions. Furthermore, software projects funded through this initiative must be usable by several companies in order to ensure a broader impact. Additionally, the RTE Grant for Business Process Automation and Data Exchange has been in place since March 2026 and offers SMEs support worth a total of EUR 1.5 million for developing software enabling secure data exchange. Similarly, the RTE Grant for Data Economy Use Case Development and Implementation was launched in March 2026, with a total budget of EUR 3.5 million, to help companies develop and implement data management use cases. Lastly, the RTE Grant for Software Implementation and Integration offers SMEs support worth a total of EUR 1 million for implementing software in their day-to-day operations.

2025 recommendation on SMEs: Sustain and complement activities to improve digitalisation and uptake of advanced technologies and give special attention to SMEs.
Estonia made some efforts to address the recommendation through new policy actions in 2025. As outlined above, Estonia continued offering grants to support companies in their digital transition. However, some grants, such as the eCMR integration scheme, ended in 2025 and have not been replaced.

Take up of advanced technologies

Performance assessment



In Estonia, 55.99% of businesses have adopted data analytics technology, up 48.0% year-on-year since 2023 and surpassing the EU average of 39.85%. In 2023, the adoption rate in Estonia was 25.57%, which was below the EU average of 33.25%. The rate of increase in Estonia (48.0%) significantly outpaced that of the EU (9.5%), indicating rapid uptake of data analytics technology. Specifically, among SMEs, the figure for Estonia in 2025 was 55.11%, exceeding the EU average of 38.59%, with Estonia's annual rate of increase reaching 50.1% as compared to an EU average of 9.7%. Adoption of data analytics was also strong among large enterprises in Estonia, at 91.61% in 2025, higher than the EU average of 82.03%, with Estonia's annual rate of increase reaching 14.6% as compared to an EU average of 6.9%. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

Regarding cloud technologies, 56.23% of all businesses in Estonia had adopted cloud technologies in 2025, which is higher than the EU average of 46.69%. However, Estonia's annual rate of increase was 3.4%, which was lower than the EU average of 9.5%. Among SMEs, the figure for Estonia is 55.58%, surpassing the EU average of 45.74%. However, Estonia's annual rate of increase was 3.6%, which was below the EU average of 9.7%. Adoption of cloud technologies by large enterprises in Estonia reached 82.58%, exceeding the EU average of 78.32%, however the rate of increase was -1.7%, which was lower than the EU average of 6.0%. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

Regarding artificial intelligence, 23.4% of all businesses in Estonia had adopted artificial intelligence in 2025, exceeding the EU average of 19.95%, with Estonia's annual rate of increase reaching 68.5% as compared to an EU average of 48.0%. Among SMEs, the figure for Estonia is 22.67%, higher than the EU average of 18.9%, with an annual rate of increase of 70.7%, compared to an EU average of 49.5%. Adoption of artificial intelligence by large enterprises in Estonia reached 52.9%, slightly below the EU average of 55.03%, however the rate of increase was 35.7%, exceeding the EU average of 33.7%**.** The country is on track according to its trajectory presented in the Digital Decade national roadmap.

In Estonia, 74.99% of all businesses have adopted AI, cloud technologies or data analytics technology, up by 11.3% year-on-year between 2023 and 2025 and surpassing the EU average of 63.2%. Among SMEs, the figure for Estonia is 74.48%, exceeding the EU average of 62.32%, while its annual rate of increase was 11.6% as compared to an EU average of 7.7%. Use of these technologies by large enterprises in Estonia reached 95.48%, exceeding the EU average of 92.78%, although the rate of increase in Estonia, at 2.8%, was lower than the EU average of 3.4%.

Estonia has made significant progress in the digitalisation of its businesses, particularly in the adoption of data analytics and artificial intelligence technologies. The country's SMEs and large enterprises have shown commendable growth in most areas, often surpassing the EU average. However, there are areas where the rate of increase in Estonia is lagging behind the EU average, such as in cloud technology. Overall, Estonia's digitalisation efforts are promising, but continued progress is needed to maintain its competitiveness.

Policy context and assessment of recommendations

Building on Estonia's strong digital foundations and its population's high proficiency in AI, the country is well-positioned to leverage AI in the next phase of its digital transition both in the public and private sector. In May 2026 the Estonian government approved the Digital Society Development plan 2035, that outlines a long-term vision for establishing Estonia as a leading data-driven economy and an AI-powered state, with the goal of achieving widespread AI adoption across both the public and private sector by 2035. To support this transition, Estonia has announced a commitment of at least EUR 85 million over the period 2024-2026 to accelerate deployment and broaden the economic and societal impact of AI technologies. Additionally, Estonia launched the Eesti.ai initiative in January 2026, which, together with other measures taken under the Digital Society development plan, aims to increase total economic output by 50%, or an additional EUR 20 billion, by 2035. The initiative is led by an international council of entrepreneurs and experts reporting directly to the Prime Minister. Still in its initial stages, the initiative will first finalise the programme's scope and funding requirements, before focusing on a selected number of high-impact projects. The initial goal is to achieve significant progress within the next 18 months. The funding will leverage existing support programmes and EU resources, with budget adjustments planned by summer 2026, once the financial requirements are determined.

A study on the impact of artificial intelligence on workforce skills requirements in business released in November 2025 pointed to strong recent growth in the use of AI by Estonian companies while highlighting bottlenecks and challenges for further AI uptake. The study highlighted the growing risk of a development gap between Estonian companies since some companies are moving forward quickly while others, often smaller, domestically oriented companies, are falling behind. The quality and availability of data are recurring problems, as companies that successfully implemented AI solutions had been able to do so thanks to the availability of ordered, high-quality and secure data. To address this, the study highlighted that Estonia should raise awareness of the principles of data collection and management using AI Ambassador networks to disseminate good practices to increase the take up of AI across the economy.

Local AI and data infrastructure is crucial both for achieving digital sovereignty and for ensuring sufficient computing power to support Estonia's future needs. Estonia has joined a Nordic-wide consortium for developing AI infrastructure with Finland, Latvia and potentially also Sweden and Denmark, as part of a support programme established by the European Commission. Under this project, Estonia will construct an AI-ready data centre on its territory, which will provide essential computing capacity for the public sector, research institutions and private businesses. However, the project is still in its very early stages. The European Commission is expected to announce the relevant support measure in early 2026, with project submissions scheduled for spring or summer 2026.

Estonia did not implement any dedicated measures to expand cloud infrastructure or data analytics in 2025. Estonia has identified AI technologies as a clear priority for the future. Estonia has already seen comparatively strong adoption of both cloud technology and data analytics, with the development of AI expected to further encourage adoption of related cloud and data technologies.

Unicorns, scale-ups and start-ups

Performance assessment

At the beginning of 2026, Estonia had 2 unicorns (2030 national target of 5), which is the same number as in 2025. The country did not provide a national trajectory point for 2025 in the Digital Decade national roadmap.

Policy context and assessment of recommendations

According to the Global Start-up Ecosystem Index 2025, Estonia's start-up ecosystem ranks 11th globally and 7th in Europe, having achieved solid growth and increased maturity over the previous year despite challenging domestic economic conditions. According to Start-up Estonia, the sector's turnover in the first half of the year grew by 25% to EUR 2.42 billion, marking a strong recovery after just 5% growth during the same period in 2024. Growth in revenue was primarily driven by efficiency gains and a higher rate of revenue per employee as the total employment in the sector increased by only 1% compared to 2024. However, overall investment in the start-up sector in the first half of 2025 declined by 28% compared to the same period in 2024, with total funding reaching EUR 176.8 million across 32 deals, as compared to EUR 242.6 million across 39 deals the previous year. This decline may reflect broader uncertainties in the Estonian economy which have made new investors more wary. As funding is critical for scaling start-ups, addressing this decrease will be crucial.

Despite overall growth in the start-up sector, Estonia has reported a consistent decline in the number of new start-ups over the last four years. In response, the country has focused on supporting various accelerator programmes, such as the Tehnopol Start-up Incubator. In 2025, this programme assisted over 115 companies through practical training, mentoring and co-working spaces. The companies

involved raised a total of EUR 12.8 million, of which EUR 5.4 million came from private funding and EUR 7.4 million from state funding.

Estonia has launched several initiatives to boost investment and growth. The European Investment Fund (EIF) and the Baltic states launched the EUR 225 million Baltic Innovation Fund 3, aimed at expanding the region's private equity and venture capital market. The initiative is expected to mobilise an additional EUR 700 million in private investment. Additionally, the Estonian government launched a EUR 160 million investment incentive in 2025, offering up to EUR 20 million in subsidies for investments worth at least EUR 100 million. This measure is designed to attract large-scale international funding and is expected to generate at least EUR 1 billion in new investments in the Estonian economy over the next four years.

Deep tech companies within the start-up scene remain a key focus area for Estonia, with the government allocating EUR 12.6 million to a new programme designed to accelerate the development of deep tech companies. These companies account for only 11% of the sector but have captured 51% (EUR 88.3 million) of total start-up investments. Over the next four years, Estonia aims to build 37 internationally competitive, research-intensive companies with the help of a government programme aimed at accelerating the development of deep tech companies.

Estonia continues to report a shortage of talent in the start-up sector. As a small country, Estonia has focused on attracting non-EU talent through the continued provision of start-up visas. In the first half of 2025, Estonia issued 329 visas to skilled professionals working in Estonian startups and 235 to founders, levels roughly the same as in 2024.

Strengthening Cybersecurity & Resilience

Estonian businesses are lagging slightly behind their EU peers in terms of their implementation of cybersecurity measures. In 2024, 53.79% of Estonian businesses had at least 5 cybersecurity measures in place (out of 11 measures as surveyed by Eurostat), below the EU average of 56.85%. Estonia falls particularly short of the EU average in its use of encryption techniques (32.85% in Estonia, compared to an EU average of 39.72%), ICT security tests (26.03%, compared to an EU average of 34.64%), and monitoring systems (36.29%, compared to an EU average of 45.08%).

In a 2026 report on cybersecurity in Estonia published by the Estonian Information System Authority (RIA), the digital environment was found to be subject to growing threats. In 2025, the RIA recorded 10 185 cyber incidents, a sharp increase from 6 515 in 2024. Of those incidents, 4 524 were related to fraud, resulting in total financial losses of EUR 29 million. The most visible incidents were two service outages in late 2025, the causes of which came from outside Estonia. On 18 November 2025, Cloudflare suffered a service outage which disrupted several major Estonian news portals as well as the online ticketing systems of a rail operator and a long-distance coach operator for several hours. Weeks later, a similar incident caused widespread outages in the public sector, disabling temporarily the websites of the parliament, the government and police.

That fact that Estonia is one of Europe's most digitised societies, coupled with the current geopolitical climate, makes it a prime target for cyberattacks. The RIA reported a record 756 distributed denial-of-service (DDoS) attacks in 2025. However, only 12.5% (95 cases) of all DDoS attacks were successful in disrupting the targeted services. This is a significant improvement on 2024, when 22.1% of attacks were successful.

Estonia

Growing threats in the digital environment represent a real risk for Estonian companies, making effective cybersecurity measures crucial for business continuity and long-term competitiveness. In response to these threats, in early 2026 Estonia passed an amendment to the Estonian Cybersecurity Act which transposes the EU's NIS2 Directive into Estonian law. This amendment expanded the number of entities subject to cybersecurity requirements by approximately 3 000, bringing the total close to 6 500. Businesses subject to these requirements will have to implement robust security measures and report significant cyber incidents to the relevant authorities. Additionally, the Ministry of Justice and Digital Affairs have developed a framework of core security measures for small and micro-enterprises which often lack the resources to navigate complex regulations. This framework provides clear, practical and unambiguous guidance, addressing the most pressing needs of small enterprises. Lastly, in June 2025 the RIA launched an operations centre tasked with monitoring developments in Estonia's cyberspace and managing the operation of RIA services. By centralising the work of the RIA, this centre will enhance national situational awareness, response capacity and cooperation in preventing and managing cyber incidents. To further bolster its defences, Estonia is offering cybersecurity companies grants worth a total of EUR 1.5 million, available until the end of 2026, with eligible companies able to receive up to EUR 100 000 to help with innovation and development activities.

Estonia faces a significant skills gap as demand for cybersecurity professionals outpaces supply. A 2025 report on cybersecurity skills in Estonia published by CyberHub Estonia outlines the struggle of the current education system to produce enough graduates with the necessary expertise. Demand for professionals, especially in roles such as cybersecurity implementers, incident responders, and penetration testers, is projected to grow by 1.5 times by 2027. Yet Estonia produces only 735 ICT graduates annually, with even fewer specialising in cybersecurity, leading to a shortfall of 200 cybersecurity specialists per year. To address this shortage, Estonia must further align its education system with industry needs by introducing relevant training modules and actively promoting cybersecurity careers.

2025 recommendation on cybersecurity: Continue efforts in cybersecurity to address the evolving and increasing threats. Ensure continuation in the implementation of cybersecurity classes.
Estonia made some efforts to address the recommendation through new policy actions in 2025. As outlined above, Estonia has taken a series of significant actions on cybersecurity, such as passing the amendment to the Cybersecurity Act, establishing the RIA operations centre, and developing a cybersecurity framework for SMEs. Estonia also continued offering free cybersecurity workshops for older people, organising 15 workshops attended by nearly 200 people in 2025. Additionally, RIA published a new version of its cyber test aimed at improving and assessing the knowledge of the general public. The test was adopted by 426 institutions and companies and taken by almost 32 000 people by the end of the year. To improve cybersecurity education for children, the RIA distributed more than 12 000 cybersecurity workbooks to schools. In the higher education sector, Estonia offers several top-tier courses such as a Bachelor's and Master's in Cybersecurity at TalTech and a Master's in Cybersecurity at the University of Tartu. However, as outlined above, Estonia is still facing a significant shortage of cybersecurity professionals and must further address this issue.

Protecting and empowering EU people and society

Empowering people and bringing the digital transformation closer to their needs

Equipping people with digital skills

Basic digital skills

Performance assessment

Overall, according to the Digital Decade Eurobarometer 2026, 76% of the Estonian population believe that the digitalisation of everyday public and private services is making their life easier, i.e. a decrease of 3 percentage points compared to the previous year.

In Estonia, 62.52% of individuals aged 16-74 have at least basic digital skills, largely unchanged compared to 2023 (-0.1%) but still above the EU average of 60.40%. In 2023, the figure for Estonia was 62.61%, above the EU average of 55.56%. Although Estonia continues to exceed the EU average, the stagnation in basic digital skills since 2023 is cause for concern, particularly since the EU as a whole saw an annual increase of 4.3% over the same period. The country is lagging behind compared to its trajectory presented in the Digital Decade national roadmap.

Turning to the **gender gap**, Estonia is an interesting outlier in the EU. Specifically, in 2025, 63.29% of women in Estonia had basic digital skills compared to 61.70% of men, resulting in a gap of 1.59 percentage points in favour of women. This contrasts with the picture at EU level which shows a gap in favour of men of 2.75 percentage points.

The level of education is an important factor affecting digital skills proficiency but is less pronounced in Estonia compared to the EU average. Indeed, 55.86% of individuals with little or no formal education have basic digital skills in Estonia, which is substantially higher than the EU average of 37.56%. The gap between all individuals and those with a low level of education in Estonia is 6.66 percentage points, which is far less than the EU average of 22.84 percentage points.

In terms of the **urban-rural divide**, Estonia has a far smaller gap in this regard than the EU average. In 2025, 66.51% of individuals in cities had basic digital skills, compared to 59.16% in rural areas, resulting in a gap of 7.35 percentage points. This is less than the EU average of 13.67 percentage points.

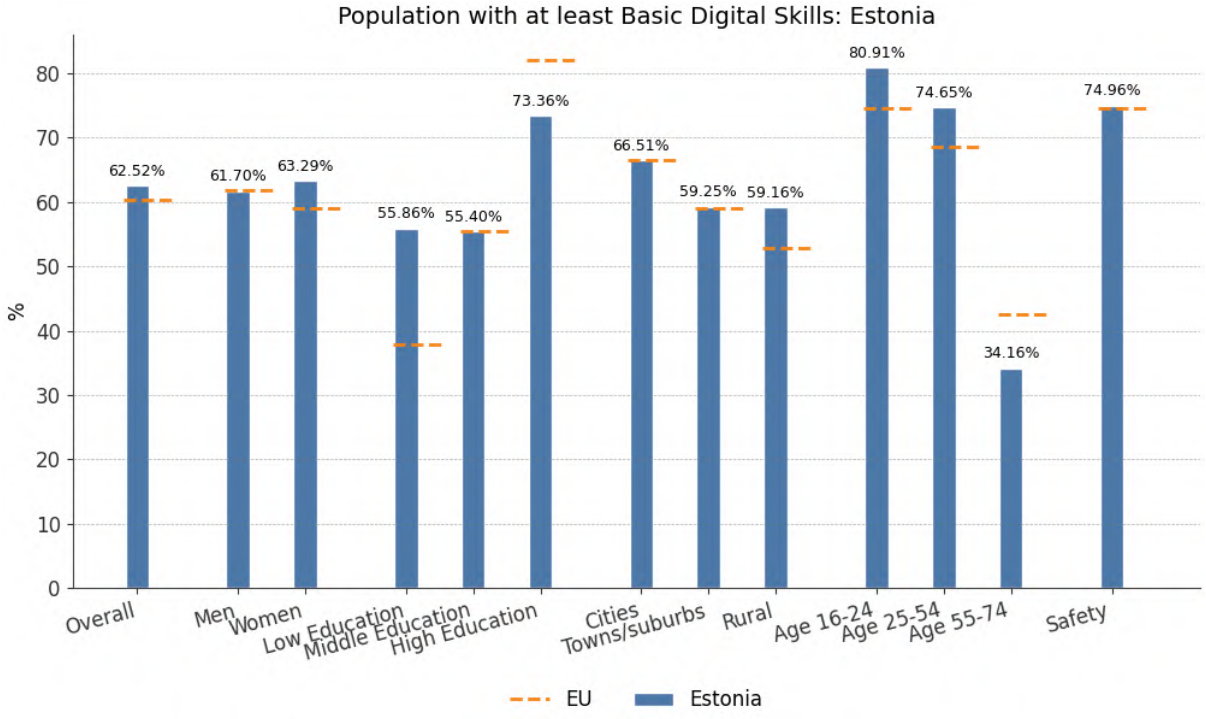
Age is another key determinant of digital skills. In Estonia, 80.91% of individuals aged 16 to 24 have basic digital skills, higher than the EU average of 74.55%. Among older individuals aged 55 to 74, the proficiency rate in Estonia is 34.16%, below the EU average of 42.6%. The gap between the youngest and oldest age groups in Estonia is 46.75 percentage points, above the EU average of 31.95 percentage points.

Regarding **digital safety skills**, Estonia performs around the EU average. In 2025, 74.96% of individuals in Estonia had at least basic digital safety skills, compared to an EU average of 74.63%.

Regarding the use of **generative AI** by individuals, Estonia outperforms the EU average. In 2025, 46.64% of people in Estonia used generative AI for all purposes combined, compared to an EU average of 32.66%. Taking only professional purposes into account, 25.12% of people in Estonia used

generative AI in 2025, above the EU average of 15.36%. According to the Digital Decade Eurobarometer 2026, for the Estonian population the main obstacles to making greater use of generative AI tools are 'Concerns about accuracy or incorrect information' (36%), 'Concerns about privacy or data protection' (35%), and 'Concerns about ethical issues or misuse of generative AI tools' (27%).

In summary, Estonia's digital skills profile reveals a mixed picture. While the country is performing well with regard to inclusivity, particularly in relation to gender, education level and the urban-rural divide, most indicators have stagnated, which is cause for concern. Estonia's performance in digital safety skills and generative AI usage is commendable, but targeted interventions are needed to address stagnating proficiency rates, especially among individuals with a lower level of education and among older adults. Additionally, education and workforce policies should focus on regaining positive momentum to ensure Estonia's digital skills foundation remains robust in the coming years.

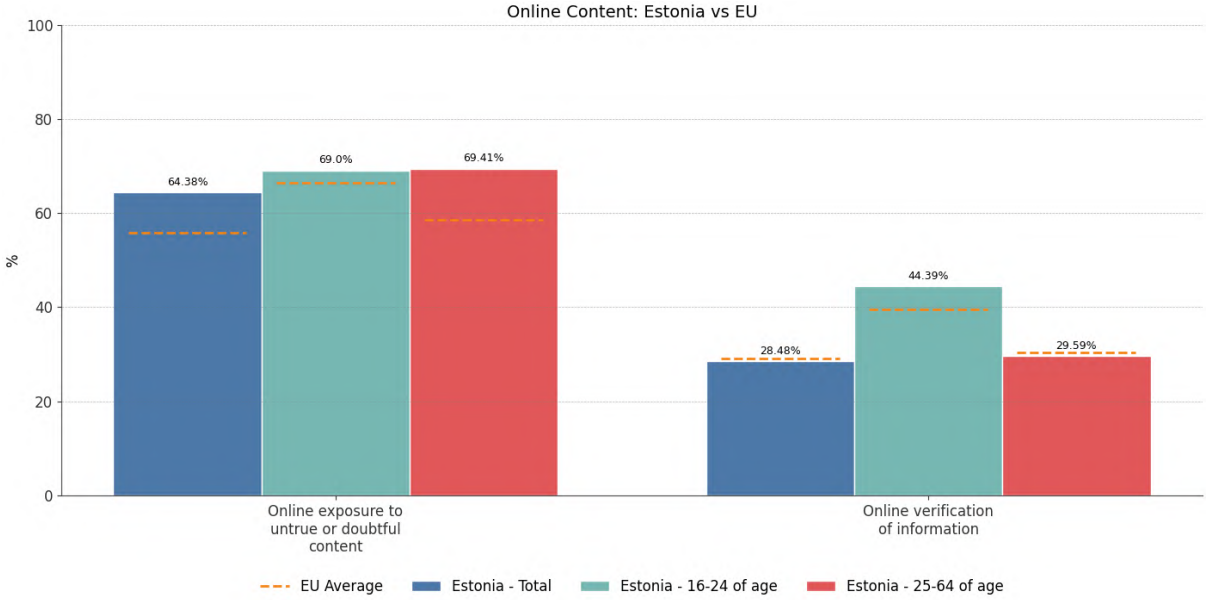


In Estonia, 64.38% of individuals were **exposed to untrue or doubtful content online** in 2025, up 3.7% year-on-year since 2023 from 59.91%. This puts Estonia above the EU average, which rose from 49.25% in 2023 to 55.90% in 2025, representing an EU average annual rate of increase of 6.5%. Broken down by age group, Estonia contrasts with the trend at EU level. Specifically, 69.00% of individuals aged 16-24 were exposed to such content in 2025, slightly above the EU average for this age group of 66.34%. However, this is down slightly year-on-year (by 0.5%) from 69.64% in 2023, contrasting with the EU average which saw a 3.7% increase year-on-year for the same age group, a situation which could be interpreted as somewhat positive for Estonia. Meanwhile, 69.41% of Estonians aged 25-64 were exposed to untrue or doubtful online content in 2025, up 5.2% year-on-year from 62.71% in 2023. This figure is significantly higher than the EU average for this age group of 58.57%. Notably, the gap between the two age groups in Estonia is minimal, with older adults aged 25-64 slightly more exposed (0.41 percentage points) than younger adults, in contrast to the EU trend where younger individuals are more exposed (by 7.77 percentage points).

Estonia

Estonia reported that 28.48% of individuals **verified the truthfulness of online content** in 2025, up 4.4% year-on-year from 26.13% in 2023. This puts Estonia slightly below the EU average, which rose from 24.29% in 2023 to 29.16% in 2025, representing an EU average annual rate of increase of 9.6%. Broken down by age, 44.39% of Estonians aged 16-24 verified online content in 2025, down 2.5% year-on-year from 46.73% in 2023. This figure is higher than the EU average of 39.49% for this age group but reveals a slower rate of increase compared to the EU average of 6.7%. Among individuals aged 25-64, 29.59% verified online content in 2025, up 5.8% year-on-year from 26.45% in 2023. This is slightly below the EU average of 30.4% for this age group. The figures for both Estonia and the EU show greater verification by younger individuals, with the difference being more pronounced in Estonia (14.8 percentage points) than in the EU as a whole (9.09 percentage points).

Data on **individuals exposed to hostile or degrading messages online** is not available for Estonia.



According to the **Digital Decade Eurobarometer 2026**, 85% of the Estonian population consider that online manipulation (such as disinformation, foreign interference, AI-generated content, deepfakes) poses a threat to our democratic processes. In addition, when asked about the online issues with the biggest personal impact, the Estonian public specifically pointed to 'Fake news and disinformation' (53%), 'Misuse of personal data' (44%), and 'Insufficient protections for minors' (39%). In relation to the latter, 94% of Estonian respondents thought that better protection of children and young people online should be a priority for the EU - though this does not necessarily mean restricting minors' access to social media.

The picture regarding online content in Estonia is complex. While overall exposure to untrue or doubtful content exceeds the EU average, the rate of increase is slower, indicating a potential stabilisation in levels of exposure. Interestingly, the minimal difference in the level of exposure between age groups, with older adults only slightly more exposed, contrasts with the EU trend and warrants further investigation. Regarding verification of online content, Estonia is lagging behind the EU average in terms of the rate of increase, particularly among younger individuals. This suggests a need for targeted initiatives to encourage critical evaluation of online information, especially among younger people.

Estonia

Policy context and assessment of the recommendations

Estonia is performing slightly above the EU average on basic digital skills, with comparatively strong results among women, individuals with a lower level of education and rural populations. This success could be explained by Estonia's long-standing commitment to embedding digital skills in its education system. A prime example is the Tiger Leap Program, launched in 1996, which equipped all schools with computers and internet access by 2001 and built up lasting ICT skills among students, teachers and support staff. However, low performance among older individuals and stagnation in the overall level of digital skills in Estonia are cause for concern, especially considering public services are highly digitalised in Estonia, meaning that vulnerable groups with lower digital skills will face barriers to accessing public services and participating in democracy. One contributor to the stagnation of overall digital skills in Estonia is the fragmentation of the digital skills development system, characterised by sector-based, parallel and sometimes duplicative activities, reducing overall impact of skills development activities. This highlights the need to establish a more coherent and integrated digital skills development system supported by effective cross-sectoral coordination.

Estonia is expanding its Digital State Academy in order to improve digital skills among the general public and in the public sector. The Digital State Academy was originally launched in 2021 as a training platform for government employees but is now being transformed into an open, centralised learning-platform for the general public and private sector. Designed to support personalised and life-long learning, the platform currently offers e-courses from 23 private organisations mainly from the public sector, including over 10 courses on data and AI. The platform has already attracted more than 45 000 registered users.

To improve on the already impressive adoption of generative AI tools by the general public, Estonia launched the AI Leap initiative in 2025, partnering with AI companies to introduce AI literacy into its national curriculum. This initiative aims to transform Estonia into a global leader on AI, by providing students and teachers with free access to modern AI-based learning tools. Rapid progress has been made, with more than 100 Estonian upper-secondary schools (out of a total of 154) already equipped with a dedicated AI learning app. At this point, the programme includes 20 000 secondary school students and 3 000 teachers which is due to be extended to vocational schools in 2026, adding another 38 000 students and 2 000 teachers.

Estonia ranked 4th in the European Media Literacy Index 2023, indicating strong resilience to disinformation. In 2024, Estonia continued building on its broad media literacy education by introducing a mandatory course for upper secondary school students called 'media and influencing'. The aim of the course is to help students understand and critically evaluate media content and disinformation. An optional course is also available called 'humans in a contemporary information environment,' which further explores media influence, big data, social media algorithms and propaganda.

2025 recommendation on digital skills: Introduce digital skills measures targeted to mid-level managers to be able to lead the digitalisation process for their employees and enterprises.
Estonia addressed fully the recommendation by putting significant policy actions into place in 2025. Estonia launched a programme targeting mid-level managers comprising a combination of e-learning and in-person courses. The e-learning material was finalised in September and tested with a pilot group of mid-level managers who gave good feedback overall. Estonia's Ministry of Finance, which is responsible for the development of mid-level civil service managers, launched the official

training programme in February 2026, specifically 14 courses for a total of up to 280 participants. Additionally, the programme Leading Next-Level Digital Change has already educated 40 high-level leaders on how to lead the digital change in the public sector and launched its second cohort in the beginning of 2026.

ICT specialists

Performance assessment

In Estonia, ICT specialists represented 6.8% of total employment in 2025, down 5.6% but still above the EU average of 5.0%. While Estonia is still significantly above the EU average, the country is failing to keep up with the trajectory presented in its Digital Decade national roadmap. On a positive note, Estonia has the highest share of ICT graduates in the EU, at 9.4%. This highlights the need to place continued emphasis on supporting field-related employment outcomes and reducing dropouts in education.

Estonia women account for 22.5% of all ICT specialists, which is above the EU average of 19.5%. Moreover, Estonia has the highest share of women ICT graduates in Europe, at 3.4%. While this is encouraging, more work needs to be done to integrate women into the ICT workforce.

Policy context and assessment of the recommendations

One of the main barriers holding back Estonia's ongoing digital transformation and limiting its long-term growth and competitiveness is a shortage of skilled ICT professionals. The ICT monitoring report 2024 released in February 2025 estimated that Estonia will need 40 200 ICT professionals by 2027, i.e. 1.5-times more than in 2020. While the Estonian government is continuing to take measures to address this issue, efforts remain fragmented and lack a cohesive, long-term strategy. One of Estonia's key initiatives is the IT Academy Program, which brings together the Estonian state, universities, vocational schools and ICT companies in order to improve the quality of ICT-related education and ensure the continued development of skilled professionals. The IT Academy Program runs from 2023 to 2029 and is backed by EUR 34 million in support for ICT-related higher education and EUR 24.8 million for ICT-related vocational education. A central aim of both initiatives is to decrease the number of students dropping out of ICT-related courses. An additional EUR 10 million has been earmarked for upskilling and reskilling programmes for ICT professionals, although this initiative is set to end in summer 2026.

A critical issue in Estonia is the difficulty for junior ICT specialists to transition to more senior positions. Despite an overall shortage in ICT specialists, newly educated ICT professionals face difficulties finding jobs and establishing long-term careers. Interestingly, Estonia ranks first in the EU in terms of the share of ICT graduates (9.40% of all graduates), suggesting that the issue is more to do with the alignment and relevance of ICT training for the job market than with the supply of ICT specialists. Many companies lack the resources to upskill junior specialists in order to obtain the highly skilled experts they need, creating a career development bottleneck.

Estonia remains one of the countries with the highest percentage of female ICT specialists. This could be due to the early initiatives taken by Estonia to promote ICT careers to women and girls, such as the Unicorn squad, which offers hobby courses in engineering, robotics and natural sciences to girls aged 8-14. Since its launch in 2018, the programme has attracted over 4 000 participants, helping to foster early interest in STEM fields and bridge the gender gap in technology. Similarly, CyberWizards 2026 is a week-long camp for girls aged 13-16 which introduces essential cybersecurity skills through hands-on workshops.

2025 recommendation on ICT specialists: Continue to implement measures to educate ICT specialists to fill the current gap.
In 2025, Estonia continued the implementation of existing measures but did not take any new measure. One of the main obstacles holding back Estonia's digital transition is a shortage of ICT specialists especially in the fields of AI and cybersecurity. As outlined above, Estonia has continued implementing several measures aimed at increasing the size of the ICT workforce but has not announced any major new programmes. While Estonia still has an above average percentage of ICT workforce, it has regressed over the last year. Combined with ambitious plans for the further digitalisation of the private and public sectors, this regression highlights the critical need to address the ICT specialist shortage.

Key digital public services and solutions – trusted, user-friendly, and accessible to all

Performance assessment

In 2025, Estonia's total digital public services score for citizens (which covers both national and cross-border users) was 97.19/100. This represents a 1.1% increase compared to 2024. As such, Estonia is above the EU average of 84.64/100. The country is keeping up with the trajectory presented in its Digital Decade national roadmap. Specifically in terms of digital public services for national citizens, Estonia scored 97.59/100 in 2025. This is above the EU average of 94.01/100 and unchanged compared to 2024. In terms of cross-border digital public services for citizens, Estonia scored 96.79/100 in 2025, which is well above the EU average of 75.28/100 and up 2.3% on 2024. Citizen-related life events which scored particularly highly included career (100.0), starting a small claims procedure (100.0) and studying (100.0). Conversely, transport (92.32), family (94.44), and health (95.0) showed the greatest room for improvement. In terms of the provision of digital public services to national citizens at different levels of government, central government services scored 88.35/100, regional government services scored 100.0/100, and local government services scored 93.75/100.

Estonia's total digital public services score for businesses (covering both national and cross-border businesses) was 97.5/100 in 2025, above the EU average of 88.59/100. The country is keeping up with the trajectory presented in its Digital Decade national roadmap. Both business-related life events, i.e. business start-up and regular business operations scored 97.5 points. Notably, Estonia's cross-border digital public services score for businesses reached 95.0/100 in 2025, unchanged compared to 2024 but above the EU average of 78.37/100. Estonia's score for digital public services for businesses available to national users was 100.0/100, unchanged since 2024 and putting the country above the EU average of 98.81/100.

Overall, Estonia's digital public services continue to outperform the EU average, scoring close to 100 in many cases. Estonia scored significantly above the EU average on cross-border digital public services for both citizens and businesses.

Estonia scored 100 on access to e-health records, as was the case in 2024, remaining above the EU average of 86.51. The country is on track according to its trajectory presented in the Digital Decade national roadmap, as it has already achieved the Digital Decade target.

Policy context and assessment of the recommendations

Estonia has a long history in the digital identity space, with an eID system in operation for over 20 years. According to ESTAT, 91.48% of Estonians used their eID in 2025. At this point, Estonia has six eID items in its eID system: an ID card, a residence permit card, Digi-ID, e-Residency, Mobiil-ID and Diplomatic ID. Estonia is also making progress in developing the EU Digital Identity Wallet, building on

the existing digital identity ecosystem. The country has established governance structures for the wallet and is preparing procurement processes to support the roll-out, focusing on leveraging private sector capabilities.

Estonia is one of the most advanced Member States when it comes to digital public services. It has a long history of digitisation, with the Estonian public and businesses now able to access a wide range of public services online. Due to efficiency gains for both individuals and businesses, Estonia's strong digital public services may have contributed to rising levels of digital skills among both the population and businesses. At this point, Estonia is focused on increasing the usability and ensuring the continued quality of its digital services through the systematic adoption of AI. This strategy is outlined in Estonia's Digital Society Development plan 2035 with the goal of reducing the cost of the digital public services by at least EUR 425 million by 2030. As part of the broader strategy, the government aims to create AI-powered chatbots to assist with all digital public service procedures by 2030. Initial progress has been made towards the creation of Bürokratt, a general-purpose large language model already adopted by several public sector institutions. From 2026, the general chatbot will move towards a network of personalised AI agents, with each institution using its own customised AI assistant within a unified, cooperative network. The end vision is to create a chatbot network, serving as a single gateway for individuals to access public services and information.

Estonia's early adoption of e-government solutions has led to issues relating to the ageing and usability of its services. To address this, a robust management tool for maintaining and updating digital services is essential. In 2025 Estonia built on its previous e-service design system (VEERA) to produce a new design system called TEDI. Unlike its predecessor which was simply a visual reference, TEDI is intended to also provide front-end code to help streamline new projects. By the end of 2026, the core components of TEDI should be finalised. At a broader strategic level, efforts are increasingly focused on strengthening strategic management and cost-effectiveness, with clearer accountability, reduced duplication, and a greater role for the private sector in service delivery. Work on the consolidation initiative began in autumn 2025 and will continue in the following years guided by Estonia's Digital Society Development plan 2035, aiming to reduce fragmentation, consolidate shared infrastructure, and improve the quality and reliability of digital public services.

Estonia remains a leader in e-health, having already achieved a perfect score (100) for online access to medical records. However, while such records are available online, older individuals and people with disabilities may experience difficulties accessing them. For this reason, accessibility remains an important issue for Estonia. To address this, Estonia adopted a new e-Health Strategy in the beginning of 2025. It focuses on data-driven governance, improving the quality and availability of health data and the adoption of new technologies. Digital solutions, such as telemedicine services and e-consultations with doctors, will improve access to healthcare, especially for people living in rural areas and individual with special needs.

Estonia is using the Digital State Academy to provide free e-learning materials for healthcare professionals. This is part of a joint project with Spain and includes courses such as e-health basics and foundations of healthcare information security and data protection.

2025 recommendation on Digital Public Services: Improve the useability of the digital public services to ensure that they are accessible to all as well as to ensure that its services are up to date.
Estonia made some efforts to address the recommendation through new policy actions in 2025. As mentioned above, a new digital public services management system is in the process of being

adopted and an AI chatbot assistant is under development. Additionally, the work on consolidating the fragmented digital public services in Estonia have begun. However, these initiatives are still in their early stages and need to be implemented further.

Leveraging digital transformation for a smart greening

In Estonia, the level of recycling of electronic equipment is above the EU average, however per capita air emissions from the ICT sector are among the highest in Europe. Recently published sectoral data on air emissions show that Estonia's ICT sector emitted 68.2 kg CO_2 eq per capita, which is far higher than the EU average of 22.8 kg CO_2 eq per capita (data from 2022). Most of these emissions are attributed to ICT manufacturing (87.2%), with Estonia having the highest in Europe. The ICT sector accounted for 0.84% of the entire economy's air emissions, again the highest share in Europe and more than double the EU average (0.35%). However, 85.25% of ICT-related waste collected (corresponding to two categories of waste electrical and electronic equipment) was recycled or prepared for reuse. This is higher than the EU average of 80.23%. According to the Digital Decade Eurobarometer 2026, 36% of the Estonian population consider that 'green digital technologies (e.g. energy-saving tech)' will be the technology that has the most positive impact over the next ten years.

In May 2026, Estonia adopted its new Digital Society Development plan 2035, in which sustainability is not a central focus. Nevertheless, the transition to green ICT across the public sector is still highlighted as a key expectation. To achieve this goal, all public sector institutions have been instructed to measure their ICT carbon footprint and take steps to reduce it by adopting environmentally sustainable and energy-efficient solutions where possible. Additionally, through the consolidation of digital public services and the move towards more centralised ICT management within the public sector, Estonia aims to reduce duplication of infrastructures and thereby limit waste.

2025 recommendation on smart greening: Implement a coherent green digitalisation strategy to be able to keep up with the country's ambition of being the world's greenest digital government.
Estonia made some efforts to address the recommendation through new policy actions in 2025. In Estonia's Digital Society Development plan 2035, the country has dropped its ambition of becoming the world's greenest digital government. However, the plan contains several concrete steps to reduce the environmental impact of ICT across the public sector. Further work is needed to implement these initiatives, including the centralisation of ICT management within the public sector, and the institutionalised measuring of each public institution's ICT footprint.

Annex I: National roadmap analysis

Estonia's national Digital Decade strategic roadmap

Estonia submitted a fully revised national Digital Decade roadmap on 27 March 2025. The roadmap contains 13 new targets, 13 trajectories and an update of its intended actions. The adjusted roadmap shows a stronger emphasis on quantum computing (including HPC), EU-level cooperation and digital skills. It includes clear reporting on the public consultation of stakeholders. However, the green transition is not very well incorporated. The roadmap includes measures that provide an insight to the state of play, but most of the activities described lack detail – such as budget, timeline and expected impact – that would give a better understanding of planned actions.

The new roadmap addresses a limited number of the 2024 roadmap recommendations.

The 2025 roadmap includes a target and trajectory for VHCN coverage, FTTP coverage, 5G coverage, SMEs with at least a basic level of digital intensity, cloud, AI, data analytics, unicorns, ICT specialists, digital public services for citizens, digital public services for business, and access to health records. all these key performance indicators (KPIs) except edge nodes. Estonia has chosen to not set a target regarding edge notes because it is following a market-driven approach. Estonia has aligned the level of ambition of the target for digital skills of at least a basic level with the EU target (80%) and has proposed a trajectory for this target.

Estonia has presented its planned activities dedicated to the KPIs mentioned above. However, these activities have not been presented as clear-cut measures with budget, timeline, and expected impact giving a better understanding of planned actions.

Estonia has consulted and reported on the stakeholders' feedback process. Estonia initiated a review involving contributors from the public and private sectors and civil society. Additionally, Estonia also conducted surveys, participated in networking forums, and held workshops. However, the roadmap lacks information on how stakeholder feedback was taken into consideration

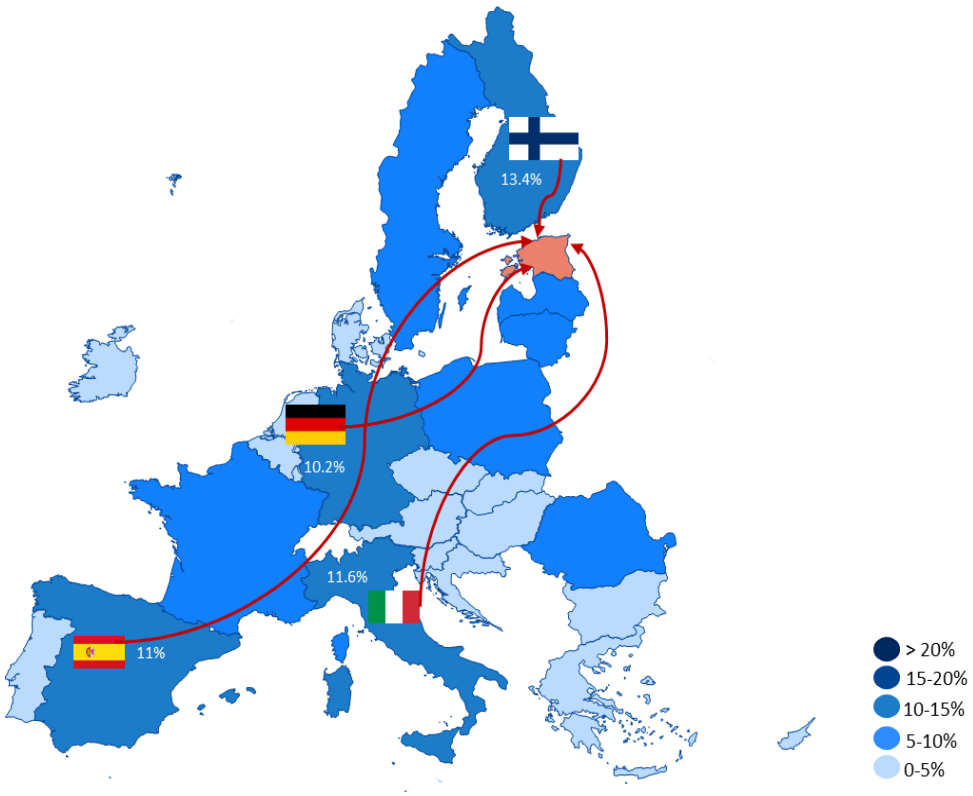
Overall, Estonia presents a selected set of main policies and measures contributing to the achievement of some Digital Decade targets. The measures presented cover several types of objectives: technological leadership, sovereignty, competitiveness and cybersecurity. It is not possible to determine the budget of the measures presented.

Annex II: Funding, economic impacts & Multi-Country Projects

Country results from the study 'Assessing the Economic Impact of Digital Investments under the Recovery and Resilience Facility'

A modelling study conducted by the European Commission services, with the FIDELIO model, assesses the economic impact of the digital component of the RRF. As of November 2025, the digital part of the Recovery and Resilience Plan of Estonia was evaluated to EUR 208 million with EUR 24 million for digital infrastructures, EUR 10 million for digital skills, EUR 76 million for the digitalisation of businesses, and EUR 97 million for the digitalisation of public services.

The total economic impact of RRF digital measures is estimated to EUR 225 million for the national economy. Of this, EUR 147 million stems from the direct effects of Estonia's own RRP and EUR 78 million corresponds to spillover effects from the implementation of other EU Member States' plans. Estonia benefited the most from spillover effects from RRPs of Finland (EUR 10 million), Italy (EUR 9 million), Spain (EUR 9 million). The most impacted sectors are ICT Services (EUR 68 million), Professional Services (EUR 27 million) and Manufacturing (EUR 26 million).



RRF spillover effects to Estonia

Estonia

Funding from the Recovery and Resilience Facility (RRF) & Cohesion Policy

Estonia allocates 24% of its total recovery and resilience plan to digital (EUR 0.2 billion)[1]. In addition, under cohesion policy, EUR 0.4 billion, representing 10% of the country's total cohesion policy funding, is dedicated to advancing Estonia's digital transformation[2].

Multi-Country Projects

Estonia is a member of the Local Digital Twins towards the CitiVERSE EDIC and is an observer to the Alliance for Language Technologies EDIC. Estonia is a participating state of the EuroHPC Joint Undertaking (JU) and of the Chips JU.

[1] The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation. Last data update: 23 April 2026.

[2] This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 Cohesion policy programming period. The source funds are the European Regional Development Fund (including Interreg), the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.