

Report on the State of the Digital Decade 2024

Annex - Short Country Report 2024

Romania

Executive summary

Romania has scope to improve its performance to contribute to the European Union's (EU) Digital Decade objectives and targets, in view of a successful digitalisation that fosters competitiveness, resilience, sovereignty, European values and climate action.

In 2023, Romania made **notable progress in digitalising public services and in digitalising SMEs** and continued to have an outstanding performance on **FTTP coverage**. However, in spite of the ongoing efforts, important **challenges persist in improving basic digital skills** across the population and in rolling out **5G networks**.

Digital transformation has gained political importance in Romania over the last few years, and currently benefits from significant amounts of EU funding. Romania dedicates 21.8% of its total Recovery and Resilience Plan to digital (EUR 5.8 billion)¹. Under Cohesion Policy, an additional EUR 3 billion (10% of the country's total Cohesion Policy funding) is allocated to the country's digital transformation². Some of the ongoing measures already start to generate improvements in key performance indicators (KPIs), but for now the large-scale benefits to citizens and businesses in terms of digital education and inclusion, competitive and innovative business or better and more transparent public services remain insufficient.

According to the Special Eurobarometer 'Digital Decade 2024'³, **59% of Romania's population considers that the digitalisation of daily public and private services makes their life easier**. This is one of the lowest scores in the EU, much below the EU average of 73%.

Regarding participation in European Digital Infrastructure Consortia (EDICs), Romania is a member of the EUROPEUM EDIC (in the area of blockchain, already set up) and is participating in the Working Groups developing the Statutes and other relevant documents of the possible future Genome and IMPACTS (Connected Public Administration) EDICs⁴.

¹ The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation.

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, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

³ Special Eurobarometer 551 on 'the Digital Decade' 2024: <https://digital-strategy.ec.europa.eu/en/news-redirect/833351>

⁴ Information last updated on 31 May 2024.

Digital Decade KPI ⁽¹⁾	Romania			EU		Digital Decade target by 2030	
	DESI 2023	DESI 2024	Annual progress	DESI 2024 (year 2023)	Annual progress	RO	EU
Fixed Very High-Capacity Network (VHCN)	95.6%	95.0%	-0.6%	78.8%	7.4%	99%	100%
Fibre to the Premises (FTTP) coverage	95.6%	95.0%	-0.6%	64.0%	13.5%	99%	-
Overall 5G coverage	26.8%	32.8%	22.4%	89.3%	9.8%	62%	100%
Semiconductors		NA					
Edge Nodes		5		1 186		113	10 000
SMEs with at least a basic level of digital intensity	22.2%	26.8%	9.9%	57.7%	2.6%	75%	90%
Cloud	11.3%	15.5%	17.1%	38.9%	7.0%	40%	75%
Artificial Intelligence	1.4%	1.5%	3.5%	8.0%	2.6%	10%	75%
Data analytics	NA	21.9%	NA	33.2%	NA	15%	75%
AI or Cloud or Data analytics	NA	28.7%	NA	54.6%	NA		75%
Unicorns		0		263		x	500
At least basic digital skills	27.8%	27.7%	-0.2%	55.6%	1.5%	50%	80%
ICT specialists	2.8%	2.6%	-7.1%	4.8%	4.3%	4%	~10%
e ID scheme notification		No					
Digital public services for citizens	47.6	52.2	9.7%	79.4	3.1%	100	100
Digital public services for businesses	44.6	50.0	12.1%	85.4	2.0%	100	100
Access to e-Health records	57.1	58.6	2.7%	79.1	10.6%	x	100

⁽¹⁾ See the methodological note for the description of the indicators and other descriptive metrics

⁽²⁾ Last measure used is for 2021

National digital decade strategic roadmap

With respect to **Romania's** contribution to the Digital Decade reflected in its [roadmap](#), it is demonstrating a **high ambition** and, based on this document, intends to allocate **some effort** to achieve the Digital Decade objectives and targets, although the **formal adoption of the roadmap at the national level**, which is crucial for the country to fully commit towards these ambitions, **is still pending**.

Romania endorsed national targets corresponding to all Digital Decade 2030 targets, with the exception of e-Health, quantum, edge nodes and semiconductors. The targets for digital skills, the digitalisation of businesses, and 5G coverage are set significantly below the levels of the EU targets.

The 97 measures included in the roadmap largely build on the Romanian Recovery and Resilience Plan (RRP) and, to a more limited extent, on the relevant cohesion policy funding. Based on the budget information that is included in the plan, it appears that most funding efforts concentrate on the digitalisation of public services (11 measures worth over EUR 1 billion) and on improving digital skills (23 measures worth over EUR 1 billion), which are seen as key drivers of Romania's digitalisation. On the digitalisation of businesses, most measures included in the roadmap are taken at regional level via the European Digital Innovation Hubs, and as such they are not likely to address all the identified challenges. The roadmap acknowledges that further action is needed to support digital R&D, innovation, and the digital transformation of businesses. Interinstitutional processes have started to develop policies in areas such as semiconductors, quantum and, to a lesser extent, edge nodes, partly building on Romania's participation in multi-country projects. Overall, the roadmap could be further developed to reflect the general objectives of the programme.

Recommendations for the roadmap

Romania should, when submitting adjustments to its national roadmap in accordance with Article 8(3) of the DDPP Decision:

- **TARGETS:** (i) propose targets and trajectories for edge nodes and eHealth; (ii) revise the unicorns target in line with the current KPI definition; (ii) Raise the level of ambition for 5G, basic digital skills, ICT specialists, digitalization of SMEs and the take up of advanced digital technologies.
- **MEASURES:** (i) review the measures supporting the targets for the digitalisation of business and take up of advanced digital technologies, to ensure a more comprehensive overview, as well as the objectives of the programme; (ii) continue the institutional process to develop policies in the areas of semiconductors, edge, and quantum; (iii) review the budget description of the measures funded by national budget and cohesion policy; (iv) classify the measures according to the target and/or objective that they contribute to; (v) Provide more information on the implementation of digital rights and principles (and Digital Decade general objectives), including on contributing measures.
- **CONSULTATION:** Ensure a consultation process for the revised roadmap, giving interested stakeholders sufficient time to react, and report on it in the roadmap.

Digital rights and principles

The Special Eurobarometer 'Digital Decade 2024' reveals key insights into Romanian perceptions of digital rights. 45% believe the EU protects their digital rights, just like the EU average. Confidence in digital privacy is at 48%, slightly below average. Concerns include online safety for children (48%) and control over personal data (41%), both showing a prominent increase. Positive trends include the importance attributed by Romanians to digital technologies for accessing public services (64%) and connecting with friends and family (71%). The monitoring of the Declaration on Digital Rights and Principles shows that increasing the profile of the Declaration at national level and fostering better stakeholder engagement could help improve outcomes in the years to come⁵.

A competitive, sovereign, and resilient EU based on technological leadership

With 95% coverage of households (second highest in the EU), Romania is close to delivering almost full FTTP coverage to its citizens and businesses, including in rural areas, where coverage is 92.5% already and still progressing quickly. The country also has the highest take up of high-speed internet in the EU: 94% of internet connections are at speeds of 100Mbps or above. Following the recent spectrum allocation and various regulatory measures, **5G coverage is improving, but still severely lagging behind the EU average**. Performance on **the digitalisation of businesses remains much below the EU average**, although a positive dynamic has been observed for basic digital intensity and some other related indicators, in particular **e-Invoicing**. Despite efforts, a significant gap remains to achieve the digitalisation of business targets by 2030 and to implement the roadmap, including to **increase the level of R&D and innovation in the ICT sector**. **Significant developments in the field of cybersecurity**

⁵ See SWD 'Digital Decade in 2024: Implementation and perspective' with annexes, SWD(2024)260: <https://digital-strategy.ec.europa.eu/en/news-redirect/833325>, Annex 4.

were also observed in 2023, initiated by both private and public actors, including efforts to raise awareness and build relevant skills.

Recommendations – Romania should:

- **CONNECTIVITY INFRASTRUCTURE:** (i) Undertake additional efforts to support a higher level of ambition for the 5G target, including possible support for use cases and pilots, in view of the importance for EU and Romania's future competitiveness and building on the current positive trend; (ii) Ensure sufficient access of new players to spectrum for innovative business-to-business (B2B) and business-to-consumer (B2C) applications and encourage operators to speed up the deployment of 5G stand-alone core networks.
- **SMEs:** Intensify action on digitalisation of business, starting with providing a comprehensive overview of the available support measures and identifying potential gaps in terms of meeting existing needs, as well as with ensuring the good functioning of the EDIHs.
- **CLOUD/EDGE:** (i) Stimulate the adoption of next generation cloud infrastructure and services by companies of all sizes, including by liaising with the Cloud IPCEI Exploitation office and/or the Member States participating in the IPCEI-CIS; (ii) Consider edge node deployment when creating investment programmes and strategies in these areas of AI, future network deployment, and the Internet of Things, as edge computing is an important component of those.
- **UNICORNS:** Extend the measures to support an innovative, R&D driven ICT sector, as part of the competitiveness and technological leadership objectives in the roadmap.
- **QUANTUM/SEMICONDUCTORS:** Develop a policy and further measures to support the semiconductors, quantum, and edge nodes targets, building on the growing national interest and existing assets, as well as multi-country cooperation.
- **CYBERSECURITY:** (i) Extend the roadmap to better reflect the growing interest in and activities related to cybersecurity, setting clear objectives in this respect; (ii) Continue the implementation of the 5G Cybersecurity Toolbox to ensure secure and resilient 5G networks.

Protecting and empowering EU people and society

Romania is making massive efforts to raise the level of digital skills, in a context where **more than 72% of its population still lacks basic digital skills**. The focus is currently on integrating digital skills into all levels of formal education, including through curricula reforms, teacher trainings, infrastructure and learning resources. Some more limited measures target adults by transforming public libraries into hubs for digital skills, upskilling/reskilling working adults, and training young people. While **Romania continues to perform very well on training ICT specialists, the proportion of ICT specialists in its workforce is relatively low**, partly due to difficulties to retain them in the country.

The performance concerning the **digitalisation of public services remains low, but continuous action could lead to radical improvements in the coming years**, in terms of transparency, simplification, and quality. Important in this respect are the efforts to digitalise key national and regional services and to set up a governmental cloud and an interoperability portal and framework. **An e-ID solution, ROeID, is in the pre-notification process. Access to health records remains poor** but has the potential to

improve as a result of a wider RRF investment. Finally, Romania pays increasing attention to **protecting children online**, and to societal issues such as **disinformation and trust** in online services.

Recommendations – Romania should:

- **BASIC DIGITAL SKILLS:** (i) Intensify the measures related to upskilling and reskilling of the workforce; (ii) Continue to improve the quality and the relevance of courses, teaching digital skills not only as a separate subject but also integrating digital skills and digital education into all levels, while taking a cross curricular approach.
- **ICT SPECIALISTS:** Consider additional measures targeting to retain ICT specialists in the country.
- **DIGITAL PUBLIC SERVICES:** Maintain the efforts needed to implement the ambitious ongoing agenda for the digitalisation of public services, including by ensuring sufficient levels of funding, project management capacity and ICT specialists, and extensive/strong coordination across the various relevant authorities.
- **E-HEALTH:** Expand the coverage of the online access service, make the data regarding medical devices/implants, laboratory tests, and medical images available to citizens through this online access service and onboard more categories of healthcare providers to it.

Leveraging digital transformation for a smart greening

Romania underlines that its major efforts to digitalise government services, in particular environmental services, will also bring significant benefits in terms of climate action. As of 2023, digital and green education are brought to school children as optional courses. Importantly, a dynamic clean-tech sector seems to be emerging and benefits from several support measures at national and regional levels.

Recommendations - Romania should:

- Develop a coherent approach to twinning the digital and green transitions. First, promote improvements in energy and material efficiency of digital infrastructures, in particular data centres. Second, support the development and deployment of digital solutions that reduce the carbon footprint in other sectors, such as energy, transport, buildings, and agriculture, including the uptake of such solutions by SMEs.
- Monitor and quantify the emission reductions of the deployed digital solutions in line with the relevant EU guidance and with the support of the methodology developed by the [European Green Digital Coalition](#), in view of future policy development, as well as of attracting relevant financing.