

Report on the State of the Digital Decade 2024

Annex - Short Country Report 2024

Portugal

Executive summary

Portugal has untapped potential 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, Portugal made notable progress in e-health and in rolling out 5G networks, including in the 3.4–3.8 GHz band. However, **important challenges persist** in improving basic and advanced skills across the population.

Digitalisation is a priority of the Portuguese authorities with the emphasis on reliable online public services, development of digital skills and unleashing the digital potential of enterprises. Portugal is seizing the opportunity to use EU funds to transform its economy and society and is devising its strategies on new technologies such as cybersecurity, AI, and advanced computing. Its work in this respect is facilitated by excellent digital infrastructure. However, despite the efforts, some metrics related to the general population and enterprises suggest the need for more intensive action.

According to the Special Eurobarometer 'Digital Decade 2024'¹, 74% of Portugal's population consider that the digitalisation of daily public and private services is making their lives easier (just above the EU average of 73%).

Portugal is a member of the already established Local Digital Twins towards CitiVERSE European Digital Infrastructure Consortium (LDT CitiVERSE EDIC) and of the EUROPEUM-EDIC. Portugal, together with other Member States is participating in the works for the possible future EDICs: Cybersecurity Skills Academy EDIC, the EUCAIM EDIC and the Genome EDIC².

The Portuguese Recovery and Resilience plan dedicates EUR 4.5 billion (21% of the total allocation)³ to the digital transformation, with priorities given to digital qualification and skills and the digital transformation of businesses. Under Cohesion Policy, an additional EUR 2.4 billion (11% of the country's total Cohesion Policy funding) is allocated to the country's digital transformation⁴.

¹ Special Eurobarometer 551 on 'the Digital Decade' 2024: <https://digital-strategy.ec.europa.eu/en/news-redirect/833351>.

² Information last updated on 31 May 2024.

³ The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation.

⁴ 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.

Digital Decade KPI ⁽¹⁾	Portugal			EU		Digital Decade target by 2030	
	DESI 2023	DESI 2024	Annual progress	DESI 2024 (year 2023)	Annual progress	PT	EU
Fixed Very High-Capacity Network (VHCN)	93.0%	94.2%	1.2%	78.8%	7.4%	x	100%
Fibre to the Premises (FTTP) coverage	90.8%	92.3%	1.7%	64.0%	13.5%	x	-
Overall 5G coverage	70.1%	98.1%	40.0%	89.3%	9.8%	x	100%
Semiconductors		NA					
Edge Nodes		19		1 186		x	10 000
SMEs with at least a basic level of digital intensity	48.6%	53.6%	5.0%	57.7%	2.6%	90%	90%
Cloud	28.1%	32.3%	7.2%	38.9%	7.0%	x	75%
Artificial Intelligence	7.2%	7.9%	4.7%	8.0%	2.6%	x	75%
Data analytics	NA	38.6%	NA	33.2%	NA	x	75%
AI or Cloud or Data analytics	NA	54.4%	NA	54.6%	NA	75%	75%
Unicorns		1		263		2	500
At least basic digital skills	55.3%	56.0%	0.6%	55.6%	1.5%	80%	80%
ICT specialists	4.3%	4.5%	4.7%	4.8%	4.3%	7%	~10%
e ID scheme notification		Yes					
Digital public services for citizens	77.8	81.5	4.8%	79.4	3.1%	x	100
Digital public services for businesses	81.9	81.9	0.0%	85.4	2.0%	x	100
Access to e-Health records	62.7	86.0	37.2%	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 **Portugal's** contribution to the Digital Decade reflected in its roadmap, it is demonstrating **some ambition** however, based on this document, intends to allocate **limited effort** to achieve the Digital Decade objectives and targets. **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**.

Portugal's roadmap partly reflects the efforts needed in all dimensions of digitalisation. The roadmap **includes only some of the expected national targets**, i.e., those related to digital skills, at least a basic level of digital intensity of SMEs, unicorns, and a joint target for the take-up of AI, cloud or data analytics, leaving space for higher ambition. The roadmap **does not include any trajectories** making it difficult to assess the pace of implementation. The national targets set for 2030 reflect EU target levels of ambition except for ICT specialists. The total budget for the measures is **EUR 854 million** (0.3 % of GDP). While the measures presented tackle some of the most pressing issues, such as the insufficient level of basic digital skills, ICT specialists, and the digitalisation of businesses, more intensive efforts are needed to reach the national targets. For the sake of the cooperation foreseen by the programme, a comprehensive roadmap perspective remains crucial also in areas where the country performs well, e.g., connectivity.

Recommendations for the roadmap

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

- **TARGETS:** (i) Propose targets and trajectories concerning VHCN, FTTP, 5G coverage, edge nodes, cloud, AI and data analytics separately, accessibility of key public services for citizens and businesses, access to e-health records and set trajectories for basic digital skills, ICT specialists, digital intensity of SMEs, unicorns using correct baseline value. (ii) Align the level of ambition of the target for ICT specialists with the EU target. (iii) Consider establishing national ambitions for technological leadership, competitiveness, and resilience to support EU-wide targets regarding semiconductors and quantum.
- **MEASURES:** (i) Supplement the roadmap with measures related to connectivity. (ii) Review the measures contributing to targets on skills and digitalisation of enterprises, consider setting up additional measures for ICT specialists and basic digital intensity of enterprises. (iii) Review the budget description of all presented measures, highlighting both national and EU sources. (iv) Provide more information on the implementation of digital rights and principles (and Digital Decade general objectives), including what national measures contribute to it. (v) Incorporate, where appropriate, measures reported through other channels in the roadmap.
- **CONSULTATION:** Consult key stakeholders, as outlined in the DDPP, before proposing the adjustment to the national roadmap.

Digital rights and principles

The Digital Decade Eurobarometer reveals that 43% of Portuguese respondents believe the EU protects their digital rights, slightly below the EU average of 45%. Confidence in digital privacy stands at 48%, also lower than the EU average. Concerns have risen significantly, with 60% worried about children's online safety, up 20 points since 2023, and 52% about control over personal data, up 15 points since 2023. Despite these concerns, 78% consider digital technologies important for accessing public services and 83% for connecting with friends and family, aligning with the EU average. 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

To underpin its technological leadership and competitiveness, Portugal is equipped with excellent infrastructures, with a positive deployment dynamic, but it can still boost the digitalisation of its businesses. On infrastructures, Portugal is on track to reach 100% coverage for Gigabit connectivity (VHCN 94.2%, and 92.3% for FTTP) and 5G (98.1%) much earlier than 2030, the timing set for the EU target. 65.2% of Portuguese households are covered by 5G in the 3.4-3.8 GHz band, essential for enabling advanced applications requiring large spectrum bandwidth. However, the figure for fixed broadband subscriptions with download speeds of 1 Gbps or more is 9.1%, below the EU average of 18.5%. Portugal's overall good starting point is due to public initiatives, such as the recent 5G auction

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.

and the ongoing Gigabit tender, combined with the dynamism of private operators. On the other hand, the indicators on the digitalisation of enterprises (basic digital intensity of SMEs and take-up of data analytics, AI and cloud) point to a performance below or equal to the EU average. SMEs are underperforming in the adoption of digital technologies, despite ample funding support offered by the Portuguese recovery and resilience plan and other sources of EU funding, and the vision established in the COMPETE 2030 programme. However, a strong agenda is in place to foster the growth of the start-up ecosystem. Portugal aims to step up its contribution to the EU's technological resilience and sovereignty with the recent strategy on semiconductors, and the revision of its strategies and actions on advanced computing and AI. A whole-of-society approach to cybersecurity skills and capabilities is also contributing to this objective.

Recommendations – Portugal should:

- **CONNECTIVITY INFRASTRUCTURE:** 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.
- **SEMICONDUCTORS:** Continue efforts in the area of semiconductors including by proposing concrete actions and exploring synergies between the national strategy and the EU-level cooperation.
- **DIGITALISATION OF SMEs and UNICORNS:** (i) Intensify the existing measures in view of the ambitious target on the basic digital intensity of enterprises and the need to ensure continuity of support until 2030; (ii) Continue reinforcing the country's start-up and scale-up ecosystem, in particular by ensuring availability and effectiveness of adopted measures.
- **AI/CLOUD/DATA ANALYTICS:** (i) Envisage specific measures for the take up of cloud, AI and data analytics, such as reinforced collaboration between public and private sector and with academia to better match the potential of these technologies with the business needs; (ii) 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 coordinators and the Member States participating in the IPCEI-CIS.
- **CYBERSECURITY:** Continue the implementation of the 5G Cybersecurity Toolbox to ensure secure and resilient 5G networks.

Protecting and empowering EU people and society

Portugal is well equipped to deliver an inclusive digital transition, but sustained efforts will be required to continuously increase the population's level of digital skills and train ICT specialists. The population's level of at least basic digital skills is just above the EU average, showing limited progress in the past few years. The proportion of ICT specialists in employment is lower than the EU average, with a decreasing share of women in the profession. Over the last few years, Portuguese authorities devised multiple initiatives to enhance the digital skills of the population, including in the workforce; these include reforms and investments in the education system and the provision of other training initiatives. The ambition of the Digital Decade and national targets will require Portugal to further intensify its efforts in this domain. The digitalisation of public services remains close to the EU average, while the level of e-health maturity improved significantly and is now above the EU average. With

measures supporting digitalisation of the health system, implementing e-ID schemes and supporting the modernisation of public administration, Portugal is on track to achieve the EU-wide targets. At the same time, it could do more to raise awareness among the population about the benefits of the solutions in place.

Recommendations – Portugal should:

- **BASIC DIGITAL SKILLS:** Intensify efforts including by evaluating the take-up of the current measures and the remaining needs in order to meet the ambitious target.
- **ICT SPECIALISTS:** Adopt additional measures for ICT specialists, including cybersecurity talent and promoting ICT studies and gender balance in the field.
- **DIGITAL PUBLIC SERVICES/e-ID:** Continue developing user-friendly e-Government solutions and intensify efforts to promote their take-up, with particular attention to the e-ID.
- **E-HEALTH:** Make the data types of medical images and hospital discharge reports available to citizens through the online access service and, building on existing legal provisions, implement technical functionality for legal guardians and authorised persons to access electronic health data on behalf of others.

Leveraging digital transformation for a smart greening

Portugal is beginning to attach importance to twinning the digital and green transitions. The Portuguese authorities have shown growing commitment to a more sustainable future, putting in place digital measures, such as paperless invoicing or energy efficiency tracking, to support more resource-efficient public administration, enterprises and individual lives. On the objective of making the ICT sector more environmentally friendly, most of the players in the telecoms sector are carrying out sustainability reporting, which makes it possible to track improvements in the connectivity sector. However, a more comprehensive approach in this area may be necessary.

Recommendations - Portugal 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.