Report on the State of the Digital Decade 2024

Annex - Short Country Report 2024

Spain

Executive summary

Spain brings a very strong contribution 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, Spain made notable progress** on increasing basic digital skills and in the use of artificial intelligence by enterprises. Spain has an excellent FTTP coverage and has taken significant action in the area of semiconductors. However, important **challenges persist** regarding the lack of ICT specialists and some indicators related to the digitalization of business, including the take up of cloud.

The [Digital Spain Agenda](#) is the country's digital transformation strategy aiming to leverage new technologies to drive intensive economic growth, placing people at the centre, and reaching all territories. The agenda is structured around ten strategic axes and two cross-cutting axes, which are framed by three dimensions reflecting the Digital Decade Policy Programme: (i) infrastructure and technology; (ii) economy; and (iii) people. It was approved in 2020 and updated in 2022 under the name 'Digital Spain 2026'. According to the special Eurobarometer on 'the Digital Decade' 2024[1], **73% of Spanish citizens consider that the digitalisation of daily public and private services is making their lives easier**. This percentage aligns with the EU average and reflects the success of Spanish authorities in the inclusive implementation of the Digital Agenda.

Spain is a member and the host of the **European Digital Infrastructure Consortium** of the Local Digital Twins towards the **CitiVERSE – EDIC** (already set up) and has recently joined the Alliance for Language Technologies EDIC (**ALT-EDIC**, already set up), which addresses the scarcity of European language data needed for AI solutions. Spain is also developing the Statutes and other relevant documents of the possible future Genome EDIC and the EDIC for Mobility and Logistics Data, within their informal working groups. In addition, the country is engaging in discussions on the setting up of the Cancer Image Europe (EUCAIM) and the Agri-Food EDICs, within their informal Working Groups[2]. Concerning the Important Projects of Common European Interest (IPCEIs), Spain takes part in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS) and the **IPCEI on Microelectronics and Communication Technologies** (IPCEI-ME/CT). In addition, Spain takes part in the European High Performance Computing Joint Undertaking (EuroHPC) with the supercomputer MareNostrum 5 based in Barcelona.

The Spanish Recovery and Resilience Plan (RRP) allocates 26% of its budget to measures linked to the digital area[3]. The modified plan, updated in October 2023, has a stronger focus on the digital transition, devoting **EUR 40.4 billion to measures that support digital objectives** (up from EUR 19.7 billion in the original plan). Under the cohesion policy, an additional EUR 5.7 billion (16% of the country's total cohesion policy funding) is allocated to the country's digital transformation[4].

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[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]	Spain			EU		Digital Decade target by 2030	
	DESI 2023	DESI 2024	Annual progress	DESI 2024 (year 2023)	Annual progress	ES	EU
Fixed Very High-Capacity Network (VHCN)	93.3%	96.3%	3.2%	78.8%	7.4%	100%	100%
Fibre to the Premises (FTTP) coverage	91.0%	95.2%	4.6%	64.0%	13.5%	100%	-
Overall 5G coverage	82.3%	92.3%	12.1%	89.3%	9.8%	100%	100%
Semiconductors		NA					
Edge Nodes		171		1 186		x	10 000
SMEs with at least a basic level of digital intensity	59.7%	60.5%	0.7%	57.7%	2.6%	90%	90%
Cloud	27.0%	27.2%	0.4%	38.9%	7.0%	75%	75%
Artificial Intelligence	7.7%	9.2%	9.3%	8.0%	2.6%	75%	75%
Data analytics	NA	38.0%	NA	33.2%	NA	75%	75%
AI or Cloud or Data analytics	NA	49.9%	NA	54.6%	NA		75%
Unicorns		11		263		24	500
At least basic digital skills	64.2%	66.2%	1.6%	55.6%	1.5%	85%	80%
ICT specialists	4.3%	4.4%	2.3%	4.8%	4.3%	8.6%	~10%
e ID scheme notification		Yes					
Digital public services for citizens	86.2	84.2	-2.3%	79.4	3.1%	100	100
Digital public services for businesses	91.0	91.0	0.0%	85.4	2.0%	100	100
Access to e-Health records	83.2	84.6	1.7%	79.1	10.6%	100	100

[1] See the methodological note for the description of the indicators and other descriptive metrics

National digital decade strategic roadmap

Regarding **Spain's** contribution to the Digital Decade reflected in its roadmap, the country is demonstrating a **very high ambition** while intends to dedicate **significant effort** to achieve the Digital Decade objectives and targets.

The Spanish roadmap is ambitious, comprehensive, and coherent with the vision of Spain making a strong contribution to achieving the EU's Digital Decade targets. Building on the roadmap, Spanish authorities have paved the way for the digital transformation of the Spanish economy throughout the past years, with the document reflecting this vision and commitment. The roadmap presents targets and trajectories for all the Digital Decade targets, except for Edge-nodes. Overall, the targets are aligned with the EU values with the exception of the basic digital skills, which surpasses the EU target, and the ICT specialists, which stands slightly below the EU ambition level. **The roadmap contains up 67 measures with a total budget of EUR 33 750 million** (about 2.3% of its GDP), setting as key deliverables the growth of unicorns, innovative scale-up ecosystem, and the production of semiconductors.

Recommendations for the roadmap

Spain should, when submitting adjustments to its national roadmap in accordance with Article 8(3) of the DDPP Decision:
- **TARGETS:** (i) Propose targets and develop trajectories for edge nodes; (ii) align with the EU level of ambition for ICT specialists.

- **MEASURES:** (i) Reinforce the roadmap with additional measures on ICT specialists, on the adoption of the advanced digital technologies, and on objectives; (ii) Provide more information on the implementation of digital rights and principles (and Digital Decade general objectives), including on contributing measures.
- **CONSULTATION:** Publish the roadmap to encourage open debate and engagement with the Digital objectives and receive future stakeholder feedback.

Digital rights and principles

The Special Eurobarometer on 'the Digital Decade' 2024 highlights that only 36% of Spaniards believe the EU protects their digital rights, a significant 9-point gap below the EU average (45%) and a 13-point increase in distrust since last year. Concerns are growing, notably with 61% alarmed about children's online safety—up 21 points, and 53% about control over personal data—up 17 points. Positively, 60% trust in affordable high-speed internet and 62% are satisfied with the level of digital skills. These findings underscore the urgency of enhancing digital rights and principles in Spain's roadmap and digital strategies. 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 to improve outcomes in the years to come[5].

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

Spain performs exceptionally well in connectivity: FTTP stands at 95.2% and 5G coverage at 92.3%, much above the EU average and close to reaching the target. Concerning **semiconductor production**, the country set it up as a priority through the PERTE Chip. Although the roadmap does not present targets and trajectories for it, the country can be considered ambitious in Edge nodes given the public and private investments and its participation in IPCEI-CIS to accelerate the edge nodes deployment. The same approach applies to Quantum technology, given Spain's participation in the EuroHPC and the presentations in last December of the 'Quantum Pact' and the MareNostrum 5 supercomputer. While the country performs relatively well in the basic digital intensity of SMEs (60.5%), it is facing challenges although improving, in the advanced digitalisation of enterprises, such as the uptake of cloud, data analytics, and AI. The country is also **focused on supporting the innovative scale-up ecosystem**, planning, and implementing investments to support innovative enterprises.

Recommendations – Spain 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.
- **DIGITALISATION OF SMEs/ AI, CLOUD and DATA ANALYTICS:** (i) Continue the efforts to support the digitalisation of enterprises, in particular to foster the adoption of advanced technologies; (ii) Ensure the broad uptake of the next generation of cloud infrastructure and services under development in the IPCEI-CIS by companies of all sizes, including by developing a country-specific dissemination strategy (complementing what has already

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[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.

been committed under IPCEI-CIS); contributing to the additional dissemination activities led by the Cloud IPCEI Exploitation Office.
- **CYBERSECURITY:** Continue the implementation of the 5G Cybersecurity Toolbox to ensure secure and resilient 5G networks.

Protecting and empowering EU people and society

Spain is taking positive steps toward empowering people and promoting continuous opportunities for all individuals in the digital economy. To bridge gaps, digital technologies should be accessible to all, and that is what Spain is aiming for through all the activities related to its National Digital Skills Plan. The national target for basic digital skills of 85% of the population by 2030 is above the EU level of ambition, just as the current value is above the EU average (66.2% vs 55.6%). **On the other hand, more ambition could be envisaged for the ICT specialists as the roadmap sets a target that is lower than the EU expectations**. Concerning the **Digital Public Services, Spain brings a positive contribution to the EU's Digital Decade targets** on both public services for citizens (84) and businesses (91), ranking well above the EU average (79 and 85, respectively).

The country proceeded with the promotion of the **Charter of Digital Rights** approved in 2021 as well as the creation of a Digital Rights Observatory.

Recommendations – Spain should:

- **ICT SPECIALISTS:** Continue implementing its efforts to achieve a greater number of ICT specialists, designing incentives schemes to attract and retain them, and increasing the visibility and readability of training and reskilling options.
- **DIGITAL PUBLIC SERVICES:** Continue efforts to digitalise public services and further promote their use.
- **e-HEALTH:** (i) Make the data types of medical devices/implants, procedures/operations, and medical images available to citizens in all regions through the online access services; (ii) Increase the supply of health data by onboarding more categories of healthcare providers, especially in the private sector; (iii) Build on existing legal provisions and implement technical functionality for authorised persons to access electronic health data on behalf of others.

Leveraging digital transformation for a smart greening

Spain is harnessing digital technologies to enhance the green transition in key areas while implementing innovative programs to reduce the environmental impact of energy-intensive digital technologies. To develop environmentally friendly technologies guided by sustainability criteria, the National Green Algorithms Plan (PNAV) has been launched, with an investment of EUR 257 million from the European Next Generation EU funds.

Overall, Spain is committed to ensuring that all the measures included in the Digital Spain agenda adhere to the principle of not causing significant harm to the environment, which, combined with the relevant climate/environmental labelling, ensures that digitisation progresses in a sustainable manner.

Spain

> **Recommendations - Spain should:**
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> - Continue developing and implementing a coherent approach to twinning the digital and green transitions, by leveraging advanced technologies and scaling up successful initiatives that improve the energy and material efficiency of digital infrastructures, in particular data centres, and by proposing decarbonisation measures and supporting the take up of green technologies that reduce the carbon footprint in other sectors, such as energy, transport, buildings, and agriculture.
> - 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.