

# DIGITAL DECADE 2030

Report on the state of the Digital  
Decade. Catalonia 2025

CERCLE  
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Report produced by Cercle Tecnològic with the collaboration of the Generalitat de Catalunya and the i2CAT Foundation.

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## Introduction

In 2014, the European Commission began monitoring the digital progress of Member States through the Digital Economy and Society Index (DESI) reports. Catalonia has had its own DESI reports since the 2019 edition, which have been prepared by Cercle Tecnològic in accordance with the European Commission's methodology.

Since the 2023 edition, the DESI consists of a dashboard of indicators fully aligned with the Digital Decade objectives established by the Commission Implementing Decision<sup>1</sup>. This set of indicators provides a detailed and multidimensional picture of the collective annual progress made by the EU towards the 2030 objectives, including all the Digital Decade key performance indicators (KPIs) set out in the Decision for which values are available or estimated in contrast to the level of the EU-27 Member States.

The report on the state of the Digital Decade in Catalonia 2025 presents the results of the last two editions of the DESI, 2024 and 2025, for Catalonia, in addition to data from 2023 edition for reference.

The DESI 2025 dashboard includes 31 indicators, including 15 that are Digital Decade KPIs (see table on page 34). To facilitate a clear connection between the indicators and the associated objectives, they are grouped into four dimensions related to the objectives of the Digital Decade: Digital skills, Digital infrastructures, Digital transformation of businesses and Digitalization of public services, formed by related KPIs and auxiliary indicators. Much of the data corresponds to the year 2024, although in some cases, the latest data available is from 2023.

<sup>1</sup> Commission Implementing Decision (EU) 2023/1353 of 30 June 2023 setting out key performance indicators to measure the progress towards the digital targets established by Article 4(1) of Decision (EU) 2022/2481 of the European Parliament and of the Council.

With respect to the DESI 2023, in the 2025 edition 7 indicators have been removed and 6 have been added:

| Removed Indicators                             | Added Indicators                    |
|--|-------------------------------------|
| At least basic digital content creation skills | Overall internet take-up            |
| IOT graduates                                  | 5G coverage in the 3.4-3.8 GHz band |
| Mobile broadband take-up                       | 5G SIM cards                        |
| Electronic information sharing                 | Deployed edge nodes                 |
| Social media                                   | Unicorns                            |
| e-Invoices                                     | AI or Cloud or Data Analytics       |
| SMEs selling online cross-border               |                                     |

Thus, this report provides a comprehensive assessment of the country's level of digital performance and its alignment with the goals of the European Union for 2030.

## Executive Summary

The report presents the current state and progress of Catalonia in relation to the European objectives of the Digital Decade 2030, structured in four main areas: **digital skills, digital infrastructures, digital transformation of businesses, and digitalization of public services**. Overall, Catalonia shows a **solid and constant performance**, often above the Spanish and EU average, and is moving in the right direction to achieve the objectives it has set.

### 1. Digital skills

Catalonia has very positive results:

- **72% of the population** has basic digital skills (EU objective 2030: 80%).
- **44%** has advanced skills, much higher than the European average.
- **ICT specialists**<sup>1</sup> make up **5.3%** of employed people, above the EU average, with an increasing trend and progressing towards the target of approximately 10% by 2030.
- **25% of enterprises** provide ICT training to their personnel.

<sup>1</sup> % of ICT specialists on total employment. Broad definition based on the ISCO-08 classification and including jobs like ICT service managers, ICT professionals, ICT technicians, ICT installers and servicers.

## 2. Digital infrastructures

Catalonia takes the lead in connectivity within the EU:

- **VHCN coverage: 99%.**
- **FTTP coverage: 97%.**
- **5G coverage: 97%.**
- **Overall Internet take-up: 98%.**

Also noteworthy is the increase in **edge nodes**, as well as the continued progress in high and very high-capacity fixed broadband.

### 3. Digital transformation of businesses

The Catalan productive fabric shows good results in digitalization:

- **83% of SMEs** have a basic level of digital intensity.
- **Data Analytics: 45% of enterprises.**
- **Cloud use:** 43% of enterprises.
- **Use of AI:** 13% of enterprises.
- Catalonia has **7 of the 13 Unicorns** of the State.

Regarding e-Commerce, **31% of SMEs** sold online, and these sales make up nearly **11%** of their total annual turnover.

#### **4. Digitalization of public services**

Catalonia stands out with very high scores in e-Government, especially in the indicators that are objectives of the Digital Decade (2030 objective: 100 points):

- **Digital public services for citizens:** 94 points out of 100.
- **Digital public services for businesses:** 95 points out of 100.
- **Access to e-Health records:** 92.5 points out of 100.

Other complementary indicators also show excellent results:

Pre-filled forms (85 points), transparency of service delivery (81 points), user support (92 points) and mobile friendliness (95 points). In all these cases the maximum score is 100.

Therefore, Catalonia is making strong progress towards the objectives of the Digital Decade, with a **high level of digital maturity, excellent infrastructure, a transforming business fabric and a leading digital public sector.**

Despite the good progress, the main challenges remain:

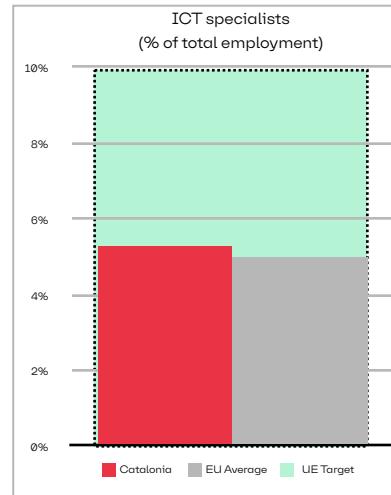
- increase the availability of **digital talent**,
- **accelerate** the use of AI and advanced technologies in companies,
- and achieve the coverage and intensity of public digital services with the European objective of **100%**.

## 1. Digital skills

|   | Catalonia |         |         | Progress<br>24-25 | Spain   |         |                   | EU<br>DESI 25 | Progress<br>24-25 | EU<br>Target<br>2030 |
|---|-----------|---------|---------|-------------------|---------|---------|-------------------|---------------|-------------------|----------------------|
|   | DESI 23   | DESI 24 | DESI 25 |                   | DESI 24 | DESI 25 | Progress<br>24-25 |               |                   |                      |
| <b>Internet use</b>                       | 93.7 %    | 96.0 %  | 96.4 %  | 0.4 %             | 94.5 %  | 95.0 %  | 0.5 %             | 91.7 %        | 1.6 %             |                      |
| % of individuals                          | 2022      | 2023    | 2024    |                   | 2023    | 2024    |                   | 2024          |                   |                      |
| <b>At least basic digital skills</b>      | 67.1 %    | 71.7 %  | 71.7 %  | NA                | 66.2 %  | 66.2 %  | NA                | 55.6 %        | NA                | 80 %                 |
| % of individuals                          | 2021      | 2023    | 2023    |                   | 2023    | 2023    |                   | 2023          |                   |                      |
| <b>Above basic digital skills</b>         | 39.0 %    | 43.8 %  | 43.8 %  | NA                | 38.6 %  | 38.6 %  | NA                | 27.3 %        | NA                |                      |
| % of individuals                          | 2021      | 2023    | 2023    |                   | 2023    | 2023    |                   | 2023          |                   |                      |
| <b>ICT specialists</b>                    | 4.8 %     | 4.8 %   | 5.3 %   | 10.4 %            | 4.4 %   | 4.7 %   | 6.8 %             | 5.0 %         | 4.3 %             | -10 %                |
| % of total employment                     | 2022      | 2023    | 2024    |                   | 2023    | 2024    |                   | 2024          |                   |                      |
| <b>Enterprises providing ICT training</b> | 23.4 %    | 23.4 %  | 24.8 %  | 6.0 %             | 20.7 %  | 21.2 %  | 2.5 %             | 22.3 %        | -0.4 %            |                      |
| % of enterprises                          | 2022      | 2022    | 2024    |                   | 2022    | 2024    |                   | 2024          |                   |                      |

Table 1. Evolution of digital skills indicators, Catalonia, Spain and the EU. Source: EUROSTAT<sup>1</sup>; IDESCAT<sup>1</sup> Refers to data from EU-27 states. Applies to all tables in the document.

NA: data not available because either there have been interruptions in the time series or it is a newly created data.



The Digital skills indicator group assesses both the digital skills of citizens and the number of specialists trained in digital skills at a professional level. The digital skills of citizens at least at a basic level and ICT specialists measure objectives of the Digital Decade.

Catalonia presents favorable results in Digital skills, and continues to rank above the average of the European Union and the Spanish State in all indicators within this area.

The country is making adequate progress towards achieving the two objectives of the Digital Decade in this area: increasing people's digital capabilities as proposed by the European digital competence framework (DigComp), as well as increasing the number of professionals with specialization in the field of ICT.

Regarding the first one of these objectives, 71.7% of the citizens of Catalonia have at least basic digital skills, a value that is gradually approaching 80% objective set by the EU for the year 2030. The average for Spain and the European Union as a whole, are behind, with 66.2% and 55.6% respectively in this indicator. Additionally, 43.8% of citizens have digital skills above the basic level, an indicator that reflects a good degree of digital maturity. Again, the result for Catalonia is higher than that for Spain as a whole (38.6%) and the European average (27.3%). In relation to the use of the Internet, 96.4% of the citizens of Catalonia use it regularly, while in Spain 95.0% do so and in the European Union 91.7%.

In Catalonia, more than 150,000 people have been certified with ACTIC, the Government system that accredits digital skills in accordance with the DigComp framework, and which has a network of 489 collaborating centers throughout the territory.

Regarding the second objective, the proportion of ICT specialists<sup>1</sup> as a percentage of total employment, Catalonia records 5.3%. This figure is slightly higher than in previous years, showing a positive trend towards achieving the objective of approximately 10% of employed people who are ICT specialists by 2030. If this trend continues, the objective set in the Digital Decade will have been achieved by 2030.

<sup>1</sup> Broad definition based on the ISCO-08 classification and including jobs like ICT service managers, ICT professionals, ICT technicians, ICT installers and servicers.

Specifically, Catalonia's annual progress in this indicator has been 10.4%, while in Spain, as a whole, it has been 6.8%, with ICT specialists accounting for 4.7% of the total number of employed people, and in the European Union 4.3%, with ICT specialists making up 5.0% of the total number of employed people. Continuing in the employment field, a quarter of companies provide ICT training to their workers, thus contributing to strengthening the digital capabilities of the productive fabric. This figure of 24.8% is higher than the average for Spain (21.2%) and the European Union as a whole (22.3%).

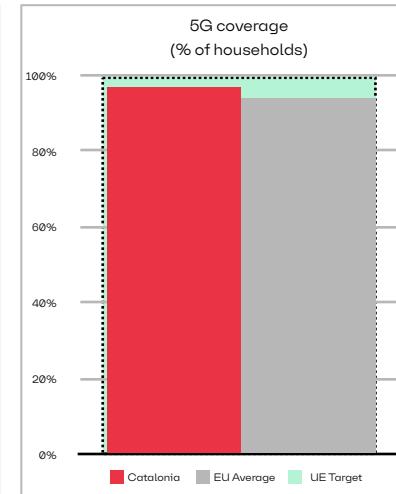
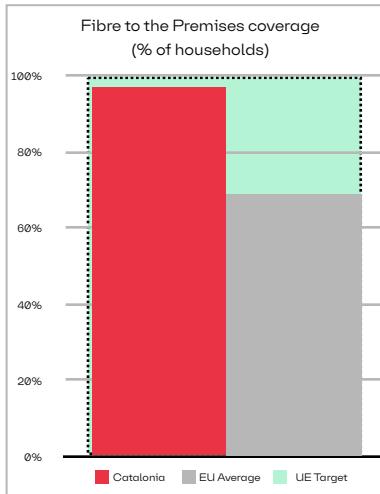
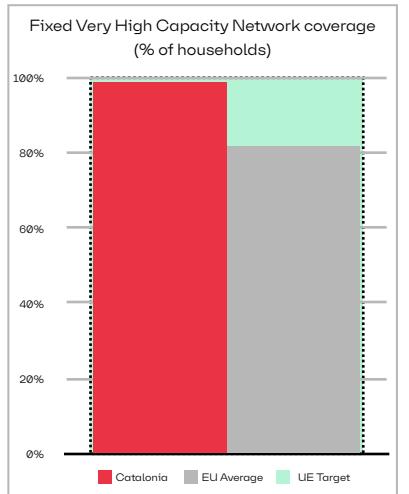
However, there is a very significant gap between supply and demand for digital talent that has an impact not only on the development and growth of the ICT sector but also on all areas of productive and economic activity in Catalonia. In the country more than 9,000 digital jobs were left unfilled in 2024. In this context, in August 2025 the Government agreed to promote the development of the 'National Pact for Digital Talent in Catalonia'. Its goal is, in an interdisciplinary approach, with the involvement of all key agents, to increase the number of professionals in the digital field in Catalonia. Through actions around the promotion of STEAM vocations, the promotion of female digital talent, the attraction and retention of digital talent in Catalonia, digital training throughout life, professional reorientation and the connection between digital talent and the productive fabric.

## 2. Digital infrastructures

|   | Catalonia |         |         | Progress<br>24-25 | Spain   |         |        | Progress<br>24-25 | EU<br>DESI 25 | Progress<br>24-25 | EU<br>Target<br>2030 |
|---|-----------|---------|---------|-------------------|---------|---------|--------|-------------------|---------------|-------------------|----------------------|
|   | DESI 23   | DESI 24 | DESI 25 |                   | DESI 24 | DESI 25 |        |                   |               |                   |                      |
| <b>Overall Internet take-up</b>                             | 97.4 %    | 97.1 %  | 97.7 %  | 0.6 %             | 96.5 %  | 96.8 %  | 0.4 %  | 94.1 %            | 1.1 %         |                   |                      |
| % of households   | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>Share of fixed broadband subscription &gt;= 100 Mbps</b> | 93.8 %    | 95.6 %  | 97.3 %  | 1.8 %             | 93.5 %  | 95.7 %  | 2.3 %  | 71.9 %            | 9.1 %         |                   |                      |
| % of subscriptions  | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>Share of fixed broadband subscription &gt;= 1 Gbps</b>   | 20.4 %    | 25.3 %  | 29.7 %  | 17.5 %            | 20.3 %  | 25.4 %  | 24.9 % | 22.3 %            | 20.5 %        |                   |                      |
| % of subscriptions  | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>Fixed Very High Capacity Network (VHCN) coverage</b>     | 96.1 %    | 96.9 %  | 99.0 %  | 2.1 %             | 96.3 %  | 95.0 %  | -1.4 % | 82.5 %            | 4.9 %         |                   |                      |
| % of households   | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>Fibre to the Premises (FTTP) coverage</b>                | 93.9 %    | 97.8 %  | 97.5 %  | -0.3 %            | 95.2 %  | 94.9 %  | -0.4 % | 69.2 %            | 8.4 %         |                   |                      |
| % of households   | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>Overall 5G coverage</b>                                  | 82.6 %    | 94.7 %  | 97.2 %  | 2.7 %             | 92.3 %  | 95.7 %  | 3.7 %  | 94.3 %            | 5.9 %         |                   |                      |
| % of households   | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>5G coverage in the 3.4-3.8 GHz band</b>                  | NA        | 66.9 %  | 80.7 %  | 20.6 %            | 58.3 %  | 74.0 %  | 27.0 % | 67.7 %            | 32.6 %        |                   |                      |
| % of households   |           | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>5G spectrum</b>  | 98.3 %    | 98.3 %  | 98.3 %  | 0.0 %             | 98.3 %  | 98.3 %  | 0.0 %  | 74.6 %            | 1.7 %         |                   |                      |
| % assigned spectrum   | 2023      | 2024    | 2025    |                   | 2023    | 2025    |        | 2025              |               |                   |                      |
| <b>5G SIM cards</b>   | NA        | 22.1 %  | 35.1 %  | 59.1 %            | 22.1 %  | 35.1 %  | 59.1 % | 35.6 %            | 63.9 %        |                   |                      |
| % of population   |           | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>Edge nodes</b>   | 16        | 36      | 65      | 80.6 %            | 167     | 301     | 80.2 % | 2,257             | 90.5 %        |                   |                      |
| Nº of deployed edge nodes                                   | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |

Table 2. Evolution of digital infrastructures indicators, Catalonia, Spain and the EU. Source: EUROSTAT, IDECAT, CNMC, SETID

NA: data not available because either there have been interruptions in the time series or it is a newly created data.



In this area, broadband, both fixed and mobile, is analyzed through indicators that measure supply and demand. Fixed Very High Capacity Network coverage, Fibre to the Premises coverage and 5G coverage, as well as Edge nodes<sup>1</sup>, are markers that allow us to evaluate the degree of achievement of the objectives established by the Digital Decade.

The country is very close to the 2030 objective of ensuring universal connectivity, especially highlighting Fixed Very High Capacity Network coverage (99.0%), Fibre to the Premises coverage (97.5%) and 5G Coverage (97.2%), with the European objective for 2030 being to reach 100% in all three cases.

<sup>1</sup> This indicator is not shown in a graph because, as it is cumulative data, the results by country cannot be compared with the EU target.

The outcome in Catalonia in these three Digital Decade objectives is slightly higher than the average for Spain and considerably higher than those of the European Union as a whole, especially in relation to fixed broadband.

In Fixed Very High Capacity Network coverage (VHCN), Catalonia (99.0%) is 4 points above Spain as a whole (95.0%) and 17 points above the EU average (82.5%), with annual progress of 2.1%, higher than the Spanish average (-1.4%) and lower than the European average (3.8%).

In Fibre to the Premises (FFTP) coverage, Catalonia (97.5%) is 2.6 points above the Spanish average (94.9%) although in both cases the annual progress has been slightly negative (-0.3% and -0.4% respectively). Catalonia far exceeds the EU average (69.2%), although the European annual progress has been very positive (8.4%).

Regarding 5G coverage, the results are more uniform: 97.2% for Catalonia, 95.7% for Spain as a whole and 94.3% on average in EU states, showing positive annual progress in all three cases (2.7%, 3.7% and 5.9% respectively).

In the area of implemented Edge nodes<sup>1</sup>, the data shows a correct growth evolution year after year, with an annual progress for the whole of Spain and Catalonia of around 80% and for the whole of the EU of 90%. In this case the objective of the Digital Decade 2030 is to have 10,000 edge nodes implemented in the 27 member states together, a completely achievable objective if progress continues at the current pace.

<sup>1</sup> As there is no specific data for Catalonia, this indicator has been obtained through an estimate based on data from Spain. For more information, see the methodological note.

In the rest of the indicators in this area, Catalonia continues to register values higher than the averages of the European Union and Spain<sup>1</sup>, both in terms of fixed and mobile broadband.

Overall internet take-up now reaches 97.7% of households in Catalonia, 96.8% of households in Spain as a whole and 94.1% of households in the European Union. In all three cases, annual progress is modest (between 0.4% and 1.1%).

Regarding the share of fixed broadband subscriptions at least 100 Mbps in households, these represent 97.3% in the case of Catalonia, 95.7% in the case of the Spanish average and 71.9% in the EU. The annual progress of Catalonia and Spain is more modest (around 2%) than that of the EU average (9.1%), given that overall, the latter has even more room for improvement.

On the other hand, as for the share of fixed broadband subscriptions at least 1 Gbps in households, currently at 29.7% in Catalonia, the annual progress is very significant (17.5%). These data present a pattern that is quite similar to that of Spain as a whole (currently 25.4% and 24.9% annual progress) and to the average of EU states (currently 22.3% and 20.5% annual progress).

In mobile broadband the results are also very positive. In 5G coverage in the 3.4-3.8 GHz band Catalonia has 80.7%, above the 74.0% average for Spain and 67.7% for the European Union. The annual progress in all three cases is significant and proportional to the current data: 20.6% in the case of Catalonia, 27.0% for Spain as a whole and 32.6% for the EU as a whole. In 5G spectrum and 5G SIM cards there are no specific data for Catalonia and therefore those for Spain as a whole are taken as a reference.

<sup>1</sup> To obtain the indicators on fixed broadband subscriptions of at least 100 Mbps and fixed broadband of at least 1 Gbps, estimates have been made based on data from Spain (CNMC). The data for the 5G Spectrum and 5G SIM cards indicators are those corresponding to Spain since there are no disaggregated data for Catalonia. For more information, see the methodological note.

Spain has already allocated practically all of the 5G spectrum (98.3%, with the European average in this case being 74.6%) and 35.1% of the population has a 5G SIM card (in the case of the EU it is 35.6%), presenting this indicator with annual progress of around 60% in both cases.

The Generalitat de Catalunya is promoting a comprehensive strategy for the development and modernization of digital infrastructures through the Strategic Digital Infrastructure Plan (SDI). The SDI defines the network necessary to guarantee the deployment of current and future digital services, from both a corporate and country perspective.

Its primary objectives are to:

- Achieve complete coverage of new generation networks.
- Guarantee effective competition in fixed and mobile networks.
- Enable infrastructures ready for new digital services.
- Expand coverage of corporate services via radio.

One of the central axes of the plan is the completion of the public fiber optic backbone network, conceived as a backbone infrastructure for the deployment of advanced technologies and intelligent management of the territory. In parallel, work is being done to identify and correct territorial inequalities in connectivity, especially in industrial estates, rural areas, and centers where coverage gaps still persist.

To strengthen this deployment, the Government is promoting the Digital Infrastructure Observatory, which should provide a complete view of the state of connectivity, territorial needs, and public and private supply, therefore facilitating evidence-based decision-making. Similarly, the Telcocat Protocol has been approved, in collaboration with municipal associations and with the support of the Localret Consortium, with the aim of improving coordination between operators and city councils, especially in mass incidents and in the planning of future deployments.

These actions respond to a context of accelerated digital transformation, where connectivity is essential for economic development, territorial cohesion, and the provision of advanced public services. The Generalitat is guiding the digital ecosystem towards a smart administration model, capable of offering proactive services, data-based decisions, and the integration of emerging technologies such as artificial intelligence. These advances require a robust, resilient, and equitably distributed network throughout the territory.

The Government is also working on a new National Agreement in the digital field that will update and expand the 2016 National Pact for the Digital Society. This new framework will include the challenges linked to infrastructure, the protection of digital rights, privacy, inclusion and the use of the Catalan language in the digital environment, with the aim of guaranteeing that the country's digitalization advances homogeneously and without leaving any territory behind.

Overall, Catalonia is consolidating a digital infrastructure development model that combines strategic planning, institutional collaboration and a clear commitment to territorial cohesion and equity in access to connectivity.

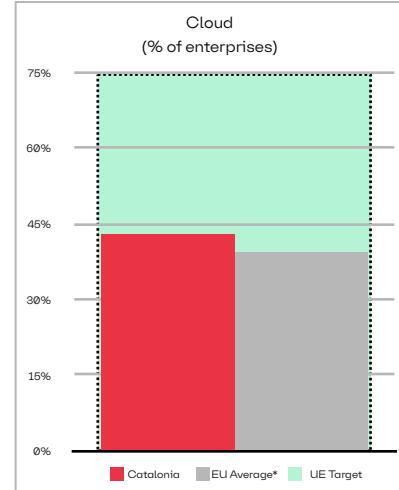
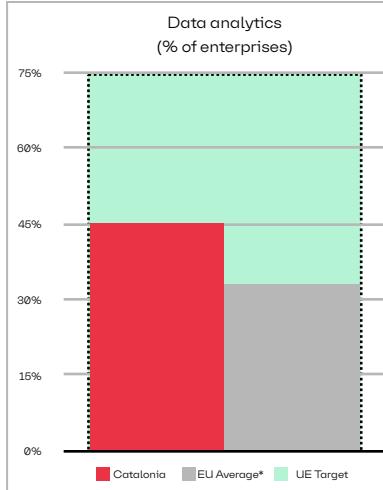
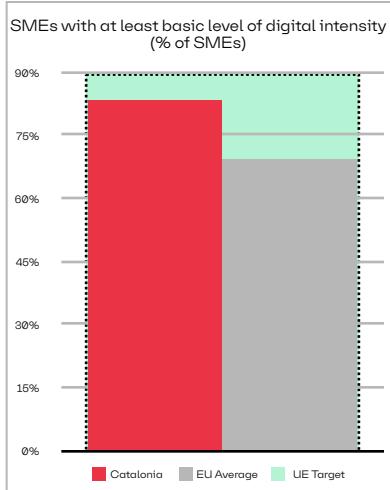
### 3. Digital transformation of businesses

|   | Catalonia |         |         | Progress<br>24-25 | Spain   |         |        | Progress<br>24-25 | EU<br>DESI 25 | Progress<br>24-25 | EU<br>Target<br>2030 |
|---|-----------|---------|---------|-------------------|---------|---------|--------|-------------------|---------------|-------------------|----------------------|
|   | DESI 23   | DESI 24 | DESI 25 |                   | DESI 24 | DESI 25 | 24-25  |                   |               |                   |                      |
| <b>SMEs with at least a basic level of digital intensity*</b> | 79.6 %    | NA      | 83.2 %  | 4.5 %*            | NA      | 74.2 %  | 4.8 %* | 72.9 %            | 2.8 %*        |                   | 90%                  |
| % of SMEs   | 2022      |         | 2024    |                   | 2024    |         | 2024   | 2024              |               |                   |                      |
| <b>Data Analytics</b>   | 7.2 %     | 41.8 %  | 45.1 %  | 8.0 %             | 38.0 %  | 40.9 %  | 7.7 %  | NA                | NA            |                   | 75%                  |
| % of enterprises  | 2020      | 2023    | 2024    |                   | 2023    | 2024    |        |                   |               |                   |                      |
| <b>Cloud</b>  | 35.7 %    | 36.3 %  | 42.9 %  | 18.3 %            | 27.3 %  | 33.1 %  | 21.5 % | NA                | NA            |                   | 75%                  |
| % of enterprises  | 2021      | 2023    | 2024    |                   | 2023    | 2024    |        |                   |               |                   |                      |
| <b>AI</b>   | 8.0 %     | 9.7 %   | 13.1 %  | 35.5 %            | 9.2 %   | 11.3 %  | 23.2 % | 13.5 %            | 67.2 %        |                   | 75%                  |
| % of enterprises  | 2021      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>AI or Cloud or Data Analytics</b>                          | NA        | 58.7 %  | 64.9 %  | 10.5 %            | 49.9 %  | 55.7 %  | 11.6 % | NA                | NA            |                   | 75%                  |
| % of enterprises  |           | 2023    | 2024    |                   | 2023    | 2024    |        |                   |               |                   |                      |
| <b>Unicorns</b>   | 7         | 7       | 7       | 0.0 %             | 13      | 13      | 0.0 %  | 286               | 4.4 %         |                   | 500                  |
| Total number of Unicorns                                      | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>SMEs selling online</b>                                    | 36.8 %    | 32.1 %  | 31.0 %  | -3.3 %            | 29.6 %  | 28.5 %  | -3.5 % | 20.1 %            | 5.4 %         |                   |                      |
| % of SMEs   | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |
| <b>e-Commerce turnover</b>                                    | 11.1 %    | 9.7 %   | 10.6 %  | 9.0 %             | 9.6 %   | 9.6 %   | 0.0 %  | 12.4 %            | 2.2 %         |                   |                      |
| % of SME turnover   | 2022      | 2023    | 2024    |                   | 2023    | 2024    |        | 2024              |               |                   |                      |

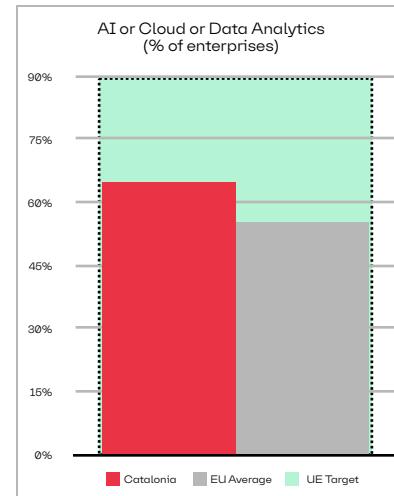
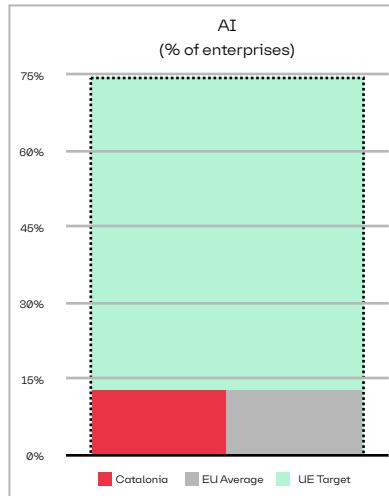
Table 3. Evolution of digitalization indicators in companies, Catalonia, Spain and the EU. Source: EUROSTAT, IDESCAT, ACCIÓ.

NA: data not available because either there have been interruptions in the time series or it is a newly created data.

\*: DESI 2025 presents version 4 of the Digital Intensity Index, which is comparable to the DESI 2023 value (referred to the year 2022) for the calculation of annual progress. It is not comparable to the DESI 2024 value, which is based on version 3 of the index, as a different version of the latter is used.



\*EU averages for Data Analytics (33.25%) and Cloud (38.97%) correspond to DESI 2024 data, which is the latest available.



The group of indicators in this dimension is made up of 4 subgroups: digital intensity, use of digital technologies by companies, e-Commerce, and Unicorns. SMEs with at least a basic level of digital intensity, Data Analytics, Cloud, AI, and Unicorns<sup>1</sup> are targets of the Digital Decade.

\*EU average for AI or Cloud or Data Analytics (54.70%) correspond to DESI 2024 data, which is the latest available.

<sup>1</sup>This indicator is not shown in a graph because, as it is based on cumulative data, the results cannot be compared with the EU target..

Regarding digital intensity<sup>4</sup>, the percentage of SMEs with at least a basic level in Catalonia is notably above the European Union average and the Spanish average (83.2% vs 72.9% and 74.2% respectively), and is only 7 points away from the EU target for 2030 (90%). If the current pace of progress continues, the target could be achieved in the next two years.

As for the use of digital technologies by enterprises, the objective of the 2030 Digital Decade in this area is to promote the adoption of Artificial Intelligence technologies, Cloud computing services, as well as the execution of internal or external Data Analytics. In line with this objective, the Government approved the Catalonia AI 2030 Strategy in the autumn of 2025, which plans to mobilize 1 billion euros to contribute to the competitiveness of the entire productive fabric by promoting the use and development of innovative AI solutions, especially in SMEs and the priority sectors defined in the 'Pla Catalunya Lidera' (Catalonia Leads Plan). It includes measures such as promoting the implementation of sovereign public clouds and promoting a diagnostic, advisory and support service for the adoption of AI for SMEs.

In Catalonia, 13.1% of companies use AI technologies, 42.9% use Cloud computing services and 45.1% use Data Analytics. These results place Catalonia above Spain as a whole and the EU average in all indicators and present adequate annual progress towards the European Union's 2030 target: 35.5% in AI, 18.3% in Cloud and 8.0% in Data Analytics. The EU sets a goal of 75% in each of the three indicators.

<sup>4</sup>The digital intensity score is based on counting how many of 12 specific conditions companies meet. A basic level requires meeting at least 4 conditions.

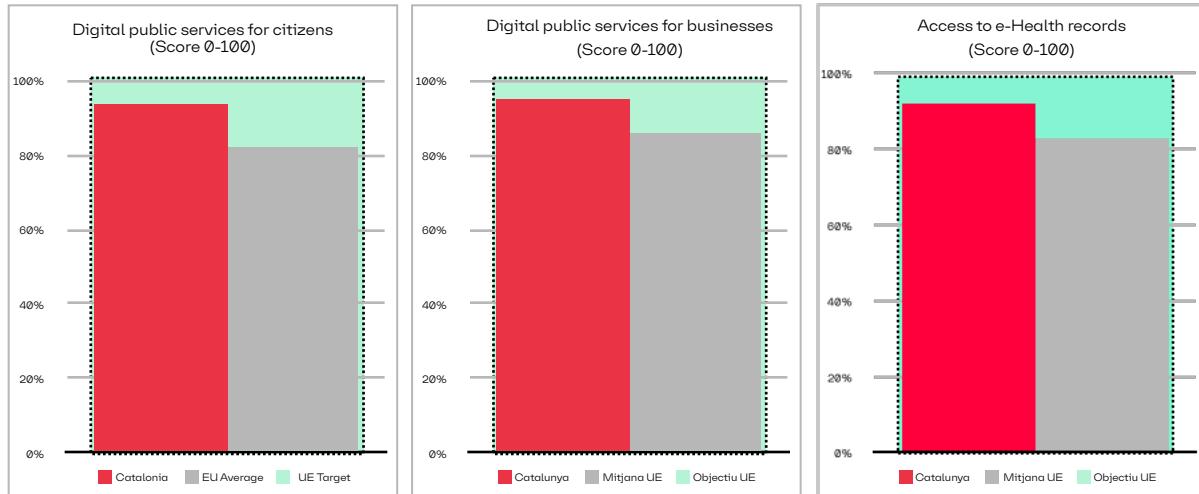
Regarding the number of Unicorns, it is worth noting that half of the 13 Unicorns in Spain are in Catalonia (7). The Digital Decade target for 2030 is 500 Unicorns for the EU, currently with 286 Unicorns 57% of the target has been achieved.

Finally, regarding e-Commerce, 31.0% of SMEs in Catalonia sell online and these sales represent 10.6% of their annual turnover. These figures are very similar to those for Spain as a whole (28.5% and 9.6% respectively). In the EU the percentage of SMEs that sell online is lower (20.1%) but the annual turnover of these sales is slightly higher (12.4%).

## 4. Digitalization of public services

|   | Catalonia     |               |               | Progress      | Spain         |               |               | EU            | Progress      | EU Target |     |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|-----|
|   | DESI 23       | DESI 24       | DESI 25       |               | DESI 24       | DESI 25       | 24-25         | DESI 25       | 24-25         | DESI 25   |     |
| <b>e-Government users</b>   | <b>86.0 %</b> | <b>85.4 %</b> | <b>85.3 %</b> | <b>-0.1 %</b> | <b>83.0 %</b> | <b>82.7 %</b> | <b>-0.4 %</b> | <b>74.7 %</b> | <b>-0.4 %</b> |           |     |
| % of users  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |
| <b>Digital public services for citizens</b>                       | <b>92.2</b>   | <b>90.5</b>   | <b>93.6</b>   | <b>3.4 %</b>  | <b>84.2</b>   | <b>88.8</b>   | <b>5.4 %</b>  | <b>82.3</b>   | <b>3.6 %</b>  |           | 100 |
| Score (0 to 100)  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |
| <b>Digital public services for businesses</b>                     | <b>97.5</b>   | <b>96.3</b>   | <b>95.1</b>   | <b>-1.3 %</b> | <b>91.0</b>   | <b>85.1</b>   | <b>-6.5 %</b> | <b>86.2</b>   | <b>0.9 %</b>  |           | 100 |
| Score (0 to 100)  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |
| <b>Prefilled forms</b>  | <b>84.4</b>   | <b>84.7</b>   | <b>84.8</b>   | <b>0.1 %</b>  | <b>80.7</b>   | <b>81.9</b>   | <b>1.5 %</b>  | <b>71</b>     | <b>0.2 %</b>  |           |     |
| Score (0 to 100)  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |
| <b>Transparency of service delivery, design and personal data</b> | <b>75.9</b>   | <b>74.4</b>   | <b>80.8</b>   | <b>8.6 %</b>  | <b>71.4</b>   | <b>79.1</b>   | <b>10.8 %</b> | <b>69.5</b>   | <b>3.7 %</b>  |           |     |
| Score (0 to 100)  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |
| <b>User support</b>   | <b>89.2</b>   | <b>89.9</b>   | <b>91.7</b>   | <b>2.0 %</b>  | <b>87.0</b>   | <b>88.9</b>   | <b>2.1 %</b>  | <b>88.8</b>   | <b>2.7 %</b>  |           |     |
| Score (0 to 100)  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |
| <b>Mobile friendliness</b>  | <b>93.8</b>   | <b>95.9</b>   | <b>94.6</b>   | <b>-1.4 %</b> | <b>94.8</b>   | <b>93.1</b>   | <b>-1.8 %</b> | <b>96.1</b>   | <b>0.8 %</b>  |           |     |
| Score (0 to 100)  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |
| <b>Access to e-Health records</b>                                 | <b>89.0</b>   | <b>92.5</b>   | <b>92.5</b>   | <b>0.0 %</b>  | <b>84.6</b>   | <b>88.3</b>   | <b>4.4 %</b>  | <b>82.7</b>   | <b>4.5 %</b>  |           | 100 |
| Score (0 to 100)  | 2022          | 2023          | 2024          |               | 2023          | 2024          |               | 2024          |               |           |     |

Table 4. Evolution of digitalization indicators of public services, Catalonia, Spain and the EU. Source: EUROSTAT, IDESCAT, Electronic Government Benchmark, Health Questionnaire



The Digitalization of public services indicator group describes the demand and supply of e-Government and e-Health. Digital public services for citizens and businesses and access to e-Health records are indicators that assess objectives of the Digital Decade.

Catalonia has good overall performance in all indicators related to e-Government and digital public services, obtaining scores in this area that are mostly higher than those of Spain as a whole and the European Union average.

The Public Administrations present in Catalonia continue to update their services and infrastructures to adapt them to rapid technological developments and the needs of people and companies. Specifically, in digital public services for citizens, Catalonia obtains 93.6 points out of 100 (which is the 2030 objective), which implies an annual progress of 3.4%. Spain as a whole has 89 points and a progress of 5.4%, and the EU as a whole 82 and a progress of 3.6%. In digital public services for businesses (also with a 2030 objective of 100) the scores obtained are similar (Catalonia 95.1, Spain as a whole 85.1 and EU 86.2) although the annual progress of Catalonia and Spain as a whole is slightly negative (most likely due to methodological issues, so it should not be taken into account). In short, Catalonia is currently 6 points away from the Digital Decade objective in public services for citizens and 5 points away from public services for businesses.

Additionally, Catalonia obtains a score close to 100 (which is the 2030 objective), which is almost 10 points higher than the European average (82.7) in online access to electronic health records, 92.5. In this indicator, the score for Spain as a whole is 88.3 points.

In the rest of the indicators in this area that are complementary to the objectives of the Digital Decade; Catalonia continues to show very satisfactory results and above the European average and that of Spain as a whole, presenting good annual progress overall.

Thus, 85.3% of Internet users are also users of electronic government (in Spain as a whole, 82.7% are and in the EU, 74.7%).

Regarding Prefilled forms, Catalonia's score is 84.8 out of 100, Spain's overall score is 81.9 and the EU's score is 71.0. In Transparency of service delivery, design and personal data Catalonia obtains 80.8 points out of 100, Spain as a whole 79.1 and the EU 69.5. Catalonia's scores are even better in the User support and Mobile friendliness indicators (91.7 and 94.6 points out of 100 respectively).

In short, Catalonia is making clear progress in the modernization of public services, with a digital model oriented towards citizens, based on proactivity, simplification, interoperability, and the strategic use of data. The digital transformation of the Catalan public sector combines investment, regulatory deployment, and structural reforms, with the aim of offering more efficient, accessible, and personalized services.

Within the framework of the ERDF Catalonia Operational Program 2021-2027, 152.1 million euros, representing 18% of total resources, have been allocated to strengthen e-Administration and open government. This investment supports projects that promote the digitalization of procedures, the use of new technologies and the improvement of service channels

The decree 76/2020, on Digital Administration, is the cornerstone of the Catalan model and constitutes one of the most advanced regulatory instruments in the State. This framework regulates the provision of public services on four pillars: people, data, processes, and technology, and establishes an organizational, legal, and functional model to guarantee secure, accessible digital services focused on the needs of users. It also introduces its own data governance model, unique in Spain, which promotes the management and corporate sharing of information to improve the quality and efficiency of services.

This model has been recognized in specialized areas of innovation and public administration, and continues to evolve thanks to the development of instruments such as the obligation of digital relationship for certain groups, the promotion of proactive services and the consolidation of platforms and shared services for the entire public sector. Active listening to the needs, perceptions and satisfaction of citizens is made effective through citizen experience spaces and satisfaction measurement.

The digitalization of public services is also being deployed in the field of citizen service. Catalonia is promoting an omnichannel strategy that combines digital, telephone and face-to-face channels in a coordinated manner, to guarantee a fluid and unified experience. Services such as assisted processing, video-service, the expansion of the 012 service with the processing support service and the deployment of integrated service offices have been reinforced.

This focus is complemented by the transformation of the front-end of relations with citizens, which facilitates the traceability of procedures and improves security and trust in digital channels. The integration of Citizen Help and Information Offices into a shared service model and the creation of a single portal for relations with the Administration allow personal data to be consulted, procedures to be carried out through a single form and the principle of "only once" to avoid redundant documentary contributions.

Modernization is further reinforced by the Strategy for the Reform of the Administration and Improvement of Public Services (Government Agreement 217/2024), which integrates immediate measures, structural proposals from the Commission of Experts (CETRA) and the simplification of more than 170 procedures. Within this framework, recent regulatory pieces are also being promoted, such as Law 9/2025 amending Law 26/2010, aimed at guaranteeing the right to good administration, and the Simplification Decree approved on October 21, 2025.

Additionally, the process has begun to approve procedures that will regulate professional public management, reinforcing criteria of professionalism, transparency and evaluation of results.

This set of actions places Catalonia in a process of comprehensive transformation of public services, with a model that combines regulatory rigor, technological innovation and an unequivocal orientation towards citizens, fully contributing to European objectives in terms of digitalization and modern public administration.

## Methodological note

The DESI 2025 indicator dashboard includes a total of 31 indicators, 15 of which are Digital Decade KPIs\*. To allow a clear connection between the indicators and the associated objectives, the indicators are conceptually grouped into dimensions and sub-dimensions related to the Digital Decade objectives, formed by related KPIs and auxiliary indicators.

| Dimension                                     | Sub dimension                          | Indicator   |
|---|--|---|
| <b>1 Digital skills</b>                       | 1a Internet user skills                | 1a1 Internet use<br>1a2 At least basic digital skills*<br>1a3 Above basic digital skills  |
|   | 1b Advanced skills and development     | 1b1 ICT specialists*<br>1b2 Enterprises providing ICT training  |
| <b>2 Digital infrastructures</b>              |  | 2a1 Overall Internet take-up<br>2a2 Share of fixed broadband subscriptions => 100 Mbps<br>2a3 Share of fixed broadband subscriptions => 1 Gbps<br>2a4 Fixed Very High Capacity Network coverage (VHCN)*<br>2a5 Fibre to the Premises coverage (FTTP)* |
|   | 2a Fixed broadband                     | 2b1 5G coverage*<br>2b2 5G coverage in the 3.4-3.8 GHz band   |
| <b>3 Digital transformation of businesses</b> | 2b Mobile broadband                    | 2b3 5G spectrum<br>2b4 5G SIM cards<br>2b5 Edge nodes*  |
|   | 3a Digital intensity                   | 3a1 SMEs with at least basic level of digital intensity*<br>3b1 Data Analytics*   |
|   | 3b Digital technologies for businesses | 3b2 Cloud*<br>3b3 AI*<br>3b4 AI or Cloud or Data Analytics*<br>3b5 Unicorns*  |
|   | 3c e-Commerce                          | 3c1 SMEs selling online<br>3c2 e-Commerce turnover  |
| <b>4 Digitalization of public services</b>    |  | 4a1 e-Government users<br>4a2 Digital public services for citizens*   |
|   | 4a e-Government                        | 4a3 Digital public services for business*<br>4a4 Prefilled forms<br>4a5 Transparency of service delivery, design and personal data<br>4a6 User support<br>4a7 Mobile friendliness   |
|   | 4b e-Health                            | 4b1 Access to e-Health records*   |

Regarding the data collection, the Statistical Institute of Catalonia (Idescat) has provided the information corresponding to most of the indicators.

Specifically, the indicators grouped in the Digital skills dimension come from the Survey on Equipment and Use of Information and Communication Technologies in Households<sup>1</sup> (1a1, 1a2 and 1a3), and from the Survey on the Use of ICT and e-Commerce in businesses<sup>2</sup> (1b2). For the calculation of ICT Specialists (1b1), Idescat has calculated the value based on data from the INE's active population survey.

On the other hand, almost all the indicators of the Digitalization of companies dimension also come from the Survey on the use of ICT and e-commerce in companies and have been provided by Idescat. For the indicator 3b5 Unicorns the data has been obtained from Acció<sup>3</sup>.

To obtain the indicators related to digital infrastructures, several sources have been used:

- The 2a1 indicator on Overall internet take-up in homes comes from the Survey on equipment and use of information and communication technologies in households<sup>1</sup>.
- For the data on Share of fixed broadband subscriptions at least 100 Mbps (2a2) and Share of fixed broadband subscriptions at least 1 Gbps (2a3), an estimate is made based on the information published by the National Commission for Markets and Competition (CNMC) <sup>4</sup>. Specifically, the percentage of fixed broadband lines in homes and that of lines of at least 100 Mbps/1 Gbps out of the total of these lines has been estimated.
- VHCN, FTTP, 5G and 5G in the 3.4-3.8 GHz band coverage (2a4, 2a5, 2b1 and 2b2) data are provided by the Secretariat of State for Telecommunications and Digital Infrastructures (SETID).

<sup>1</sup> <https://www.idescat.cat/estad/tic1>

<sup>2</sup> <https://www.idescat.cat/estad/eticce>

<sup>3</sup> <https://catalunya.com/key-industries-technologies/startups-in-catalonia>

<sup>4</sup> <http://data.cnmc.es/datagraph/>

- For the 5G Spectrum and 5G SIM cards indicator (2b3 and 2b4) the same data from Spain is used since there is no disaggregated data for Catalonia.
- In regards to Edge nodes (2b5), an estimate has been made based on data from Spain, which comes from a survey of companies with 50 or more workers<sup>1</sup>. To make the estimate for Catalonia, the percentage of companies with 50 or more workers in Catalonia compared to the total of Spain has been calculated and this percentage has been applied to the number of edge nodes in Spain.

Finally, indicators relating to the Digitalization of public services also come from various sources:

- The data for indicator 4a1, e-Government users, comes from Idescat, based on the Survey on equipment and use of information and communication technologies in households already mentioned above.
- The indicators Digital public services for citizens (4a2), Digital public services for businesses (4a3), Prefilled forms (4a4), Transparency of service delivery, design and personal data (4a5), User support (4a6) and Mobile friendliness (4a7) have been obtained by applying the methodology included in the European Commission's eGovernment Benchmark 2023<sup>2</sup> study. Specifically, the study consists of evaluating various services offered by the different Public Administrations in Catalonia, using the Mystery Shopping technique.
- The indicator on Citizens' online access to electronic health records (4b1) was obtained by applying the questionnaire from the Digital decade e-Health indicators development study<sup>3</sup>, and was carried out by the Department of Health of the Generalitat de Catalunya.

<sup>1</sup> <https://ec.europa.eu/newsroom/dae/redirection/document/100201>

<sup>2</sup> <https://digital-strategy.ec.europa.eu/en/news-redirect/883225>

<sup>3</sup> <https://digital-strategy.ec.europa.eu/en/news-redirect/883229>

## Annex

### 1. Indicators and definitions: Digital skills

| Indicator                              | Description   | Unit                  | Source            |
|--|---|-----------------------|-------------------|
| 1a1 Internet use                       | Individuals who use the internet at least once a week.  | % individuals         | Eurostat, Idescat |
| 1a2 At least basic digital skills      | Individuals with 'basic' or 'above basic' digital skills in each of the following five dimensions: information, and data literacy, communication and collaboration, problem solving, digital content creation and safety. | % individuals         | Eurostat, Idescat |
| 1a3 Above basic digital skills         | Individuals with 'above basic' digital skills in each of the following five dimensions: information, and data literacy, communication and collaboration, problem solving, digital content creation and safety.            | % individuals         | Eurostat, Idescat |
| 1b1 ICT specialists                    | Employed ICT specialists. Broad definition based on the ISCO-08 classification and including jobs like ICT service managers, ICT professionals, ICT technicians, ICT installers and servicers.                            | % of total employment | Eurostat, Idescat |
| 1b2 Enterprises providing ICT training | Enterprises who provided training in ICT to their personnel.  | % enterprises         | Eurostat, Idescat |

## Annex

### 2. Indicators and definitions: Digital infrastructures

| Indicator  | Description  | Unit                          | Source  |
|--|--|-------------------------------|---|
| 2a1 Overall Internet take-up                                 | Households with access to the Internet at home   | % households                  | Eurostat, Idescat   |
| 2a2 Share of fixed broadband subscriptions at least 100 Mbps | % of households subscribing to fixed broadband of at least 100 Mbps, calculated as overall broadband take-up multiplied with the percentage of fixed broadband lines of at least 100 Mbps. | % subscriptions               | COCOM, Eurostat, CNMC, Idescat                              |
| 2a3 Share of fixed broadband subscriptions at least 1 Gbps   | % of households subscribing to fixed broadband of at least 1 Gbps, calculated as overall broadband take-up multiplied with the percentage of fixed broadband lines of at least 1 Gbps.     | % subscriptions               | COCOM, Eurostat, CNMC, Idescat                              |
| 2a4 Fixed Very High Capacity Network (VHCN) coverage         | % of households covered by any fixed VHCN. The technologies considered are FTTH, FTTB and Cable DOCSIS 3.1   | % households                  | Broadband coverage in Europe (Omdia and Point Topic), SETID |
| 2a5 Fibre to the Premises (FTTP) coverage                    | % of households covered by FTTH and FTTB   | % households                  | Broadband coverage in Europe (Omdia and Point Topic), SETID |
| 2b1 Overall 5G coverage                                      | % of populated areas with coverage by at least one 5G mobile network.  | % households                  | Broadband coverage in Europe (Omdia and Point Topic), SETID |
| 2b2 Overall 5G coverage in the 3.4-3.8 GHz band              | % of populated areas with coverage by 5G using the 3.4-3.8 GHz spectrum band.  | % households                  | Broadband coverage in Europe (Omdia and Point Topic), SETID |
| 2b3 5G spectrum  | The amount of spectrum assigned and ready for 5G use within the so-called 5G pioneer bands.  | % assigned spectrum           | COCOM   |
| 2b4 5G SIM cards   | any internet traffic on a domestic 5G network in the last 90 days.   | % of total population         | COCOM   |
| 2b5 Edge nodes   | Estimated number of edge computing nodes providing latencies below 20 milliseconds.  | Number of deployed edge nodes | EDGE Observatory  |

## Annex

### 3. Indicators and definitions: Digital transformation of businesses

| Indicator   | Description   | Unit                     | Source            |
|---|---|--------------------------|-------------------|
| 3a1 SMEs with at least a basic level of digital intensity | The digital intensity score is based on counting how many out of 12 selected technologies are used by enterprises. A basic level requires usage of at least 4 technologies. | % SMEs                   | Eurostat, Idescat |
| 3b1 Data analytics  | Enterprises performing data analytics (internally or externally)  | % enterprises            | Eurostat, Idescat |
| 3b2 Cloud   | Enterprises buying sophisticated or intermediate cloud computing services.  | % enterprises            | Eurostat, Idescat |
| 3b3 AI  | Enterprises using any AI technology.  | % enterprises            | Eurostat, Idescat |
| 3b4 AI or Cloud or Data analytics                         | Enterprises using AI technologies or buying sophisticated or intermediate cloud computing services or performing data analytics.  | % enterprises            | Eurostat, Idescat |
| 3b5 Unicorns  | (11) of Decision (EU) 2022/2481 and those referred to in Article  | Total number of unicorns | Dealroom.com      |
| 3c1 SMEs selling online                                   | SMEs selling online (at least 1% of turnover).  | % SMEs                   | Eurostat, Idescat |
| 3c2 e-Commerce turnover                                   | SMEs' total turnover from e-commerce.   | % SME turnover           | Eurostat, Idescat |

## Annex

### 4. Indicators and definitions: Digitalization of public services

| Indicator  | Description   | Unit             | Source  |
|--|---|------------------|---|
| 4a1 e-Government users   | Individuals who used the Internet, in the last 12 months, for interaction with public authorities on websites or on mobile applications.  | % internet users | Eurostat, Idescat   |
| 4a2 Digital public services for citizens   | The share of administrative steps that can be done online for major life events (birth of a child, new residence, etc.) for citizens.   | Score (0 to 100) | e-Government Benchmark  |
| 4a3 Digital public services for businesses   | The indicator broadly reflects the share of public services needed for starting a business and conducting regular business operations that are available online for domestic as well as foreign users.  | Score (0 to 100) | e-Government Benchmark  |
| 4a4 Pre-filled forms   | Amount of data that is pre-filled in public service online forms.   | Score (0 to 100) | e-Government Benchmark  |
| 4a5 Transparency of service delivery, design and personal data                                     | The extent to which service processes are transparent, services are designed with user involvement and users can manage their personal data.  | Score (0 to 100) | e-Government Benchmark  |
| 4a6 User support   | The extent to which online support, help features, and feedback mechanisms are available incl. cross-border.  | Score (0 to 100) | e-Government Benchmark  |
| 4a7 Mobile friendliness  | The extent to which services are provided through a mobile friendly interface, an interface that is responsive to the mobile device.  | Score (0 to 100) | e-Government Benchmark  |
| 4b1 Citizens' online access to electronic health records (short name = Access to e-Health records) | Measured as: (i) the nationwide availability of online access services for citizens to their electronic health records data (via a patient portal, or a patient mobile app) with additional measures in place that enable certain categories of people (e.g. guardians for children, people with disabilities, elderly) to also access their data, and (ii) the percentage of individuals that have the ability to obtain or make use of their own minimum set of health-related data currently stored in public and private electronic health- record (EHR) systems. | Score (0 to 100) | Digital Decade e-Health indicators development report (Empirica GmbH and PredictBy) |