Report on the State of the Digital Decade 2024

Annex - Short Country Report 2024

Sweden

Executive summary

Sweden 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, Sweden made notable progress in 5G coverage, including in the 3.4-3.8 GHz bands, and in promoting unicorns. However, challenges persist in the area of e-health and the country needs to continue the work on e-ID.

Sweden seeks to be a global leader in digitalisation and continues to build on the increasing economic importance of its ICT sector. Its main strength is its digitally skilled workforce, combined with welldeveloped infrastructure in most of the country. Eurostat data show that the ICT sector accounted for 6.5% of the economy in 2019 and 7.1% in 2020. Venture capital investments as a share of GDP grew from 7% in 2020 and 8% in 2021 to 9% in 2022. Sweden continues to perform well and is one of the top digital skills performers in the EU. Sweden has made significant steps in rolling out 5G - increasing from 21% to 90% household coverage compared to the previous year. Fibre deployment continues with public support. Despite the funding available, notably under the Recovery and Resilience plan, it will be difficult to ensure that all households have access to a FTTP network by 2030.

According to the Digital Decade Eurobarometer¹, 88% of Sweden's population (well above the EU average of 73%) consider that the digitalisation of daily public and private services is making their lives easier.

Sweden does not at present participate in any European Digital Infrastructure Consortium (EDIC) but may join in the future. In this context, Sweden has expressed interest in the established Alliance for Language Technologies (ALT EDIC) project².

Sweden's Recovery and Resilience plan allocates 21% (EUR 674 million)³ of its funding to digital, most of it to support the deployment of VHCNs in rural areas. Under cohesion policy, an additional EUR 0.2 billion (13% 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.

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

⁴This 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)	Sweden			EU		Digital Decade target by 2030	
	DESI	DESI	Annual	DESI 2024	Annual	SE	EU
	2023	2024	progress	(year 2023)	progress		
Fixed Very High-Capacity Network (VHCN)	81.6%	88.5%	8.4%	78.8%	7.4%	98.5%	100%
Fibre to the Premises (FTTP) coverage	81.5%	83.9%	2.9%	64.0%	13.5%	98.5%	-
Overall 5G coverage	20.5%	90.3%	341.3%	89.3%	9.8%	100%	100%
Semiconductors		NA					
Edge Nodes		34		1186		х	10000
SMEs with at least a basic level of digital intensity	86.1%	79.9%	-3.7%	57.7%	2.6%	95%	90%
Cloud	69.2%	66.0%	(2)	38.9%	7.0%	94%	75%
Artificial Intelligence	9.9%	10.4%	2.5%	8.0%	2.6%	39%	75%
Data analytics	NA	35.0%	NA	33.2%	NA	56%	75%
Al or Cloud or Data analytics	NA	73.1%	NA	54.6%	NA		75%
Unicorns		36		263		64	500
At least basic digital skills	66.6%	66.4%	-0.1%	55.6%	1.5%	89%	80%
ICT specialists	8.6%	8.7%	1.2%	4.8%	4.3%	12%	~10%
e ID scheme notification		Yes					
Digital public services for citizens	88.2	93.3	5.8%	79.4	3.1%	90	100
Digital public services for businesses	87.9	96.0	9.2%	85.4	2.0%	90.5	100
Access to e-Health records	70.3	77.9	10.9%	79.1	10.6%	78.5	100

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

National digital decade strategic roadmap

With respect to **Sweden's** contribution to the Digital Decade reflected in its roadmap, it is demonstrating a **very high ambition** and, based on this document, intends to allocate **significant effort** to achieve the Digital Decade objectives and targets.

The roadmap is overall consistent with the efforts needed across all the dimensions of digitalisation. It provides a good overview of the areas where Sweden can contribute to the Digital Decade programme and where Sweden needs to step up its efforts. The roadmap sets targets and trajectories for most of the KPIs, but some, such as the KPI on access to e-Health records, are not expected to achieve EU targets for 2030. Trajectories are based on information available before 1 June 2023. Measures are especially focused on digital skills and digital infrastructures, with fewer measures focusing on the digitalisation of public services. Some aspects require more efforts, such as the greening of digitalisation.

Recommendations for the roadmap

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

- **TARGETS**: (i) Complete the roadmap with the missing target for edge nodes; (ii) When there is more than one trajectory for a target, identify the most likely one.
- **MEASURES:** (i) Give a fuller account of how the measures that are broader in scope, such as Strategic Innovation Programmes, Impact Innovation and Business Sweden, support the Digital Decade objectives and targets; (ii) Provide more information on the

⁽²⁾ Comparison with previous years cannot be done for Sweden due to methodological changes.

- implementation of digital rights and principles (and Digital Decade general objectives), including on contributing measures.
- **CONSULTATION**: Explain in greater detail how the stakeholder comments were addressed during the consultation process.

Digital rights and principles

The Special Eurobarometer 'Digital Decade 2024' offers key insights into Swedish perceptions of digital rights. Despite a 5-point decline from last year, 50% of Swedes still believe the EU effectively protects their digital rights, which is above the EU average of 45%. Concerns are growing, particularly with 74% expressing worry about children's online safety—a 21-point increase and the highest in the EU. Additionally, 59% are concerned about control over digital legacy, 19 points above the EU average. On a positive note, 80% trust in the freedom of assembly online, 21 points above the EU average, and 65% appreciate the level of digital skills in the country. 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

Sweden is active in deploying connectivity infrastructure. A substantial share of households already have access to VHCNs and 5G networks; however, the cost of connecting a household to FTTP is rapidly increasing and the most remote households will be the costliest to cover. 5G in the 3.4-3.8 GHz band, an essential band for enabling advanced applications requiring large spectrum bandwidth, covers 64.5% of Swedish households in 2023, above the EU average (50.6%).

Sweden has a business environment conducive to innovation with good access to finance, as evidenced by the high number of unicorn companies. Enterprises in Sweden have a high take-up of cloud technologies; however, the take up of AI and data analytics is slower. Sweden argued in the roadmap that the insufficient number of ICT specialists, in particular, restricts the take-up of AI. Sweden is developing a STEM-strategy. By increasing the number of engineers, Sweden can better meet the demand on skills.

Sweden continues to strengthen the National Cybersecurity Centre to further enhance cybersecurity. Sweden is also preparing national information and cybersecurity strategy to be presented in 2024. This will be complemented at a later stage by a national strategy on international cyber and digital issues.

Recommendations – Sweden should:

- CONNECTIVITY INFRASTRUCTURE: (i) Continue efforts to achieve full Gigabit coverage, starting with the implementation of the national broadband strategy which sets targets for 2025. Meeting the national targets will be a step towards meeting the Digital Decade targets by 2030; (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.

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.

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- AI/CLOUD/DATA ANALYTICS: (i) Maintain attention to encourage the use of AI and big data analytics by enterprises in Sweden; and (ii) Liaise 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

The level of digital skills of the population and the share of ICT specialists among the workforce ensure that Sweden will make a strong contribution to the EU targets. Sweden relies heavily on developing and using digital solutions which require a high level of digital skills. Sweden scores well above the EU average in both basic digital skills and ICT specialists; in the former area, however, there is a disparity between rural and non-rural areas regarding the former. Sweden is increasingly taking measures to meet the demand for basic digital skills as well as the demand from industry for more ICT specialists and increased digital skills in the general workforce.

Access for all to an e-ID is also essential in order to use digital solutions provided by both public services and enterprises. Sweden has started a number of actions that aim to ensure that everyone has access to an e-ID.

<u>Recommendations – Sweden should:</u>

- **BASIC DIGITAL SKILLS:** Continue efforts to ensure that the population can improve basic skills, in particular, in rural areas.
- ICT SPECIALISTS: (i) Finalise the discussions on a national strategy focussing on science, technology, engineering and mathematics (STEM); (ii) Take action to ensure that more ICT specialists are women.
- **e-ID:** Continue efforts to ensure that everyone has access to an e-ID.
- e-HEALTH: Increase efforts to ensure that everyone can access their health records online by 2030, in line with the requirements under the upcoming European Health Data Space regulation. In particular (i) make the data type of medical devices/implants, available to citizens in all regions through the online access services, (ii) Ensure that all data types are made available in a timely manner and (iii) implement technical functionality with the necessary legal basis for legal guardians and authorised persons to access electronic health data on behalf of others.

Leveraging digital transformation for a smart greening

Sweden underlines the potential of digitalisation to green the economy. Replacing old copper and weak mobile connectivity with broadband is important for the society as a well as for the green transition. Surveys show the importance Swedes attach to the use of digital tools to support greening. Sweden is carrying out several projects to better understand the impact of digitalisation on greening; however, it proposes relatively few concrete actions in this area.

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Recommendations - Sweden 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 <u>European Green Digital Coalition</u>, in view of future policy development, as well as of attracting relevant financing.