



2030 DIGITAL DECADE

**Annex
The Netherlands**

REPORT ON THE STATE OF THE DIGITAL DECADE 2023

Digital Decade Country Report 2023: the Netherlands

The Netherlands has historically been a frontrunner in digital transformation in Europe, expected to make a very strong contribution to the collective efforts to achieve the EU's Digital Decade targets. Its national digital transformation working agendas have been or are in the process of being developed with references to the Digital Decade Policy Programme. However, further measures are needed as regards the use of AI by businesses, and the availability of ICT specialists and graduates on the Dutch labour market.

The Netherlands is collaborating with other Member States in exploring the possibility to set up **European Digital Infrastructure Consortia (EDICs)** on: (i) establishing an Alliance for Language Technologies, to develop a common infrastructure in the field of natural language processing and to develop large multi-language models; and (ii) Mobility and Logistics Data, to enable the access, sharing and reuse of data in these domains.

DIGITAL SKILLS

The Netherlands has a population that has a high level of digital skills, expected to make an important contribution to reaching the Digital Decade target. 79% of individuals aged 16-74 in the Netherlands have at least basic digital skills, a number which nears the 80% Digital Decade target for basic digital skills and is far above the EU average of 54%.

7.2% of individuals in employment in the Netherlands are ICT specialists, compared to 4.6% in the EU. However, the percentage of ICT graduates in the Netherlands is lower than the EU average with 3.7% vs. 4.2%. A new action plan was introduced to solve the shortages in the labour market, which is essential for a successful digital and green twin transition in the Netherlands. Furthermore, action is being taken to improve digital skills both at the level of foundational education as well as to advance digitalisation in higher education. Lastly, with the proportion of women ICT specialists standing at 19.4% (which is slightly above the EU average), a gender balance in ICT specialists is far from being reached.

The Netherlands should continue implementing its policies in the area of digital skills. In particular, action is encouraged to step up upskilling and reskilling in the field of digital skills in the labour market as well as to achieve a more gender balanced specialist ICT workforce.

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DIGITAL INFRASTRUCTURE

The Netherlands has traditionally displayed a strong performance in the field of digital infrastructure, although recent developments show signs of stagnation. Regardless, its fixed very high capacity network coverage stands at 98% vs. the EU average of 73%. However, the take-up of gigabit connectivity is non-existent. The Netherlands boasts 100% 5G coverage but has not assigned the 3.6 GHz band on time.

Measures taken by the Netherlands in the field of semiconductors and quantum computing are an important contribution to the EU's efforts. The Dutch semiconductor equipment industry holds a key position globally. This position is further enforced through almost EUR 1 billion in public funding to NXTGEN HIGHTECH and PhotonDelta as well as through participation in the IPCEI Microelectronics and Communication Technologies with 5 direct participants active in equipment, devices, automotive, telecom and photonics. A co-investment by the Dutch government in edge nodes has been made through the Important Project of Common European Interest on Next Generation Cloud Infrastructure and Services (IPCEI-CIS). Lastly, Quantum Delta NL has been awarded EUR 615 million to implement the Dutch quantum agenda. This is in addition to the significant role the Netherlands plays in the field of quantum through various European quantum projects.

The Netherlands should accelerate its efforts on connectivity infrastructure, in particular Gigabit coverage. The Netherlands should take all steps necessary to assign the 3.6 GHz band for mobile communications without any further delay, in line with its obligations under EU law. It should furthermore consider taking measures to incentivise the take-up of gigabit connectivity.

Measures taken by the Netherlands in the field of semiconductors, edge nodes and quantum computing should continue in order to help the EU to become a strong market player in these areas.

DIGITALISATION OF BUSINESSES

Many Dutch businesses are already taking advantage of the benefits of digitalisation. SMEs in the Netherlands do better than the EU average in terms of at least a basic level of digital intensity, scoring 80%. When it comes to advanced digital technologies, the indicators for big data (2020), cloud and AI (2021) were above the EU average, at 27%, 60% and 13% respectively, but the Netherlands has the potential to further contribute to reaching the Digital Decade target at EU level. Six European Digital Innovation Hubs (EDIH) have been set up and started their work at the beginning of 2023. The high number of unicorns originating from the Netherlands (24), as well as a further 39 businesses that can be considered potential future unicorns, demonstrates the existence of a thriving start-up ecosystem. The Netherlands is also a signatory to the Europe Startup Nations Standard. According to the European Deep Tech Report 2023, Amsterdam-Delta is considered one of the best EU start-up ecosystem.

The Netherlands should continue implementing their policies in the area of digitalisation of businesses. In particular, the Netherlands should continue helping SMEs to access advanced technologies, especially big data, cloud and AI, through sustained measures to promote their development and take-up.

DIGITALISATION OF PUBLIC SERVICES

On digitalisation of public services, the Netherlands scores high across the board. With a score of 85 (vs. the EU average of 77) and 89 (vs. the EU average of 84) respectively, many digital public services are available to citizens for life events and to businesses for regular business operations. All citizens and businesses in the Netherlands have the possibility to make use of a national eID. The level of access to e-health records is broadly in line with the EU average, with a score of 69 against 72. However, access to these records remains limited and fragmented. The decentralised development by the private sector of tools to bring together e-health records in centralised portals is being encouraged. Lastly, the new framework laws setting rules on digital interactions with public authorities and the digital exchange and availability of medical records are a welcome step in further digitalising public services in the Netherlands. However, its success and added value to citizens will depend on the detailed rules that are to follow and their proper and timely implementation by the involved stakeholders, both public and private.

The Netherlands should continue implementing its policies to digitalise public services.

DIGITAL IN THE NETHERLANDS' RECOVERY AND RESILIENCE PLAN (RRP)

The Dutch RRP devotes EUR 1.2 billion (25.6%) to the digital transformation, of which EUR 834.4 million is expected to be spent on measures contributing to achieving the Digital Decade targets ¹.

The component dedicated to accelerating the digital transformation is divided into three categories: investments to promote innovative technologies and digital skills; future-proofing the mobility sector; and future-proofing the government's IT infrastructure. In this first category, there are measures on AI and quantum, which are further detailed in the country report. Furthermore, an investment to give an impulse to digitalisation in education is part of the plan.

¹ Based on Annex VII of the RRF Regulation. Furthermore, a qualitative assessment of the data took place to allow for an estimation of the possible contribution of RRF measures to the Digital Decade targets and the remaining part is also supporting the general objectives of the Digital Decade. This applies to all descriptions of the RRFs included in this Annex. The information provided refers to the Recovery and Resilience Plan as adopted by the Council before 1 September 2023, without prejudice to potential ongoing revisions of the plan.