Digital Economy and Society Index (DESI) 2021

The Netherlands

About the DESI

The European Commission has monitored Member States' progress on digital and published annual Digital Economy and Society Index (DESI) reports since 2014. Each year, the reports include country profiles, which help Member States identify areas for priority action, and thematic chapters providing an EU-level analysis in the key digital policy areas.

In 2021, the Commission adjusted DESI to reflect the two major policy initiatives that will have an impact on digital transformation in the EU over the coming years: the Recovery and Resilience Facility and the Digital Decade Compass.

To align DESI with the four cardinal points and the targets under the Digital Compass, to improve the methodology and take account of the latest technological and policy developments, the Commission made a number of changes to the 2021 edition of the DESI. The indicators are now structured around the four main areas in the Digital Compass, replacing the previous five-dimension structure. 11 of the DESI 2021 indicators measure targets set in the Digital Compass. In future, the DESI will be aligned even more closely with the Digital Compass to ensure that all targets are discussed in the reports.

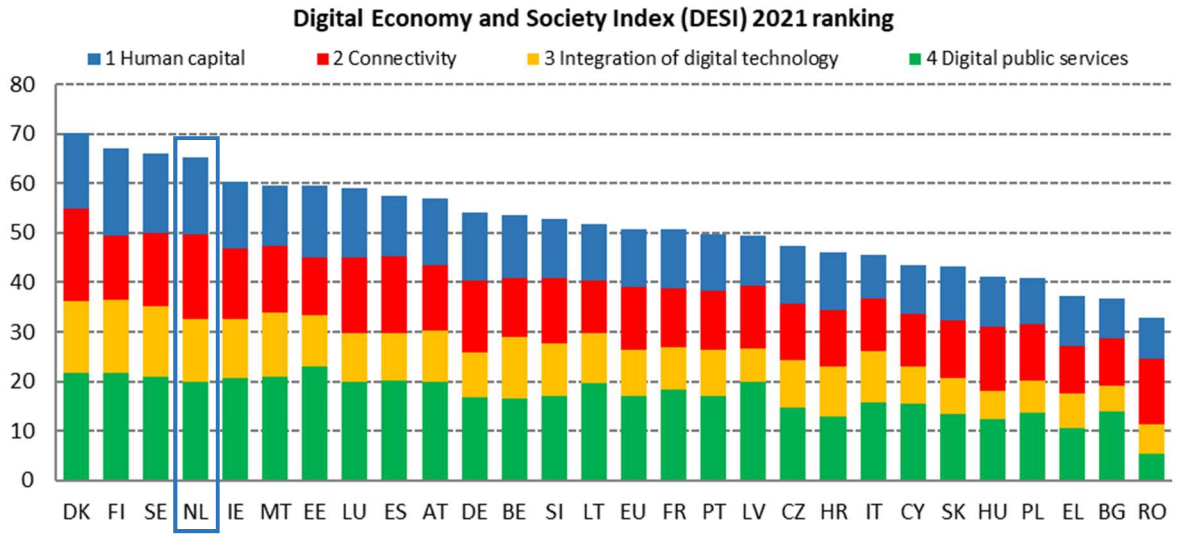
In addition, DESI now includes an indicator measuring the level of support that adopted ICT technologies provided companies in taking more environmentally-friendly measures (ICT for environmental sustainability) and the take up of gigabit services, plus the percentage of companies offering ICT training and using e-invoicing.

The DESI scores and rankings of previous years were re-calculated for all countries to reflect the changes in the choice of indicators and corrections made to the underlying data.

For further information, see the DESI website: https://digital-strategy.ec.europa.eu/en/policies/desi.

Overview

	Netherlands		EU
	rank	score	score
DESI 2021	**4**	**65.1**	**50.7**



The Netherlands ranks 4th out of 27 EU Member States in the 2021 edition of the DESI. Therefore, it remains one of the top performers across Europe, with a widespread uptake of digital technologies among enterprises and use of online services, as well as high levels of basic and advanced digital skills.

The Dutch Digitalisation strategy, first adopted in 2018, and updated in 2019, 2020 and 2021[1], remains a solid political and strategic foundation for the country's digital ambitions: (1) 'Be in the vanguard and grasp opportunities'; (2) 'Everyone joins in and we work together'; and (3) 'Trust in the digital future'.

Over the years, the Netherlands has increasingly prioritised and focused its efforts. Current priorities of the strategy are: (i) artificial intelligence (AI), (ii) better and responsible use of data, (iii) digital government, (iv) digital connectivity, (v) digital security and resilience, and (vi) digital skills and inclusion. The European and international aspects are integral parts of the strategy and new topics such as sustainability are gaining momentum. Finally, to prepare the public for future developments, the Netherlands has launched a foresight report 'Digitalisation 2030', which includes major economic, technological and societal trends that impact the digital transition and vice versa[2].

The country made significant steps in 2020 to upscale and better coordinate existing projects and initiatives to foster human capital, and to improve basic and advanced digital skills for the whole population. Although the proportion of ICT specialists in the workforce is above EU average, the share of ICT graduates is the fifth lowest in the EU. Increased attention needs to be placed on current and future shortages of digitally skilled professionals (e.g. in AI, data and cybersecurity) and on bridging the gender gap.

[1] The latest review of the Dutch digitalisation strategy is included in the letter from State Secretary Keijzer to the Dutch Parliament of 26 April 2021 (also available in English).

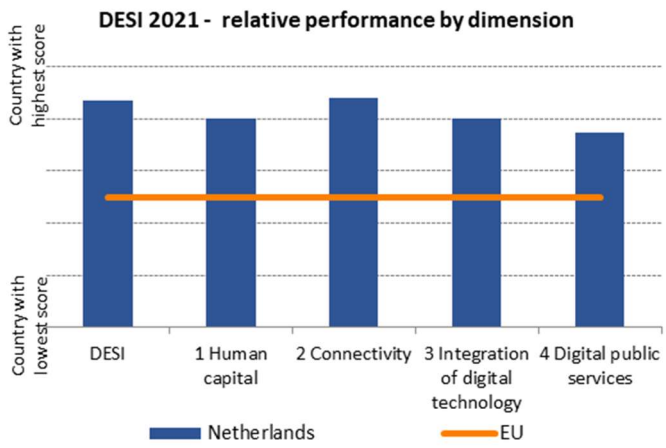
[2] https://www.rijksoverheid.nl/documenten/kamerstukken/2021/04/26/toekomstverkenning-digitalisering-2030

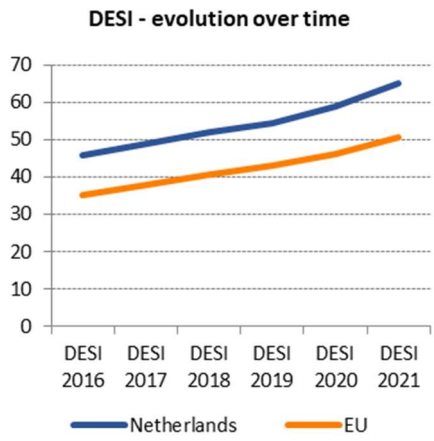
The Netherlands is among the top performers in connectivity, ranking 2nd in the EU. There were marked improvements in 5G coverage, but the overall 5G readiness is still below EU average and needs continued attention, as do the broadband prices in the country that are consistently higher than the EU average.

The Netherlands ranks 5th in the EU for Integration of digital technology. 75% of Dutch small and medium-sized enterprises (SMEs) have at least basic levels of digital intensity, the fourth highest score in the EU. The corresponding figure for large enterprises is 95%. Compared with last year, the percentage of enterprises using big data and cloud technologies has slightly increased. The percentage of enterprises using AI technologies is slightly below the EU average. The adoption of the National Growth Fund is a welcome development. It is worth EUR 20 billion and is reserved for infrastructure, innovation, and R&D, including sizeable portions allocated to AI, health data infrastructure, digital education technology and quantum technology.

The Netherlands is one of the EU countries which, overall, performs better in terms of digital public services, ranking 8th in the EU. Care should be taken to ensure that local and regional digital public services are interoperable and well aligned within the country. National strategies towards digital public services should also remain in line with the EU approach.

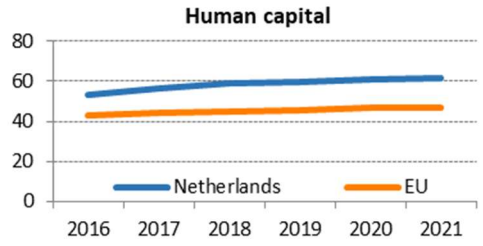
It is important that the Netherlands remains ambitious in its digital transformation, benchmarking itself with the other leading countries in digitalisation. As a country whose economy and society are strongly dependent on open trade and mutually beneficial cooperation with European partners, the Netherlands would benefit from a clearer strategy on its EU-wide engagement on digital investments and reforms, particularly on possible interfacing with the Next Generation EU fund and the Recovery and Resilience Facility.





1 Human capital

1 Human capital	Netherlands		EU
	rank	score	score
DESI 2021	3	61.5	47.1



	Netherlands			EU
	DESI 2019	DESI 2020	DESI 2021	DESI 2021
1a1 At least basic digital skills % individuals	**79%** 2017	**79%** 2019	**79%** 2019	**56%** 2019
1a2 Above basic digital skills % individuals	**48%** 2017	**50%** 2019	**50%** 2019	**31%** 2019
1a3 At least basic software skills % individuals	**80%** 2017	**80%** 2019	**80%** 2019	**58%** 2019
1b1 ICT specialists % individuals in employment aged 15-74	**5.3%** 2018	**5.6%** 2019	**5.9%** 2020	**4.3%** 2020
1b2 Female ICT specialists % ICT specialists	**16%** 2018	**17%** 2019	**18%** 2020	**19%** 2020
1b3 Enterprises providing ICT training % enterprises	**26%** 2018	**NA** 2019	**24%** 2020	**20%** 2020
1b4 ICT graduates % graduates	**2.5%** 2017	**2.8%** 2018	**3.1%** 2019	**3.9%** 2019

In the human capital dimension, the Netherlands ranks 3rd out of 27 EU countries. Basic and above basic digital skills levels remain fairly stable and well above the EU average. The proportion of ICT specialists in the workforce is also above the EU average. However, the proportion of female ICT specialists (out of the total number of ICT specialists) while increasing slowly over recent years, is slightly below the EU average. The share of ICT graduates is the fifth lowest in the EU. 24% of enterprises provide training for their staff to develop their ICT skills.

The importance of equipping everyone with the right skills and competences to take full advantage of the opportunities that digitalisation brings for economic growth and for tackling societal challenges was one of the key principles underlying the Digitalisation strategy, adopted in 2018. This approach was confirmed and strengthened in a review of the strategy, finalised in summer 2019. The main focus is on lifelong learning, although this comes with significant challenges and requires strong cooperation across the public and private sector, and in general between all stakeholders. In 2019, the Human capital agenda – the 2015 action plan to meet the growing demand for ICT professionals – focused on helping educational institutions make adjustments to the curriculum due to the emergence of new technologies[3].

In 2020 and 2021, partially in response to the effects of the COVID-19 pandemic, several Dutch stakeholders worked on a plan to scale up several existing regional and local initiatives (including Make IT Work[4], a model project identified by the European Commission and the Digital Champions in 2018) to strengthen basic and advanced digital skills across the whole population.

[3] Dutch Digital Delta, https://dutchdigitaldelta.nl/hca-ict
[4] https://ec.europa.eu/digital-single-market/en/digital-skills-initiatives/make-it-work

A large number of companies report the shortfall in digitally skilled professionals (e.g. in AI, data and cybersecurity) as a serious threat to their growth. 71.3% of companies recruiting or trying to recruit ICT professionals reported difficulties in doing so in 2020. Therefore, short-term, flexible retraining arrangements that ensure a well-functioning lifelong learning and development environment are needed.

Furthermore, in 2020, Dutch stakeholders recognised that teachers did not yet have the full range of skills to effectively use digital tools and equip students with digital literacy. This challenge can be addressed through (i) public contributions to training costs, by giving teachers time to professionalise without increasing their workload, and (ii) targeted use of new ICT/digital learning tools in everyday teaching practices. These efforts could be integrated with national Code Week activities, which in the Netherlands were only marginally conducted in or with schools in 2020 (about 43% of the 155 recorded activities).

The Platform for the Information Society (ECP) works closely with partners in public authorities across different ministries as well as with industry, teachers, researchers and non-governmental organisations to advance this agenda. It coordinates the Dutch National Coalition for Digital Skills, which has already launched and supported a number of relevant projects[5].

In 2020, despite the pandemic, 155 Code Week activities were organised in the Netherlands, of which 43% took place in schools. A total of 4,500 participants took part of which nearly half (48%) were female.

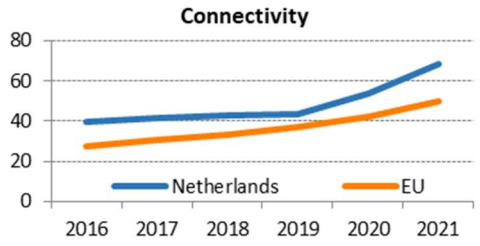
To further develop digital education, the National Education Lab is a new initiative to promote educational innovation projects that bridge the gap between fundamental scientific research and the market. With the Education Lab, public and private parties work together on AI-based educational innovation projects. The initiative recently received a grant of EUR 80 million from the National Growth Fund[6].

It is important that the Netherlands continue its efforts to upscale and better coordinate ongoing initiatives, paying particular attention to current and future labour market mismatches for ICT specialists.

[5] https://digital-strategy.ec.europa.eu/en/policies/national-coalitions
[6] https://www.nationaalgroeifonds.nl/documenten/rapporten/2021/04/09/adviesrapport-eerste-beoordelingsronde-commissie-nationaal-groeifonds

2 Connectivity

2 Connectivity	Netherlands		EU
	rank	score	score
DESI 2021	2	68.4	50.2



	Netherlands			EU
	DESI 2019	DESI 2020	DESI 2021	DESI 2021
2a1 Overall fixed broadband take-up % households	97% 2018	98% 2019	90% 2020	77% 2020
2a2 At least 100 Mbps fixed broadband take-up % households	39% 2018	42% 2019	41% 2020	34% 2020
2a3 At least 1 Gbps take-up % households	NA	<0.01% 2019	<0.01% 2020	1.3% 2020
2b1 Fast broadband (NGA) coverage % households	98% 2018	98% 2019	98% 2020	87% 2020
2b2 Fixed Very High Capacity Network (VHCN) coverage % households	32% 2018	89% 2019	90% 2020	59% 2020
2c1 4G coverage % populated areas	99.4% 2018	99.4% 2019	99.5% 2020	99.7% 2020
2c2 5G readiness Assigned spectrum as a % of total harmonised 5G spectrum	0% 2019	0% 2020	33% 2021	51% 2021
2c3 5G coverage % populated areas	NA	NA	80% 2020	14% 2020
2c4 Mobile broadband take-up % individuals	84% 2018	88% 2019	88% 2019	71% 2019
2d1 Broadband price index Score (0-100)	NA	56 2019	61 2020	69 2020

The Netherlands is one of the top performers in Connectivity, ranking 2nd among EU Member States. One of its main strengths is that it has a highly developed fixed and mobile broadband market. The country is well on its way to achieving the Gigabit Society goals[7] and has just achieved the EU 2020 targets, with nearly all households covered by fixed networks capable of providing services of 30 Mbps (98%), even in rural areas (97%) and near-complete 4G coverage of households. It has the second highest 5G coverage of households at EU level (80%), including 30% of rural households. VHCN coverage has increased considerably over the past 2 years, reaching 90% of households in 2020 (59% at EU level). This is mainly thanks to the upgrade of cable networks to DOCSIS 3.1 (79% of nationally, 60% in rural areas) in 2019, while coverage with fibre to the premises is slowly increasing (36% nationally, 27% in rural areas). In terms of fixed broadband take-up, despite decreasing from 98% in 2019 to 90% in 2020 it is still above the EU average (77%). Despite the wide availability of VHCN, there is practically no take-up of gigabit speeds and the take-up of speeds of at least 100 Mbps stands at 41% of households (34% at EU level). 88% of individuals subscribe to mobile broadband. Although the broadband prices in the Netherlands have slightly decreased (price index score 61) compared to 2019 (score 56), they are consistently higher than the EU average.

[7] https://digital-strategy.ec.europa.eu/en/library/connectivity-european-gigabit-society-brochure#:~:text=The%20objective%20is%20to%20ensure,all%20urban%20and%20rural%20areas

With the increase in fibre roll-out, the Authority for Consumers and Markets (ACM) expects that around 99.5% of households will have access to at least 100 Mbps in 2023. T-Mobile announced investments of at least EUR 700 million in fibre roll-out, aiming to reach 1 million households within 5 years. KPN announced fibre roll-out to 80% of all households in 2026 as part of its strategy to modernise the networks. These developments, in addition to the upgrade to DOCSIS 3.1, with VodafoneZiggo expecting to reach 2 million households additionally, will ensure access to gigabit speeds throughout almost the entire country. An investment gap has been identified only for the remaining 0.5%, representing the most remote addresses in rural areas. The Ministry of Economic Affairs is looking into making public funding available to reach, at a minimum, the 20,000 households in the most remote locations, with VHCN.

The Netherlands made significant improvements in 2020 regarding its goal to be the European leader in 5G, but it still stands at only 33% 5G readiness. A multiband spectrum auction (700, 1400, 2100 MHz) was concluded on 21 July 2020, with all of the available spectrum being assigned. The 700 MHz band licences are accompanied by coverage obligations. By 28 July 2022, licence holders are obliged to cover 98% of the geographical area of all municipalities in the Netherlands. That coverage should ensure that all users can, at any time, access a service that provides them with at least 8 Mbps with a 90% probability. This speed requirement will increase to 10 Mbps by 28 July 2026. To achieve these obligations, licence holders can use any of their available frequencies in other bands. VodafoneZiggo has yet to roll out its 5G network on the 700 MHz band. However, it was the first operator in the Netherlands to provide 5G services via its existing antennas and Dynamic Spectrum Sharing (DSS) technology which makes it possible to dynamically allocate existing 4G LTE spectrum to 5G. With the upcoming auction of the 5G spectrum, the 3.6 GHz band, operators are likely to increase the deployment of 5G networks. The auction of part of this band is expected to start only in Q2 2022, enabling the use of 300 MHz of the band from September 2022. The auction has been delayed because part of the band has been used by Dutch military intelligence agencies and another part of it is currently used for satellite communications. The Rotterdam District Court recently ruled in favour of the current licence holder, Inmarsat, in a dispute over the use of the band, ordering the government to suspend its plans to use this part of the band for 5G.

The Netherlands auctioned the 700 MHz for use in its part of the North Sea ('Economic Exclusive Zone') separately from the multiband frequency auction mentioned above. Four operators took part in the auction. The winners were T-Mobile (2x10 MHz) and Tampnet (2x20 MHz). They paid a combined total of EUR 975,000[8]. Tampnet already provides 4G coverage in a large part of the area that the Netherlands controls in the North Sea[9]. The 26 GHz band award has also been delayed despite being prepared for the last year. A market consultation was held in March 2020 but the consultation regarding award procedures has been delayed. In September 2020, the National Health Council advised[10] against awarding these millimetre wave frequencies due to a lack of knowledge about potential health implications[11].

Main market & regulatory developments
The market shares of the mobile operators remained stable, with KPN and T-Mobile holding between 25-30% each and VodafoneZiggo 20-25%. ACM approved T-Mobile's acquisition of the mobile virtual network operator Simpel. 2G and 3G networks will be gradually decommissioned – KPN plans to switch off 3G in 2022 and Vodafone has already switched of 3G but maintains 2G

[8] https://www.agentschaptelecom.nl/onderwerpen/veilingen/verdeling-op-afroep-700-mhz-vergunningen-noordzee
[9] https://www.tampnet.com/coverage-maps
[10] https://www.healthcouncil.nl/documents/advisory-reports/2020/09/02/5g-and-health
[11] In June 2021, a Dutch Court of appeals dismissed a civil law case filed against the government by a 5G opposition movement which claimed that 5G technology poses potential health risks.

for now because of a large user base of connected devices (IoT and M2M) that are only 2G enabled. T-Mobile had planned to switch off the 2G network by June 2021.

The trend on the mobile market is subscriptions with larger data volumes and increased wi-fi offloading. On the fixed market, users mostly buy bundled products, typically with TV-services.

The market share on the fixed market also remained stable, with the two major providers KPN and VodafoneZiggo holding 40-45% and 45-50% respectively. After a stagnation in the past 3 years, the Dutch market has recently seen an increase of new entrants deploying fibre. KPN, responded to the market change and in some cases acquired the early entrants. On a highly saturated broadband market, there are, according to ACM, only a few network operators left that are deploying fibre next to KPN. According to ACM, in urban areas there are signs of potential strategic overbuilding, while there is little commercial interest in exploring the possibilities of voluntary co-investments.

The highest administrative court annulled ACM's decision on markets for wholesale local access provided at a fixed location and wholesale central access provided at a fixed location for mass-market products (markets 3a and 3b of the EU's 2014 Recommendation[12], respectively). ACM had established joint dominance by KPN and VodafoneZiggo, and imposed access and tariff obligations on both. The Court annulled the market review decision on the ground that ACM did not meet the burden of proof as regards the retail market not being competitive. Following the ruling, KPN has maintained its existing agreements with wholesale operators, while VodafoneZiggo ceased all fixed wholesale offers on its coaxial network.

On 4 February 2021, the Commission addressed a letter of formal notice for failure to notify to it complete transposition measures for the European Electronic Communications Code. The Netherlands plans to completely transpose the Code into its law and enter into force the relevant national legislative act in December 2021.

Various efforts have been made to coordinate between local and national governments regarding permit granting procedures. Next to information and knowledge sharing, the Ministry of Economic Affairs and Climate Policy created a taskforce of national and local authorities, to develop a uniform approach to permit-granting procedures for antennas and access to physical infrastructure for small cells. These efforts are part of the Dutch roadmap under the EU's Connectivity Toolbox[13]. In its roadmap, the Netherlands also announced that, overall, there has been improved coordination between central and local authorities, as well as more efficient digital handling of permits. It also introduced the possibility to establish broadband coordinators and develop guidelines on fees.

Emergency-SMS can be used as a means of access to emergency communications. It enables the advanced mobile location of whoever is sending the emergency SMS to be obtained. This provides end-users with disabilities with an additional means to access the 112 single emergency number. An emergency application, the 112 NL-app, is expected to be tested for launch before the end of 2021.

In 2020, ACM registered a lower number of consumer complaints (2,110) compared to 2019 (2,400). The number of questions or complaints per category has been stable, except for bundled services, which account for almost half of all complaints (increasing from 924 in 2019 to 1114 in 2020).

ACM noted problems with quality of service in roaming where the roaming provider (home operator) blocks access to 4G roaming, only enabling 3G access or limiting the available data

[12] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014H0710
[13] https://digital-strategy.ec.europa.eu/en/policies/connectivity-toolbox

speed on certain visited networks. ACM did not take any formal steps due to lack of legal clarity regarding quality of roaming services.

With the launch of 5G services in July 2020, KPN introduced a specialised service called Application Priority[14] for business customers. This prioritises the delivery of mobile data of certain services in the public interest, such as secure payment transactions and traffic control by emergency services (e.g. turning traffic lights green).

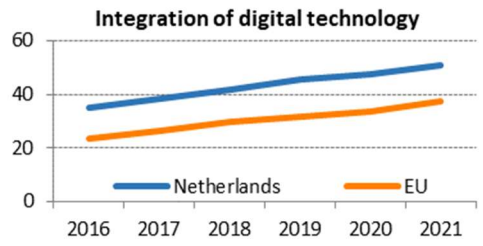
ACM published guidelines[15] to inform consumers about the misuse of forwarding services. Consumers have been charged high rates for unwittingly calling forwarding services acting as an intermediary.

The Netherlands has high-quality infrastructure with several fixed electronic communications networks (copper, cable and fibre) and three mobile network providers. With the transition towards fibre deployment in the Netherlands, there has been uncertainty on the market after the annulment of the decision on markets for wholesale local access provided at a fixed location and wholesale central access provided at a fixed location for mass-market products. Despite broadband prices falling in 2020, the uptake of higher Mbps and gigabit speeds has not increased. Public policy initiatives could boost the efficient use of the advanced broadband technologies by promoting uptake. Significant 5G developments have been made with the award of the 700 MHz band as well as with 5G deployment in the last year. However, the delay in assigning the 3.6 GHz band is an obstacle to 5G deployment.

[14] https://www.kpn.com/zakelijk/blog/5g-wordt-motor-achter-industriele-vernieuwing.htm
[15] https://www.acm.nl/nl/publicaties/acm-leidraad-voorkomen-misleiding-bij-doorschakeldiensten

3 Integration of digital technology

3 Integration of digital technology	Netherlands		EU
	rank	score	score
DESI 2021	5	50.7	37.6



	Netherlands			EU
	DESI 2019	DESI 2020	DESI 2021	DESI 2021
3a1 SMEs with at least a basic level of digital intensity % SMEs	NA	NA	75% 2020	60% 2020
3b1 Electronic information sharing % enterprises	48% 2017	48% 2019	48% 2019	36% 2019
3b2 Social media % enterprises	39% 2017	37% 2019	37% 2019	23% 2019
3b3 Big data % enterprises	22% 2018	22% 2018	27% 2020	14% 2020
3b4 Cloud % enterprises	42% 2018	42% 2018	47% 2020	26% 2020
3b5 AI % enterprises	NA	NA	24% 2020	25% 2020
3b6 ICT for environmental sustainability % enterprises having medium/high intensity of green action through ICT	NA	NA	64% 2021	66% 2021
3b7 e-Invoices % enterprises	22% 2018	22% 2018	26% 2020	32% 2020
3c1 SMEs selling online % SMEs	17% 2018	21% 2019	19% 2020	17% 2020
3c2 e-Commerce turnover % SME turnover	10% 2018	12% 2019	13% 2020	12% 2020
3c3 Selling online cross-border % SMEs	11% 2017	13% 2019	13% 2019	8% 2019

On integrating digital technology into businesses' activities, the Netherlands ranks 5th among EU countries. 75% of SMEs have at least basic levels of digital intensity, recording the fourth highest score in the EU. The corresponding figure for large enterprises is 95%. Compared with last year, the percentage of enterprises using big data and cloud technologies has slightly increased. Dutch enterprises are the second largest users of big data in the EU. In 2020, the percentage of SMEs selling online fell slightly from the previous year, but the e-commerce turnover increased. This is probably linked to the effects of the pandemic. Cross-border sales remained stable. The percentage of enterprises using AI technologies is below the EU average, despite the past investments and push from Dutch stakeholders underlining the importance of advanced digital technologies for economic and societal growth. Dutch businesses also lag behind in using ICT to trigger green actions.

The adoption of the National Growth Fund, with its EUR 20 billion reserved for infrastructure, innovation, and R&D, including sizeable portions allocated to AI, health data infrastructure, and quantum technology,[16] is a clear sign that Dutch stakeholders prioritise digitalisation.

[16] See https://www.government.nl/latest/news/2021/04/21/innovative-projects-given-additional-%E2%82%AC1.35-billion-boost-due-to-funding-from-national-growth-fund

The Netherlands is committed to advancing new digital technologies and to investing strategically in digital technologies thanks to joint initiatives with the EU. The country is a member of the European High-Performance Computing Joint Undertaking and has signed the Declaration on Cooperation Framework on High-Performance Computing. It has also signed EU declarations on the European Blockchain Partnership, Cooperation on AI, and Quantum Computing Infrastructure.

Furthermore, the Netherlands is a signatory to the declaration on the European Cloud Alliance. In signing this, it agreed to: (i) focus on combining private, national and EU investment in deploying competitive, green and secure cloud infrastructure and services; (ii) set out a common European approach on joining up cloud capacities, by working towards one set of joint technical solutions and policy norms in order to foster interoperable EU cloud services; and (iii) drive the take-up of more secure, interoperable and energy-efficient data centres and cloud services, in particular, for SMEs, start-ups and the public sector.

The Dutch government also takes part in the public-private partnership 'Smart Industry' to help implement digital technologies. Field laboratories, or 'Fieldlabs', play an important role in this context by helping organisations with digitalisation by providing new digital innovations. The current infrastructure contains 47 field labs that help develop, test and implement new technologies. This is a collaboration involving companies, research centres and other relevant stakeholders.

The Netherlands continues to invest in the use of digital technologies by businesses across sectors, which is a welcome confirmation of the country's strategic approach to digitalisation.

Highlight 2020-2021: the National Growth Fund

The National Growth Fund[17] (*Nationaal Groeifonds*) is a government initiative, co-managed by the Ministry of Economic Affairs and Climate, and the Ministry of Finance. It aims to invest EUR 20 billion over the coming 5 years, in three areas where most of the opportunities for structural and sustainable economic growth exist: (1) knowledge development; (2) research, development and innovation; (3) infrastructure. An independent committee has been set up to assess project proposals and provide advice, but ultimately it is the government that decides on which projects to fund.

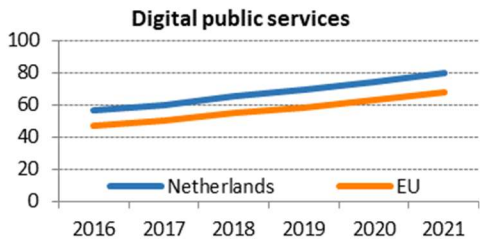
The philosophy underlying the National Growth Fund is as simple as politically ambitious: the recognition that while prosperity might seem obvious (especially in a country such as the Netherlands and in the EU when compared to other parts of the world) it is not. Therefore, public investments, jointly with private investors, in key strategic projects are essential.

Within the Fund, EUR 1.35 billion will be allocated to projects related to AI, health data infrastructure, educational innovation and quantum technology.

[17] https://www.nationaalgroeifonds.nl/documenten/rapporten/2021/04/09/adviesrapport-eerste-beoordelingsronde-commissie-nationaal-groeifonds

4 Digital public services

4 Digital public services	Netherlands		EU
	rank	score	score
DESI 2021	8	79.9	68.1



	Netherlands			EU
	DESI 2019	DESI 2020	DESI 2021	DESI 2021
4a1 e-Government users % internet users	**86%** 2018	**84%** 2019	**91%** 2020	**64%** 2020
4a2 Pre-filled forms Score (0 to 100)	**NA**	**NA**	**81** 2020	**63** 2020
4a3 Digital public services for citizens Score (0 to 100)	**NA**	**NA**	**86** 2020	**75** 2020
4a4 Digital public services for businesses Score (0 to 100)	**NA**	**NA**	**83** 2020	**84** 2020
4a5 Open data % maximum score	**NA**	**NA**	**85%** 2020	**78%** 2020

As regards Digital public services, the Netherlands ranks 8th among EU countries, above the EU average. It performs well across the board. 91% of internet users use digital public services, up 7 percentage points from last year's DESI, putting the Netherlands just after Denmark and Finland. 86% of administrative steps can be done online for major life events such as registering child births and new residences. However, when it comes to the share of online public services needed for starting and running a business, the Netherlands lags behind and is just under the EU average. For open data, the Netherlands ranks within the middle group of countries, but above the EU average.

Already in 2018, the Dutch Digitalisation strategy had put the goal of a transparent and accessible e-government squarely at the centre of the country's priorities and ambitions were further developed in the value based digital government agenda NL DIGIbeter. This agenda followed up on an assessment recognising that work was needed to ensure there is sound, future-proof, basic digital infrastructure and to improve the skills of public sector workers. In addition, in December 2018 a new inclusion agenda was introduced, aimed at (i) making services user-friendly and accessible, for everyone, (ii) helping people to go digital and (iii) increasing digital skills and awareness.

In 2020, partially in response to the effects of the COVID-19 pandemic, the digital government agenda was updated to include the aim of ensuring that everyone can participate digitally in society. The "#allemaaldigitaal" campaign, a joint public-private initiative coordinated by the Digital Society, NL Digital and SIVON alliance, gave thousands of people access to a refurbished laptop. A helpline was opened to help people experiencing problems when using their laptop or tablet. With support from the Kids' Council, older people receive help in achieving greater digital contact, as a means of tackling social isolation[18].

Furthermore, in April 2020 the Dutch government adopted the proposal for the revised government data agenda, to review and update the first version that was launched in March 2019. The underlying philosophy, i.e. using a data-driven approach to make policy development more effective and increase

[18] https://www.nldigitalgovernment.nl/digital-government-agenda/

transparency for the public, remains unchaged. However, there is now a stronger focus on the legal and ethical frameworks, in particular ensuring algorithms used to take decisions that significantly affect people are transparent and can be easily explained[19]. This is a welcome development.

Although it was already set up in 2017, the importance of the RADIO initiative (the Governmental Academy for Digitalisation and Computerisation of the Government) was particularly apparent in 2020. It aims to give civil servants the proper skills so digitalisation and digital technologies become a normal part of their job. Relevant training can also take the form of webinars, e-learning or blended learning.

In conclusion, the Netherlands is one of the countries that, overall, performs better than others in terms of the widespread use of online services, with a good level of back- and front-office digitalisation[20]. It is important that local and regional digital public services are interoperable and well aligned within the country, and that the national strategies that advance digital public services remain in line with the EU approach.

[19] https://www.nldigitalgovernment.nl/overview/new-technologies-data-and-ethics/data-agenda-government/focusing-on-legislation-and-public-values/
[20] https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2020-egovernment-works-people