



Digital Economy and Society Index (DESI) 2020

Finland

About the DESI

The European Commission has been monitoring Member States' digital progress through the Digital Economy and Society Index (DESI) reports since 2014. The DESI reports include both country profiles and thematic chapters. In addition, an in-depth telecoms chapter is annexed to the reports for each Member State.

The DESI country reports combine quantitative evidence from the DESI indicators across the five dimensions of the index with country-specific policy insights and best practices.

The current COVID-19 pandemic has shown how important digital assets have become to our economies and how networks and connectivity, data, AI and supercomputing as well as basic and advanced digital skills sustain our economies and societies by allowing work to continue, tracking the spread of the virus and accelerating the search for medications and vaccines.

Member States have put in place specific measures to mitigate the impact of the pandemic. A dedicated section in each country details them. Digital will also play a key role in the economic recovery as the European Council and the Commission have undertaken to frame the support to the recovery along the twin transition to a climate neutral and resilient digital transformation. In this framework, the deployment of 5G and very high capacity networks (VHCNs), digital skills, the digitisation of companies and the public administration are crucial for a robust recovery. The DESI monitors their progress in each Member State.

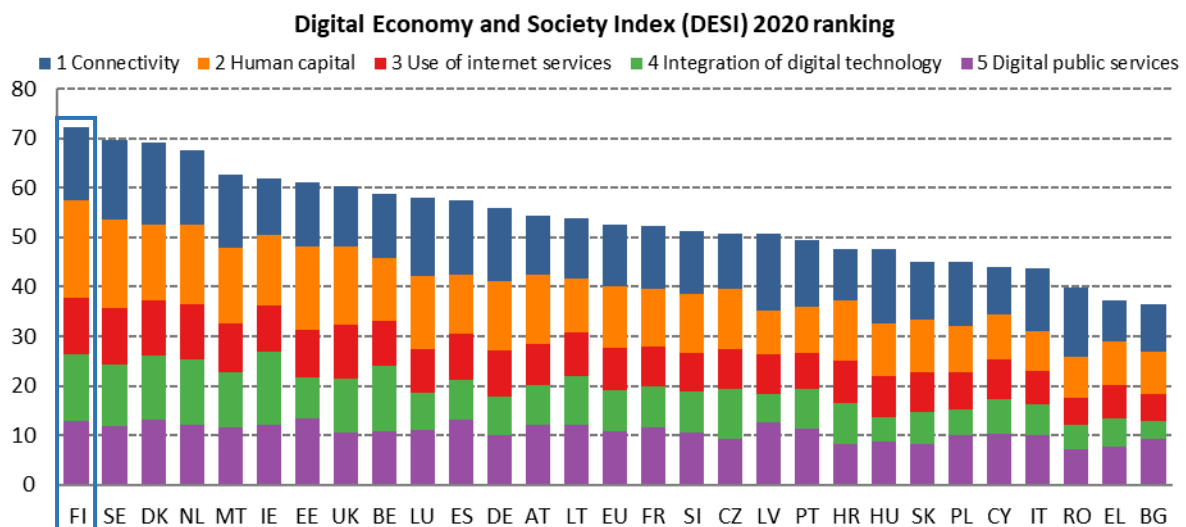
As regards the thematic chapters, the DESI 2020 report includes a European-level analysis of broadband connectivity, digital skills, use of the internet, digitisation of businesses, digital public services, emerging technologies, cyber security, the ICT sector and its R&D spending and Member States' use of Horizon 2020 funds.

To improve the methodology of the index and take account of the latest technological developments, a number of changes were made to the 2020 edition of DESI, which now includes Fixed very high capacity network (VHCN) coverage. The DESI was re-calculated for all countries for previous years to reflect the changes in the choice of indicators and corrections made to the underlying data. Country scores and rankings may thus have changed compared with previous publications. As the figures refer to 2019, the United Kingdom is still included in the 2020 DESI, and EU averages are calculated for 28 Member States. For further information, please consult the DESI website: <https://ec.europa.eu/digital-single-market/en/desi>.

It is noted that statements regarding planned or potential State aid measures record intentions declared by Member States and do not pre-judge or pre-empt the assessment of such measures by the Commission under the relevant state aid rules. The DESI report is not meant to provide any assessment of the compliance of such measures with state aid rules and procedures.

Overview

	Finland		EU
	rank	score	score
DESI 2020	1	72.3	52.6
DESI 2019	1	68.1	49.4
DESI 2018	2	62.8	46.5

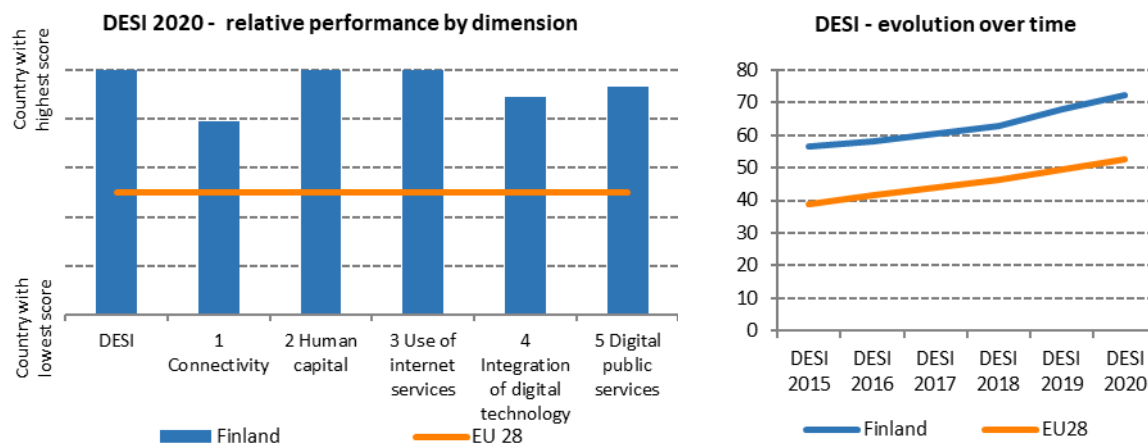


Finland is a digital leader ranking 1st out of the 28 EU Member States with a score of 72.3 in the Digital Economy and Society Index (DESI) 2020. Based on data prior to the pandemic, its leading performance is due to its excellence in digital public services and the integration of digital technologies, enabled by active cooperation between the public and private sectors and an active start-up scene. Its human capital is one of its strongest competitive advantages where 76% of the population have basic or above basic digital skills, considerably above the EU average (58%).

Finland excels thanks to innovative thinking linked with social responsibility. Governmental support is far-sighted, setting regulatory incentives and funding basic research. Finland has developed an equitable and inclusive information society. Digitisation and the development of the information society at all levels and in all sectors play a key role in sustaining Finnish well-being and increasing productivity. Efficient use of information and communication technologies (ICT) in different sectors of society leads to increased productivity.

The government report 'Productive and innovative Finland — digital agenda for 2011–2020', sets out future objectives for the development of the information society, along with the measures necessary to achieve them. Key objectives include i) opening up access to public data and its efficient use, ii) promoting user-oriented service development, iii) securing the position of older people as active citizens, and iv) promoting sustainable development by adopting new technologies.

Finland is working for to establish the national Digital Skills and Jobs Coalition (DSJC) during the year 2020.



The role of digital to manage the coronavirus pandemic and to support the economic recovery

The current COVID-19 crisis is having an important impact on key societal indicators relating to the use of internet services by citizens. This does not show in the latest 2019 official statistics as reported in DESI. Consequently, the DESI 2020 findings need to be read in conjunction with the strained demand that has been put on digital infrastructure and services during the pandemic and the immediate actions the Member States took. Similarly, as Europe progressively exits from the pandemic, the recovery must be planned taking into account the lessons learnt from this crisis. This means paying particular attention to the indicators relevant to a stronger and more resilient digital transformation and economic recovery, notably very high capacity networks (VHCNs) and 5G, digital skills, advanced digital technologies for businesses and digital public services.

A great number of central government staff has been working from home. In order to ensure the availability of remote access to the network, network capacity has continuously increased and load sharing is in place. This will continue as network capacity is being monitored. If necessary, telecommunications traffic for remote access will be prioritised.

Several ongoing initiatives seek to develop digital solutions for tracing digital contacts. The aim is to create a common technological approach to ensure extensive coverage and critical user mass to combat the Covid-19 pandemic. The responsibility for this development work lies with the health authorities. The Ministry of Transport and Communications ensures the safeguards of data security and privacy.

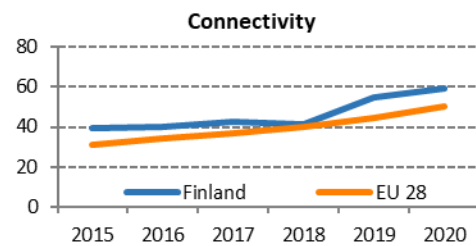
A few national projects in Finland deserve attention in this context. The Helsinki and Uusimaa Hospital District (HUS) have created a questionnaire called Coronabot that gives citizens guidance on questions related to Covid-19 symptoms and exposure together with a mental support programme. It is still a pilot and its content receives regular updates. The Coronabot collects its users' postcodes for statistical purposes without creating a person register.

The Symptom Radar is an open source project developed by the largest subscription newspaper in Finland, Helsingin Sanomat together with the technology company Futurice. Its purpose is to gather information from people who have suffered from Covid-19 symptoms. The purpose of this data gathering is to understand the spread of Covid-19 in Finland and share this information. Other Finnish media companies are also participating in the data collection.

With regard to the DESI indicators that are especially relevant for the economic recovery after the COVID-19 crisis, Finland is very advanced on the 5G, the digital skills and the digitisation of businesses indicators as well as in digital public services. On the deployment of VHCN it ranks 14th.

1 Connectivity

1 Connectivity	Finland		EU
	rank	score	score
DESI 2020	9	59.2	50.1
DESI 2019	6	54.5	44.7
DESI 2018	13	41.6	39.9



	Finland			EU
	DESI 2018	DESI 2019	DESI 2020	DESI 2020
1a1 Overall fixed broadband take-up	57%	58%	57%	78%
% households	2017	2018	2019	2019
1a2 At least 100 Mbps fixed broadband take-up	17%	21%	23%	26%
% households	2017	2018	2019	2019
1b1 Fast broadband (NGA) coverage	74%	74%	75%	86%
% households	2017	2018	2019	2019
1b2 Fixed Very High Capacity Network (VHCN) coverage	32%	31%	58%	44%
% households	2017	2018	2019	2019
1c1 4G coverage	98%	99%	99%	96%
% households (average of operators)	2017	2018	2019	2019
1c2 Mobile broadband take-up	146	153	154	100
Subscriptions per 100 people	2017	2018	2019	2019
1c3 5G readiness	NA	67%	67%	21%
Assigned spectrum as a % of total harmonised 5G spectrum		2019	2020	2020
1d1 Broadband price index	NA	NA	79	64
Score (0 to 100)			2019	2019

With an overall connectivity score of 59.2, Finland ranks ninth among the Member States. Fast broadband (NGA) coverage increased slightly from a year to the other as it stood at 75% in 2019, significantly lower than the EU average (86%). Fixed very high capacity network coverage has substantially increased from a year to the other as it stood at 58% in 2019 against 31% in 2018. Fixed broadband take-up is at 57%, significantly behind the EU average of 78%. Only 23% of households chose to subscribe to fixed broadband of at least 100 Mbps or above, which is slightly below the EU average of 26%. One of the reasons for the relatively low take-up of fixed broadband connectivity can be seen in Finland's excellent performance in mobile broadband. Average 4G coverage is almost ubiquitous as it stood at 99% of the households in 2019 and 99% in 2018. This is also thanks to the timely assignment of spectrum including for 5G: the 5G readiness indicator⁽¹⁾ stands significantly above the EU average at 67% against 21%, ranking the country first in the EU. Finland is second in mobile broadband take-up (154 subscriptions per 100 people), far above the EU average (100). Finally, Finland's broadband price index stood at 79 against 64 for the EU.

⁽¹⁾ The 5G spectrum readiness indicator is based on the amount of spectrum already assigned and available for 5G use by 2020 within the 5G pioneer bands in each EU Member State. For the 3.4-3.8 GHz band, this means that only licences aligned with the technical conditions in the Annex to Commission Decision (EU)2019/235, are considered 5G-ready. For the 26 GHz band, only assignments aligned with the technical conditions in the Annex to Commission Implementing Decision (EU) 2019/784 are taken into account. By contrast, the percentage of harmonised spectrum takes into account all assignments in all harmonised bands for electronic communications services (including 5G pioneer bands), even if this does not meet the conditions of the 5G readiness indicator.

Despite some limited structural changes, the deployment of gigabit networks in Finland continues to depend almost exclusively on private companies. Telia has created a joint venture with the CapMan infrastructure investor. The joint venture will own and intends to heavily invest in Telia's fibre-to-the-home infrastructure and provide the connection to end users in an 'open fibre' business model. The customers will then be able to choose from - and set up contracts with - a number of different internet service providers who have agreed to offer their services. This is a new set-up in Finland. The transaction is subject to approval from the relevant authorities and is expected to be completed during the first quarter of 2020. Another new market player is the Adola company, a joint venture between a fully state-owned fibre company and private investors. The company operates as a software company and as an internet service provider active in fibre roll-out. For all fixed operators, the migration from copper to fibre is challenging, as replacement by fibre is not economically feasible in all cases. Operators want to avoid maintaining copper without having customers. Uptake of fibre in suburbs is still low, due to overall good mobile coverage. However, in rural and remote areas, existing 4G infrastructure can have capacity constraints.

As regards Finland's national broadband plan, the application period for the high-speed broadband aid scheme ended in 2018 but payments are estimated to continue until 2021. The authorities are planning to make arrangements so it would be possible to apply and receive aid again from the beginning of 2021.

In Finland, 50% of the spectrum harmonised at EU level for wireless broadband has been assigned. While the 700 MHz band and the 3.4-3.8 GHz bands have already been assigned, the authorities are planning to auction the 26 GHz band in summer 2020. A public consultation on the 26 GHz band, launching the assignment process, will also take place in 2020.

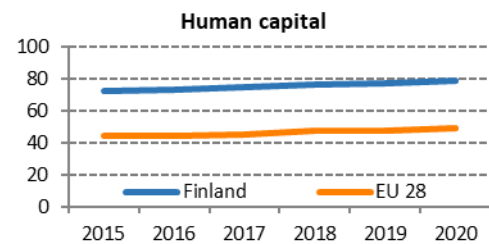
Commercial 5G services are already available in the centres of the biggest cities (from all three mobile network operators. Depending on the providers, speeds are 1 Gbit/s, 600 or 300 Mbit/s, using 3.6 GHz spectrum)⁽²⁾. Corporate 5G Internet of things (IoT) services are at a pilot stage, mainly in factories (e.g. Nokia factory) and harbours, as part of more comprehensive trials.

While Finland has good fixed broadband and 4G coverage overall, coverage in rural areas could be further improved. The main problem has been the lack of incentive for market players to invest in sparsely populated areas of the country. Finland has adopted State aid measures and has further adjusted them to tackle this issue, resulting in the implementation of more projects.

⁽²⁾ The 700 MHz and 3.6 GHz wireless broadband bands have already been assigned.

2 Human capital

2 Human capital	Finland		EU
	rank	score	score
DESI 2020	1	78.4	49.3
DESI 2019	1	77.5	47.9
DESI 2018	1	76.1	47.6



	Finland		EU	
	DESI 2018	DESI 2019	DESI 2020	DESI 2020
	value	value	value	value
2a1 At least basic digital skills	76%	76%	76%	58%
% individuals	2017	2017	2019	2019
2a2 Above basic digital skills	45%	45%	50%	33%
% individuals	2017	2017	2019	2019
2a3 At least basic software skills	76%	76%	77%	61%
% individuals	2017	2017	2019	2019
2b1 ICT specialists	6.6%	6.8%	7.2%	3.9%
% total employment	2016	2017	2018	2018
2b2 Female ICT specialists	3.0%	3.1%	3.0%	1.4%
% female employment	2016	2017	2018	2018
2b3 ICT graduates	6.7%	7.1%	6.3%	3.6%
% graduates	2015	2016	2017	2017

Finland ranks 1st out of the 28 EU countries in human capital. At least basic digital skills levels remain well above the EU average at 76%, despite of the fact that Finland ranks 2nd on that indicator. Finland made significant progress in increasing the proportion of people with above basic digital skills jumping to 50% this year and gaining first position in the EU in this ranking. ICT specialists also represent an increased percentage of the workforce compared to the EU average (7.2% compared to 3.9% in the EU as a whole), affirming its lead position in that indicator too. ICT graduates in Finland account for 6.3% of the total number of graduates above the EU average (3.6%). Female ICT specialists account for 3% of total female employment, maintaining Finland's lead in this indicator.

Finland has the highest percentage of ICT specialists in the labour force in the EU, yet 66.2% of companies, which recruited or tried to recruit an ICT specialist, had difficulties doing so (by contrast, the EU average is 56.8%)⁽³⁾. Demand for graduates in ICT is high while graduate output struggles to meet the business demand and gender imbalances remain⁽⁴⁾.

To tackle demand, Finland is reforming its vocational and training schemes, focusing on digital skills and the quality of learning. Introducing coding and embedding it as a mandatory component of the school curriculum is a long-term action with the potential to satisfy the growing appetite for qualified ICT-related labour.

In addition, Finnish teachers report that they do not feel sufficiently prepared in terms of using ICT⁽⁵⁾. The proportion of Finnish teachers who feel well or very well prepared to use ICT for teaching is the second lowest in the EU (21.5%, EU average 39.4%) while 19% say they need professional development in this area (EU average 16.1%). However, more than half report that their formal education covers that (55.6%, EU average 52.9%).

⁽³⁾ European Commission, Digital Scoreboard.

⁽⁴⁾ [European education & training monitor 2019, Finland country report.](#)

⁽⁵⁾ TALIS (OECD, 2019a).

Finland is a frontrunner in anticipating the skills development needed for Artificial Intelligence (AI). Finland's free online AI course seeks to demystify the technology by making it more accessible. The course targets anyone interested in learning about AI without prior mathematical or programming skills required. This initiative by the Finnish government aims to attract 1% of the population to take up the challenge and learn more about AI basics such as machine learning and neural networks.

Finland is working for to establish its national Digital Skills and Jobs Coalition during the year 2020. It is also a signatory of the ministerial Declaration of commitment on women in digital.

Finland actively participated in the 2019 edition of EU Code Week with 145 activities bringing together 7,545 participants. Finland also organized DigiEduHack in 2019.

Finland's strong and consistent lead in human capital reflects the high levels of competence its workforce has, which is one of its strongest competitive advantages. Finland demonstrates the ability of its people, businesses, communities and public administration to produce, protect, understand and utilise information and technology. Finland advanced digitisation, and the skills necessary to thrive in it, through persistent action and broad, cross cutting cooperation between different sectors and organisations in society. It is spearheading efforts to bring AI closer to the public by improving their understanding of the technology and addressing the need for skills that accompanies it. Finland is also stepping up action to enhance teachers' skills in teaching science, technology, engineering and mathematics in order to stimulate students to choose these study fields.

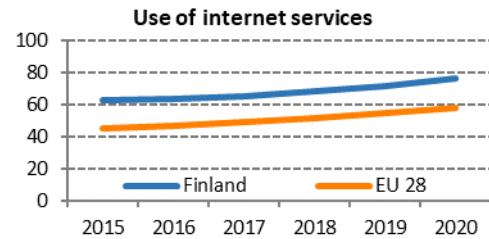
Highlight 2020: Learning science, technology, engineering and mathematics (STEM) and improving teachers' skills in these areas

The Ministry of Education aims to boost the learning of science, mathematics and technology in schools through the €5 million it provided in support to the LUMA-SUOMI programme 2013-2019. The national LUMA centre is an umbrella organisation coordinated by the University of Helsinki, boosting cooperation between schools, universities and business. The objective is to motivate children to study STEM by promoting the latest pedagogical methods. It supports lifelong learning of teachers and strengthens research-based teaching. The main activities are i) continuing professional development for teachers, including an annual LUMA science day, ii) the national LUMA activation week for schools, iii) mathematics, science and technology camps for children, and iv) resource centres for mathematics and science. The programme will continue under the name of LUMA2020. Its practical implementation began in October 2019. About 160 learning communities were selected for the program including preschools, elementary schools, high schools, vocational schools and hobby schools. Currently, there are 13 LUMA centres from different Finnish universities and university campuses⁽⁶⁾.

⁽⁶⁾ <https://www.luma.fi/en/centre/>

3 Use of internet services

3 Use of internet services	Finland		EU
	rank	score	score
DESI 2020	1	76.3	58.0
DESI 2019	4	71.8	55.0
DESI 2018	4	68.1	51.8

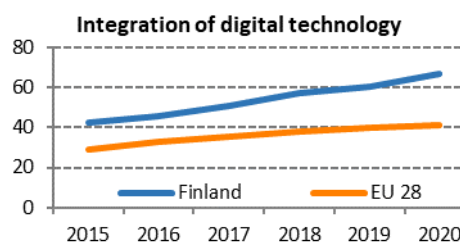


	Finland		EU	
	DESI 2018 value	DESI 2019 value	DESI 2020 value	DESI 2020 value
3a1 People who have never used the internet	5%	4%	3%	9%
% individuals	2017	2018	2019	2019
3a2 Internet users	92%	93%	93%	85%
% individuals	2017	2018	2019	2019
3b1 News	90%	90%	85%	72%
% internet users	2017	2017	2019	2019
3b2 Music, videos and games	91%	94%	94%	81%
% internet users	2016	2018	2018	2018
3b3 Video on demand	37%	50%	50%	31%
% internet users	2016	2018	2018	2018
3b4 Video calls	37%	46%	68%	60%
% internet users	2017	2018	2019	2019
3b5 Social networks	70%	71%	70%	65%
% internet users	2017	2018	2019	2019
3b6 Doing an online course	17%	17%	22%	11%
% internet users	2017	2017	2019	2019
3c1 Banking	93%	94%	95%	66%
% internet users	2017	2018	2019	2019
3c2 Shopping	75%	74%	77%	71%
% internet users	2017	2018	2019	2019
3c3 Selling online	25%	29%	33%	23%
% internet users	2017	2018	2019	2019

Finland ranks 1st in the EU as regards the use of internet services. Finns are keen to engage in a variety of online activities in line with the rest of the EU, the most popular online activity being banking, followed by music, videos and games, and news. 85% of Finnish internet users read news online (72% in the EU as a whole). Finns score above the EU average in all internet activities, with notable leadership in online banking. Furthermore, with 68% of users, the use of video calls is the activity with the highest growth, followed by doing an online course and selling online. With only 3% of Finns who have never used the internet, Finland is three times lower than the EU average (9%).

4 Integration of digital technology

4 Integration of digital technology	Finland		EU
	rank	score	score
DESI 2020	2	67.0	41.4
DESI 2019	5	60.1	39.8
DESI 2018	3	56.9	37.8



	Finland			EU
	DESI 2018	DESI 2019	DESI 2020	DESI 2020
	value	value	value	value
4a1 Electronic information sharing	39%	39%	43%	34%
% enterprises	2017	2017	2019	2019
4a2 Social media	29%	29%	44%	25%
% enterprises	2017	2017	2019	2019
4a3 Big data	15%	19%	19%	12%
% enterprises	2016	2018	2018	2018
4a4 Cloud	48%	50%	50%	18%
% enterprises	2017	2018	2018	2018
4b1 SMEs selling online	20%	20%	22%	18%
% SMEs	2017	2018	2019	2019
4b2 e-Commerce turnover	NA	NA	NA	11%
% SME turnover	2017	2018	2019	2019
4b3 Selling online cross-border	6%	6%	9%	8%
% SMEs	2017	2017	2019	2019

On the integration of digital technology by businesses into their activities, Finland ranks 2nd among EU countries, well above the EU average. Results across indicators improved with increases in the percentage of companies using electronic information sharing and social media. The use of cloud among Finnish companies is well above the EU average (50% in Finland, against 18% at the EU level). The country also performs well in the use of big data analysis (19% of Finnish companies, compared to an EU average of 12%). Finnish companies continue to take advantage of the possibilities offered by online commerce: 22% of SMEs sell online (above the EU average of 18%), 9% of all SMEs sell across borders (slightly above the EU average of 8%).

Finland is member of the EuroHPC Joint Undertaking and Finland will host one of the three pre-exascale supercomputers. Finland is a signatory of the Declaration on European Blockchain Partnership and the Declaration on Cooperation on Artificial Intelligence.

The Digital Finland Framework⁽⁷⁾ coordinates sustainable digital transformation in Finland. The Framework combines key perspectives: 1) the digital innovations exploiting the benefits of the platform economy and the transformation of the spearhead industry sectors; 2) seamless support for sustainable digital transformation; and 3) responses to global megatrends and sustainable development goals. The Finnish government uses direct capital funding and regional grants to support various digital projects by local authorities in 2018-2022 with €400 million, linking that investment to the Digital Finland Framework.

Recent action includes identifying priority areas (clean-tech, bio economy, ICT and health) to focus investment on technology-intensive sectors with the potential for upscaling. Finnish companies

⁽⁷⁾ <https://www.businessfinland.fi/496a6f/globalassets/julkaisut/digital-finland-framework.pdf>

continue to be among the most advanced businesses in the EU in the integration of digital technologies.

Cloud services are becoming the norm, with many Finnish companies planning to evaluate the benefits of 5G technology, automation and AI in the future.

Despite the strong support for digitisation, disparities persist among sectors, and there are obstacles related to skills and awareness of the benefits digitisation offers.

According to the Finnish Innovation Survey, the importance of digitisation for business activity receives greater acknowledgement in services than in manufacturing companies (41% of service companies consider digitisation key to the firm's operations, compared to 25.4% of manufacturing companies).

A 2019 survey of 382 entrepreneurs reveals that many Finnish SMEs face challenges with digital skills⁽⁸⁾. While every second manager and entrepreneur in SMEs rated their digital skills as good, slightly over a third rated themselves as highly skilled in using digital resources. Lack of time and finding suitable ways to develop digital skills are the major challenges.

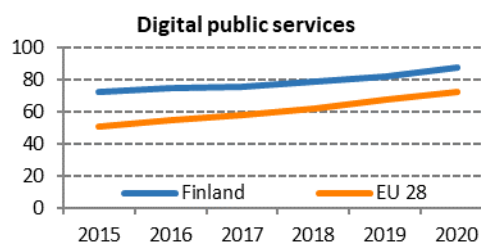
The 'Entrepreneurs of Finland' is cooperating with Google, as part of a tour around Finland offering free training events for SMEs through the 'New Growth with Digital Skills' programme.

Finland has a high-level approach to policy issues including the digital and platform economies, AI and the data economy, usage of cloud computing services in companies and its digital economy competitiveness. These issues are not siloed and instead are approached holistically and horizontally, emphasising the opportunities of the digital economy and tech in sectors including health, education and manufacturing, always keeping the needs of business or people in mind. Finland's thriving digital sector encompasses manufacturing, burgeoning research and development and investment in digital infrastructure.

⁽⁸⁾ The commissioning of the study is done by the Entrepreneurs of Finland and Elisa Corporation. Planning, research, data collection, analysis and reporting were carried out by Prior Consulting Oy.

5 Digital public services

5 Digital public services	Finland		EU
	rank	score	score
DESI 2020	4	87.0	72.0
DESI 2019	3	82.0	67.0
DESI 2018	3	78.3	61.8



	Finland			EU
	DESI 2018	DESI 2019	DESI 2020	DESI 2020
	value	value	value	value
5a1 e-Government users	91%	92%	94%	67%
% internet users needing to submit forms	2017	2018	2019	2019
5a2 Pre-filled forms	86	82	82	59
Score (0 to 100)	2017	2018	2019	2019
5a3 Online service completion	94	96	96	90
Score (0 to 100)	2017	2018	2019	2019
5a4 Digital public services for businesses	80	86	92	88
Score (0 to 100) - including domestic and cross-border	2017	2018	2019	2019
5a5 Open data	NA	NA	76%	66%
% of maximum score			2019	2019

In digital public services, Finland ranks 4th among EU countries, well above the EU average. This is primarily thanks to the high number of e-government users. Online interaction between public authorities and the public is high with 94% of Finnish internet users using e-government services, 2 percentage points up from last year. The country performs well also in relation to the availability of pre-filled forms, online service completion and open data. Finland has scaled up significantly in providing digital services to businesses with a score that grew by 6 percentage points compared to last year's.

The government programme 'Productive and inventive Finland: a digital agenda for 2011-2020' is the overarching document that guides all government activities from 2015-2020 with 5 strategic priorities, one being 'digitalisation, experimentation and deregulation'. It establishes a growth environment for digital business operations, services and business models with a strong focus on big data and robotisation as well as information security. There is no push for regional digitalisation agendas from the national level although some regions have introduced their own digital agendas, supporting broadband coverage and digital skills development. Digital programmes are drawn up and implemented on the municipal level too e.g. Helsinki, Tampere.

The regional digitisation process requires new information management legislation and a single-point service system. Municipalities are launching projects to increase public sector productivity and are paving the way for greater streamlining of public services. This will include the use of spatial data in services, scaling up supervision and developing automated financial management processes, procurement activities and reporting systems.

Finland's e-authorisation system allows people without easy access to a computer or the skills to use one to access e-services through someone else. That makes it the first country in the world that allows people to electronically authorise another person to make important decisions for them.

The digitisation of municipal administration and frontline healthcare infrastructure is an essential part of the government-led Smart Economy project. The initiative aims to ensure the availability of public funding and capital investments for digital transformation schemes.

The national AuroraAI programme aims to strengthen Finland's ability to solve difficult issues in its society relating to the national economy's sustainability gap, the ageing population or the social exclusion of young people. It will implement an operations model based on people's needs, where AI helps individuals and companies use services in a timely and ethically sustainable manner. The authorities' activities will support people's life events and companies' business-related events, facilitating service paths that function smoothly involving several service providers. Using AI, the AuroraAI network will make it possible to allocate the current, partly siloed supply of services in a timely manner to individuals or companies in need of such services.

The preliminary study on AuroraAI identified the activities based on human-centricity and life event thinking, creating the test version of the AuroraAI network and an implementation plan for 2019–2023. The Ministry of Finance has appointed a strategic group to refine the implementation plan and create a joint, cross-sectoral view of the development and management of AuroraAI.

Finland excels in offering efficient digital public services and is one of the world leaders in this field. The Finnish government has prioritised the digitisation of public services projecting it as a transversal theme, cutting across all milestone projects in the service of its people and businesses. The ultimate goal is to make available public services that are digital and user-centred by developing principles for the digitisation of all public services and a one-stop-shop service system for the public and businesses, backed by the necessary information management legislation, governance and security. Finland's success is also due to the improved availability of open data and the country's is forward thinking in using cutting-edge technology in service of its society, providing solutions to its societal challenges.