

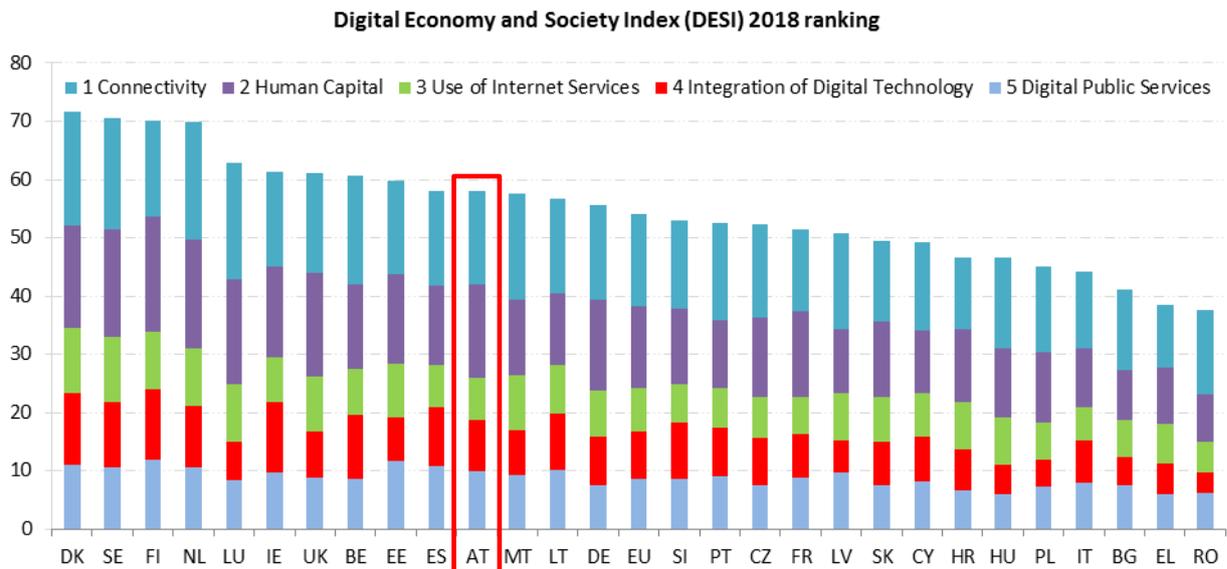
Digital Economy and Society Index (DESI)¹ 2018

Country Report Austria

The DESI report tracks the progress made by Member States in terms of their digitisation. It is structured around five chapters:

1 Connectivity	Fixed broadband, mobile broadband and prices
2 Human Capital	Internet use, basic and advanced digital skills
3 Use of Internet Services	Citizens' use of content, communication and online transactions
4 Integration of Digital Technology	Business digitisation and e-commerce
5 Digital Public Services	eGovernment and eHealth

The DESI was re-calculated for the previous years for all countries to reflect slight changes in the choice of indicators and corrections to the underlying indicator data. As a result, country scores and rankings may have changed from the previous publication. For further information please consult the DESI methodological note at <https://ec.europa.eu/digital-single-market/en/desi>.



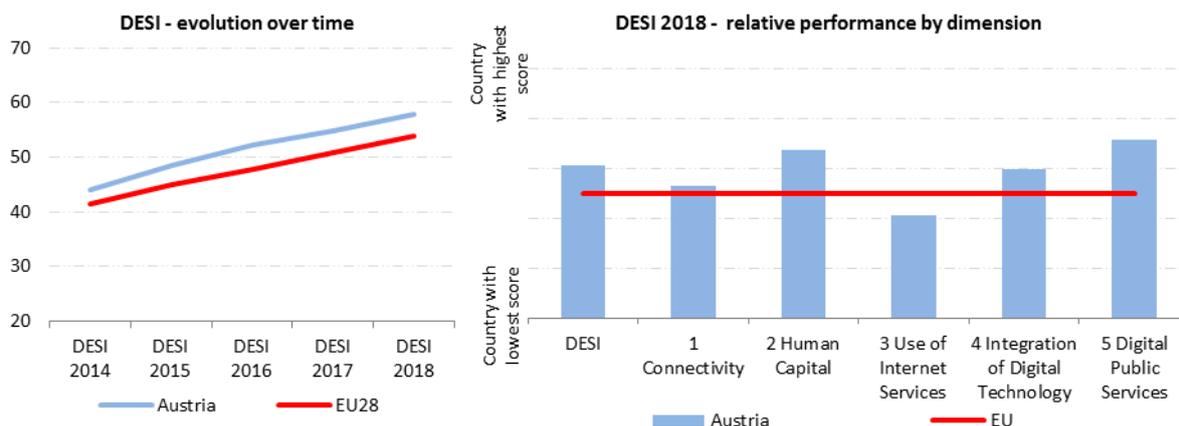
¹ <https://ec.europa.eu/digital-single-market/en/desi>

	Austria		Cluster	EU
	rank	score	score	score
DESI 2018	11	58.0	54.7	54.0
DESI 2017	11	54.7	51.5	50.8

Over the last year, Austria progressed roughly in line with both the EU average and the average for the cluster of medium performing countries, keeping the 11th place it had in 2017. Its main strengths remain Human Capital and Digital Public Services, but it improved its relative position regarding both the use of Internet services by citizens, where it is lagging behind, and the integration of digital technology by businesses, where it scores significantly above average. These improvements come despite a connectivity ranking still in the lower half of EU countries, although Austria's score improved considerably. Austria's ranking has also been affected by the introduction of new indicators on ultra-fast broadband, where it performs less well than the majority of other Member States.

Austria belongs to the Medium performing cluster of countries².

At the end of December 2017, the new government presented its programme until 2022. The programme identifies digitisation as one of the key priorities, and indeed refers to it as a vector of transformation in every policy field. Nevertheless, the focus is to cybersecurity on digital public services, connectivity and suitable framework conditions.



² Medium performing countries are Spain, Austria, Malta, Lithuania, Germany, Slovenia, Portugal, Czech Republic, France and Latvia.

1 Connectivity

1 Connectivity	Austria		Cluster	EU
	rank	score	score	score
DESI 2018	17	63.7	62.4	62.6
DESI 2017	17	58.8	58.8	58.5

	Austria				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
1a1 Fixed Broadband Coverage % households	99% →	13	99%	12	97%
	2017		2016		2017
1a2 Fixed Broadband Take-up % households	71% ↑	18	68%	20	75%
	2017		2016		2017
1b1 4G Coverage % households (average of operators)	97% ↑	11	89%	18	91%
	2017		2016		2017
1b2 Mobile Broadband Take-up Subscriptions per 100 people	95 ↑	9	77	17	90
	2017		2016		2017
1c1 Fast Broadband (NGA) Coverage % households covered by VDSL, FTTP or Docsis 3.0	90% ↑	9	89%	9	80%
	2017		2016		2017
1c2 Fast Broadband Take-up % homes subscribing to >= 30Mbps	19% ↑	23	16%	23	33%
	2017		2016		2017
1d1 Ultrafast Broadband Coverage % households covered by FTTP or Docsis 3.0	66%	18	NA		58%
	2017				2017
1d2 Ultrafast Broadband Take-up % homes subscribing to >= 100Mbps	4.9% ↑	24	2.7%	24	15.4%
	2017		2016		2017
1e1 Broadband Price Index Score (0 to 100)	90 ↓	5	91	6	87
	2017		2016		2017

Austria maintained its 17th place in connectivity in 2017, the same place it held in 2016 (when both years are measured using the DESI 2018 methodology). The area where Austria performs considerably lower is take-up, which in the case of fixed and fast broadband may be attributed to a considerable mobile substitution trend. The Austrian telecommunications market is characterised by price-driven competition and the prominent role of mobile services, on both voice and broadband markets. Nevertheless, Austria performs better than the average in terms of coverage, while price levels are lower than the average in both fixed and mobile services than the average. On the basis of the broadband price index, Austria ranks fifth in the EU.

In 2017, 90 % of all households in Austria were covered by a fast broadband (next-generation access) network, which is well above the average. Around 66 % of households nationwide had ultrafast broadband coverage in 2017. However, fast broadband coverage in rural areas amounts only to 45%, below the EU average of 47%.

The key challenge for broadband roll-out in Austria remains the country's mountainous topography, which greatly increases the cost of deployment. Austria's National Broadband Plan 'Breitbandstrategie 2020' is generally in line with the targets set in the Digital Agenda for Europe and exceeds them in some aspects. The Austrian government set out an aim to achieve 70% ultra-fast broadband coverage (defined as 100 Mbps downstream) by 2018, coupled with 99% ultra-fast broadband coverage for all Austrian households by 2020. In addition, there are regional broadband plans (e.g. in Lower Austria). The previous government programme 'Digital Roadmap Austria', published in January 2017, had already

increased Austria's national targets for the availability and take-up of high-speed broadband beyond nation-wide coverage of 100 Mbps by 2020, setting the target of providing high-speed connections for all schools and SMEs and 75% of citizens by 2020. It also required the government to develop a comprehensive 5G roll-out strategy and recognised the importance of 5G for the digital economy. The new government programme (2017-2022) sets out new objectives such as the provision of Gigabit connections nationwide by 2025, establishing Austria as a 5G pilot country by 2021 and providing nationwide mobile 5G coverage by 2025. Detailed deliverables include further investigating the possibilities for the Gigabit network roll-out, the possibility of subsidising of up to 100 Mbit connections, and a commitment to invest future spectrum revenues exclusively in the roll-out of digital infrastructure.

In parallel, the NRA already launched a series of public consultations in 2017 with a view to conducting spectrum award procedures in 2018 for 5G usage in 2018.

The infrastructure funding programmes in the master plan of the current subsidy scheme cover four main areas: access, backhaul, ducts and connect. The Area programme (access) aims to expand the geographical coverage of high-performance broadband networks. The Backhaul programme is focused on connecting of existing stand-alone solutions to efficient data highways. The Ducting programme covers the laying of ducting during construction work for non-discriminatory use for broadband networks, while the Connect programme aims to significantly reduce the costs of establishing fibre-optic connections for SMEs and schools. These programmes are funded mainly from the proceeds of the 2012 spectrum auction often cited as "broadband billion". The four branches are organised into several calls, for Ducts, the 4th call is currently being organised. By the end of 2017, 145 recipients had received funding commitments for 520 projects totalling EUR 330 million Euros. Almost 680.000 residences in over 1.100 municipalities will be supplied with ultra-fast broadband internet in the near future. This is about 36 % of all previously underserved residences (< 30 Mibit/s). By October 2017, Austria had completely adopted and notified the transposition of the Cost Reduction Directive. The new provisions aim to effectively contribute to ensuring high-speed access in new and renovated premises.

Austria continues to show the right ingredients for success: the availability and quality of service is good, the prices are competitive and active policy-making aims to ensure that consumers and enterprises derive maximum benefits from digitisation.

Despite regulatory efforts and a relatively high purchasing power, the take-up of fixed high-speed broadband remained low compared to the EU average. Public policy initiatives to stimulate demand may therefore play an important role in further improving connectivity in Austria.

In addition, the new Austrian federal government needs to keep the pace for developing its 5G strategy, as also indicated in the new government programme that sets out ambitious objectives for 5G. These objectives are underpinned by a series of public consultations held in 2017 with a view to launching spectrum award procedures for 5G.

2 Human Capital

2 Human Capital	Austria		Cluster	EU
	rank	score	score	score
DESI 2018	7	64.4	58.6	56.5
DESI 2017	7	62.4	56.5	54.6

	Austria				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
2a1 Internet Users % individuals	85% 2017	↑ 10	82% 2016	11	81% 2017
2a2 At Least Basic Digital Skills % individuals	67% 2017	↑ 8	65% 2016	8	57% 2017
2b1 ICT Specialists % total employment	4.2% 2016	↑ 6	4.0% 2015	8	3.7% 2016
2b2 STEM Graduates³ Per 1000 individuals (aged 20-29)	22.1 2016	↓ 5	23.0 2014	2	19.1 2015

Digital skills are one of Austria's competitive advantages but continuous growth in these skills will be required in the coming years in order to maintain this position and develop Austria as a digital frontrunner. Recent developments are quite favourable regarding ICT specialists (an increase of 0.2% in just one year is rather large) but less so concerning science, technology, engineering and maths (STEM) graduates.

The new government programme shows a strong awareness of the need for further digital upskilling. Partly following plans from the previous government, partly introducing new measures, the new programme intends among other things to

- increase continuing education especially with regard to digital learning support;
- equip all school sites with suitable digital infrastructure;
- create a digital track record for students from Kindergarten to the end of schooling;
- further develop the schools 'berufsbildende höhere Schulen' (BHS) and 'Höhere technische Lehranstalt' (HTL) especially regarding STEM and digitisation;
- increase the number of place to study digitalisation and STEM at tertiary level;
- launch a "Digitalisierungsoffensive Bildung" as a training and continuous education strategy which involves
 - ensuring basic digital competences are taught in all schools;
 - introducing programming languages (such as scratch) from primary school;
 - strengthening digital skills of teachers by mandatory training;
 - a comprehensive offer of digital vocational training;
- launch an "Austrian Digital Academy", i.e. an online platform for training offers for lifelong learning.

However, most of these activities require long-term efforts and are unlikely to produce visible results by next year or even 2020.

³ The most recent data has been used in DESI 2018. It may refer to 2016 or 2015 depending on the Member State. This is reflected in the 2018 DESI ranking. Historical data has been updated by Eurostat.

3 Use of Internet Services

3 Use of Internet Services	Austria		Cluster	EU
	rank	score	score	score
DESI 2018	19	47.6	48.3	50.5
DESI 2017	20	43.9	45.0	47.5

	Austria				EU
	DESI 2018 value	rank	DESI 2017 value	rank	DESI 2018 value
3a1 News % individuals who used Internet in the last 3 months	71% ↑ 2017	23	66% 2016	23	72% 2017
3a2 Music, Videos and Games % individuals who used Internet in the last 3 months	79% 2016	15	79% 2016	15	78% 2016
3a3 Video on Demand % individuals who used Internet in the last 3 months	14% 2016	16	14% 2016	16	21% 2016
3b1 Video Calls % individuals who used Internet in the last 3 months	42% ↑ 2017	22	32% 2016	26	46% 2017
3b2 Social Networks % individuals who used Internet in the last 3 months	58% → 2017	24	58% 2016	24	65% 2017
3c1 Banking % individuals who used Internet in the last 3 months	65% ↑ 2017	14	63% 2016	13	61% 2017
3c2 Shopping % individuals who used Internet in the last 12 months	70% ↑ 2017	10	68% 2016	11	68% 2017

Austria remains below the EU average regarding the use of Internet services by individuals. However, it made more progress than the EU average, indicating that it is gradually catching up. In particular the use of video calls increased significantly, but also on the consultation of online news Austria registered larger gains than the EU average. On the other hand, regarding the use of social networks the gap between Austria and the EU average widened. Online banking has been growing at a fairly regular pace of 2 percentage points a year since 2015, keeping Austria just above EU average, Austria is also just above average for online shopping.

4 Integration of Digital Technology

4 Integration of Digital Technology	Austria		Cluster	EU
	rank	score	score	score
DESI 2018	10	44.1	42.1	40.1
DESI 2017	12	39.4	38.5	36.7

	Austria				EU
	DESI 2018		DESI 2017		DESI 2018
	value	rank	value	rank	value
4a1 Electronic Information Sharing % enterprises	40% ↓	7	41%	7	34%
	2017		2015		2017
4a2 RFID % enterprises	5.6% →	9	5.6%	7	4.2%
	2017		2014		2017
4a3 Social Media % enterprises	21% ↑	11	19%	14	21%
	2017		2016		2017
4a4 eInvoices % enterprises	NA		24.9%	7	NA
	2017		2016		2017
4a5 Cloud % enterprises	10.6% ↑	23	9.9%	19	NA
	2017		2016		2017
4b1 SMEs Selling Online % SMEs	16.5% ↑	14	14.5%	17	17.2%
	2017		2016		2017
4b2 E-commerce Turnover % SME turnover	6.5% ↑	22	5.7%	24	10.3%
	2017		2016		2017
4b3 Selling Online Cross-border % SMEs	13.8% ↑	2	10.5%	6	8.4%
	2017		2015		2017

Austrian businesses continue to do relatively well in many aspects of digitisation, although recently there has been little progress in the use of ICTs for internal processes, such as electronic information sharing between different departments or the use of RFID. Nor has the pace of adopting cloud computing been particularly fast. However, there has been considerable improvement in the scores related to e-commerce: an additional 2% of SMEs started selling online, and more than 3% of SMEs were added to the number selling online cross-border, taking advantage of the Digital Single Market.

In order to foster digitisation, an independent funding programme called *'Produktion der Zukunft'* was launched in 2016 to promote national and transnational cooperative research and development projects in Industry 4.0 technology sectors. It receives approximately EUR 25 million in funding per year and is further enhanced by the Digital Roadmap for Austria which includes concrete plans to set up a network of Digital Innovation Hubs across the country.

The new government programme also includes among the many digital-related items several actions which specifically address the digitisation of business. In particular it provides for

- the development of a country-wide programme to support the digitisation of SMEs, including the extension of "KMU digital";
- measures to attract international top accelerators to Austria in order to support innovative digitalisation start-ups, including an extension of the Global Incubator Network (GIN) programme;

- the creation of regulatory sandboxes for innovative enterprises with new technologies (blockchain, artificial intelligence etc.);
- support for test environments for early trials and market adaptation of emerging technologies and digital applications;
- public participation in digital lighthouse projects (innovation partnerships in the development phase).

The significant place which these initiatives occupy in the overall economic strategy reflect the ambition of successive governments to make Austria a technology leader in Europe.

5 Digital Public Services

5 Digital Public Services	Austria		Cluster	EU
	rank	score	score	score
DESI 2018	8	66.5	58.5	57.5
DESI 2017	7	66.3	54.9	53.7

	Austria				EU
	DESI 2018 value	rank	DESI 2017 value	rank	DESI 2018 value
5a1 eGovernment Users⁴ % internet users needing to submit forms	64% ↑	14	59%	16	58%
	2017		2016		2017
5a2 Pre-filled Forms Score (0 to 100)	79 ↑	5	72	6	53
	2017		2016		2017
5a3 Online Service Completion Score (0 to 100)	96 ↓	4	97	2	84
	2017		2016		2017
5a4 Digital Public Services for Businesses Score (0 to 100) - including domestic and cross-border	84 ↓	15	90	10	83
	2017		2016		2017
5a5 Open Data % of maximum score	77% ↓	12	78%	5	73%
	2017		2016		2017
5b1 eHealth Services % individuals	18%	14	NA		18%
	2017				

More than 98 % of the most-used public services are available online, notably via the *Digitales Österreich* platform. Austria is among the top-ranking countries in the EU for availability, including via mobile devices, in terms of EU comparison. Take-up of eGovernment services has increased; it remains above average but still somewhat behind the offer.

In 2017, Austria has introduced the right for citizens and businesses to digitally contact the public administration (*Recht auf elektronischen Verkehr mit Behörden*) and upgraded the existing e-ID (card-based or by using the mobile phone) to a fully-fledged electronic proof of identity (*elektronischer Identitätsnachweis*).

Austria's aim is to have a one-stop-shop platform available and to reduce the need for people and business to actively interact with public authorities or use public services. For instance certain tax claims are automatically handled for the user. Austria also intends to introduce one nation-wide usable "digital identity" managed by a central system which would give users an overview of which data is available and how and by whom it can be used.

The new government programme also sets out to further develop and improve open data and the existing e-health solutions such as the Electronic Health Record (ELGA) which is an information system that offers personalised health data to all citizens and eligible health service providers (hospitals, pharmacies, general practitioners, specialists etc.). A test phase of the electronic medication record started in the district of Deutschlandsberg in Styria in June 2016 and was extended to the whole region of Vorarlberg at the beginning of 2018.

⁴ The definition of this indicator has been changed. The new indicator measures eGovernment users as a percentage of those internet users needing to submit forms to the public administration.

Contracted general physicians and specialists are mandated to document prescribed medications within the e-medication record. In February 2018 the Main Association of Austrian Social Security Institutions and the Austrian Medical Chamber signed a contract for the introduction of e-medication, meaning doctors will be able to get reimbursed for their incurring investments and maintenance costs. The aim is to roll out the e-medication system across Austria by September 2019. There are also other ongoing pilot projects running related to telemedicine, such as Gesundheitsdialog Diabetes or HerzMobil Tirol, a tele-monitoring-system for cardiovascular disease. Austria is in the EU average for use of eHealth services, i.e. individuals using health and care services provided online without having to go to the hospital or doctors surgery (for example, by getting a prescription or a consultation online).

Highlight 2018: One-stop-shop enabling the start-up of a one-man business online

Since the end of July 2017 the Business Service Portal ('Unternehmensserviceportal') has provided information and certain transaction services to help people set up new businesses. It builds on the Austrian public administration's one-stop-shop for business and serves as a single entry point for businesses to the administration.

All administrative actions required to start a one-man business can be conducted via this portal (eGründung). The transaction is free of charge, fast and requires electronic signature (such as the mobile phone signature). Given that one-man companies are the most used form of business in Austria, this will further facilitate the start-up process and reduce the administrative burden for businesses.

However, it is not mandatory to use the online platform. The platform *USP.gv.at* can also be used to deal with administrative processes but not all those necessary to start a business. Once established, the new start-up gets access via the portal to other administrative services such as FinanzOnline, the portal of the social security services, and the e-billing system used for the federal administration.