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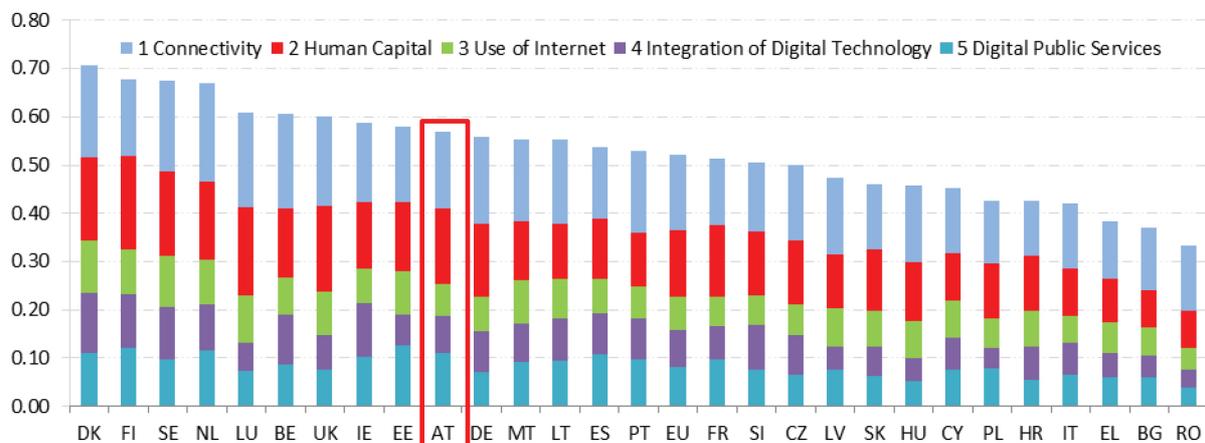
Europe's Digital Progress Report 2017

Europe's Digital Progress Report (EDPR) 2017 Country Profile Austria

Europe's Digital Progress Report (EDPR) tracks the progress made by Member States in terms of their digitisation, combining quantitative evidence from the Digital Economy and Society Index (DESI)¹ with qualitative information on country-specific policies. It is structured around five chapters:

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

Digital Economy and Society Index (DESI) 2017 ranking



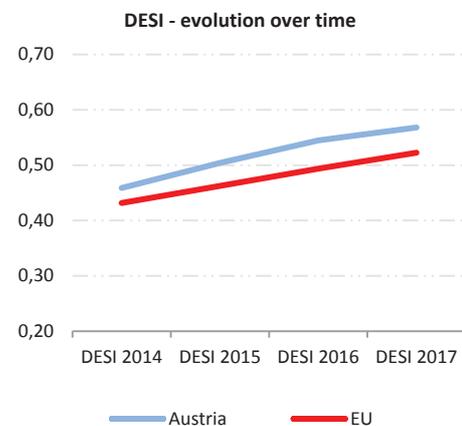
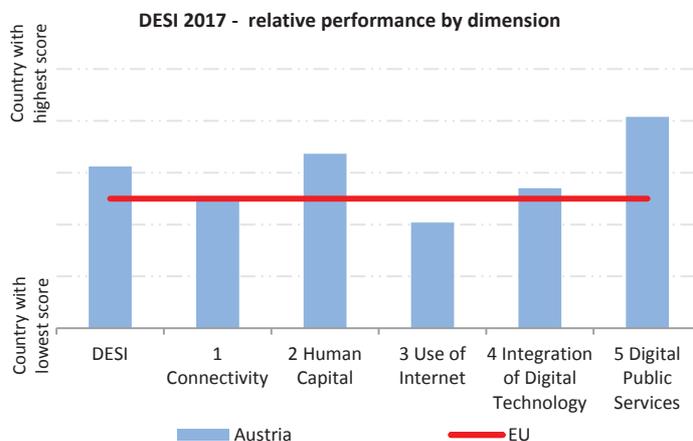
¹ <https://ec.europa.eu/digital-single-market/en/desi>

	Austria	Cluster	EU
	rank	score	score
DESI 2017	10	0.57	0.54
DESI 2016 ²	10	0.54	0.51

Austria ranks 10th out of the 28 EU Member States. Overall, it progressed in line with the EU average over the last year, keeping the same position. It performs best in Digital Public Services, where its strength lies in the improving quality of the online offer, followed by human capital. On the integration of digital technology by businesses, Austria scores relatively less well, but still above average, while its connectivity score is exactly average despite very favourable broadband prices. Finally, the only dimension where Austria is below average is the use of Internet services, although online shopping and online banking are relatively wide spread.

Austria belongs to the Medium performing cluster of countries³.

On 19 January 2017 Austria published the "Digital Roadmap for Austria", a national digital strategy including a comprehensive overview over current challenges and as well as existing and planned measures to address these challenges⁴. Furthermore, at the end of January Austria also adopted its new government programme for 2017-2018 in which digitisation is identified as one of the key priorities⁵.



² The DESI 2016 was re-calculated 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>.

³ Medium performing countries are Latvia, Czech Republic, Slovenia, France, Portugal, Spain, Lithuania, Malta, Germany and Austria..

⁴ https://www.digitalroadmap.gv.at/downloads/digital_road_map_broschuere.pdf

⁵ <http://archiv.bundeskanzleramt.at/DocView.axd?CobId=65201>

1 Connectivity

1 Connectivity	Austria		Cluster	EU
	rank	score	score	score
DESI 2017	15	0.63	0.63	0.63
DESI 2016	14	0.61	0.60	0.59

	Austria		Austria		EU
	DESI 2017 value	rank	DESI 2016 value	rank	DESI 2017 value
1a1 Fixed Broadband Coverage % households	99% → 2016	13	99% 2015	11	98% 2016
1a2 Fixed Broadband Take-up % households	68% ↑ 2016	20	65% 2015	19	74% 2016
1b1 Mobile Broadband Take-up Subscriptions per 100 people	77 ↑ June 2016	17	67 June 2015	16	84 June 2016
1b2 4G coverage⁶ % households (average of operators)	89% 2016	17	NA		84% 2016
1b3 Spectrum⁷ % of the target	69% ↓ 2016	11	73% 2015	11	68% 2016
1c1 NGA Coverage % households	89% → 2016	10	89% 2015	10	76% 2016
1c2 Subscriptions to Fast Broadband % subscriptions >= 30Mbps	24% ↑ June 2016	23	21% June 2015	22	37% June 2016
1d1 Fixed Broadband Price⁸ % income	0.9% → price 2016, income 2015	4	0.9% price 2015, income 2015	5	1.2% price 2016, income 2015

Austria ranks 15 in connectivity in 2016, falling one place since 2015. 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 EU average in coverage and spectrum, while price levels are lower in both fixed and mobile services than the EU average. An ambitious overhaul of the government broadband policies was launched in 2017.

In 2016, 89 % of all households in Austria were covered by a high-speed broadband (next-generation access) network, which is well above the EU average. Austria increased the coverage of high-speed broadband in rural areas from 26 % in 2015 to 41 % in 2016, reducing the 'digital divide' between urban and rural areas. However, it only achieves the EU

⁶ This is a new DESI indicator measuring the average coverage of telecom operators' 4G networks.

⁷ There is a decrease in most of the Member States due to the additional EU harmonisation of the 700 MHz band in April 2016.

⁸ Due to a slight methodological change, historical data was re-calculated.

average for providing adequate access in rural areas for individuals and businesses to the digital economy and digital society.

In response to the challenge of financing the high cost of high-speed roll out in rural and mountainous areas, Austria has started to implement an ambitious funding scheme from the proceeds of spectrum revenues. In the course of 2016, the Austrian government launched a series of calls for proposals to disburse the so-called Broadband Billion. Calls in 2016 focused on promoting access to, and deployment of backhaul networks, as well as empty ducts for local governments and innovative services that are expected to promote take-up.

According to the new government programme 2017-2018 and the Digital Roadmap, Austria increases its national targets of availability and take-up of high-speed broadband beyond nation-wide coverage of 100Mbps by 2020 to provide high-speed connections for all schools and SMEs and 75% of the citizens till 2020. In addition, the Digital Roadmap sets the government the task to develop a comprehensive 5G roll-out strategy and recognises the importance of 5G for the digital economy. Roll-out of 5G (mobile) technologies should start by 2018 leading to coverage of all regional capitals by 2020. The measures include the simplification of the authorisation regime for digital infrastructure by establishing a one-stop shop in each of the regions and to reduce the fees charged by owners of public property for usage of digital infrastructure. Whereas some of these measures have been already enacted when the requirements of the Cost Reduction Directive were transposed, the simplification of town planning rules at regional level has not yet been completed in all the regions.

Austria has all 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. Given the strong focus on mobile services, the regulatory remedies to allow the launch of virtual operators following the merger of mobile operators contributed to the positive rebound of pricing trends. Nevertheless, despite the relatively high purchasing power, the take-up of broadband remained low in comparison with the EU average. Thus the public policy initiatives to stimulate demand will play an important role in improving Austria's connectivity dimension.

2 Human Capital

2 Human Capital	Austria		Cluster	EU
	rank	score	score	score
DESI 2017	7	0.62	0.57	0.55
DESI 2016	7	0.59	0.55	0.53

	Austria				EU
	DESI 2017		DESI 2016		DESI 2017
	value	rank	value	rank	value
2a1 Internet Users % individuals	82% ↑ 2016	11	81% 2015	11	79% 2016
2a2 At Least Basic Digital Skills % individuals	65% ↑ 2016	8	64% 2015	9	56% 2016
2b1 ICT Specialists⁹ % of employed individuals	4.0% ↑ 2015	8	3.6% 2014	10	3.5% 2015
2b2 STEM Graduates Per 1000 individuals (aged 20-29)	23 ↑ 2014	4	22 2013	3	19 2014

Austria is making progress across all the indicators, especially on ICT specialists, where the year 2016 saw an increase beyond the trends of previous years. Nevertheless, given Austria's ambition to become one of the innovation leaders in Europe, further progress will be required.

The authorities are aware of this challenge and are addressing it both in the recently adopted Digital Roadmap Austria and in the new government programme. The Digital Roadmap Austria sets out a series of measures to improve digital skills, such as encouragement of playful access to technology in primary schools, e.g. coding, strengthening of vocational training in key ICT domains such as network technologies, business informatics etc., and special measures to attract women into digital and technological disciplines.

The new government programme 2017-2018 implements a number of measures of the Digital Roadmap, including the following:

- A new digitisation strategy *Schule 4.0* envisages to equip all schools with broadband and WLAN access (by 2021) and to distribute handheld devices to all students in 5th and 9th grade, starting from fall 2017. Teaching basic digital skills will be introduced into the curriculum of primary and lower secondary schools as of 2018/19.
- Digital skills training for teachers will be strengthened by providing additional offers at the relevant universities. A Future Learning Lab for digital teacher training will be launched in 2017.
- Digital education content will be made freely available.
- At higher education level (university etc) the availability of places for STEM studies shall be increased (starting university semester 2017/2018).

⁹ Historical data have been revised by Eurostat.

3 Use of Internet

3 Use of Internet	Austria		Cluster	EU
	rank	score	score	score
DESI 2017	20	0.44	0.45	0.48
DESI 2016	20	0.42	0.42	0.45

	Austria				EU
	DESI 2017 value	rank	DESI 2016 value	rank	DESI 2017 value
3a1 News % individuals who used Internet in the last 3 months	66% 2016	↓ 23	67% 2015	21	70% 2016
3a2 Music, Videos and Games¹⁰ % individuals who used Internet in the last 3 months	79% 2016	15	NA		78% 2016
3a3 Video on Demand¹¹ % individuals who used Internet in the last 3 months	14% 2016	16	NA		21% 2016
3b1 Video Calls % individuals who used Internet in the last 3 months	32% 2016	↑ 26	31% 2015	24	39% 2016
3b2 Social Networks % individuals who used Internet in the last 3 months	58% 2016	↑ 24	54% 2015	24	63% 2016
3c1 Banking % individuals who used Internet in the last 3 months	63% 2016	↑ 13	61% 2015	14	59% 2016
3c2 Shopping % internet users (last year)	68% 2016	→ 11	68% 2015	9	66% 2016

In terms of the propensity of individuals to use Internet services, Austria made progress roughly in line with the EU average and retained its 20th position. While Austrian Internet users practise online banking and online shopping slightly above EU average rates, they are less attracted to social networks and especially video calls. Using the Internet as a source of news is also below average and did not progress last year.

¹⁰ Break in series due to a change in the Eurostat survey.

¹¹ Break in series due to a change of data source. New source is Eurostat.

4 Integration of Digital Technology

4 Integration of Digital Technology	Austria		Cluster	EU
	rank	score	score	score
DESI 2017	14	0.39	0.40	0.37
DESI 2016	10	0.39	0.37	0.35

	Austria		EU	
	DESI 2017 value	DESI 2016 rank	DESI 2016 value	DESI 2017 rank
4a1 Electronic Information Sharing % enterprises	41% 2015	8	41% 2015	8
4a2 RFID % enterprises	5.6% 2014	7	5.6% 2014	7
4a3 Social Media % enterprises	19% 2016	↑ 14	16% 2015	14
4a4 eInvoices % enterprises	25% 2016	→ 7	25% 2015	4
4a5 Cloud % enterprises	10% 2016	19	NA 2015	13% 2016
4b1 SMEs Selling Online % SMEs	15% 2016	↑ 17	14% 2015	17
4b2 eCommerce Turnover % SME turnover	5.7% 2016	↓ 24	8.0% 2015	16
4b3 Selling Online Cross-border % SMEs	10.5% 2015	6	10.5% 2015	6

Austrian businesses are doing well on many digitisation aspects, especially regarding the use of ICTs for internal processes, such as electronic information sharing between different departments, the use of RFID and e-invoicing, which is related to e-invoicing requirements by Austrian public authorities. However, they are not great users of cloud services. Austrian businesses are doing less well on the indicators in relation to their contacts with customers; they are not very active on social media, fewer SMEs than in other Member States sell online, and the eCommerce turnover of SMEs is relative low. However, among those SMEs that do sell online, selling abroad is relative frequent.

One of the 12 key principles of the Digital Roadmap Austria is that Austria should be among the leading digital economies and that public authorities should support enterprises in their digital transformation. For this purpose a series of measures has been selected:

- Strengthened networking and improved access to technologies through the establishment of Digital Innovation Hubs;
- Assisting the digital transformation of SMES through the targeted provision of advice and training measures in a new funding support called *KMU.digital*, starting in 2017;
- A focus on SMEs and Open Source in the framework of *AT.net*, a support programme for the launch and establishment of digital applications and products;

- A strengthening of strategic future technologies linked to digital transformation such as big data, data science, cloud computing, quantum technology or cybersecurity;
- The creation of a user-friendly digital platform interface for eProcurement. The government also intends to abolish the mandatory existence of paper invoices in early 2017.

Highlight 2017:¹² Startups: networks of excellence & clusters

Networks of excellence and clusters based on existing strengths will be created or reinforced.

Currently, there are more than 60 incubators and accelerators in Austria. Moreover, there are more than 130 co-working spaces, 7 university-related publicly financed enterprise creation centres (*AplusB-Zentren*) and numerous privately funded hub initiatives.

Two Federal Ministries, Science and Research together with Transport, Innovation and Technology, will start an open innovation process, which will select the most promising focus areas with the involvement of startups, incubators, key enterprises and science, research and education establishments. On the basis of this consultation the support measures most useful for each network of excellence will be analysed by the end of 2017.

In 2018, the selected measures will be jointly implemented by enterprises and public authorities. € 1 bn will be mobilised from banks, insurances and foundations for investments in startups, spin-offs and high growth enterprises. Each network of excellence and each cluster will target a specific field and will provide optimal access to research, unique industrial partnerships, attractive infrastructures - both in terms of physical space and connectivity - international cooperation and funding possibilities.

¹² Highlight 2016: In 2014 Austria received the annual United Nations Public Service Award for the Open Government Data Portal (data.gv.at). In the category "Improving the delivery of Public Services", Austria was awarded 1st place for the nationwide Open Government Data Portal (data.gv.at) by the Federal Chancellery of the Republic of Austria. The portal is a unique platform for providing a comprehensive database of freely accessible national government data. The awarding jury pointed out that Austria was an inspiration and a model for other countries.

5 Digital Public Services

5 Digital Public Services	Austria		Cluster	EU
	rank	score	score	score
DESI 2017	5	0.73	0.59	0.55
DESI 2016	6	0.68	0.56	0.51

	Austria				EU
	DESI 2017		DESI 2016		DESI 2017
	value	rank	value	rank	value
5a1 eGovernment Users % internet users (last year)	38% 2016	↑ 12	37% 2015	13	34% 2016
5a2 Pre-filled Forms Score (0 to 100)	72 2016	↑ 6	62 2015	12	49 2016
5a3 Online Service Completion Score (0 to 100)	97 2016	↓ 2	98 2015	2	82 2016
5a4 Open Data¹³ % of maximum score	78% 2016	↑ 5	69% 2015	5	59% 2016

The vast majority (98 %) of the most used public services are available online, notably via the *Digitales Österreich* platform. Austria is in the top ranking for availability, also via mobile devices, in terms of EU comparison. The usability of these services also scores high in terms of support and interactive feedback functionalities. Austrian public administrations are transparent with regard to the government's responsibilities, process of service delivery and citizens' personal data. Austria has also a well-developed policy for the re-use of government open data. The Austrian open data portal gives access to more than 2100 datasets in all societal domains, including GIS data. Take-up of eGovernment services is somewhat behind the offer, but still above average.

Austria still intends to improve its public services. The Digital Roadmap Austria of 19 January 2017 indicates that Austria plans to introduce the right for citizens and businesses to digitally interact with public administration, *Recht auf elektronischen Verkehr mit Behörden*. A respective law is currently (March 2017) under parliamentary consideration¹⁴. It also plans to upgrade the existing citizen card concept (chip card based eID and mobile phone based eID) to an electronic proof of identity, *elektronischer Identitätsnachweis*, and to further expand the mobile accessibility of online public services. The new government programme 2017-2018¹⁵ sets the goal to screen government datasets by the end of October 2017 for publication on www.data.gv.at. By the end of 2020 these identified public data should be published on www.data.gv.at eventually..

¹³ Change of data source. The historical data have also been restated. The new source is the European Data Portal.

¹⁴ https://www.parlament.gv.at/PAKT/PR/JAHR_2017/PK0310/index.shtml

¹⁵ Arbeitsprogramm der Bundesregierung 2017 / 2018 https://www.bka.gv.at/regierungsprogramm-2017_2018

Due to Austria's federal structure, specific challenges in establishing coherent and nationwide eGovernment services exist, as the implementation of diverse and not necessarily interoperable systems may create friction losses, e.g. regarding e-procurement systems. The Platform Digital Austria¹⁶ is responsible for addressing these challenges by comprehensive cooperation.

¹⁶ <http://www.digital.austria.gv.at/>