

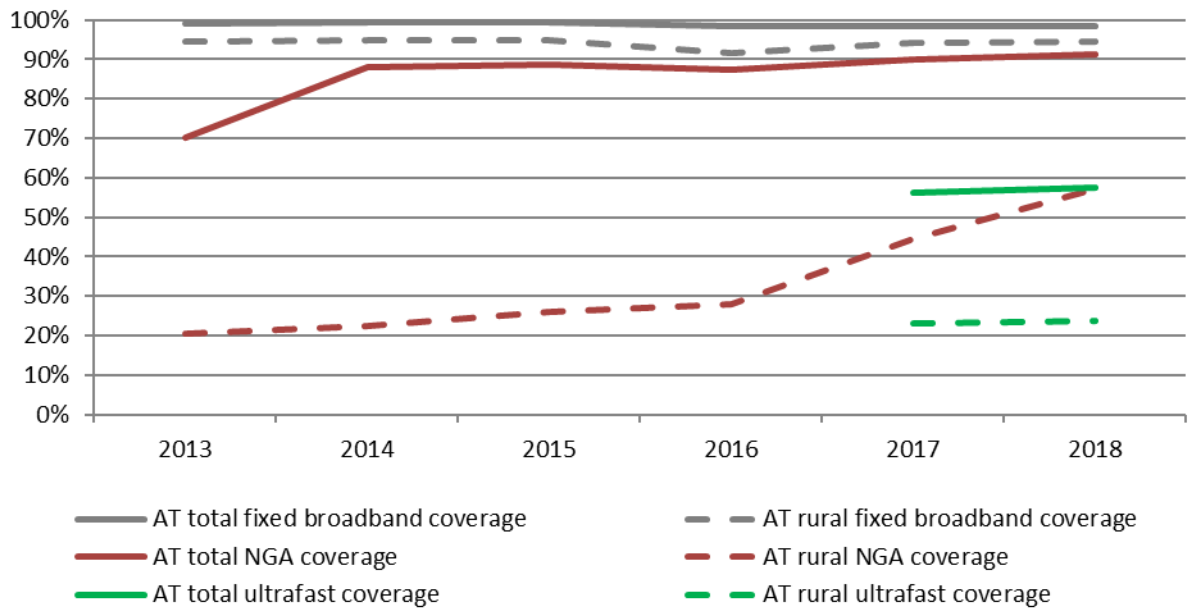
# Austria

	Austria				EU
	DESI 2017	DESI 2018	DESI 2019		DESI 2019
	value	value	value	rank	value
<b>1a1 Fixed broadband coverage</b> % households	<b>98%</b> 2016	<b>98%</b> 2017	<b>98%</b> 2018	<b>11</b>	<b>97%</b> 2018
<b>1a2 Fixed broadband take-up</b> % households	<b>68%</b> 2016	<b>71%</b> 2017	<b>69%</b> 2018	<b>21</b>	<b>77%</b> 2018
<b>1b1 4G coverage</b> % households (average of operators)	<b>89%</b> 2016	<b>97%</b> 2017	<b>98%</b> 2018	<b>8</b>	<b>94%</b> 2018
<b>1b2 Mobile broadband take-up</b> Subscriptions per 100 people	<b>77</b> 2016	<b>83</b> 2017	<b>87</b> 2018	<b>19</b>	<b>96</b> 2018
<b>1b3 5G readiness</b> Assigned spectrum as a % of total harmonised 5G spectrum	<b>NA</b>	<b>NA</b>	<b>33%</b> 2018	<b>7</b>	<b>14%</b> 2018
<b>1c1 Fast broadband (NGA) coverage</b> % households	<b>87%</b> 2016	<b>90%</b> 2017	<b>91%</b> 2018	<b>9</b>	<b>83%</b> 2018
<b>1c2 Fast broadband take-up</b> % households	<b>16%</b> 2016	<b>19%</b> 2017	<b>23%</b> 2018	<b>24</b>	<b>41%</b> 2018
<b>1d1 Ultrafast broadband coverage</b> % households	<b>NA</b>	<b>56%</b> 2017	<b>58%</b> 2018	<b>20</b>	<b>60%</b> 2018
<b>1d2 Ultrafast broadband take-up</b> % households	<b>3%</b> 2016	<b>5%</b> 2017	<b>7%</b> 2018	<b>25</b>	<b>20%</b> 2017
<b>1e1 Broadband price index</b> Score (0 to 100)	<b>91</b> 2016	<b>91</b> 2017	<b>93</b> 2018	<b>4</b>	<b>87</b> 2018

## 1. Progress towards a gigabit society

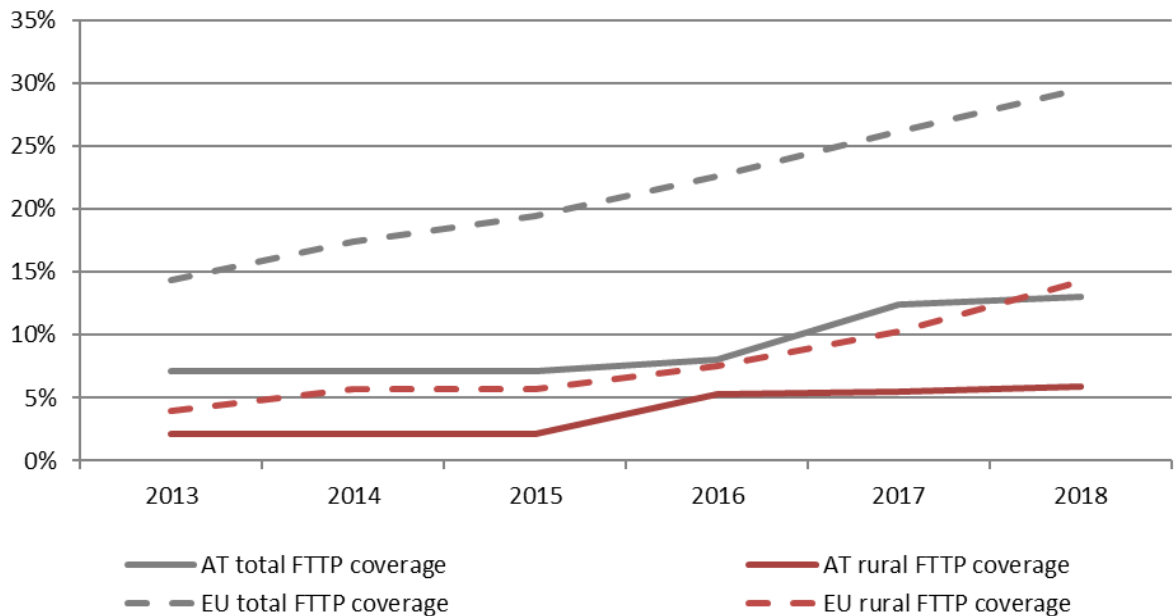
Austria's broadband strategy 2020 was adopted in November 2012. It aims to achieve 70 % coverage of ultrafast-broadband (defined as 100 Mbps downstream) in metropolitan areas by 2018, coupled with a 99 % coverage of ultrafast-broadband for all households in Austria by 2020. Counting fixed network coverage only, the strategy's first target has yet to be achieved. Nevertheless, major telecom providers (A1 and T-Mobile) offer hybrid home broadband products (combining for example DSL and 4G in a single CPE/Modem), a factor increasing in practice the percentage of the population coverage in the country. Austria continues pursuing the second more ambitious aim of nation-wide coverage by 2020, but there is still a lot left to be done. Indeed, while its performance in total fixed and fast broadband (NGA) coverage (98 % and 91 % respectively) was above the EU average in 2018, its ultrafast coverage is only 58 %, 2 percentage points below the EU average. The situation is better for rural coverage as Austria outperforms the EU average for fixed (94.6 % against 87.4 %) and fast (NGA) (57.1 % against 52.3 %) coverage. The rural ultrafast broadband coverage (23.7 %) remains very close to the EU average (29.2 %). However, Austria lags significantly behind its peers in terms of Fibre-to-the-premises (FTTP) coverage, achieving a poor 13 % in 2018, against 29.6 % at EU level, only slightly improving on its 2017 figure (of 12.4 %). In rural FTTP coverage, the gap with the EU average is bigger, as only 5.9 % of rural households are covered, against 14.2 % at EU level. Austria is losing ground very fast as it extended the FTTP footprint to only 0.5 % of rural households in the past year, against 3.8 % at EU level. It therefore remains to be seen whether the ambition of its broadband strategy can be achieved.

**Fixed, NGA and ultrafast coverage, total and rural at Member State level (% of households), 2013-2018**



Source: Commission services, *Broadband coverage in Europe Study*, commissioned to IHS and Point Topic. 2013-2014 data as of end of December; 2015-2018 data as of end of June. Ultrafast coverage metrics are available for 2017 and 2018.

**Fibre-to-the-premises (FTTP) coverage, total and rural at Member State level (% of households), 2013-2018**



Source: Commission services, *Broadband coverage in Europe Study*, commissioned to IHS and Point Topic. 2013-2014 data as of end of December; 2015-2018 data as of end of June.

Austria's Ministry for Transport, Innovation and Technology is currently preparing a new 2030 broadband strategy, which was published for consultation in February 2019. As part of the "Broadband Austria 2020" broadband initiative, the Ministry for Transport, Innovation and Technology has provided by the end of 2018 €470.0 m of funds for the rollout of broadband infrastructure. Additional

public tenders making more than €400 m available, are either underway or planned until 2020. This funding programme covers four areas: access, backhaul, connect and ducts. The Access programme aims at the expansion of the geographical coverage of high-performance broadband networks, while the backhaul programme is focused on modernising existing backhaul facilities in order to provide existing or future NGA networks with sufficient capacity. The Connect programme aims to significantly reduce the costs of establishing fibre optic connections for SMEs and schools and the Ducts programme is mainly addressed at municipalities with the aim of facilitating the shared use of ducts for high-speed communications networks in the context of civil engineering works.

The funds mainly derive from the proceeds of the 2012 spectrum auction often cited as “the broadband billion”. In the context of this initiative, 174 beneficiaries have already received funding for 694 projects. 838,000 residents will directly benefit from these projects in 1 341 municipalities. In addition, more than 11,000 PoP (“point of presence”) locations in more than 1,644 municipalities were connected with fibre. Furthermore, 42 SMEs and 137 schools participated in the Connect programme so far.

Austria’s aim is to become a 5G pioneer in the EU, which is not unrealistic when looking at its strong track record in mobile networks. In this context, Austria published a 5G strategy in April 2018, with the following milestones:

- Phase 1: implement the first pre-commercial 5G trial installations by mid-2018.
- Phase 2: near-nationwide availability of ultra-fast broadband (100 Mbps), as basis for a nationwide 5G expansion as well as rollout of 5G in all provincial capitals by the end of 2020.
- Phase 3: 5G service availability to main traffic routes by the end of 2023; accomplish virtually nationwide 5G availability by the end of 2025.

An amendment to the Austrian Telecommunications Act, adopted in November 2018, created the appropriate regulatory framework paving the way for 5G implementation. One of the main points of the amendment was to add small cells to the wayleave rights. The regulatory authority is now working on a model calculating the impairment properties that operators will have to compensate for using the infrastructure. Furthermore, rules concerning the frequency usage plan and frequency allocation were adapted.

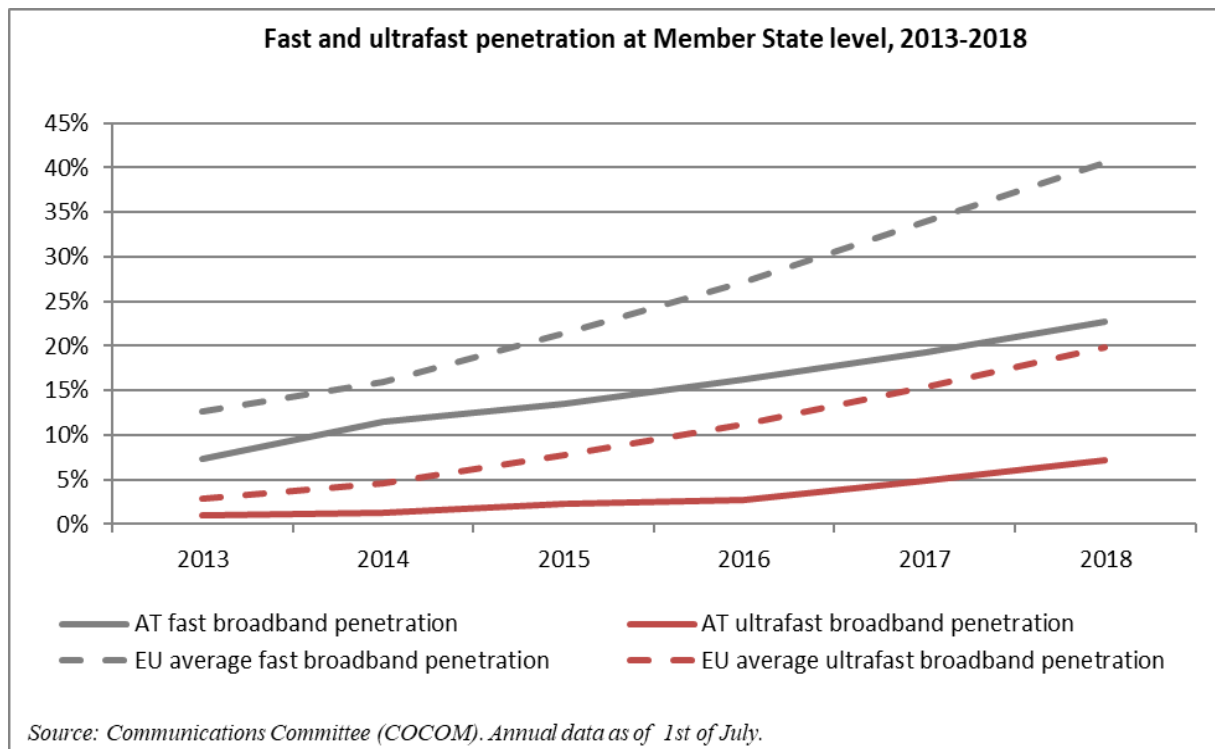
Operators are committed to implement 5G swiftly and are already taking preparatory actions and intend to start the 5G rollout as soon as the frequencies are allocated. Operators see 5G as a possible substitute for FTTH in rural areas. Indeed, all operators have already carried out 5G tests. A 5G test region exists in Carinthia, the “5G Playground Carinthia” at the Lakeside Science & Technology Park, funded by the Ministry for Transport, Innovation and Technology.

The law transposing the European Electronic Communications Code is planned to be drafted over the summer with a first draft to be available at the end of 2019.

## **2. Market development**

In August 2018, T-Mobile, the second largest MNO, took over UPC, the largest cable network operator. This led to a significant increase in concentration for residential broadband services, where FTTH, DSL, cable and flat-rate mobile offers compete in the same market. The three large operators, A1, T-Mobile and Hutchison 3 Austria (which took over the fixed network operator Tele2 in 2017) now hold almost 90 % of the residential broadband market. By acquiring UPC, T-Mobile became more independent of the fixed network wholesale services of A1 (in particular virtual unbundling) but still uses these services outside the UPC footprint.

## 2.1. Fixed markets



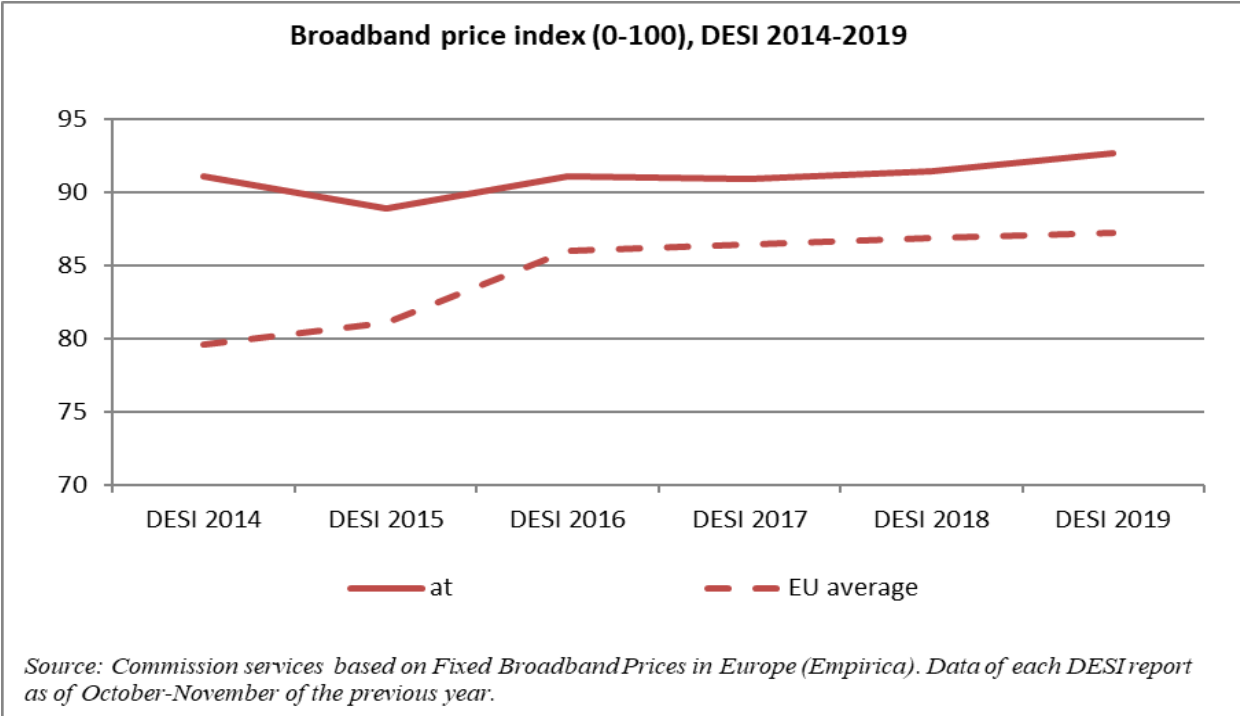
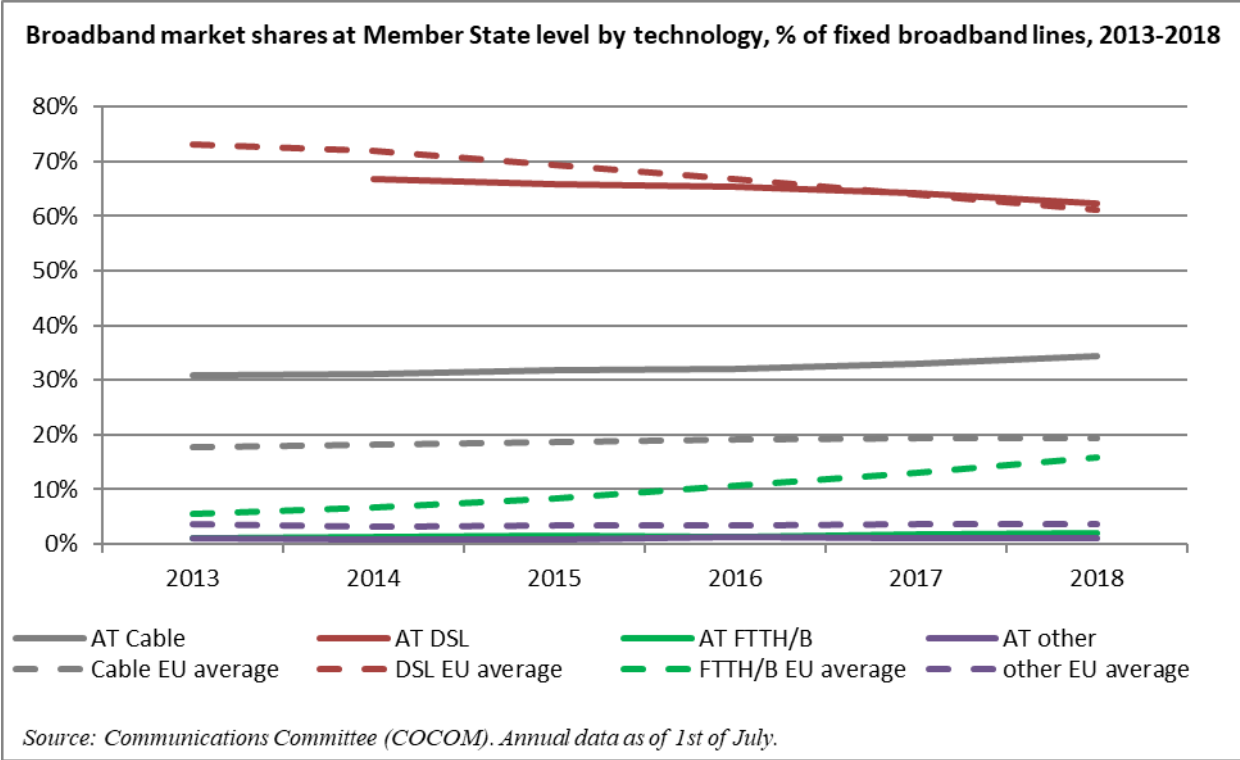
Fixed broadband access has low growth rates, reaching a total of 2.5 million lines in 2018. The take-up of high (>30 Mbps) and very high (>100 Mbps) bandwidths in the fixed line segment increased in 2018, but remains low with the majority of fixed lines (approximately 59 % in Q2/2018) still under 10 Mbps.

Austria's fast broadband take-up of 23 % is very low and at 7 % its ultrafast broadband take-up is even lower, putting it among the EU's poorest performers in this respect. This low performance might be attributed to a considerable trend of substitution of fixed by mobile services, due to fierce price-driven competition in the mobile market, both for voice and broadband.

FTTH continues to play only a minor role in Austria, compared to xDSL and cable, with 46,000 connections. The focus on FTTC in Austria can be partially explained by low retail price levels and a low willingness to pay for higher bandwidths coupled with expensive fibre rollout due to low availability of ducts. With over 80 % of revenues in the market for fixed voice access and over 50 % of retail broadband access lines in the fixed segment including DSL, cable, and FTTH, the incumbent operator retains high market shares. Cable networks cover around half of the population. All large cable networks have upgraded to DOCSIS 3.0 and offer bandwidths up to 300 Mbps. Unbundling operators did not invest in FTTC/B to a significant extent mainly due to low economies of scale at local level. They are rather likely to migrate to virtual unbundling (VULA), the uptake of which rose to 49,000 lines in Q4/2018.

The share of cable on the Austrian market is with 34.4 % significantly higher than the EU average (of 19.4 %), while the share of DSL is only slightly higher (62.4 % versus 61.1 %). The share of FTTH remains very low (2.1 %) compared to the EU average (15.9 %).

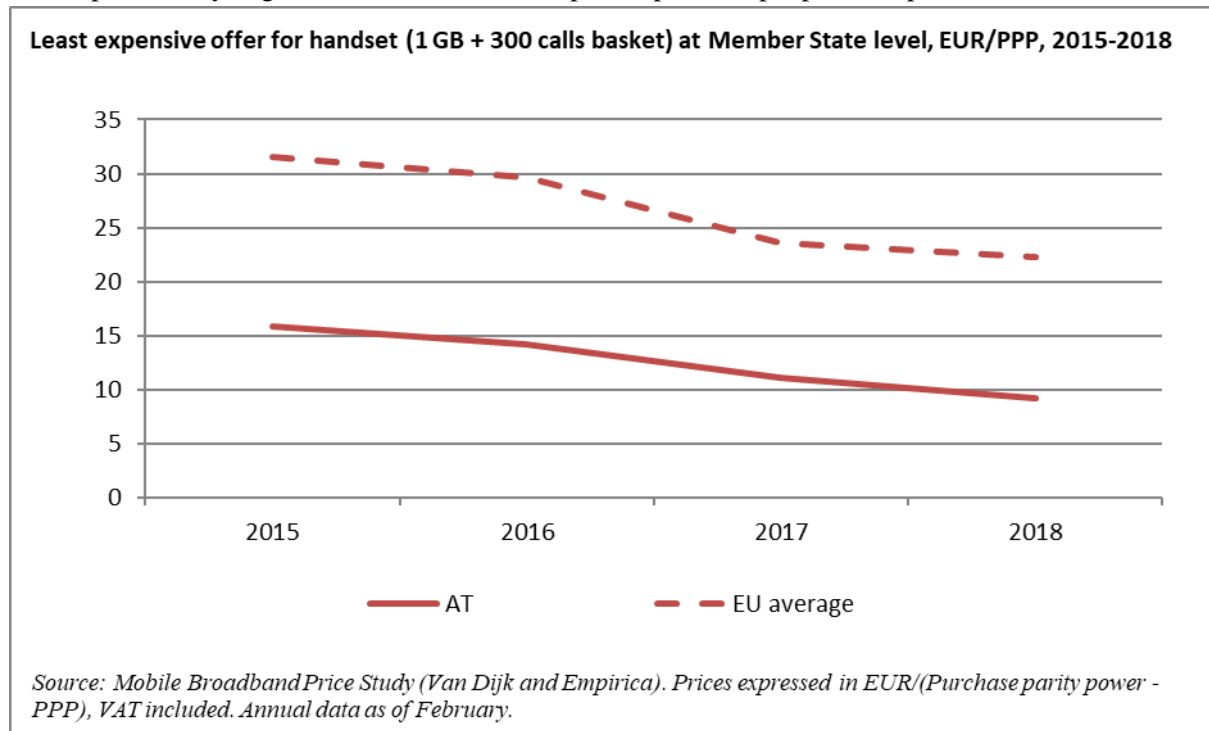
Fixed broadband prices are far below the EU average, placing Austria fourth in the broadband price index<sup>1</sup>.



<sup>1</sup> The fixed broadband price index weighs the cheapest retail offers from: standalone, double play (BB + TV, BB + fixed telephony) and triple play (BB+TV+fixed telephony) and three speeds categories - 12-30 Mbps, 30-100 Mbps and +100 Mbps. This indicator presents values from 0 to 100 (which should not be read as prices) and the higher the values, the better the country performs in terms of affordability of prices relative to purchasing power

## 2.2. Mobile markets

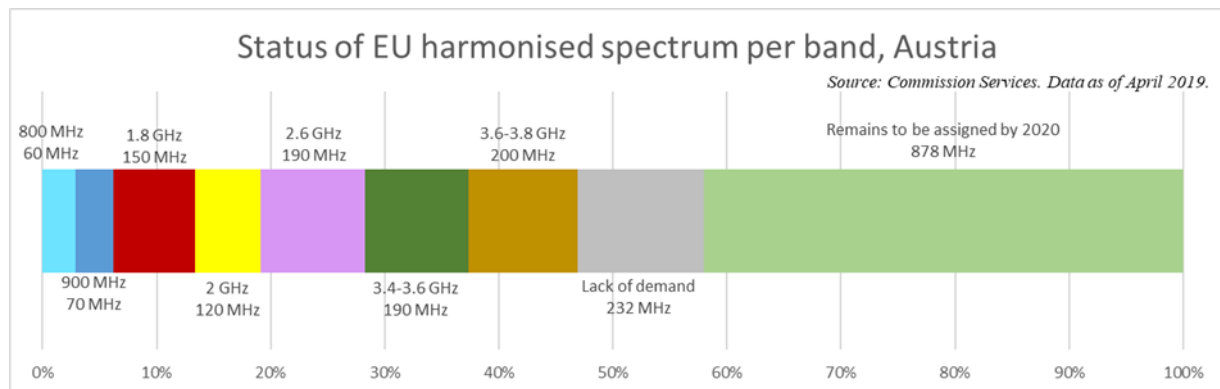
All mobile operators have a high 4G coverage (98 %) and are providing mobile broadband services with bandwidths of up to 300 Mbit/s for business customers. Mobile broadband remains an important driver of competition in the residential segment. In fact, mobile broadband has been considered a substitute to fixed broadband in the residential segment in Austria already for several years. MNOs offer their flat rate mobile tariffs for stationary use at home with wireless modems, so called "cubes". As the bandwidths which can be achieved in the 4G network are often higher than those in the fixed network and since installation is simple and fast, these offers are very popular. A1 and T-Mobile also offer hybrid home broadband products (combining DSL and 4G in a single CPE/modem). However, despite the mobile substitution trend, mobile broadband take-up in total (including smartphone tariffs) is not particularly high in Austria (87 subscriptions per 100 people, compared to 96 at EU level).



Austria is known for its low mobile prices. This is reflected in the Mobile Broadband Price Study comparing prices for a 1 GB + 300 calls basket, which puts Austria's prices at below half of the EU average (€/PPP 9.20 versus €/PPP 22.30).

## 3. Regulatory developments

### 3.1. Spectrum



In Austria, 47 % of the spectrum harmonised at EU level for wireless broadband has been assigned<sup>2</sup>. This percentage is mainly due to the lack of an assignment procedure for the 700 MHz and the 26 GHz bands.

The auction of the 3.4-3.8 GHz band ended on 5 March 2019 and enabled the acquisition of large blocks of spectrum facilitating the provision of gigabit 5G services, at reasonable prices (€6 euro cents/MHz/pop). The three mobile network operators, A1, T-Mobile and Drei, acquired nation-wide rights of use for sufficiently large blocks of at least 100, 110 and 100 MHz respectively, and four other providers acquired smaller blocks of rights of use at a regional level. A1 also won some additional spectrum (20 and 40 MHz) in some of the regions. All licences in the upper part of the band (3.6 - 3.8 GHz) will start on the date of legal effect of the individual authorisation decisions and will end by 31 December 2039. The licences for the lower part of the band (3.4 – 3.6 GHz) are awarded from 1 January 2020 to 31 December 2039.

The national roadmap on the 700 MHz frequency band was published in August 2018. A public consultation on the product and auction design for the 700/1500/2100 MHz award procedure was carried out between December 2018 and the end of February 2019. The tender is expected to be published in autumn 2019 and the auction to take place in the first quarter of 2020.

A legal compensation mechanism in case of eviction of the broadcasters before mid-2020 was put in place in December 2018. However, the question of the eviction of the 700 MHz band by a broadcasting company has not been fully clarified yet.

Concerning the 26 GHz band, an amendment of the frequency utilization plan is planned in 2019, as well as a public consultation.

### **3.2. Regulated access**

On 18 April 2018, the Austrian national regulatory authority, Telekom-Control-Kommission (TKK) notified the Commission of a new analysis concerning the market for wholesale high-quality access provided at a fixed location (corresponding to Market 4 in the 2014 Recommendation on relevant markets)<sup>3</sup>.

TKK defined the following two markets:

Market 1: including terminating segments of Ethernet leased lines with guaranteed bandwidths above 10 Mbps as well as dark fibre in the area comprising the 355 municipalities (Area 1) indicated in Annex 1 of the notified draft measure;

Market 2: including (a) terminating segments of Ethernet leased lines with guaranteed bandwidths up to and including 10 Mbps in the entire territory of Austria; and (b) terminating segments of Ethernet leased lines with guaranteed bandwidths above 10 Mbps as well as dark fibre outside the 355 municipalities in Area 1 (Area 2).

TKK stated that for the market of terminating segments of leased lines with traditional interfaces no competition concerns could be identified which would warrant ex-ante regulatory intervention. It

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<sup>2</sup> The 5G spectrum readiness indicator is based on the amount of spectrum already assigned and available for use for 5G by 2020 within the so-called 5G pioneer bands in each EU Member State. For the 3.4-3.8 band, this means that only licences aligned with the technical conditions annexed to Commission Decision (EU) 2019/235, are considered 5G-ready. On the contrary, 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.

<sup>3</sup> Commission Recommendation 2014/710/EU of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services Text with EEA relevance, OJ L 295, 11.10.2014, p. 79–84.

therefore proposed to withdraw all regulatory obligations previously in force under Article 16(3) of the Framework Directive.

With regard to competitive conditions on the relevant Market 1, TKK observed that this market is characterised by a tendency towards effective competition, which lead it to conclude that ex-ante regulation is no longer warranted for this market.

In contrast, for Market 2, TKK observed that not only the three criteria test has been met but that market conditions are such that A1 Telekom Austria should also be designated as having significant market power (SMP). TKK consequently proposed to impose the following set of regulatory remedies on A1 Telekom Austria:

- i. an obligation to provide access to terminating segments of Ethernet leased lines and dark fibre (with specific limitations), including access to colocation and ancillary services;
- ii. a price-cap regulation concerning access to terminating segments of Ethernet leased lines and cost-oriented tariffs for access to dark fibre ends;
- iii. a non-discrimination obligation, including in particular the obligation to publish detailed reference offers concerning the provision of terminating segments of Ethernet leased lines and dark fibre;
- iv. an obligation to publish quarterly certain key performance indicators;
- v. an accounting separation.

TKK proposed to withdraw all other remedies previously imposed, including the transparency obligation.

The Commission criticized the proposed product market definition and argued that the wholesale market for high-quality access should normally include a wider range of access products necessary to fulfil the needs of business service providers. The Commission did however not open a phase II investigation because of the gradual phase out of traditional interface leased lines and a low likelihood of competitive concerns in that segment. With regard to the approach concerning traditional interface leased lines, the Commission urged TKK to include additional economic evidence in its final measure to strengthen its conclusions on the competitive assessment of traditional interface leased lines.

With regard to the inclusion of dark fibre in the product market definition, the Commission invited TKK to present additional evidence in its final measure to support its assertion of dark fibre being a substitute for traditional leased lines, including in particular a more robust analysis of price constraints and switching behaviour taking into account the total costs of dark fibre and Ethernet services, respectively.

Finally, the Commission stressed the need for updated market data.

TKK adopted the measures on 11 June 2018, addressing the Commission's comments.

On 19 June 2018, the Austrian national regulatory authority Kommunikationsbehörde Austria (KommAustria) notified the Commission of an analysis concerning the wholesale market for the transmission of analogue terrestrial (FM) radio broadcasting signals to end users (corresponding to market 18 of the 2003 Recommendation on relevant markets<sup>4</sup>).

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<sup>4</sup> Commission Recommendation of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services (Text with EEA relevance) (notified under document number C(2003) 497), OJ L 114, 8.5.2003, p. 45–49..



The Commission had previously opened a phase II investigation under Article 7 and 7a of the Framework Directive and concluded the phase II investigation with a decision<sup>5</sup> under Article 7(5) of the Framework Directive, requiring KommAustria to withdraw its draft measure. The Commission, supported by BEREC, found that the exclusion of self-supply from the relevant market was not compatible with EU law and would create barriers to the internal market.

As in the previous review, KommAustria proposed to define a wholesale market for the “transmission of analogue terrestrial (FM) radio broadcasting signals to end-users”. KommAustria finds that alternative platforms, such as cable and satellite, are not exerting sufficient competitive constraints on the analogue terrestrial platform. Consumer usage is dominated by stationary analogue terrestrial receivers and car radios, in contrast the use of alternative platforms is very limited.

The relevant market now includes self-supply of broadcasters and their subsidiaries. This self-supply includes in particular transmission services provided by ORS to its parent company ORF in the context of the fulfilment of ORF’s statutory public service coverage obligation.

As regards a potential switch to digital transmission of FM radio broadcasting signals, KommAustria expects no significant developments in the short to medium term, in particular within the expected timeframe of the current draft measure. Regular digital radio broadcasting, using the DAB+ standard, was permitted by KommAustria for the first time in December 2017 in the wider area of Vienna. Due to the limited number of DAB+ receivers and the limited local scope of digital radio broadcasting, KommAustria does not consider DAB+ to be a substitute product for analogue FM radio and expects a relatively long period of simultaneous broadcasting of both analogue and digital FM radio signals. KommAustria also considers that the DVB-T2 standard cannot be regarded as a substitute to analogue, because the reception of radio programmes requires a DVB-T2 receiver, normally used only in TVs.

KommAustria proposed to designate ORS as having SMP in the wholesale market for the “transmission of analogue terrestrial (FM) radio broadcasting signals to end users”. ORS has a very high market share of more than 90 % and is the only operator with a countrywide network, which cannot easily be duplicated.

KommAustria described the following potential competition problems that might arise on the relevant market: (i) creation of entry barriers to the market; (ii) discrimination of access seekers; (iii) requiring access seekers to buy products as part of bundles which are not required for service provision; and (iv) excessive prices.

To resolve the identified competition problems and taking into account the very stable market situation, KommAustria proposed to impose again a full set of remedies without substantial changes to the regulatory obligations imposed in 2013.

In its comments on the notification, the Commission urged KommAustria to closely monitor market developments and to ensure that private radio broadcasters are in a position to compete with ORF based on the non-discrimination indicators identified in the draft measure.

Furthermore, the Commission urged KommAustria to monitor the use of DAB+ and its impact on infrastructure competition and consumer choice, and to review the relevant market even before the end of the regulatory review period, if deemed appropriate in view of material changes to market structure and state of competition.

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<sup>5</sup> Decision of 12 January 2018, C(2018) 63 final.

Finally, the Commission invited KommAustria to promote and encourage the possibilities for shared use of broadcasting sites under § 8 of the ORF-Act in order to allow private radio broadcasters to self-supply transmission services under favourable conditions.

KommAustria adopted the measure on 1 August 2018.

#### **4. End-user matters**

RTR (Rundfunk und Telekom Regulierungs-GmbH) and KommAustria support customers of communication services through conciliation bodies in accordance with the Directive on alternative dispute resolution<sup>6</sup>. RTR is the conciliation body for telecommunications services, while KommAustria is the conciliation body for media services. The settlement rate is over 80 % and more than 90 % of all procedures have been completed within 90 days. Most of the disputes relate to contractual issues. With around 2,000 dispute resolution procedures in 2018, the number remained constant compared with the previous year.

##### **a. Net neutrality**

With the amendment of the Telecommunications Act in 2018<sup>7</sup>, penalties for infringements of net neutrality provisions were codified and the regulator can now impose penalties of up to €58,000.

In addition, if the regulatory authority establishes that an undertaking has gained economic advantage due to an unlawful act in violation of the respective regulation, the regulatory authority may apply to the Cartel Court to fix an amount to be absorbed. That amount shall depend on the extent of the economic advantage and may be set by the Cartel Court to beat up to 10 % of the undertaking's turnover of the preceding year.

In 2018, the regulator conducted several net neutrality investigations, most of which could be solved informally. These investigations concerned amongst others port blockings, allocation of public IP addresses, website-blocking traffic management measures because of copyright infringements by ISPs and disconnecting customers' IP connections every 24 hours.

In November 2018, RTR closed proceedings initiated under Article 5 of Regulation (EU) 2015/2120 against seven ISPs. The investigation dealt with the compatibility of website-blocking traffic management measures because of copyright infringements by ISPs under the third indent of Article 3(3) of Regulation (EU) 2015/2120. The regulator did not detect any violations of the Net Neutrality provisions.

Two cases decided in December 2017 are still pending before the Austrian Administrative Court. Both concerning A1 and relate to traffic shaping and specialised services.

##### **b. Roaming**

Austria is one of two Member States, in which the share of domestic-only subscribers has substantially increased (from 4 % to 9 % between summer 2017 and the first quarter 2018, mainly MVNO subscribers)<sup>8</sup>. It was reported that this increase would not affect contracts already in place.

The Roaming calls made traffic index indicated an increase from 144.9 to 235.7 between Q1 2017 and Q1 2018, showing that Austrian end-users consumed 1.6 times more roaming minutes (calls made) in

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<sup>6</sup> [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex %3A32013L0011](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013L0011)

<sup>7</sup> BGBl I Nr 78 2018, Änderung des Telekommunikationsgesetzes 2003, des FunkanlagenMarktüberwachungs-Gesetzes, des Funker-Zeugnisgesetzes 1998, des Gebäude- und Wohnungsregister-Gesetzes und des KommAustria-Gesetzes (NR: GP XXVI RV 257 AB 315 S. 43. BR: AB 10045 S. 885.).

<sup>8</sup> See Report from the Commission to the European Parliament and the Council on the implementation of Regulation (EU) 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union, as amended by Regulation (EU) 2015/2120 and Regulation (EU) 2017/920.

Q1 2018 (“roam like at home”/RLAH) than in Q1 2017 (before RLAH). As for the data roaming services, the retail data traffic index pointed to a 4.4 times increase from 910.27 to 4,019,76 between Q1 2017 and Q1 2018.

According to the NRA, only few infringements of the Roaming Regulation were detected in 2018 and all cases could be solved informally, without formal proceedings being initiated.

The NRA granted an extension of the two sustainability derogations which were already in place, namely for the two MVNOs mtel and spusu.

#### **c. Emergency communications - 112**

The rules governing caller location accuracy and reliability criteria for the European emergency number 112 were not amended in 2018. One Public Safety Answering Point (PSAP), responsible for ambulance and fire brigade in the region of Lower Austria, deployed an AML server (for handset-based caller location). Disabled end-users can reach the emergency services via SMS or fax. An app called “DEC112” which hearing and speech impaired people can use to contact the emergency services was developed in late 2018 and is being tested in several regions.

#### **d. Universal service**

Following an amendment of the Austrian “Universal Service Decree” at the end of 2016, the scope of the Universal Service Obligation has been reduced to public payphones and the number of obligatory public payphones decreased to 6,000.

### **5. Conclusion**

Austria is characterised by top mobile coverage and uptake, but scores far below the EU average for fixed high-speed broadband, mainly due to the high costs of fibre rollout (lack of ducts) combined with a low retail price levels and a low willingness to pay for higher bandwidths. Austria has strong ambitions to become a pioneer in the rollout of 5G, and the achievement of this goal is facilitated by the results of the 3.4-3.8 GHz frequency auction. Austria’s new 2030 broadband strategy, currently under development, could play a role creating the right conditions and incentives for more investments in fixed networks.