# EU Digital Progress Report - 2017

Telecoms chapter

#### Austria

# 1. Competitive environment

Coverage	AT-2015	AT-2016	EU-2016
Fixed broadband coverage (total)	99%	99%	98%
Fixed broadband coverage (rural)	95%	94%	93%
Fixed NGA coverage (total)	89%	89%	76%
Fixed NGA coverage (rural)	26%	41%	40%
4G coverage (average over all operators)	no data	89%	84%

Source: Broadband Coverage Study (IHS and Point Topic). Data as of October 2015 and October 2016.

# Fixed broadband market

The Austrian telecommunications market is characterised by price-driven competition, and mobile services play a prominent role in terms of both voice and broadband markets. The incumbent A1 Telekom Austria maintains a strong position in all market segments and is also active abroad thanks to its subsidiaries in eastern Europe.

The Austrian market has undergone considerable change over the last two years. In 2012, the fourth mobile operator Drei (owned by Hutchison) acquired the third largest player Orange Austria. Since the merger, on the basis of a regulated wholesale product, new mobile brands have entered the market as mobile virtual network operators (MVNO) or resellers. While the National Regulatory Authority (NRA) and the Austrian Federal Chamber of Labour reported price increases for certain services following these structural changes, the NRA reported that prices stabilised in 2015 and fell in 2016.<sup>1</sup> By 2016, the Mexican telecommunication company América Móvil had gradually acquired majority ownership of A1 Telekom Austria from the Austrian Government.

In 2016, 89% of all households were covered by a high-speed broadband next generation access (NGA) network, which is well above the EU average of 76%. Austria also nearly doubled the rural coverage of high-speed broadband from 26% in 2015 to 41% in 2016, and is now slightly above the EU average (40%). This has helped it reduce the 'digital divide' between urban and rural areas. At the same time, the take-up of fixed high-speed broadband remained low (24%) compared to the EU average of 37%.

On NGA roll-out plans, A1 is the key player in rolling out high-speed networks, relying mainly on FTTC (with VDSL vectoring). During 2016, it reported to have connected or upgraded 500,000 households with connections of up to 100 Mbit/s. Most cable networks (covering around 50% of households) rely on DOCSIS 3.0 and offer bandwidths of up to 250 Mbit/s. FTTC/B/H investments by alternative operators remained limited in 2016.

<sup>1</sup> 

See e.g. RTR Telekom Monitor, 2nd Quarter 2016 (Issue 4/2016).

Fixed broadband market share	AT-2015	AT-2016	EU-2016
Incumbent's market share in fixed broadband	58.4%	58.1%	40.7%
Technology market shares			
DSL	65.8%	65.4%	66.8%
Cable	31.9%	32.0%	19.1%
FTTH/B	1.5%	1.3%	10.7%
Other	0.8%	1.2%	3.4%

Source: Communications Committee. Data as of July 2015 and July 2016.

A1's total market share in fixed broadband decreased slightly to 58.1% (from 58.4%), but was still considerably higher than the EU average. At the same time, cable subscriptions gained some ground (32% compared to 31.9%). In the cable market, the largest cable operator UPC continues with the consolidation of the market by acquiring smaller cable operators. In certain regions, telecoms operators are also facing increasing competition mainly from regional electricity or utility providers as well as from communities that are active in the broadband market and are beneficiaries of the National Broadband Scheme. These state aid funded fibre networks are often operated by wholesale-only operators. However, their coverage and effects on the market were still geographically limited. The lowest fixed broadband price (12-30 Mbps or above) was 24.59 EUR/PPP, compared to 21.33 EUR/PPP across the EU.<sup>2</sup>

New entrants' DSL subscriptions by type of access (excl.			
VDSL)	AT-2015	AT-2016	EU-2016
Own network	-	-	0.7%
Full LLU	75.8%	75.2%	75.3%
Shared access	0.0%	0.0%	4.1%
Bitstream	22.1%	21.7%	13.4%
Resale	2.1%	3.1%	6.6%

Source: Communications Committee. Data as of July 2015 and July 2016.

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Charges of Local Loop Unbundling (monthly average total cost in ${\ensuremath{ \in } })$	AT-2015	AT-2016	EU-2016
Full LLU	5.9	5.9	9.2
Shared Access	2.9	2.9	2.4

Source: Communications Committee. Data as of October 2015 and October 2016.

#### Mobile sector

In 2016, there were over 13.5 million mobile subscriptions in Austria, with a penetration rate of 154.8%. 4G coverage reached 89% and was above the EU average<sup>4</sup>. Mobile broadband take-up continued to grow and is now 77%, while mobile broadband prices continued to fall and remained well below the EU average.

<sup>&</sup>lt;sup>2</sup> Source: Fixed broadband prices in Europe in 2016 (Empirica). Prices expressed in EUR/PPP, VAT included. Data as of autumn 2016.

<sup>&</sup>lt;sup>3</sup> Source: Fixed broadband prices in Europe in 2016 (Empirica). Prices expressed in EUR/PPP, VAT included. Data as of autumn 2016.

<sup>&</sup>lt;sup>4</sup> Source: RTR

Mobile broadband prices	RO-2015	RO-2016	EU-2016
Least expensive offer for handset (1 GB + 300 calls basket)	26	19	30
Least expensive offer for tablet and laptop (5 GB basket)	24	20	18

Source: Mobile Broadband Price Study (Van Dijk). Prices expressed in EUR/PPP, VAT included. Data as of 2 February 2015 and February 2016.

Mobile market	AT-2015	AT-2016	EU-2016
Market share of market leader	41%	39%	34%
Market share of second largest operator	29%	29%	28%
Number of MNOs	3	3	-
Number of MVNOs	7	14	-
Market share of MVNO (SIM cards)	-	-	-

Source: Communications Committee. Data as of October 2015 and October 2016.

The Austrian mobile market underwent considerable changes in 2012 after Drei acquired Orange. This market restructuring somewhat delayed the multiband mobile frequency auctions originally planned for 2012 in line with EU requirements. As a result, following consolidation in the Austrian mobile market, there are currently three mobile operators. As a result of market remedies (a condition attached to the approval of the merger to accept up to 16 MVNOs), new brands were launched. In late 2014, the upfront MVNO, UPC, entered the market. Since then, the regulated MVNO offering has brought about competitive wholesale offers from the other two Austrian mobile network operators (MNO) on a commercial basis. Among these, Ventocom acts as a mobile virtual enabler that provides technical platforms for branded products (mainly Hofer Telekom, but also other brands) using T-Mobile Austria's commercial offer and network. According to information from the Federal Chamber of Labour, the new low-end brands with simple and transparent pricing effectively contributed to cheaper prices.

The merger resulted in market shares being redistributed between mobile operators. A1 also grew by acquiring the Orange brand Yesss from Hutchison, with T-Mobile second with 28.0%, followed by Drei (27.9%). The remaining 3.6% was split among MVNOs, the main player being Hofer Telekom.

Bundles continued to play an important role, but a significant number of internet access services (20% of internet subscriptions) were still sold as single play, with their take-up relatively stable over the last 4 years.

# 2. Supporting measures for deployment and investment in high speed networks

#### a. Spectrum

Harmonised band	MHz spectrum assigned <sup>5</sup>	% of the harmonised band assigned
700 MHz	0	0%

<sup>&</sup>lt;sup>5</sup> Including guard bands.

800 MHz	60	100%
900 MHz	70	100%
1500 MHz	0	0%
1800 MHz	150	100%
2000 MHz paired	118.8	99%
2600 MHz	190	100%
3400-3600 MHz	168	84%
3600-3800 MHz	0	0%

Austria assigned 69% of the harmonised spectrum for wireless broadband, which is slightly above the EU average of 68%, due to increased usage in the higher frequency band. No spectrum was awarded in 2016. The last time wireless mobile broadband spectrum was awarded was in 2013, as a result of a multiband auction. Half of its proceeds went towards funding Austria's broadband subsidies (the 'Broadband Billion'). An auction in the 3.4-3.8 GHz band is being prepared for 2017.

There has been a national roaming agreement between Hutchison and T-Mobile since 2012. It allows mutual national roaming on Hutchison's 3G network for T-Mobile and on T-Mobile's 2G network for Hutchison.

Decision 2006/771/EC<sup>6</sup> saw the Commission enact harmonisation of the radio spectrum for use by short-range devices across the EU. As Austria failed to provide information on the implementation of the Decision by the relevant deadline of 1 July 2014, the Commission launched an investigation. A revised frequency utilisation ordinance was published on 16 December 2016. The Commission services are currently assessing the new provisions in terms of their compliance.

# b. EU and national investments in broadband

The key challenge facing broadband roll-out in Austria is the country's mountainous topography, which greatly increases the cost of deployment. 'Breitbandstrategie 2020', Austria's National Broadband Plan (NBP), is generally in line with the Digital Agenda for Europe targets and supersedes them in some aspects. The Austrian government's aim is 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 that differ from the NBP. Upper Austria for example aims for 100% ultra-fast broadband by 2022. Its own state aid programmes include special funding for small-scale projects and FTTH projects.

Since its establishment in November 2012, the Broadband Office of the Ministry for Transport, Innovation and Technology (BMVIT) has played a central role in broadband

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Decision 676/2002/EC, OJ L 108, 24.4.2002, p. 1 as amended by Implementing Decision 2013/752/EU.

development as a coordination and service centre for municipalities, cities, federal Lands and operators. It also acts as a focal point and competence centre, developing the broadband strategy and disseminating best practices to stakeholders, such as how to draw up town planning guidelines for local government. The Ministry has prepared supplementary documents, such as a planning guide, which clarifies technical issues involved in infrastructure roll-out, and a generic implementation plan, which specifies the funding and financing timeframe and instruments. The NBP also identifies the need for an infrastructure database for planned works, ideally connected with the broadband atlas and the fibre optic cadaster.

In response to the challenge of financing the cost of high-speed roll-out in rural and mountainous areas, Austria started to implement an ambitious funding scheme based on the proceeds from spectrum revenues. During 2016, the government launched a series of calls for proposals to distribute the Broadband Billion, which stem from the proceeds of the 2013 spectrum auction. Calls in 2016 focused on promoting access to and deploying backhaul networks as well as empty ducts for local governments and innovative services that are expected to promote take-up.

In 2015-2016, there were several state aid programmes for broadband development ('Broadband Austria 2020 Access', 'Broadband Austria 2020 Backhaul', 'Broadband Austria 2020 empty ducts funding', 'Broadband Austria 2020 AT:net') that aim to bridge the digital divide between urban and rural areas.

'Digital Roadmap', the new government programme published in January 2017, states that Austria will increase its national targets of availability and take-up of high-speed broadband beyond the nationwide coverage of 100Mbps by 2020 in order to provide high-speed connections for all schools and SMEs and 75% of citizens by 2020.<sup>7</sup>

# c. State of transposition of the Broadband Cost Reduction Directive

After the deadline for transposing the Broadband Cost Reduction Directive (BB CRD) expired on 23 March 2016, the Commission opened infringement proceedings against Austria for failure to notify transposition measures. By the end of 2016, Austria adopted the federal laws to transpose the directive, including the amendment of the relevant telecoms acts, such as the 2003 Telecommunications Act, the CommAustria Act, the Federal Radio and Telecommunications (Broadcasting Devices) Act; and the Postal Market Act. At the same time, certain laws still need to be adopted regionally. In particular, Article 8 on in-building infrastructure needs to be transposed.

# **3. Regulatory function**

The markets included in the 2014 Commission Recommendation on relevant product and service markets (2014/710/EU) are all subject to at least partial regulation in Austria, along with two legacy markets from the 2007 recommendations (access to PSTN for residential and non-residential, call origination on fixed network) and the Broadcasting Transmission market.

<sup>&</sup>lt;sup>7</sup> In addition, the Digital Roadmap authorises the government 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. Measures include simplification of the authorisation regime for digital infrastructure by establishing a one-stop shop in each of the regions and reducing the fees charged by owners of public property for usage of digital infrastructure.

On 23 February 2016, the NRA notified the Commission of its draft remedies for Markets 1 and 2 (call termination on fixed networks and voice call termination on mobile networks), and signalled its intention to apply termination rates based on the origin of the call from an EU country, depending on whether that country applied the 2009 Commission Recommendation on termination rates. In particular, the Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR) suggested applying a lower (pure LRIC) rate for all compliant EU countries and allowing Austrian operators to charge different termination rates for calls originating in non-compliant EEA countries. Following the principle of reciprocity, Austrian operators would be allowed to charge the maximum termination rate implemented in the respective EEA countries for calls originating in that country.

On 22 March, the Commission opened an in-depth (Phase II) investigation into the matter, as it had serious concerns about whether the proposals were compatible with EU law. Given that the NRA did not amend its proposal during Phase II and was unable to provide any further justification to alleviate the Commission's concerns, the Commission adopted a Recommendation on 22 July 2016 under Article 7a of the Framework Directive requiring the NRA to withdraw or amend its proposals. On 23 January 2017, the Austrian regulator decided to withdraw its draft measures on remedies for the markets for fixed and mobile call termination.

On current remedies, A1 is required to announce FTTC/B/H roll-out 4 months in advance and must invite other operators to cooperate/co-invest. It is also obliged to provide sub-loop unbundling, access to ducts/dark fibre for backhaul to the main distribution frame and virtual unbundling.

In 2016, a revised contract on virtual unbundling product was agreed between A1 and the mobile operator T-Mobile (commercial terms). It is set to be implemented by 31 May 2017, and is guided by current and future regulation (an analysis of markets 3a and 3b is ongoing).

# 4. Consumer issues

According to data provided by the NRA, some 2,000 dispute resolution procedures were initiated with the RTR's conciliation body. Contractual issues such as notice periods and third-party billing were prominent.

# Number portability

In 2015, the RTR amended the Number Portability Ordinance 2012 to encourage competition, reduce barriers facing subscribers wanting to change operators and support the market entry of new operators. The amendments came into force on 1 March 2016. The main changes included lowering the number portability fee from max.  $\in$ 19 to  $\in$ 10, the abolishment of the fee for porting a number when the customer has an extraordinary right to cancel the contract, the introduction of a maximum limit for the number portability fee for business customers; and the right of the customer to change operators up to 14 days after contract termination.

Number	portability	AT-2015	AT-2016
	Number of transactions [1]	-	-
Fixed	Transactions as a % of total numbers [1]	-	-
	Maximum wholesale price [2]	22	22

	Maximum time under regulation (number of working days) [2]	-	-
	Number of transactions [1]	193,000	225,000
Mobile	Transactions as a % of total numbers [1]	-	-
wioblie	Maximum wholesale price [2]	8	8
	Maximum time under regulation (number of working days) [2]	-	-

[1] Source: Communications Committee. Data as of January to September 2015 and January to September 2016.

[2] Source: Communications Committee. Data as of October 2015 and October 201

### Bundles

As explained above, ever greater complexity of offers (double, triple, quadruple play and traffic products) means that bundles are becoming increasingly relevant in the Austrian market. As a result, consumers' perception of transparency and contract clarity is increasingly important. The 2015 Eurobarometer survey revealed that consumers in Austria could easily compare bundle offers (73%, above the EU average of 69%). However, the ratio of positive respondents – 62% of subscribers could easily monitor and control fixed telephone usage – was well below the EU average of 71%. The figure of 72% for mobile usage was noteworthy given that the EU average was 78%. On the other hand, respondents voiced a more positive opinion about contract information than the EU average (only 10% were dissatisfied compared to the EU average of 16%).<sup>8</sup>

# Transparency

The NRA's Notification Ordinance determines how subscribers are informed of changes under Article 20(2) USD. This regulation was amended in 2016 to ensure that anonymous prepaid customers without a postal address are informed about changes by text message.

# Roaming

On roaming, Austrian consumers benefited from prices well below the EEA average, in particular for data. Based on price levels from Q1 2016, the average retail Eurotariff price for roaming customers of Austrian mobile operators was  $\in 0.073$  per minute for outgoing calls (below the EEA average of  $\notin 0.112$ ),  $\notin 0.022$  per minute for incoming calls (below the EEA average of  $\notin 0.026$ ) and  $\notin 0.043$  per text message (also less than the EEA average of  $\notin 0.047$ ). On data, the price was  $\notin 0.015$  per MB (a third of the EEA average of  $\notin 0.047$ ).

From 30 April 2016, Regulation (EU) No 531/2012 as amended in 2015 provided for a default reduced transition retail price ('Roam-Like-At-Home+', or 'RLAH+'). If the NRA finds that a breach of the Regulation has occurred, it can initiate a proceeding and has the power to require the immediate cessation of such a breach in accordance with Article 16(5) and (6) of the Regulation. In Austria, the Telecommunications Control Commission (TKK) is vested with the powers defined by these provisions. Operators that infringe the Regulation are subject to an administrative penalty of up to  $\in$ 8,000. In such cases, the NRA first warns the operators that it might initiate a proceeding if they fail to comply with the Regulation by a given deadline. According to the NRA, there have been several cases where operators do not comply with the Regulation. Most such cases were resolved without the need to start a formal proceeding.

<sup>&</sup>lt;sup>8</sup> Source: Special Eurobarometer 438. October 2015.

MVNOs expressed concerns in general about roaming wholesale charges and their negative effects on their business models. In September 2016, one operator already filed a claim in accordance with Article 6c of the Regulation to safeguard the sustainability of its domestic charging model. As Article 6c is not applicable before 15 June 2017, the NRA dismissed the claim.

On rates for international transit and termination services, some of the operators complained about excessively high international transit costs (for transit and termination abroad).

# Net neutrality

In 2016, the RTR requested information from operators on their relevant practices in accordance with Austrian law. In November 2016, the TKK launched proceedings against five operators under Article 5(1) of Regulation (EU) No 2015/2120.

Article 6 of the Regulation states: 'Member States shall lay down the rules on penalties applicable to infringements of Articles 3, 4 and 5 and shall take all the measures necessary to ensure that they are implemented. Member States shall notify the Commission of those rules and measures by 30 April 2016 and shall notify the Commission without delay of any subsequent amendment affecting them.' Austria did not notify the penalties referred to in Article 6. The Commission is looking into the matter.

# Universal service

Up until 2016, the scope of universal service in Austria included functional internet connections, telephony services, public pay telephones and directories (directory enquiry services are no longer included). In August 2016, the designation of A1 Telekom Austria concerning, telephony services (including functional internet connection) and subscriber directory for all operators was removed by decision of the Ministry..

#### 112 and access for disabled end-users to emergency services

According to the latest Communications Committee (COCOM) report on 112, calls to the emergency number 112 were answered within 13.5 seconds. Disabled end-users can access it via text message and fax. 112 calls are answered in German and, in large cities and tourism regions, also in English. In addition to 112, there are 8 other national emergency numbers. According to the latest E-Communications and Telecom Single Market Survey, 50% of Austrian citizens are aware that they can use 112 anywhere in the EU.

# 5. Conclusion

In Austria, the availability and quality of service is good, prices are competitive. Given the focus on mobile services, the regulatory remedies adopted to smooth the launch of MVNOs contributed to the positive rebound of pricing trends. However, despite the above 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 will therefore play an important role in further improving connectivity in Austria.