

HUNGARY

Market developments

1. Competitive environment

The most prominent market development of 2017 was the takeover of a local incumbent, Invitel, by a challenger cable operator, DIGI. DIGI, a challenger in the cable services market and the fourth player in the fixed market, acquired Invitel's retail operations. Invitel is a local incumbent active in one third of Hungary, in the legacy fixed market of the geographically segmented former state monopoly and which gradually divested its services (international wholesale services were sold in 2010 and business services were divested into a new company in 2016). The takeover is currently under the investigation by the Competition Authority, and the merger may have considerable effects on the structure of the market, as in some geographic areas DIGI and Invitel are directly competing. In some market segments, the joint market share of DIGI and Invitel surpasses the market share of the largest incumbent Magyar Telekom.

There have been a number of smaller acquisitions in 2017, affecting local and regional providers. Thus the year 2017 saw a further decline of the number of fixed service providers from 414 to 402 as of 30 September 2017. These acquisitions are signs of further consolidation, but did not considerably affect the market shares of the main providers.

Pay TV continues to play an important role on the Hungarian electronic communications market. National surveys show that nearly 90% of all households are provided pay TV service and most of them (61%) have it in bundle. At the same time, fixed phone and fixed-line Internet services are more likely to be in bundle (80 and 80%, respectively)¹.

a. Fixed Markets

Coverage	HU-2016	HU-2017	EU-2017
Fixed broadband coverage (total)	95%	95%	97%
Fixed broadband coverage (rural)	86%	86%	92%
Fixed NGA coverage (total)	81%	82%	80%
Fixed NGA coverage (rural)	47%	50%	47%
Ultrafast coverage (total)	no data	74%	58%
4G coverage (average of operators)	92%	91%	91%

Source: Broadband Coverage Study (IHS and Point Topic). Data as of October 2016 and October 2017.

Although fixed broadband coverage remained unchanged for two consecutive years, at 95% of homes, and NGA coverage went up slightly to 82% in 2017 from 81% in 2016, ultrafast coverage grew considerably, and at 74% it is now well above the EU average of 58%). In the Hungarian fixed market, there is strong platform competition between xDSL and cable

¹ Source: Electronic Communication Services Usage by Households and Individuals, 2017. Research Summary for the National Media and Infocommunications Authority

broadband, but FTTx gained also ground. About two thirds of homes are covered by cable technology providing at least 30 Mbps in most cases.

According to the information published by Magyar Telekom, 270 000 households were connected or upgraded to a broadband service in 2017 as part of its multiannual roll out strategy. In addition, by the end of 2018, Magyar Telekom aims to realise over 100 000 new broadband connections in white areas, co-financed by the broadband subsidy scheme in the frame of Superfast Internet Programme. Both Magyar Telekom and Invitel plan to deploy vectoring in the near future. UPC plans to roll out a fibre-to-the-home (FTTH) network throughout the territory of the numbering area 29, while gradually phasing out the former xDSL technology.

Fixed broadband market shares	HU-2016	HU-2017	EU-2017
Incumbent market share in fixed broadband	41.3%	40.7%	40.3%
Technology market shares			
DSL	29.2%	26.9%	64.2%
Cable	48.8%	49.2%	19.4%
FTTH/B	17.3%	19.6%	12.9%
Other	4.8%	4.3%	3.6%

Source: Communications Committee. Data as of July 2016 and July 2017.

The Hungarian fixed telephony market is characterised by intensive platform based competition, that is now overriding the legacy structures of earlier local telephony operators, originally created through a geographical division of the former state monopoly area into three concession areas. The infrastructure-based competition is best illustrated by the fact that two of the three local telephony operators (Invitel and Monortel) belong now to cable operators (DIGI and UPC respectively). These local operators remain leading operators in their area, where they are each designated as a significant market power (SMP), while outside their areas, they can challenge other operators without regulatory remedies. The former concession area of Magyar Telekom covers about two thirds of the area of Hungary including Budapest, while that of Invitel covers the remaining third, and the former concession area of UPC covers one numbering area (numbering area 29).

At the same time, the three incumbents' market shares have continued to decrease (slightly to 40.7%) over the past few years as they face increasing competitive pressure from cable operators, while cable operators are also increasingly competing against each other in urban areas. The five major cable operators (including the incumbents outside their SMP geographical areas) account for the vast majority of cable subscribers, and are further consolidating smaller providers. At the same time, associations enable smaller cable operators to benefit from economies of scale without giving up their legal independence (such as the National Broadcasters' Cluster, covering about 50 operators with over 140 000 households).

New entrants' DSL subscriptions by type of access (VDSL excluded)	HU-2016	HU-2017	EU-2017
Own network	-	-	0.5%
Full LLU	14.7%	12.6%	72.8%
Shared Access	0.1%	0.0%	4.1%
Bitstream	85.2%	87.3%	14.7%
Resale	-	-	7.8%

Source: Communications Committee. Data as of July 2016 and July 2017.

In 2017, the vast majority (87.3%) of new entrant DSL subscriptions were bitstream lines (further growth from 2016), while the 12.6% market share of full LLU is clearly below the EU average of 72.8%.

Fixed broadband prices	HU-2016	HU-2017	EU-2017
Fixed broadband price index [values between 0-100]	82	85	87

Source: Commission Services based on Fixed Broadband Prices in Europe (Empirica). Digital Economy and Society Index 2018.

b. Mobile market

Mobile market	HU-2016	HU-2017	EU-2017
Market share of market leader	44%	44%	35%
Market share of second largest operator	30%	29%	28%
Number of MNOs	3	3	-
Number of MVNOs	4	4	-
Market share of MVNO (SIM cards)	1%	1%	-

Source: Communications Committee. Data as of October 2016 and October 2017.

Despite earlier regulatory efforts to enhance competition by attracting new entrants, the Hungarian mobile market continues to show a rather stable market structure with three mobile network operators: the incumbent Magyar Telekom's subsidiary, and its competitors, Telenor and Vodafone. Cable operator DIGI, a potential new entrant into the mobile market, acquired further spectrum in 2016 but has not started to offer mobile services yet. Two new mobile virtual network operators (MVNOs) (UPC and Netfone) entered the mobile market in 2015, whereas Tesco Mobile left the market in April 2016. In 2017, cable operator TARR launched its MVNO offers.

Mobile broadband prices [EUR/PPP]	HU-2016	HU-2017	EU-2017
Least expensive offer for handset (1 GB + 300 calls basket)	€79	€62	€24
Least expensive offer for tablet and laptop (5 GB basket)	€24	€22	€17

Source: Mobile Broadband Price Study (Van Dijk and Empirica). Prices expressed in EUR/PPP, VAT included. Data as of February 2016 and February (handset) 2017 - July (tablet-laptop) 2017.

A major driver behind growing M2M take-up has been the mandatory introduction of online cash registers, which rely on a permanent roaming solution provided by mobile operators.

When assessing fixed-to-mobile substitution, National Media and Infocommunications Authority (NMHH) has consistently held that there is no convincing evidence as to the critical level in substitution. Concerning OTT substitution, the number of sent SMS messages significantly decreased between 2010 and 2016, although it increased in 2017 again. According to the data of the Hungarian Central Statistical Office, the number of sent SMS was 1 941.8 million in 2010, 1 780.4 million in 2016 and 1 873.9 in 2017. National surveys indicate a gradual switch-off from traditional SMS to online texting. Although, less than half (45%) of the Hungarian population (aged 14+) use chat applications on mobile phone, the

vast majority of them (83%) substitute SMSs with texting apps to some extent. Moreover, a significant increase was reported in the last two years.²

Regulatory developments

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

a. Spectrum

Hungary has assigned 61³% of the spectrum harmonised at EU level for wireless broadband, which is below the EU average of 70.21%. The current radio spectrum strategy of national regulatory authority was published in 2016 and covers the period of 2016-2020. Concerning the use of the 700 MHz band, NMHH launched a consultation (public hearing and a consultation paper) during the summer of 2017 and as a result of it the National Roadmap has been published⁴. No new award procedure took place in 2017, but in the course of the year, spectrum has been rearranged in the 3400-3800 MHz ("3.6 GHz band") frequency band on the request of the holders. In 2015, NMHH has approved a spectrum sharing agreement between Magyar Telekom and Telenor regarding 800 MHz telecommunications networks. This cooperation entails the collective use of spectrum for a limited period and location

In June 2017, the Government established a 5G Coalition consisting of various stakeholders from academia, vendors, and manufacturers, as well as network operators, regulatory authority and governmental players. The objective of the Coalition is to promote the rapid development and proliferation of 5G technologies in Hungary.

b. National and EU investment in broadband

The development of digital infrastructure is one of the pillars of Hungary's 2014-2020 national infocommunication strategy. This strategy was updated at the end of 2015 with the adoption of the Digital Success Programme and the launch of the Superfast Internet Programme. The Superfast Internet Programme aims to cover the whole country with NGA networks of at least 30 Mbps by the end of 2018. The programme started in 2016 with a mapping exercise to identify areas where telecom operators are expected to make the full investment on their own. For areas that are not economically viable, a €250 million State aid scheme has been developed to ensure broadband roll-out. The programme is co-funded from the European Structural Funds and by the Hungarian State, except for Budapest and its suburban area, for which only domestic resources will be used. The vast majority of projects under the Superfast Internet Programme will deploy FTTH technology, enabling speeds in line with the gigabit society targets.

To boost demand, the government has launched two initiatives directly affecting retail prices. First, a preferential VAT rate is applied to broadband subscriptions as of January 2017, with possible further reduction to 5% as of 1 January 2018. Second, a 'digital welfare basic tariff' trademark has been created. This targets non-users by offering them a basic broadband package (fixed or mobile) at a 10-15% price discount. While the newly constructed NGA and

² Electronic Communication Services Usage by Households and Individuals, 2017. Research Summary for the National Media and Infocommunications Authority (to be published soon)

³ This percentage slightly differs from the one used in the EDPR country profile following feedback from the authorities concerned and reflected in the above table.

⁴ http://english.nmhh.hu/document/190192/uhf_vhf_3_national_roadmap_eng.pdf

backhaul optical network sections are exempted from the infrastructure tax for 5 years, market players report that the various levies on the telecom sector may limit the capabilities of telecom operators to invest.

c. Implementation of the Broadband Cost Reduction Directive

Following the expiry of the deadline for transposing the Broadband Cost Reduction Directive⁵, the Commission opened infringement proceedings against Hungary for failure to notify transposition measures in March 2016. Since then, Hungary has adopted a series of measures to transpose the Directive. In particular, amendments were made to the primary legislation, such as Act C of 2003 on electronic communication, Act CXL of 2004 on Administrative Procedures, Act CLXXXV of 2010 (the Media Act), Act XXII of 2013 on the Hungarian Office for Energy and Public Utility regulation, as well as to several ministerial and government decrees. Following the notification of the complete transposition, the Commission closed the infringement proceedings in May 2017.

Authorisation proceedings and dispute resolution are vested with the NMHH, whereas the single information point is operated by a separate organisation, Lechner Nonprofit Ltd. The detailed rules for dispute resolution are laid down in an NMHH Decree.

In December 2017, the Government adopted a Decree to promote the roll out of mobile (4G and 5G) networks to underpin the national 5G strategy facilitating the planning and approval of network roll out.

3. Regulatory function

The National Media and Infocommunications Authority is a converged media and telecommunications regulator. As of 1 January 2017, the general consumer protection tasks were transferred to the State Secretariat for Infocommunication of the Ministry of National Development, following a major restructuring of agencies.

The markets included in the 2014 Recommendation on relevant markets are all subject to (at least partial) regulation in Hungary. There is also regulation of a market included in the 2007 Recommendation (call origination on fixed network) and of a market included in the 2003 Recommendation (broadcasting transmission services).

NMHH entered into significant delays with regard to the analysis of markets 3a, 3b and 4, thus the Commission launched an infringement proceeding against Hungary in October 2017.

In October 2017 NMHH notified to the Commission measures regarding markets 3a and 3b (wholesale local access provided at a fixed location and wholesale central access provided at a fixed location for mass-market products). NMHH identified six geographic areas matching the three SMP local telephony operators, each of the three former concession areas are divided into two submarkets. The more competitive submarkets include settlements (towns and villages) where at least two significant alternative operators has at least 15% market share each and 50% market share together, while the less competitive submarkets include all other settlements. In market 3a, the three regional SMP operators (Magyar Telekom, Invitel and UPC) have to provide: i) full and shared unbundled access to copper loops and sub-loops,

⁵ Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks (OJ L 155, 23.5.2014, p. 1).

including full access to unused copper loops and sub-loops; ii) unbundled access to fibre loops and access to dark fibre in case of point-to-point FTTH networks; iii) access to terminating segments in case of NGA networks (GPON FTTH networks and HFC networks), including access to unused terminating segments; iv) local L2 virtual wholesale access (VULA) on GPON fibre networks and copper networks with vectoring; and v) access to ducts and poles of their access networks. VULA has to be offered upon the request of an access seeker, after a negotiation process. In market 3b, the SMP operators are required to provide local bitstream access (in case VULA is not offered) and national bitstream access. On both markets backhaul services are available to facilitate the use of the access services.

The NRA still needs to address the delays accumulated in analysing market 4 (wholesale high-quality access provided at a fixed location).

NMHH decree No. 1//2016 on numbering management amended the national numbering plan and inter alia removed the so called blue numbers (NDC=40) that were shared cost numbers as of 1 January 2018.

The telecommunication sector in Hungary has been subject to extensive taxation and various levies in recent years that may limit the capabilities of telecom operators to invest⁶.

4. Consumer matters

In 2016, the government carried out a major restructuring of agencies, leading to the dismantling of the National Consumer Protection Authority from 1 January 2017 and the transfer of its tasks to the Ministry of National Development, specifically the State Secretariat for Infocommunication.

An amendment of the Act on Electronic Communications has been adopted to restrict binding contracts to 1 year maximum, and it contains detailed provisions on what contractual incentives can be reclaimed as of October 2017. Also, upon expiry of the binding period, the contracts continue for indefinite period and services have to be provided at the same rates and under conditions that are at least as favourable to the subscriber as before. The new provisions also foresee a free unlocking for devices following the expiry of the binding contract period at the request of the subscriber.

a. Roaming

Following the introduction of Roam Like at Home⁷ (RLAH) in June 2017, Hungarian subscribers consumed 1.5 times more voice and 4.6 times more data roaming services when travelling in the EU in summer 2017 compared to summer 2016⁸. Based on the findings of NMHH's monitoring activities, the President or the Office of NMHH may order roaming providers to terminate unlawful conduct or a breach of the official resolution and restore the situation that existed previously, if deemed necessary. According to Sections 48-49 of Act C

⁶ In February 2018, the European Court of Justice received a request for preliminary ruling from the Metropolitan Administrative Court on the compatibility of the special tax levied on electronic communication services with EU law see Case C-75/18 Vodafone

⁷ Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union (OJ L 172, 30.6.2012, p. 10), as amended by Regulation (EU) 2015/2120 and Regulation (EU) 2017/920.

⁸ Figures compare Q3/2017 with Q3/2016 retail roaming volumes according to the BEREC International Roaming Benchmark Report, April 2017-September 2017, published on 14 March 2018.

of 2003, NMHH could impose fines on the operator/managers for breaches of Laws and Regulations governing electronic communications services.

In the transitional period running until 14 June 2017, NMHH monitored roaming providers' compliance with EU roaming rules, in accordance with Articles 6e and 6f of Regulation (EU) 2015/2120. Since 15 June 2017, NMHH intervened in two potential cases of non-compliance, a time-limited add-on offer was only available domestically for tariff plans which otherwise were roaming enabled, and following exchanges, the operator decided to cease the offer. In another case, a 100 minute limit on incoming calls for pre-paid tariffs were introduced to prevent abusive usage of regulated retail roaming services. The operator agreed not to have recourse to this fair use policy term.

b. Net neutrality

In line with Article 6 of Regulation (EU) 2015/2120⁹ requiring Member States to lay down rules on penalties applicable to infringements of Articles 3, 4 and 5 and take all measures necessary to ensure that they are implemented, the Hungarian NRA can impose a wide range of penalties, as provided for in Act C of 2003 on electronic communication. Penalties range from a simple warning to fines of up to 0.5% of the annual revenue of the company concerned.

NMHH Decree 2/2015 laid down detailed rules for electronic communications subscriber agreements, that sets out transparency measures to ensure open internet access. The existing transparency regime concerning quality of service of internet access services is based on a 2012 NMHH recommendation proposing that major internet service providers commit to producing a unified, comparative service description table setting out the main parameters and traffic management procedures applied in their internet access packages. From 2015 onwards, all providers of internet access services are mandated to publish these tables. The transparency tables are available on internet service providers' websites and must be linked to from all locations of providers' websites where tariff packages are described.

In 2016, NMHH launched an investigation into mobile operators' practices regarding zero rated services. In the case of some operators' services, NMHH found that operators discriminated access to other services. In all cases, the decisions have been appealed and the second instance (NMHH president) upheld the first instance's decisions.

c. 112

Hungary is still developing its solution for callers with disabilities. The long awaited call centres are still unable to receive calls from users with disabilities, and the Commission services are now assessing the legal and factual situation to verify if Hungary has fulfilled its obligation under the EU law concerning 112. In addition to Hungarian, calls can be answered in English, German and in some cases in Romanian. In addition to 112, there are three other emergency numbers dedicated to emergency services.

⁹ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union (OJ L 310, 26.11.2015, p. 1).

d. Universal service

The current universal service¹⁰ regime was enacted in 2015 and entered into force in November 2015. In Hungary, universal service includes functional internet connection, fixed telephony services, directory enquiry services and directories, as well as public payphones. Magyar Telekom, Invitel and UPC have been designated as universal service providers on the geographical retail markets where they are SMPs, and were designated to provide access to fixed telephony network, public pay phones and directory information services in their relevant geographical areas. Invitel was appointed for the provision of national directory enquiry services.

5. Conclusion

In accordance with the Digital Success Programme and the Superfast Internet Programme, a number of initiatives targeting both fixed and mobile markets as well as demand are being implemented with a view to further increase coverage and take-up of broadband and NGA in Hungary, including in less profitable areas.

While the above initiatives targeting both fixed and mobile markets, as well as both demand and supply, aim at further increasing the coverage and take-up of broadband in Hungary, their effects may be mitigated by the fact that the telecommunication sector in Hungary was subject to extensive taxation and various levies in recent years that may limit the capabilities of telecom operators to invest, and that price competition in mobile broadband appears to be mitigated. Predictability of investment and competitive conditions could have been supported in recent years by more timely review of wholesale market regulation. NMHH accumulated in some cases even significant delays with regard to the analysis of the broadband markets 3a, 3b and 4, which led to the opening of infringement proceedings in October 2017. Following notifications of markets 3a and 3b in late 2017, the NRA still need to complete and notify the analysis of Market 4.

Hungary is still developing its solution for callers with disabilities to the single European emergency number 112, and the long awaited new 112 call centres are still unable to receive calls from users with disabilities.

¹⁰ Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (OJ L 108, 24.4.2002, p. 51).