North Macedonia (Republic of)

The Republic of North Macedonia is a small market of just over 2 million inhabitants and, as a European Union candidate country, largely aligned with EU regulatory frameworks. With a less developed fixed network, mobile is very important in the country and penetration rates are relatively high for mobile-cellular and increasing for mobile-broadband services.

Mobile services: Following the merger of North Macedonia's (Republic of) second and third operator in 2015, there are only two mobile network operators active on the market. Makedonski Telekom (MakTel), which is part of Deutsche Telekom since 2001, is the market leader.[340] The second operator, One.Vip, was formed by a merger between ONE (owned by Telekom Slovenije Group) and Vip (owned by Telekom Austria Group).[341] Mobile and fix number portability were introduce in 2008 and had a positive impact on competition, especially when porting fees were reduced. MVNOs entered the market in 2010. Mobile-broadband penetration is somewhat below the European average at 56 subscriptions per 100 inhabitants. 3G licences were first awarded in 2008 to MakTel and Vip (later to become one. Vip). At the end of 2013, LTE services were launched commercially. Almost the entire population of North Macedonia (Republic of) is covered by a 3G and LTE signal. Investments in LTE are ongoing, and coverage, capacity and uptake are expected to increase in the years to come. During 2017, both MakTel and one. Vip upgraded their LTE networks to 2CA/3CA and 4x4 MIMO technology.

Fixed services: Electronic communication services provided over fixed networks in North Macedonia (Republic of) are well developed but there is still plenty room for improvements. North Macedonia (Republic of) fixed-line market was formally liberalized in 2005, but the incumbent operator Makedonski Telekom AD Skopje continues to dominate the market. By the end of 2016, it had a 37 per cent share of the fixed-broadband access market. Competition is particular strong from cable operators and fixed wireless access providers. In 2016, One.Vip merged with its sister company Blizoo, a cable provider, to strengthen its position in the market. NGA networks which are capable of delivering at least 30Mbit/s cover about 50 per cent of all households in the country. Most predominant technologies for fixed NGA access are cable networks featuring DOCSIS 3.0 technology and FTTH networks. FTTH networks covered 27 cent of all households by the end of 2016, while cable networks with DOCSIS

Key indicators for North Macedonia (Republic of) (2017)		Europe	World
Fixed-telephone sub. per 100 inhab.	17.3	35.8	13.0
Mobile-cellular sub. per 100 inhab.	101.9	120.4	103.6
Active mobile-broadband sub. per 100 inhab.	63.9	85.9	61.9
3G coverage (% of population)	99.2	98.3	87.9
LTE/WiMAX coverage (% of population)	96.0	89.6	76.3
Individuals using the Internet (%)	*76.3*	77.2	48.6
Households with a computer (%)	*74.0*	78.6	47.1
Households with Internet access (%)	*75.7*	80.6	54.7
International bandwidth per Internet user (kbit/s)	*69.2*	117.5	76.6
Fixed-broadband sub. per 100 inhab.	18.6	30.4	13.6
Fixed-broadband sub. by speed tiers, % distribution			
-256 kbit/s to 2 Mbit/s	2.5	0.6	4.2
-2 to 10 Mbit/s	25.1	12.4	13.2
-equal to or above 10 Mbit/s	72.4	87.0	82.6

Note: Data in italics are ITU estimates. Source: ITU (as of June 2018).

30 covered almost 50 per centof the households in North Macedonia (Republic of).

Government policy: The Agency for Electronic Communications, North Macedonia (Republic of) independent regulator, was established in 2005 with the Law on Electronic Communications.[342] North Macedonia (Republic of) has been a candidate for EU membership since 2005 and thus aligned many of its regulations. Legislation in the telecommunication sector is based on the EU regulatory framework. All competitive safeguards were in place by 2009, including reference interconnection offers, number portability, carrier selection and pre-selection, wholesale line rental in the fixed voice market, local loop unbundling and wholesale broadband access in the fixed broadband market (EBRD, 2012c). The policy making body in the North Macedonia (Republic of) is the Ministry of Information Society and Administration. There are two major strategies in place to develop ICTs in the country: the National Strategy for the development of Electronic Communications with Information Technologies and the National Strategy for Information Society Development and Action Plan. Among its objectives are increasing the number of Internet users, the establishment of public e-services and the liberalization of the sector (Republic of North Macedonia, 2005).

Conclusion: The Republic of North Macedonia has undertaken important steps towards a competitive and modern telecommunication market. Mobile services are well developed and broadband is on the rise. Strategies are in place to further develop North Macedonia (Republic of) into a highly connected country.