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Europe's Digital Progress Report 2017

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Europe's Digital Progress Report (2017)

Telecoms chapter

BULGARIA

1.	Competitive environment

Coverage	BG-2015	BG-2016	EU-2016
Fixed broadband coverage (total)	95%	95%	98%
Fixed broadband coverage (rural)	81%	81%	93%
Fixed NGA coverage (total)	72%	74%	76%
Fixed NGA coverage (rural)	17%	17%	40%
4G coverage (average of operators)	no data	66%	84%

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

Fixed broadband market

The total coverage of fixed broadband networks in Bulgaria remains unchanged at 95% of households, slightly below the EU average (98%). However, fixed broadband coverage in rural areas remains significantly below the EU average (81% versus 93%). Networks capable of providing at least 30 Mbps (next-generation access (NGA)) are available to almost three quarters (74%) of Bulgarian homes, slightly below the EU average (76%). Nevertheless, rural areas remain poorly covered (17%), at 40% the figure is well below the EU average. On 4G coverage Bulgaria is lagging behind the EU average (84%) at just 66%. The lowest fixed broadband price (12-30 Mbps, or above) is €12.13. This is the second lowest price in the EU, in contrast to the EU average of €21.33. The lowest price in the EU is €11.42[1]. By contrast, Bulgaria has made remarkable progress on fixed NGA coverage in total, reaching more than 50 % of FTTH/B coverage. Nevertheless, because other EU countries are progressing faster for most of the other indicators, Bulgaria is in a group of countries displaying rather slow development.

New entrants' DSL subscriptions by type of access (VDSL excluded)	BG-2015	BG-2016	EU-2016
Own network	-	-	0.7%
Full LLU	-	-	75.3%
Shared access	-	-	4.1%
Bitstream	-	-	13.4%
Resale	-	-	6.6%

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

Charges of Local Loop Unbundling (monthly average total cost in €)	BG-2015	BG-2016	EU-2016
Full LLU	8.5	8.5	9.2
Shared Access	4.3	4.3	2.4

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

Fixed broadband market shares	BG-2015	BG-2016	EU-2016
Incumbent market share in fixed broadband	24.3%	25.1%	40.7%
Technology market shares			
DSL	14.3%	12.1%	66.8%

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[1] Source: Fixed broadband prices in Europe in 2016 (Empirica). Prices expressed in EUR/PPP, VAT included. Data as of autumn 2016.

Cable	16.0%	16.9%	19.1%
FTTH/B	42.2%	47.3%	10.7%
Other	27.4%	23.8%	3.4%

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

Mobile market

Mobile market	BG-2015	BG-2016	EU-2016
Market share of market leader	39%	39%	34%
Market share of second largest operator	33%	33%	28%
Number of MNOs	5	5	-
Number of MVNOs	-	-	-
Market share of MVNO (SIM cards)	-	-	-

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

Mobile broadband prices	BG-2015	BG-2016	EU-2016
Least expensive offer for handset (1 GB + 300 calls basket)	32	60	30
Least expensive offer for tablet and laptop (5 GB basket)	15	22	18

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

According to the 2016 Mobile Broadband Price Study (Van Dijk), packages including mobile broadband on handsets in Bulgaria are significantly more expensive than in the EU-28 on average, costing almost double the EU average. The difference between Bulgarian and EU-28 average prices has even increased over the last year. Prices for mobile broadband on laptops and tablets are more in line with the EU-28 averages.

On fixed broadband, an individual seeking to subscribe to a fixed broadband connection must spend on average 1.7% of his/her income. This figure is higher than the EU average of 1.2%[2]. However, this could be the only reasons for the low take-up of fixed broadband in Bulgaria. Other reasons such as demographical, different social interest, consumers behaviour preferences for broadcasting products, or the relatively low levels of digital skills and aging population in some remote arias might better explain this state of play.

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

a. **Spectrum**

Harmonised band	MHz of spectrum assigned[3]	% of the harmonised spectrum assigned
700 MHz	0	0
800 MHz	0	0
900 MHz	70	100%
1500 MHz	0	0

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[2] Source: Communications Committee. Data as of July 2015 and July 2016.
[3] Including guard bands.

1800 MHz	150	100%
2000 MHz paired	90	75%
2600 MHz	0	0
3400-3600 MHz	0	0
3600-3800 MHz	0	0

Only 28% of the spectrum harmonised at EU level for broadband use (including the 700 MHz band) has been assigned.[4] The total assigned spectrum excluding the unpaired 2 GHz band is 310 MHz, compared to the EU average of 737.8 MHz. This is partially due to delays in making some crucial spectrum below 1 GHz available for electronic communication services, combined with the lack of commercial interest for some other frequency bands. The entire 3600-3800 MHz band is still awaiting assignment due to lack of demand. The same is true for the 1500 MHz and 2600 MHz bands. Regarding the 3400-3600 MHz band, the percentage has decreased since 2015 as a result of the expiration of the rights of use of spectrum in this range.

In Bulgaria the 800 MHz frequency band is currently reserved for use by the Ministry of Defence (particularly the Bulgarian Air Force). As a follow-up to the study of options for spectrum sharing and spectrum refarming in the 800 MHz band carried out in 2016, Bulgaria designated in October 2016 2x10 MHz in the 800 MHz band for terrestrial networks capable of providing electronic communications services (811-821 and 852-862 MHz). The rest remains for military use. They are subject to tests to determine the compatibility of civil terrestrial networks in bands 811-821 MHz and 852-862 MHz and military radio electronic equipment in adjacent bands before the channels recently made available are auctioned.

Currently with regard to the 700 MHz band, similar to the 800 MHz band, a small part is used for Digital Video Broadcasting- Terrestrial (DVB-T) and the remaining part is used for national security purposes. A study into the possible reallocation of some recently withdrawn licences for DVB-T is ongoing. In 2016 a dedicated working group was created to: prepare an analysis and proposals for further action to align to the harmonisation of the 700 MHz band; prepare a national roadmap; and envisage identification of alternative spectrum resources for DVB-T needs.

So far, the working group analyses scenarios, in which the 2x20 MHz in the 700 MHz band (703-723 and 758-778 MHz) for wireless services and the 2x5 MHz (698-703 MHz and 753-758 MHz) for PPDR be released from 30 June 2020. More concretely, the Communications Regulation Commission (CRC), Bulgaria's national regulatory authority (NRA), has taken steps to optimise the 470-694 MHz band for terrestrial broadcasting. In parallel, the Ministry of Defence is preparing an analysis and proposal for gradual release of the spectrum used for defence purposes. In this regard, the CRC has taken action on re-planning and coordination of allotment/frequency assignment from Ge`06 in bands below 700 MHz.

     b.   **EU and national investments in broadband**

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[4] 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.

Bulgaria's 2014 broadband strategy, the 'National Broadband Infrastructure for Next Generation Access Plan' (NBP), set the following broadband targets in line with the digital agenda for Europe: 100% coverage with 30 Mbps by 2020; 50% take-up rate for 100 Mbps.

Bulgaria is also aiming for 80% take-up rate for 100 Mbps in the business segment by 2020. There are no separate regional or municipal broadband plans. Due to important ongoing internal adjustment discussions and the uncertain political situation in the country, the implementation of the wide broadband deployment project co-financed by the European Agricultural Fund for Rural Development (EAFRD) has not started yet as planned in the national broadband plan and its roadmap. The Roadmap roughly establishes the timeframe 2015-2020 for the development of the project. As DG AGRI approved the ex-ante regarding Broadband in October 2016, the Bulgarian authorities have just started the activities for the roll-out of the project. In this regard, meetings were held between stakeholders to define the exact scope of the measure and the locations that will be affected. Currently, under the rules of Regional Development Plan, an ordinance for the implementation of Sub-measure 7.3 Broadband Infrastructure is under preparation.

Bulgaria's broadband plan has six investment priority areas. These reflect its broadband target structure and envisage different measures for 'white', 'grey' and 'black' areas. In terms of investments, the Bulgarian NBP earmarks approximately €120 million for white areas and about €27 million for grey areas. Network deployment techniques will depend on population density. According to the eGovernance agency, municipal development plans do not address broadband. An extensive and detailed roadmap has been developed in order to implement the NBP more effectively. At the end of July 2016, Bulgaria had an NGA broadband coverage (> 30Mbps) rate of 74% of households.[5] However, according to the Digital Agenda Scoreboard coverage was only 17% in rural areas, which is below the EU average rate of 40%. All in all, Bulgaria's NBP highlights the importance of private investments in order to achieve countrywide roll-out of high-end ICT infrastructure.

Bulgaria's NGA network has continued to grow progressively since December 2015, when the country completed its first NGA broadband co-financed by the 2007-2013 European Regional Development Fund. Bulgaria has also allocated €30 million for the roll-out of further NGA broadband under the EAFRD (2014-2020). Bulgaria aims to further reduce building costs for NGA broadband infrastructure by combining them with the costs of road rehabilitation and other priority infrastructure projects, thus giving the EAFRD funding a multiplier effect.

Participants from Bulgaria have submitted a remarkable number of projects (five in total) under the Connected Communities Initiative[6] (CCI), a joint partnership between the European Commission and the World Bank providing technical assistance to European broadband project promoters. It is, however, clear that while the best Connected Communities projects are expected to be eligible for funding from Connecting Europe Facility, the European Fund for Strategic Investments (EFSI) and possibly other sources of financing, it is highly likely that it will be essential to combine private financing and financial instruments with European, national and municipal grants in order to achieve the NBP goals.

The current NBP acknowledges the problem of a digital divide, but still prioritises the development of cable networks mainly available in urban areas. However, the second priority focuses on FTTx networks in 'white' and 'grey' areas to address the digital divide. The NBP tries to establish PPP-models to mitigate risk for deployment within rural areas, albeit with

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[5] Source: Communications Committee. Data as of July 2015 and July 2016.
[6] https://ec.europa.eu/digital-single-market/news/connected-communities-initiative

mixed results. Bulgaria's NBP stresses the importance of local actors, but on this point there seems to be room for improvement. Cooperation between local municipalities in order to aggregate demand is not happening on a large scale.

Antene Kom's 2016 study on NBPs in the EU reports that costs of deployment should come down, in order to decrease the digital divide. Considering the comparatively high prices for NGA access, the tax deductions put in place might not be sufficient to encourage a larger proportion of households to take up higher bandwidths. Also, additional measures are needed to increase customers' interest. Although Bulgaria has in place a substantial plan for broadband development, it will have to make additional efforts in the future.

c. State of transposition of the Broadband Cost reduction Directive

Following the expiry on 1 January 2016 of the deadline for transposing the Broadband Cost Reduction Directive, the Commission opened infringement proceedings against Bulgaria for failure to notify transposition measures. Five pieces of national legislation transposing the Directive have already been adopted, namely: the Law on spatial planning; the Law on access to public information; the Procedural Administrative Code; the Law on electronic communications; an Ordinance for rules and standards for design, construction and commissioning of cable electronic communications networks and associated infrastructure.

Finalisation of the remaining national measures, in particular the Law on electronic communications networks and physical infrastructures, is still ongoing and has been delayed due to the uncertain political situation in the country. In the meantime, the Ministry of Transport, Information Technology and Communications has undertaken preparatory steps for the establishment of the Single Information Point in accordance with Article 4 of the Broadband Cost Reduction Directive.

3. Regulatory function

Following the Commission's investigation into delays in conducting market analysis for regulated markets, for which more than 3 years had passed since the previous analysis expired, the NRA has addressed all remaining notifications. During 2016, market 4 from the 2014 Recommendation on wholesale high-quality access, market 1 on access to PSTN for residential and non-residential customers and market 2 on call origination on the public telephone network provided at a fixed location from the 2007 Recommendation as well as markets 3, 4, 5 and 6 on publicly available local and/or national and international telephone services provided at a fixed location for residential and non-residential customers from the 2003 Recommendation were found to be effectively competitive and hence deregulated. Only three markets are still regulated in Bulgaria, namely markets 1, 2, 3a the 2014 Recommendation.

In 2016, the Commission registered 11 notifications from the CRC concerning the following markets: market 1 (two notifications), market 2 (two notifications), market 4 from the 2014 Recommendation on relevant markets; markets 1 and 2 from the 2007 Recommendation; markets 3, 4, 5 and 6 from the 2003 Recommendation.

Bulgaria complies with the 2009 Termination Rates Recommendation for both fixed and mobile termination rates, which are based on a pure BULRIC price cost methodology. In 2016 the fixed termination rates cap amounted to €0.2556 per minute whereas the mobile

termination rates cap was €0.9715 per minute[7] compared to EU-28 average of €0.0010435 per minute. By 1 December 2016 the mobile termination rates had experienced a decrease and are currently fixed at €0.7158 per minute for the period 2017-2020. As of 1st November 2016 the fixed termination rates were also decreased to €0.0767 per minute until 31 December 2018 and to €0.0716 per minute for the period 2019-2020.

4.   Consumer issues

Portability

	Number portability	2015	2016
Fixed	Number of transactions *[1]*	58,859	47,494
	% of total numbers *[1]*	3%	2.6%
	Maximum wholesale price *[2]*	9	9
	Maximum time under regulation (number of working days) *[2]*	2	2
Mobil	Number of transactions *[1]*	246,016	300,824
	% of total numbers *[1]*	2.2%	2.7%
	Maximum wholesale price *[2]*	9	9
	Maximum time under regulation (number of working days) *[2]*	2	2

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

According to the 2016 Consumer Markets Scoreboard[8], overall consumer satisfaction in Bulgaria with electronic communications services rose slightly between 2013 and 2015. The specific figures were as follows: electronic products (+1.5 %); TV subscription (+4.3 %); internet provision (+3.2 %); fixed telephony services (+0.5 %); mobile telephony services (+2.5 %).)

During 2016, the NRA investigated some problems reported by consumers on penalties related to the termination of contracts. Some unlawful commercial practices related to SMS games and debt collector firms were also addressed.

Bundles

The total proportion of bundles in Bulgaria is 41%, where in EU the figure is 50%[9]. A bundle in Bulgaria is most likely to include internet access (33% versus 40% in EU), followed by television (32% versus 27% in EU) and by fixed telephony (8% versus 32% in EU). Mobile telephony is included in the bundle for 19% (EU average: 23%). The uptake of mobile in

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[7] Source: BEREC Report BoR(16)218 July 2016.
[8] http://ec.europa.eu/consumers/consumer_evidence/consumer_scoreboards/12_edition/index_en.htm.
[9] Source: Eurobarometer survey N°438 10/2015.

bundles confirms the fixed-mobile convergence trend in the electronic communications market.

Transparency

With complex products on the market such as double, triple and quadruple play or traffic bundles providing for specific data usage consumption, consumer perception of transparency and clarity of contracts is increasingly important. Like 86% of EU citizens, 82% of Bulgarian consumers think it is essential to guarantee the same level of consumer protection, data protection and security when using over-the-top services. The vast majority of consumers (90%) think that number portability is an essential issue.

The 2015 Eurobarometer survey shows that Bulgarian consumers: can easily compare bundle offers (82%, third in the EU); think it is easier to monitor usage for mobile (76%, EU average 78%) than for fixed (57%, EU average 71%); show a good level of satisfaction with regard to contract information (12% unsatisfied, EU average 16%).

Roaming

Since 30 April 2016, the Roaming Regulation (EU) No 531/2012, as amended in 2015, provides for a default reduced transition retail price ('Roam Like At Home+', or 'RLAH+'). When the Roaming Regulation is breached, the CRC can fine operators that do not comply with it. Besides imposing fines, CRC also can prohibit offers which do not comply with the Regulation. So far, no regulated roaming service provided by Bulgarian operators has been identified as being non-compliant with the current roaming rules. In the event of non-compliance, the CRC's first step would be to notify the relevant roaming supplier and require the supplier to immediately bring its practice back in line with the current roaming rules.

On 27 December 2016, Bulgaria published a Law amending the Law on Electronic Communications laying down administrative fines for infringements of certain articles of Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union[10]. The associated fines are as follows: up to €1,000,000 for infringements of Articles 3, 6e(1), 7, 9 and 12; up to €50,000 for infringements of Articles 4, 5(1), 6e(3) and (4), 11, 14 and 15.

The average retail Eurotariff price for roaming is €0.110 (EU average €0.112) per minute for outgoing calls and €0.040 per minute for incoming calls (EU average €0.026). The alternative tariffs are cheaper for outgoing calls made and more expensive for incoming calls: €0.049 per text message (EU average €0.048) and €0.057 per MB, generally close to the EU average of €0.047 per MB for data[11]. In particular, the prices dropped significantly in the first quarter of 2016. Roaming prices for neighbouring non-EU countries (Serbia, Macedonia and Turkey) are considerably higher.

Net neutrality

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[10] 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) amended by Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015.
[11] International Roaming BEREC Benchmark Data Report October 2015- March 2016 BoR(16)160.

Bulgaria has adopted a bill amending the Law on electronic communications in order to transpose the requirements on penalties in Regulation (EC) No 2015/2120 that was published in the State Gazette on 27 December 2016. The deadline to notify the Commission of these rules and measures was 30 April 2016. Bulgarian authorities notified these measures on 13 March 2017. In particular the Law lays down penalties for infringements of Articles 3, 4 and 5 of the Regulation. The maximum fines are: up to €100,000 for certain infringements of Article 3(3) (for traffic management practices); up to €2,500 for Article 4 (not providing the information in the contract); up to €20,000 for Article 5(1) and (2) (specific requirements imposed by the NRA and not providing information to the NRA).

The NRA is working on implementing the general requirements of the BEREC Guidelines. It does not envisage any deviation from the guidelines or any additional provisions for monitoring, information and transparency requirements other than those included in Regulation (EU) 2015/2120. There are no ongoing investigations.

Universal service

The scope of the universal service is complete and includes: access to a network at a fixed location ensuring dial-up functional internet connection, comprehensive directory services, directory enquiry services and public payphones. 'Functional internet' is defined as requiring a download speed of 28.8 kbps. During round table discussions organised by the Bulgarian authorities at the end of 2016, stakeholders generally welcomed the idea of including basic broadband access in the universal service, combined with a compensation mechanism from the state budget. It was generally agreed that public payphones, directories and directory inquiry services are nowadays considered outdated and unnecessary. Further analyses are planned to determine the appropriate scope of the universal service, with the emphasis not on availability, but on the affordability of electronic communication services.

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

112 emergency number awareness in Bulgaria (89%) is significantly higher than for the EU as a whole (61%).[12] In 2016 the Commission investigated whether Bulgaria has correctly transposed and implemented Article 26(4) of the Universal Service Directive 2002/22/EC guaranteeing equivalent access for disabled end-users to emergency services and caller location delivery. Following this, the Law on national emergency call system using the Pan-European number 112 was amended in July 2016. The amended Law guarantees that people with hearing or speech disabilities can access the 112 number via the national emergency call system. Furthermore, the definition of 'emergency call' was changed to expressly include other ways besides voice calls for people with hearing or speech disabilities to make calls. To comply with the principle of technological neutrality, the wording in the bill is not tied to any specific technological solution. However, implementation is still ongoing and the envisaged technical solution is text messaging for people with speech and hearing impairments. The ordinance setting out the specifics of how this will be implemented is expected for the first half of 2017.

5.   Conclusion

Further spectrum release efforts continued in 2016, and as a result, 2x10 MHz were made available in the 800 MHz band. Moreover, in 2016 preliminary activities for launching the release of the so-called 'second digital dividend' (700 MHz) have started. The efforts in the

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[12] Source: Eurobarometer survey N°438 10/2015.

800 MHz and 700 MHz bands on the release of spectrum might have a strongly positive impact on the deployment of high-quality wireless broadband services in Bulgaria. In addition, deeper focus on deploying broadband in rural areas and on developing digital skills and digital services would benefit the country's overall connectivity, in particular for NGA coverage and take-up. Bulgaria still has to transpose the Broadband Cost Reduction Directive, which should improve and speed up broadband roll-out.