

Europe's Digital Progress Report - 2017

Telecoms chapter

POLAND

1. Competitive environment

Coverage	PL-2015	PL-2016	EU-2016
Fixed broadband coverage (total)	86%	86%	98%
Fixed broadband coverage (rural)	81%	82%	93%
Fixed NGA coverage (total)	61%	64%	76%
Fixed NGA coverage (rural)	34%	37%	40%
4G coverage (average of operators)	no data	91%	84%

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

Fixed broadband market

Rural next-generation access (NGA) coverage has improved since 2015. 37% of the rural population in Poland was covered by NGA, which is close to the EU average (40%)¹. 4G coverage was slightly above the EU average (91% versus 84%).

New entrants' DSL subscriptions by type of access (VDSL excluded)	PL-2015	PL-2016	EU-2016
Own network	37%	38%	0.7%
Full LLU	17.8%	18.3%	75.3%
Shared access	5.0%	4.7%	4.1%
Bitstream	39.5%	38.4%	13.4%
Resale	1.0%	0.6%	6.6%

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

Fixed broadband market shares	PL-2015	PL-2016	EU-2016
Incumbent market share in fixed broadband	30.4%	29.4%	40.7%
Technology market shares			
DSL	38.9%	37.0%	66.8%
Cable	33.6%	35.8%	19.1%
FTTH/B	4.8%	6.7%	10.7%
Other	22.7%	20.5%	3.4%

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

Charges of Local Loop Unbundling (monthly average total cost in €)	PL-2015	PL-2016	EU-2016
Full LLU	5.5	5.5	9.2
Shared access	1.7	1.7	2.4

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

Orange Polska (OPL, the incumbent) remains the biggest fixed and mobile operator and the biggest supplier of regulated services (fixed and mobile). In 2015, it still held a very strong position. For telephony provided at a fixed location, it has an 84% market share, compared to the second biggest operator who only has 3.5%, the third 2.7% and all the others, who between them have around 10%. For fixed internet the incumbent has a market share of

¹ As of October 2016.

49.6%, whereas the second biggest operator has 13.7%, the third 4.5% and all the others around 32% between them.

Cable operators have an important role to play on the telecommunications market, especially concerning fixed internet services and bundles. Regarding access to the network at a fixed location there are five cable TV operators among the nine firms with the greatest number of users. Their market share in fixed broadband increased to 35.8% in 2016.

There are signs of ongoing consolidation in the telecommunications market in Poland: in 2016, the largest cable TV operator in Poland signed an agreement to buy the country's third largest cable TV operator. However, the transaction can only be finalised if it is approved by the President of the Office for Competition and Consumer Protection (UOKiK).

Other forms of cooperation exist between traditional telecommunications operators and over-the-top (OTT)/content service providers, allowing subscribers to these networks to use OTT services to their advantage.

In 2016 the media reported on plans for an agreement between the two biggest operators (in terms of subscribers) to jointly construct optical fibre networks ('fibre-to-the-home' or FTTH) in Poland. The operators declared independently that in total they would invest PLN 2.6 billion in FTTH. The final decisions on this cooperation have not yet been taken.

Following the recent steady decline in subscriber numbers to the network at a fixed location, in autumn 2016 the Polish regulator UKE began a project to investigate the substitutability of fixed and mobile internet. The final results are expected by the end of 2017.

Vectoring technology is not applied in Poland. The incumbent (Orange Polska or OPL) carried out tests for vectoring, but it concluded that this technology was not economically feasible under the current conditions. There is no information about alternative operators having tested or used this technology on their networks.

The monthly average total cost of the Local Loop Unbundling (LLU) is lower in comparison with the EU average (€5.5 versus €9.2). Also the shared access cost is lower than at EU level (€1.7 versus €2.4). The lowest fixed broadband price (12-30 Mbps or above) is €15.11, compared to €21.33 at EU level².

Mobile market

While fixed broadband coverage remains among the lowest in the EU, mobile broadband coverage is above the EU average. Mobile broadband is developing well, including in long term evolution (LTE) services, whose coverage has continued to grow over the recent years.

Mobile market	PL-2015	PL-2016	EU-2016
Market share of market leader	27%	29%	34%
Market share of second largest operator	24%	26%	28%
Number of MNOs	8	5	-
Number of MVNOs	18	21	-
Market share of MVNO (SIM cards)	3%	4%	-

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

² Fixed broadband prices in Europe in 2016 (Empirica). Prices expressed in EUR/PPP, VAT included. Data as of autumn 2016.

On 23 June 2016 UKE issued all final spectrum assignment decisions in the 800 MHz and 2.6 GHz bands. This completed the spectrum assignment process launched in October 2014 for the 19 auctioned lots. The average price per 2x5MHz slot of 800MHz spectrum in the digital dividend auction in Poland reached €430 million.

In mid-2011, Orange and T-Mobile agreed to share their mobile communications networks in Poland, through a joint venture called 'Networks!'. On 6 December 2016, the parties signed an annex to the radio access network (RAN) sharing agreement, which expanded their existing cooperation to include the equipment operating on 800 MHz and 2600 MHz bands.

In 2016, a new mobile operator a2mobile, owned by the infrastructure operator AERO2, entered the market. It functions as the brand for AERO2. National roaming agreements by both a2mobile and any other mobile virtual network operators (MVNOs) are not regulated in Poland. MVNOs are not obliged to provide information on the content of the agreement, nor about who their roaming partners are.

In addition, in 2016 the new anti-terrorist law entered into force. A requirement under this law is the compulsory registration of all prepaid SIM cards by 1 February 2017. The main aim is to have all cards registered by the users.

New mobile services are emerging. In 2016 tests began on voice-over WiFi (VoWiFi) and voice-over LTE (VoLTE), as well as on the commercial provision of these services. Operators were also working on extending HD Voice services outside their own network. As a result such HD Voice services have become available between Orange Polska and Polkomtel.

Additional mobile services available are: access to games, music and print media through mobile devices, cloud computing, monitoring, internet banking and insurance.

Mobile broadband prices	PL-2015	PL-2016	EU-2016
Least expensive offer for handset (1 GB + 300 calls basket)	23	17	30
Least expensive offer for tablet and laptop (5 GB basket)	9	8	18

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

Bundled services are booming in Poland³. In 2014, there were around 3.75 million subscribers to these services. In 2015, the number of users increased by more than 2 million to reach 5.87 million in total. Households made up approximately 43% of this combined penetration. Poland has traditionally had packages with a TV service; these accounted for almost 49% of bundled services in 2015 with around 2.88 million subscribers.

³ Eurobarometer survey on bundles, http://www.eena.org/download.asp?item_id=177

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

a. Spectrum

Harmonised band	MHz spectrum assigned ⁴	% of the harmonised band assigned
700 MHz	-	0%
800 MHz	60	100%
900 MHz	70	100%
1500 MHz	-	0%
1800 MHz	150	100%
2000 MHz paired	120	100%
2600 MHz	190	100%
3400-3600 MHz	200	100%
3600-3800 MHz	198	99%

In Poland spectrum is assigned 100% in almost all bands (800 MHz, 900 MHz, 1800 MHz, 2000 MHz, 2600 MHz, and 3400-3600 MHz) and in 99% in 3600-3800 MHz. There is no assignment so far in the 700 MHz and 1500 MHz bands. This means that the total assignment of harmonised spectrum for broadband stands at 91%.

In 2016, following a long lasting auction process - the first ever in Poland for mobile use - spectrum in the 800 and 2600 MHz bands was eventually assigned to four mobile network operators. These assignments were made based on the results of the simultaneous multiple round ascending (SMRA) auction. The declared price was the sole criterion for assessing the auction.

The decision on reserving spectrum in the 800 MHz included the condition that the common usage of frequencies between operators may not exceed the total amount of 2x15 MHz.

Several operators in Poland have expressed concerns about the process and the result of the auction. The Commission is closely investigating the matter.

There were some cases involving the leasing (rental) of frequencies in the 3.6 GHz to 3.8 GHz band assigned to local governments to be used in cooperation with commercial partners, but the conditions of use and coverage commitments have not been altered.

There has been also an ongoing procedure for the renewal of frequency reservations in the 420 MHz and 450 MHz bands. In the 420 MHz band renewal of the frequency reservation has been issued. According to the Polish law, in that case a selection procedure should be launched.

⁴ Including guard bands.

Preparatory work on allocating the 700 MHz band has been ongoing. A public consultation to update the National Frequency Table (NFT), in accordance with the World Radiocommunication Conference (WRC), was launched in December 2016 and finished in February 2017.

While sufficient spectrum appears to be available, operators and industry representatives state that Poland has one of the strictest national limits on electromagnetic fields across the EU⁵. They claim that this is one of the main obstacles for investments in Poland, which might create additional burden for future 4G/5G roll-out. In Poland, mobile telephony transceivers and base station antenna systems should be designed, located and operated in a way to ensure that the level of the electromagnetic field does not exceed 0.1 W/m² or the intensity of the electric component does not exceed 7 V/m (for frequencies from 300 MHz to 300 GHz) in places 'accessible to the public'. The most serious impact of these low exposure limits is observed by mobile operators on the LTE roll-out in large urban areas. Moreover, some installations for network roll-out also require an environmental impact assessment⁶.

b. EU and national investments in broadband

On 7 January 2014, Poland adopted a National Broadband Plan (NBP, '*Polska Szerokopasmowa*'), which builds extensively on the Digital Agenda for Europe (DAE) targets. It envisages 100% coverage with 30 Mbps and 50% of households accessing broadband with 100 Mbps by 2020⁷. The plan assesses the size of public intervention based on the required investment and the chances of investment by the private sector. The NBP does not provide any intermediate objectives, with 2020 being the reference period. However, it is currently being updated so it can be aligned with the Communication on '*Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society*', issued in September 2016⁸.

Broadband infrastructure funding comes from both EU and state funds (State aid), as well as private investments. Poland's broadband plan states that EU monetary resources are made available through the operational programme 'Digital Poland' ('*Polska Cyfrowa*'), which runs from 2014 to 2020 and is operated by the Digital Poland Project Centre (CPPC).

The estimated investments in broadband infrastructure are approximately €1.03 billion, to be accompanied by possible private investments estimated at around €4 billion. Through the 'Digital Poland' programme, telecommunications companies will receive funds for the construction, extension or restructuring of broadband internet access and support for e-administration and e-services in collaboration with the local and central government administration.

The Polish government expects additional funding opportunities under the 'Connecting Europe Facility' (CEF). In addition, Poland's broadband strategy envisions funding through: a

⁵ GSMA study '*Arbitrary Radio Frequency exposure limits: Impact on 4G network deployment. Case studies: Brussels, Italy, Lithuania, Paris and Poland*', November 2014.

⁶ Regulation of the Council of Ministers of 9 November 2010 on the types of projects that may significantly affect the environment.

⁷ Relevant documents relating to Poland's national broadband roll-out plans: https://mac.gov.pl/files/narodowy_plan_szerokopasmowy_-_08.01.2014_przyjety_przez_rm.pdf

⁸ <https://ec.europa.eu/digital-single-market/en/news/communication-connectivity-competitive-digital-single-market-towards-european-gigabit-society>

long-term funding mechanism for developing broadband infrastructure from the *'Polish Investments'* programme; open pension funds; other investors interested in long-term infrastructure investments.

Despite having completed a number of tasks in its NBP, Poland is still far from achieving goals 2 and 3 of the European Digital Agenda. The main difficulties are related to geographic conditions that cause high costs in the developing of networks. In Poland there are many rural areas that are not attractive enough for operators to build up a solid business case for investment. Another factor impeding the implementation of the NBP's objectives is the lack of adequate demand for very high-speed networks (over 100 Mbps) which is accounting for the lack of private investments.

According to the Ministry of Digitalisation in Poland four projects have been submitted to the EU Task Force report. It is possible that further planned projects may be candidates for funding under the CEF or the European Fund for Strategic Investments (EFSI). Currently, Polish operators are mainly interested in receiving grants from 'Digital Poland'.

c. State of transposition of the Broadband Cost Reduction Directive

The deadline for transposing the Broadband Cost Reduction Directive (BB CRD) 2014/61/EU⁹ by EU Member States expired on 1 January 2016, which prompted the Commission to launch infringement proceedings against Poland in March 2016. The Directive was partially implemented into Polish law by an Act on 24 June 2016 which amended the Act of 7 May 2010 on support for the development of telecommunications network and services. This amending act completed the transposition. The amended rules entered into force on 1 July 2016, with the exception of the provisions on establishing the (single) Information Point for Telecommunications, which entered into force on 1 January 2017. Therefore the infringement procedure was closed. The Commission will check the compliance of the measures notified for the BB CRD.

3. Regulatory function

In 2016 UKE notified the Commission two market analyses: the market for wholesale local access provided at a fixed location (Market 3a/2014) which was withdrawn during the EU consultation; and the market for wholesale text messages (SMS) termination on individual mobile networks (deregulation).

UKE also consulted the amendments of previously imposed solutions in wholesale broadband markets (3a and 3b), and various changes of the reference offers.

Moreover, in 2016 UKE initiated the deregulation of the market for SMS termination in individual mobile networks. In August 2016 the draft regulations were notified to the European Commission and are now discussed with President of the Office for Competition and Consumer Protection (UOKiK).

In July 2013 UKE decided to set the mobile termination rates (MTRs) in line with the recommended methodology, as set out in 2009 Recommendation on Termination Rates. Therefore Poland has already adopted the pure 'bottom-up long-run incremental costs' (BU

⁹ 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.

LRIC) methodology for setting the MTRs. However, to date UKE has not implemented the recommended methodology for fixed termination rates (FTRs), which are still based on fully distributed costs. UKE is currently considering applying the recommended pure BU LRIC model also with regard to the FTRs.

The NGA Recommendation (regarding non-discrimination and cost methodology) has been incorporated into the regulatory decisions for market 3a and 3b, including UKE’s decision approving the content of the standard reference offer (‘SOR’, a reference offer covering multiple wholesale markets) of the incumbent. Tender SORs include: rules of access to the fibre terminating segment (local fibre loop); access to ducts and dark fibre for backhaul services; roof surface; poles, towers and masts.

Nevertheless, UKE has decided not to impose on the incumbent the recommended non-discrimination standard based on equivalence of input, neither for new infrastructures nor for legacy infrastructures. The level of investment risk is reflected in UKE’s decision of 17 February 2016 setting the weighted average cost of capital (WACC). The Recommendation’s approach to cost methodology was considered by UKE in its decision of 14 July 2016. However, for an interim period and until the cost calculation is verified, the incumbent sets the wholesale charges based on costs actually incurred (i.e. without corrections for potential inefficiencies).

UKE regularly monitors the situation on the relevant markets. In 2017, it should carry out reviews of markets where there is a delay over the time limits set out in the Framework Directive.

4. Consumer issues

Number portability

Number portability		2015	2016
Fixed	Number of transactions[1]	435,792	328,658
	% of total numbers[1]	7.0%	5.5%
	Maximum wholesale price[2]	3	2
	Maximum porting time (no. of working days) [2]	1	1
Mobile	Number of transactions[1]	1,598,826	1,439,912
	% of total numbers[1]	3.2%	2.9%
	Maximum wholesale price[2]	-	-
	Maximum porting time (no. of working days) [2]	1	1

[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 2016.

Transparency

Over the last year there have been no new mechanisms to strengthen tariff transparency (in terms of price or quality of service). Information for end-users on tariff transparency in contracts and price lists are available on the operators’ websites or telephone helplines contact

forms on the website or via the customer service offices of such a provider. Information must be accessible for all users.

The Polish market has various comparison tools allowing for price comparisons of telecommunication services both in fixed and mobile networks, as well as on access to TV services. These can be found on websites such as: (a) <http://www.telepolis.pl/porownywarkagsm,12,1,0.html>; (b) <http://www.cyfrowydoradca.pl/> and (c) <http://panwybierak.pl/>. The last one was awarded a certificate of the President of UKE for 2017.

Roaming

In the first quarter of 2016, just before the introduction of RLAH+, the average retail Eurotariff price for roaming was €0.069 per minute for outgoing calls (lower than the EEA average of €0.112 per minute) and €0.019 per minute for incoming calls (lower than the EEA average of €0.026 per minute). Alternative tariffs were cheaper both for outgoing calls (€0.038 per minute versus €0.138 per minute in the EEA) and for incoming calls (€0.013 per minute versus €0.046 per minute in the EEA). The average retail Eurotariff for text messages was €0.049 per text (close to the EEA average of €0.048 per text). For data, the price was €0.055 per Mb (still slightly above the EEA average of €0.047 per Mb)¹⁰.

For violation of the Roaming Regulation, UKE can impose penalties up to 3% of the revenue of the penalized entity up to a maximum amount of PLN 500,000 (which is around €118,000, according to the currency exchange as of 6 April 2017). In addition, penalties on the management and board members of the operator can be imposed separately up to 300% of their monthly remuneration.

Net neutrality

The obligations set out in Regulation (EU) 2015/2120 concerning open internet access are reflected in Poland in a self-regulatory measure, namely the Memorandum on informed decision-making by end-users of internet access services in public telecommunications networks.¹¹ In this agreement, which was concluded between the Minister of Digitalisation and telecommunications and mobile network operators (MNOs) on 29 March 2016, the operators committed to fulfil these obligations between 30 April and 31 December 2016. Poland has notified this Memorandum under Article 10(3) of the Regulation. There are no plans to adapt Polish law as the provisions on open internet access in Regulation (EU) 2015/2120 are directly applicable.

Poland notified to the Commission rules on penalties applicable to infringements of the open internet provisions in July 2016.¹² According to these provisions, UKE can impose penalties up to 3% of the revenue of the penalized entity—up to a maximum amount of PLN 500,000 (which is around €118,000, according to the currency exchange as of 6 April 2017). In

¹⁰ International Roaming BEREC Benchmark Data Report October 2015 - March 2016, BoR (16) 160.

¹¹ Document:

https://mc.gov.pl/files/memorandum_na_rzecz_podejmowania_swiadomych_wyborow_przez_uzytkownikow_k.pdf; press release: <https://mc.gov.pl/aktualnosci/memorandum-na-rzecz-podejmowania-swiadomych-wyborow-przez-uzytkownikow-koncowych-uslugi>.

¹² The Act of 9 June 2016 amending the Act on support for the development of telecommunications networks and services and certain other acts amends Article 209 of the Polish Telecommunications Law Act of 16 July 2016, thus laying down penalties for infringements of the provisions of the Regulation (EU) 2015/2120 laid down in Article 209(29a).

addition, penalties on the management and board members of the operator can be imposed separately up to 300% of their monthly remuneration.

UKE does not impose general requirements under Article 5(1) of the Regulation. Such requirements may be imposed only on individual operators.

5. Conclusion

Poland has made significant progress on mobile broadband. However, more investment is needed in fixed broadband, mainly in rural areas. This could be financed from EU funds or State aid. Despite indications of increasing FTTP investments, there is a need for further intensive financing both from private investors and financial institutions. By combining funding from these sources with State aid funds, it is possible that Poland will improve its infrastructure and prepare itself for its digital future.