

DESI Report 2018

Telecoms chapter

Estonia

Market developments

1. Competitive environment

In December 2016, the Elisa Group (Estonia's second biggest operator, with a focus on mobile telephony) acquired AS Starman (the market leader in pay-TV). On 16 March 2017, the Estonian Competition Authority approved this transaction with which Elisa acquired 100 percent of the shares of AS Starman. As a result of the merger there is now a further competitor on the market, in addition to Telia, offering bundled mobile services, fixed internet and TV services.

a. Fixed Markets

Coverage	EE-2016	EE-2017	EU-2017
Fixed broadband coverage (total)	91%	89%	97%
Fixed broadband coverage (rural)	73%	73%	92%
Fixed NGA coverage (total)	79%	80%	80%
Fixed NGA coverage (rural)	36%	38%	47%
Ultrafast coverage (total)	no data	71%	58%
4G coverage (average of operators)	94%	96%	91%

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

Estonia's basic fixed broadband coverage is relatively low, primarily owing to low availability in rural areas. The observed slight decrease in fixed broadband coverage is mainly caused by the closing of wireless local loop services that used CDMA (Code Division Multiple Access) 450 technology. These wireless networks are taken over by mobile network data services. Most of the households that are covered in Estonia by NGA networks also have access to speeds of 100 Mbps or above. Ultrafast coverage in Estonia outperforms the EU average by 13 percentage points. Furthermore, Estonia has very high 4G coverage (96%).

Fixed broadband market shares	EE-2016	EE-2017	EU-2017
Incumbent market share in fixed broadband	58.4%	57.0%	40.3%
Technology market shares			
DSL	38.0%	34.8%	64.2%
Cable	22.2%	22.2%	19.4%
FTTH/B	34.9%	36.5%	12.9%
Other	5.0%	6.5%	3.6%

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

New entrants' DSL subscriptions by type of access (VDSL excluded)	EE-2016	EE-2017	EU-2017
Own network	100%	100%	0.5%
Full LLU	-	-	72.8%
Shared Access	-	-	4.1%
Bitstream	3.9%	-	14.7%
Resale	-	-	7.8%

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

In 2017, Telia's market share continued to be well above the EU average for incumbents' shares, even though a slight decrease can be noted compared to 2016. DSL ceased to be the predominant technology for fixed broadband access which is reflected by a catching up of access via FTTH/B and an increase in fixed wireless access lines. The incumbent controls almost all the DSL lines (98%), thus the market share of new entrants' DSL subscriptions is very low (2%).

Fixed broadband prices	EE-2016	EE-2017	EU-2017
Fixed broadband price index [values between 0-100]	83	85	87

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

b. Mobile market

Mobile broadband access is quite important in Estonia and 99% of the territory is covered by mobile broadband networks delivering speeds of 30 Mbps or above. 37% of the population can have access to ultrafast broadband with speeds of at least 100 Mbps.

Mobile broadband prices [EUR/PPP]	EE-2016	EE-2017	EU-2017
Least expensive offer for handset (1 GB + 300 calls basket)	€0	€3	€4
Least expensive offer for tablet and laptop (5 GB basket)	€7	€1	€7

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.

Mobile broadband services in Estonia are significantly cheaper than the EU average when combined with voice calls (almost half the price of EU average) as well as for mobile broadband connectivity over a laptop or tablet.

The use of bundled services continued to gain importance in 2017 and consumers were using bundles as follows: 96% of fixed telephone services, 93% of fixed broadband services, 85% of cable TV services, and 25% of mobile services.

Mobile market	EE-2016	EE-2017	EU-2017
Market share of market leader	43%	45%	35%
Market share of second largest operator	32%	32%	28%
Number of MNOs	3	3	-
Number of MVNOs	1	1	-
Market share of MVNO (SIM cards)	-	-	-

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

Regulatory developments

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

a. Spectrum

Estonia has assigned 89% of the EU harmonised spectrum available for electronic communications services, which is above average among the EU countries.

The 700 MHz band has been designated to mobile broadband on 5 October 2014 and digital television switched off their service on 1 July 2017. The public tender for licences in this band was still pending end of 2017 as it was not clear yet whether part of the 700 MHz band would

be used by the State for PPDR (Public Protection and Disaster Relief). The auction is aimed to be carried out during 2018. Furthermore, technical restrictions in some areas of the country are to be expected until certain issues relating to coordination with non-EU countries have been resolved.

As regards the 2.6 GHz band, a public tender was held from March to July 2017 in which all five licences (three 2x10 MHz FDD licences and two 20 MHz TDD licences) were granted.

Finally, with regard to the 3.4-3.8 GHz band, at the end of 2017, the Estonian NRA was preparing to launch a public consultation to collect information about the market expectations in the first half of 2018¹. After the analysis of the results of this consultation, the public tender conditions will be defined and laid down in a Ministerial decree.

Operators plan to test and deploy 5G in the 700 MHz and 3.6 GHz frequency bands in 2018-2019 and are currently carrying out trials for 5G, but no further plans are known to date.

b. National and EU investment in broadband

The national regulatory authority (NRA), the Estonian Technical Regulatory Authority (ETRA), has developed a website, www.netikaart.ee, which provides detailed information about fixed-line and mobile connectivity capabilities at household level. This website has been made publicly available in October 2017. The Estonian Electronic Communications Act includes an obligation for operators to share the data for the mapping and currently *netikaart* contains data of 95% of the market. This initiative helps to detect the white areas or market failure areas where no broadband is available.

Estonia's connectivity targets are to provide all residents with internet access above 30 Mbps and to achieve at least 60% household subscription rates for speeds above 100 Mbps by 2020. One key measure to achieve this is the "Estonian Wideband Infrastructure Network" (EstWin) project, launched by the Estonian Ministry of Economic Affairs and Communications in 2009. The objective of the project is to roll out 6 600 km of optical cables (backhaul) in rural areas and settlements with less than 10 000 inhabitants, where optical networks did not exist and are not planned by operators. The target is that by 2020, 98% of households, enterprises and institutions should be no further away than 1.5 km from the EstWin network and all existing network nodes should be connected with core networks. These networks are rolled out by non-profit organisations required to provide wholesale access on equal terms to all operators and public authorities. Approximately 85% of the project costs are financed by the European Regional Development Fund (ERDF) while the remaining 15% of network construction cost is co-financed by backhaul network operators.

The planned mid-term evaluation of Estonia's Digital Agenda Strategy did not take place in 2017 due to the priority given to the Estonian presidency of the Council of the EU. The Estonian Ministry will instead focus on developing their new 2021-2027 strategy.

By the end of 2017, 5 300 km of backhaul network had been rolled-out and approximately 1 700 network nodes had been connected, 500 of them located in buildings belonging to local governments (schools, libraries etc.). Most of the remaining km will be built during 2018. The

¹ The Estonian NRA has launched this public consultation on 4 April 2018, asking communication operators for comments on the release of frequencies in the 3.4 to 3.8GHz band for broadband services, open until 30 April 2018.

Estonian government plans to carry out a public tender during 2018 to find a provider for the last mile access part in NGA white areas and is currently working out the conditions for this tender.

The tender will involve all regions of Estonia which have no access network at present and where the private sector is not planning to invest on its own. As businesses had already demonstrated interest in investing in the construction of a high-speed network, the government decided that they will announce a general public procurement open to companies which would cover all of Estonia with broadband, including sparsely-populated areas. The total size of the project is 20 million euros, of which 10 million euros will be invested in 2018.

c. Implementation of the Broadband Cost Reduction Directive

Directive 2014/61/EU² is transposed into national law in Estonia by an amendment to the Estonian Building Code and the Act implementing the Building Code and the Planning Act. These two Acts came into force on 1 January 2017. Some of the provisions however became applicable only as of May 2017. It is therefore still too early to see the impact of the measures. However, some interest was indicated by Estonian operators to make use of the rights established by the Broadband Cost Reduction Directive in the future, for instance as regards the sharing of physical infrastructure.

The Ministry of Economic Affairs and Communications is the body performing the functions of the single information point which is called "register of construction works" in Estonia. This register contains information on civil works, however not on existing infrastructure nor on permits. The Estonian Technical Regulatory Authority (ETRA) is assigned the tasks of the dispute settlement body, but so far, no disputes under the Broadband Cost Reduction Directive have been referred to it yet.

3. Regulatory function

Two regulatory decisions were notified to the European Commission in 2017.

The first one³ concerns an update of remedies in market 2 of the 2014 Recommendation (wholesale voice call termination on individual mobile networks). ETRA had previously defined the relevant market designating Telia Eesti AS, Elisa Eesti AS and Tele2 Eesti AS as having significant market power in the wholesale voice call termination markets in their respective individual mobile networks, irrespective of the technology used (i.e. 2G, 3G and 4G). The companies mentioned are the only ones that have control of call termination services in a mobile telephone network in Estonia. The following obligations are imposed on the SMP operators: access, non-discrimination, transparency (including the publication of a reference offer for interconnection), and price control.

By the notified draft measure, ETRA proposed to update the benchmark with the most recent available results of pure BU-LRIC calculations of other NRAs (published in December 2016, BEREC BoR (16)218). Consequently ETRA proposed to set the MTRs for the period 1 July

² 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.

³ Notification of 6 March 2017, Case EE/2017/1969.

2017 – 30 June 2018 at the level of €0.089/min (decline of 3.3% compared to the previous rate). The Commission did not make comments to this notification.

The second notification⁴ concerns new market analyses for markets 3a and 3b of the 2014 Recommendation (the markets for wholesale local access provided at a fixed location, and for wholesale central access for mass-market products provided at fixed location).

The relevant product market for market 3a is defined by ETRA as comprising both fibre-optic and copper-pair access services. Supporting services (including collocation, shared use of cable ducting and buildings) are also considered to be part of the relevant market, provided that they are necessary for the use of the relevant wholesale services. For market 3b, the relevant product market is defined by ETRA as comprising bitstream services provided over copper, fibre and cable, together with access support services. Both relevant geographic markets are national in scope.

ETRA proposed to designate Telia as holding SMP in both markets 3a and 3b in view of its retail and wholesale market shares, extensive infrastructure difficult to duplicate, and strong vertical integration, together with high barriers to entry and lack of countervailing buyer power and to impose on Telia the following obligations: (i) access; (ii) non-discrimination; (iii) transparency; (iv) cost accounting separation; and (v) cost-oriented prices.

ETRA proposed to continue applying cost-oriented prices for both copper and fibre based on the top-down fully distributed historical costs (TD HC FDC) methodology.

ETRA considered that it is very likely that Telia's copper pair access fees would rise considerably, if computed with a current cost accounting method, which in turn would lead to an even more rapid decline of the copper pair access services volumes. ETRA added that as competition is so intense in the Estonian fixed and mobile retail broadband markets, it is unlikely that the operators' network structure (including Telia's) contains significant inefficiencies that a bottom-up model could correct.

As to the proposed cost-orientation for fibre products, ETRA put forward that the Estonian broadband retail market is quite competitive and that the safeguards contained in the Recommendation on Non-discrimination and Costing would unreasonably restrict the SMP operator in developing new retail services without delay.

Upon examination of the notification, the Commission put forward comments on the TD HC FDC cost methodology and on the geographic scope of the market.

Regarding the copper access price, the Commission asked ETRA at the occasion of the next market review to re-assess the need to impose cost-orientation on the local access market, and to develop a new price setting method in line with the Recommendation on Non-Discrimination and Costing, if appropriate.

On the price for fibre, the Commission asked ETRA to consider a more flexible means to price regulate fibre by implementing Equivalence of Input accompanied by other competitive safeguards, most notably a technical and economic replicability tests as proposed in the Recommendation on Non-discrimination and Costing. Pricing flexibility for fibre based broadband access products both at retail and wholesale level may in fact allow Telia to set the

⁴ Notification of 26 April 2017, Case EE/2017/1980 and Case EE/2017/1981.

appropriate price points and potentially improve Estonia's relatively low ultrafast broadband household penetration.

With regard to the geographic differentiation of the markets, as competition appears to develop more dynamically in specific geographic areas of Estonia, the Commission invited ETRA at the occasion of the next market review to collect data at a more granular level with a view to assess whether the definition of geographic sub-markets or the geographic differentiation of remedies would be more appropriate.

The European Commission asked ETRA to take the utmost account of its comments and authorised it to adopt the resulting draft measure.

The final adopted remedies remained almost unchanged compared to the ones under the previous market analysis with slightly enhanced transparency obligations on the SMP operator.

At the end of 2017, ETRA was carrying out an analysis of market 1 of the 2014 Recommendation (wholesale call termination on individual public telephone networks provided at a fixed location) and was planning to launch the domestic consultation beginning of 2018. This market analysis is expected to be notified to the European Commission in Q2 of 2018.

The next upcoming analysis concerns market 2 of the 2014 Recommendation (wholesale voice call termination on individual mobile networks) which will be carried out at the end of 2018.

4. Consumer matters

The Consumer Protection Board of Estonia received 455 written requests for explanations (in addition to 1 038 counselling sessions via phone or face-to-face) and the Consumer Disputes Committee received 96 complaints in 2017. This Committee is an independent and impartial unit that operates at the Consumer Protection Board and resolves disputes independently pursuant to the Consumer Protection Act and other legislation.

The Committee is competent to resolve domestic and cross-border consumer disputes initiated by the consumer and arising from contracts between consumers and traders, where one party is a trader whose place of establishment is in the Republic of Estonia. Resolving a dispute by the Consumer Disputes Committee is free of charge for the consumer and the undertaking and in most cases, the outcome will be reached within 90 days from the date the complaint proceeding was started.

The main sources of consumer complaints in the Consumer Disputes Committee in 2017 were, amongst others, related to pricing and billing, contractual penalties, quality of the services, roaming and mobile content services.

Since 2017, the Consumer Protection Board has a new department working on conformity issues of infotechnology devices. Furthermore, a new guidance document has been published by the Consumer Protection Board at the beginning of 2017 to raise consumers' awareness on what to pay attention to when concluding a communications service contract along with a shorter checklist about important contract terms.

a. Roaming

Following the introduction of Roam Like at Home⁵ (RLAH) in June 2017, Estonian subscribers consumed 1.4 times more voice and 2.9 times more data roaming services when travelling in the EU in summer 2017 compared to summer 2016⁶.

According to Article 6c of the Roaming Regulation, in specific and exceptional circumstances, with a view to ensuring the sustainability of its domestic charging model, a roaming provider may apply for authorisation to apply a surcharge. The Commission Implementing Regulation⁷ lays down detailed rules on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by a roaming provider for the purposes of that assessment.

In Estonia, Tele2, Elisa and Telia applied to the national regulator (ETRA) for a sustainability derogation which was granted for one year and allows them to continue apply a small surcharge on roaming consumption in order to avoid an increase in their domestic prices.

In spite of the derogations, mobile telephony packages which allow RLAH without being subject to a surcharge are available in Estonia. According to the last BEREC International Roaming Benchmark Report⁸, 85% of Estonian consumers benefit from RLAH, 2% are subject to the roaming surcharge due to the derogation, and 12% are on alternative tariffs⁹. In addition, in line with the Commission Implementing Regulation, when applied, the roaming surcharges are only to recover the costs and below the wholesale roaming price caps in place since 15 June 2017, which means a reduction by more than 85% of the roaming surcharge for data compared to prior that date.

In case of a breach of the Roaming Regulation, ETRA can impose fines on operators of up to € 200 according to the Electronic Communications Act, the Administrative Procedure Act and the Law Enforcement Act.

b. Net neutrality

Already for the second year in a row, Estonia ranked first worldwide (together with Iceland) in Internet freedom, according to the 2017 edition of a report from Freedom House titled "Freedom on the Net." The "Freedom on the Net" survey is divided into three categories scored between 0-100: obstacles to access, limits on content, and violations of user rights. The lower the score, the higher the internet freedom, making 0 the best and 100 the worst possible score. Estonia was scored six points in 2016 and 2017.

⁵ 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.

⁶ 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.

⁷ Commission Implementing Regulation (EU) 2016/2286 of 15 December 2016 laying down detailed rules on the application of fair use policy and on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by a roaming provider for the purposes of that assessment.

⁸ BEREC International Roaming Benchmark Report, April 2017-September 2017, published on 14 March 2018

⁹ 1% are subject to a roaming surcharge for not providing the residence/stable links.

According to the Freedom House report, Estonians have access to a wide range of content online, and very few resources are blocked or filtered by the government.

There appear not to have been particular concerns with regard to net neutrality in Estonia in 2017. The national regulator had investigated two zero-rated offers according to the BEREC guidelines¹⁰ which it found to be in compliance with the Regulation.

As regards penalties imposed under Article 6 of Regulation 2015/2120¹¹, ETRA is responsible for monitoring compliance with the requirements laid down in Articles 3, 4, 5 and 7 of the Regulation. The Electronic Communications Act, the Administrative Procedure Act and the Law Enforcement Act lay down rules and penalties of up to € 600.

c. 112

112 is the sole emergency number in Estonia, with contact points of all emergency services located in the premises of the Estonian Emergency Response Centre (EERC). Advanced Mobile Location (AML) has been available for Android phones since the summer of 2016. In over 80% of cases, calls made from Android phones are located with an accuracy of 50 metres or under. Hearing or speech-impaired users can use text messages to contact 112.

d. Universal Service

There are no universal service obligations¹² imposed in Estonia at the moment. Directories have been removed from the scope of universal service obligation in 2007, public payphones in 2010 and fixed telephone services in 2011. Broadband has never been included in the scope of universal service.

5. Conclusion

Estonia is known to be a frontrunner for mobile coverage and uptake. In 2017, it continued to expand its 4G mobile deployment and thereby remains amongst EU's top performers in this regard.

On the other hand, Estonia keeps lagging behind in fixed rural broadband coverage, and consequently the last mile project which is being launched in 2018 aims at increasing rural coverage. The Broadband Cost Reduction Directive, which has been implemented relatively recently in Estonia, could potentially deliver some results in the future, if use is made of its tools to share infrastructure and co-deploy.

¹⁰ BoR (16) 127.

¹¹ 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

¹² 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).