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**COMMISSION STAFF WORKING DOCUMENT**

**Europe's Digital Progress Report 2017**

# EU Digital Progress Report - 2017

## Telecoms chapter

### ESTONIA

#### 1.

#### Competitive environment

	EE-2015	EE-2016	EU-2016
Fixed broadband coverage (total)	87%	91%	98%
Fixed broadband coverage (rural)	73%	73%	93%
Fixed NGA coverage (total)	78%	79%	76%
Fixed NGA coverage (rural)	34%	36%	40%
4G coverage (average over all operators)	no data	94%	84%

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

#### Fixed broadband market

Estonia's basic fixed broadband coverage is relatively low (91% compared to the EU average of 98%), primarily owing to low availability in rural areas. Remarkably, next generation access (NGA) accounts for a large proportion of coverage (79% of households), even though NGA coverage in rural areas (36%) remains below the EU average of 40%. Estonia is performing well as regards assignment of harmonised spectrum, having assigned 80%. This has contributed to 4G coverage, which is very high at 94%.

Fixed broadband market shares	EE-2015	EE-2016	EU-2016
Incumbent market share in fixed broadband	57.7%	58.4%	40.7%
Technology market shares			
DSL	38.0%	38.0%	66.8%
Cable	21.9%	22.2%	19.1%
FTTH/B	33.6%	34.9%	10.7%
Other	6.5%	5.0%	3.4%

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

New entrants' DSL subscriptions by type of access (VDSL excluded)	EE-2015	EE-2016	EU-2016
Own network	84%	96%	0.7%
Full LLU	-	-	75.3%
Shared Access	-	-	4.1%
Bitstream	15.7%	3.9%	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 €)	EE-2015	EE-2016	EU-2016
Full LLU	5.1	4.9	9.2
Shared Access	5.9	5.7	2.4

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

The incumbent has one of the largest market shares of fixed broadband subscriptions in the EU (58.4% versus 40.7%, the EU average). It also has almost all the DSL lines (99%). DSL is

still the predominant technology for fixed broadband with 38%, however without much advance to FTTH/B which is well above the EU average (34.9% versus 10.7%), and this investment in FTTH/B is also led by the incumbent. The market share of new entrants' DSL subscriptions is very low (under 1%).

The cheapest price for fixed broadband (standalone offer, 12-30 Mbps or above) in Estonia is €14.04, compared to the EU average of €21.33.<sup>1</sup>

## Mobile market

Mobile broadband prices	EE-2015	EE-2016	EU-2016
Least expensive offer for handset (1 GB + 300 calls basket)	€13	€10	€30
Least expensive offer for tablet and laptop (5 GB basket)	€14	€7	€18

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

Overall, mobile broadband prices fell in Estonia in 2016.<sup>2</sup> Prices are well below the EU average, irrespective of the device on which broadband is used: the offer for the cheapest service (1 GB+300 min calls) is a third of the EU average (€10 versus €30). Similarly, the cheapest offer for tablet and laptop for a 5 GB service (€7) is less than half the EU average of €18.

Mobile market	EE-2015	EE-2016	EU-2016
Market share of market leader	39%	40%	34%
Market share of second largest operator	39%	40%	28%
Number of MNOs	3	3	-
Number of MVNOs	1	1	-
Market share of MVNO (SIM cards)	-	-	-

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

The number of mobile network operators and mobile virtual network operators remained constant between 2015 and 2016 with 3 operators and 1 operator respectively.

The market shares of the market leader and the second largest mobile operator remained almost unchanged between 2015 and 2016 and above the EU average (40% versus 34% EU average for the market leader and 40% versus 28% EU average for the second largest operator).

Since January 2016, AS EMT (a mobile operator) and Elion Ettevõtte AS (the fixed broadband incumbent), which merged in 2014, have been operating as a single brand, 'Telia', named after the Swedish Finnish mother company's name. Telia Eesti AS has the biggest market share in all categories: mobile, fixed, TV and broadband.

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

<sup>2</sup> Based on February 2016 price survey.

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). The competition authority's decision on this merger, which is still pending, was expected in early 2017<sup>3</sup>. The merger means there will be a further competitor on the market, in addition to Telia, offering bundled mobile services, fixed internet and TV services.

According to data from the national regulatory authority, in the third quarter of 2016 nine providers were offering bundled services, and customers were using bundled offers as follows: 95% of fixed telephone services; 89% of fixed broadband services; 83% of cable TV services; and 20% of mobile services.

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

### a. Spectrum

Harmonised bands	MHz spectrum assigned	% of the harmonised band assigned
700 MHz	0	0 %
800 MHz	60	100%
900 MHz	70	100%
1.5 GHz	0	0%
1.8 GHz	150	100%
2 GHz paired	120	100%
2.6 GHz	80	42.1%
3.4-3.6 GHz	190	95%
3.6-3.8 GHz	200	100%

Estonia has assigned 80% of the overall harmonised spectrum for wireless broadband, thereby superseding the EU average of 68%.

The 700 MHz band is expected to be allocated to mobile broadband on 1 July 2017. DVB-T will continue at a lower-frequency band (470-694 MHz). The public offer for licences in the 700 MHz band will be held in the second half of 2017. However, 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.

The first ever public offer for the 2500-2600 MHz band was held in 2010. One operator decided to return the 100 MHz spectrum resource to the state in 2014. Estonia is expected to hold a public auction in the first half of 2017.

<sup>3</sup> The Estonian Competition Authority has approved the transaction on 16 March 2017 in which Elisa will acquire 100 percent of the shares of AS Starman.

b.  
**broadband**

**EU and national investments in**

91% of Estonian households have broadband internet access, by comparison with the EU average of 98% (73% of households in rural areas, as compared with the EU average of 93%). The national regulatory authority (NRA), the Estonian Technical Regulatory Authority (ETRA), has developed a website, [www.netikaart.ee](http://www.netikaart.ee), which provides information about fixed-line and mobile connectivity capabilities at household level.

In 2016, Estonia continued to implement its 2014 ‘Digital Agenda 2020 for Estonia’, which aims to provide all residents with internet access above 30 Mbps and to achieve at least 60% household subscription rates for speeds above 100 Mbps. More generally, Estonia’s Digital Agenda is meant to provide guidance for creating a national information and communication technology (ICT) environment that operates effectively. Developing country-wide NGA networks is an essential aspect of this.

Estonia plans to evaluate the implementation of its strategy at the mid-term point, in 2017. Existing targets or instruments may then be updated in line with state-of-the-art developments.

One key measure is the EstWin project, launched in 2009, whose goal is to build a total of 6,600 km of backhaul networks in rural areas. The aim is to ensure that 98% of all households, businesses and institutions in Estonia are no further than 1.5 km from the nearest network access point. This project, led by the Estonian Ministry of Economic Affairs and Communications, involves only non-profit organisations required to provide wholesale access on equal terms to all operators and public authorities. By the end of 2016, roughly two thirds of the network had been built; about 4400 km of network cables had been deployed, with 950 km under construction. As regards funding, approximately 15% of network construction cost is co-financed by backhaul network operators, while approximately 85% of financing is covered by European Regional Development Fund (ERDF) funds.

So far, however, it appears that the last mile has not yet been deployed. In November 2016, the Estonian Ministry of Economic Affairs and Communications completed an analysis of the last mile high-speed connection.<sup>4</sup> It suggests building the last mile in rural areas using a mix of fibre-optic cables, copper pairs and different radio links (including mobile and fixed radio links)<sup>5</sup>.

c.  
**Broadband Cost Reduction Directive**

**State of transposition of the**

Following the expiry on 1 January 2016 of the deadline for transposing the Broadband Cost Reduction Directive, the Commission opened infringement proceedings against Estonia for failure to notify transposition measures. To transpose Directive 2014/61/EU into national law, Estonia then adopted 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.

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<sup>4</sup> In Estonian only: <https://www.mkm.ee/et/uudised/valmis-kiirete-andmesideuhenduste-viimase-miili-rajamise-analuus>.

<sup>5</sup> In February 2017, the government decided to develop a support scheme for building the last mile connections in order to provide high speed internet connections in market failure areas. The scheme is planned to come into operation in 2018 and 2019 with an overall budget of 20 million euros.

These Acts state that the Estonian Technical Regulatory Authority (ETRA) is to take on the functions of both the single information point and the national dispute settlement body. Estonia has availed itself of the exemptions provided for in Articles 4(7), 5(5), 6(5) and 8(4) of the Directive.

### 3.

### Regulatory function

In 2016 ETRA experienced a 10% cut in human resources. It employs 31 people.

Two regulatory decisions were notified to the European Commission in 2016. The first one concerns market 2 of the 2014 Recommendation (wholesale voice call termination on individual mobile networks), 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.

In the draft measure, the Estonian Competition Authority proposed that the following obligations be imposed on the SMP operators: access, non-discrimination, transparency (including the publication of a reference offer for interconnection), and price control.

As regards the price control remedy, ETRA proposed the termination rates be calculated through benchmarking, taking the average rate of EU countries and using standard BU-LRIC methodology. ETRA proposed taking the calculated average price of 0.92 euro cents per minute from 1 July 2016 to 30 June 2017.

After examining the notification, the Commission had comments concerning the use of methodologies other than the standard BU-LRIC approach.

Even though the outcome of ETRA's benchmarking approach does not exceed the average of the termination rates set by NRA's implementing the recommended cost methodology, the Commission questioned whether the benchmarking price of €0.92 represents a valid approximation of a price that would have been calculated with a standard BU-LRIC model under the specific circumstances of Estonia.

Taking into account the resources available to ETRA and the necessary proportionality considerations, the Commission therefore urged ETRA to develop its own BU-LRIC model as soon as possible, in line with the Termination Rates Recommendation (TRR). If necessary, it should request the support of BEREC or other regulators for this purpose.

The second notification concerned market 1 of the 2014 Recommendation (wholesale call termination on individual public telephone networks provided at a fixed location). ETRA proposed a new price cap for 2017, set at €0.096/minute. It calculates the FTR by benchmarking the pure BU-LRIC rates of those EU countries that have implemented the recommended cost methodology, in line with the TRR based on the latest BEREC benchmarking report. The proposed price cap is slightly lower than the previous one of €0.097/minute which applied in 2016. The Commission made no comments on this notification.

ETRA is currently carrying out market analyses for markets 3a (wholesale local access provided at a fixed location) and 3b (wholesale central access provided at a fixed location for mass-market products). The final decisions are to be taken in July 2017.

#### 4.

#### Consumer issues

##### *Number portability*

<b>Number portability</b>		EE-2015	EE-2016
Fixed	Number of transactions [1]	3,882	8,075
	Transactions as a % of total numbers [1]	0.5%	1.0%
	Maximum wholesale price [2]	-	-
	Maximum time under regulation (number of working days) [2]	0.01	0.01
Mobile	Number of transactions [1]	51,965	59,236
	Transactions as a % of total numbers [1]	0.9%	1.0%
	Maximum wholesale price [2]	-	-
	Maximum time under regulation (number of working days) [2]	0.01	0.01

[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.

As regards number portability, the number of transactions for fixed numbers more than doubled between 2015 and 2016 (from 3,882 to 8,075) while the number of transactions for mobile numbers only saw a slight increase (from 51,965 to 59,236). The maximum time it takes to port the number (both for fixed and for mobile) is 15 minutes and this time count starts when the communication contract with the new operator enters into force and the number is being activated with the new operator (on the agreed date and time for porting).

##### *Consumer complaints*

The number of written enquiries and complaints dropped in Estonia in 2016: there were 499 written enquiries to the Consumer Protection Board and 68 complaints to the Consumer Disputes Committee in 2016 in the field of electronic communications, compared with 568 and 92 respectively in 2015.

The main reasons for consumer complaints are: non-acceptance of bills; low quality of internet communications; problems with roaming terms in the contract; contractual penalties provided by communication undertakings; unilateral changes in contract terms; unfair contract terms; and unfair commercial practices.

An amendment to the Consumer Protection Act on 21 March 2016 brought some changes to the Consumer Complaints Committee, now known as the Consumer Disputes Committee. This independent three-member committee, set up under the auspices of the Consumer Protection Board, is responsible for dealing with disputes arising from contracts. It takes a non-binding decision within 90 days (previously 75 days) after accepting a consumer's petition. Traders failing to comply with the decision are listed on the Consumer Protection Board's website.

##### *Transparency*

The same amendment to the Consumer Protection Act also established the obligation for traders, including electronic communications providers, to provide consumers with an invoice



free of charge. It must be sent to the consumer's postal address or e-mail address, as specified by the consumer.

The Electronic Communications Act was amended on 13 June 2016 regarding unilateral changes made in the communications services contract. Before the change, service providers were allowed to publish the notice of unilateral changes on their webpage. This led to the problem of consumers being unaware of changes to their contract, and the Consumer Protection Board brought misdemeanour proceedings on grounds of unilateral changes against two operators in 2016. Now, after the amendment, the service provider is obliged to give the end-user a notice in the manner agreed on in the contract, for example by e-mail, by post or through the provider's electronic customer service environment.

The Consumer Protection Board has launched supervisory procedures against several service providers which consider that they can continue to apply standard terms providing for notice on their webpage and hence ignore the new rules.

### *Roaming retail prices<sup>6</sup>*

The average retail Eurotariff price in Q1 of 2016 was €0.186 per minute for roaming outgoing voice calls, and €0.033 for incoming calls. The average price for a Euro text message was €0.046. For data roaming services, the average retail data price per Mb was €0.020 in Q1 2016, reflecting a considerable decrease since Q4 2015 (€0.074). Roaming for voice calls remains above the EEA average: €0.120 for outgoing calls, and €0.026 for incoming calls in Q1 2016. Text messages and data roaming, on the other hand, cost less than the EEA average in Estonia: €0.048 for a text message, and €0.047 per Mb in Q1 2016.

In case of a breach of Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union ETRA can impose fines on operators of up to €3,200.

### *Net neutrality*

A distinguishing feature of the Estonian Digital Agenda strategy is that it also sets objectives with regard to mobile networks and the level of 'internet freedom'. One target is to achieve mobile internet access levels of over 80% throughout Estonia. Another is to make Estonia one of the top five countries worldwide as regards internet freedom (as measured by the Freedom House Survey's indicator 'Freedom on the Net').

As regards penalties imposed under Article 6 of Regulation 2015/2120, 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 €9,600. It remains to be seen whether such penalties will have a deterrent effect.

### *112 and access for disabled end-users to emergency services*

The 112 emergency line 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

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<sup>6</sup> Source: International Roaming BEREC Benchmark Data Report October 2015 — March 2016 BoR (16) 160.

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.

## **5.**

## **Conclusion**

Though generally performing well on connectivity, Estonia is still lagging behind with fixed-line broadband roll-out, particularly in rural areas. The successful conclusion of the EstWin project and the effective implementation of the Broadband Cost Reduction Directive in practice should have a very positive impact on the deployment of high-quality broadband services.