Estonia

1. DIGITAL AGENDA TARGETS AND ECONOMIC INDICATORS

Broadband Indicators (January 2014)[1]					
	Speed	**Estonia**		**EU Average**	
		Percentage (in %)	Growth (in %)[2]	Percentage (in %)	Growth (in %)
Fixed broadband coverage[3]	From 144 Kbps	87,3	0	97,1	2
	NGA[4]	73,9	21	61,8	15
Fixed broadband penetration[5]	From 144 Kbps	28,6	4	29,9	4
	From 30 Mbps	4,4	38	6,3	47
	From 100 Mbps	1,1	10	1,6	78
Mobile broadband coverage	Basic (HSPA)	99,9	15	97,1	1
	LTE	85,0	21	58,9	125
Mobile broadband penetration		91,0	6,7	61,1	5

The progress towards the achievement of the Digital Agenda targets has slowed down.

As of January 2013, the fixed broadband penetration from 144 Kbps slightly increased. Besides, the speed of progress in fixed broadband penetration over 2012 was at minimal level of 0,1%, compared to the EU average of 1% in the same period. On the other hand, the NGA lines as a percentage of total broadband lines increased to 36% in January 2013, above the EU average (20%) and NGA lines as a percentage of population reached 10% in January 2013 also above the EU average (6%). Mobile broadband remains the fastest growing segment in the market.

2. COMPETITIVENESS IN THE SECTOR

Revenues and investment in the electronic communications sector			
	2010	**2011**	**2012**
Revenues	€0,70 billion	€0,73 billion	€0,73 billion

[1] Source: coverage data: studies by IHS and VVA for 2013, and by Point Topic for 2012; penetration data: figures provided by Estonia to the European Commission via the EU Communications Committee (COCOM) for the Scoreboard of the Digital Agenda for Europe. For more information see http://ec.europa.eu/digital-agenda/en/scoreboard.

[2] Increase over the figure of a year earlier, expressed as a percentage. E.g. if there has been an increase from 20% in January 2013 to 30% in January 2014, that would be a 50% growth.

[3] Coverage is the availability of the network for those who want to subscribe to the service, as % of the population. See also the Glossary. Coverage data is from December 2013.

[4] NGA fixed broadband includes FttH, FttB, FttO, VDSL, Cable with Docsis 3.0 or higher, and other NGA. See also the Glossary.

[5] Penetration is the number of subscribed lines per 100 inhabitants. See the Glossary for a more detailed explanation.

Growth	N/A	3,9%	0,5%
Investment	€0,07 billion	€0,09 billion	€0,13 billion
Growth	N/A	27,2%	50,6%

A slight increase in revenues and investments was recorded in the electronic communications sector between 2010 and 2012.

3. MARKET DEVELOPMENTS

There are three major mobile network operators: EMT, Elisa and Tele2 Estonia. EMT led the Estonian mobile market at the end of 2013 with a 42% market share, stable year-on-year. Elisa's share grew by 1 percentage point, from 31% to 32%, while Tele2 Estonia dropped from 27% to 26%.

As far as the fixed network market is concerned, Elion is the incumbent. It should be noted that in 2013, a change on the Estonian telecommunications market was envisaged namely the potential merge between the mobile operator EMT and the fixed incumbent Elion. So far, this potential merge has not occurred.

In terms of market trends, it should be noted that Estonian customers prefer the use of mobile technologies over fixed network technologies. The Estonian market is characterised by a very high use of mobile technologies and the Internet. Indeed, 80% of Estonian households have Internet access.

Over the past years, Estonia has continued to implement its national broadband strategy, particularly by advancing the EstWin project. This project aims to ensure country-wide availability of broadband connections with at least 100 Mbps for nearly all Estonian households and businesses, including in rural and sparsely populated areas, by the end of 2018.

In the broadband market, the two main players are Elion and Starman. Over the last two years, their respective market shares evolved as follows: Elion: 56% in 2012 and 57% in 2013; Starman: 18% in 2012 and 20% in 2013.

In the fixed market, the incumbent Elion remains the leading operator. In October 2013, Elion estimated that it had a market share of 44,8% in fixed line TV services, and of 59% on the fixed internet market.

In July 2012, the bundled offer penetration amounted to 22%, an increase of 2% compared to the previous year. According to the data provided by the National Regulatory Authority, 10 providers offer bundled services and a large majority of customers are using services in bundled offers: 85% of all broadband services, 96% of all telephone services and 78 % of all cable TV services are used in bundles. Therefore, all main players in the market try to offer a full range of services to meet the demand of customers.

4. MARKET REGULATION

The Estonian Competition Authority[6] (ECA) took three main decisions:

On 15 March 2012, ECA notified its third market review for market 7 (Call termination on mobile networks). The decision cut mobile termination rates from 6,32 to 1,29 euro cents per minute, but, following the opening of a Phase II investigation by the European Commission, it was withdrawn on 17 April 2012 by ECA. A follow-up decision ensued on 11 July 2012, where it set out the pricing methodology for Mobile Termination Rates to be applied from 1 January 2013 until 30 June 2015. According to the proposed methodology, the average MTR was calculated according to the methodology stipulated in the Termination Rates Recommendation and implemented by NRAs across the EU (benchmark). The Commission made comments but did not open a Phase II investigation.

On 13 May 2013, the Estonian Competition Authority notified to the Commission draft measures concerning the markets for wholesale (physical) network infrastructure access and wholesale broadband access (respectively markets 4 and 5 in the Relevant Markets Recommendation list). These notifications were analysed under cases EE/2013/1453-1454. On 13 June 2013, the Commission, pursuant to article 7a of the Framework Directive, expressed its serious doubts as to the compatibility of the proposed measures with EU law ("Serious doubts letter").

On 11 September 2013, ECA submitted to the Commission an amended version of its draft measure. However, the Commission considered that, following BEREC's opinion, the tripartite discussions, and ECA's amendements to the draft measure, the reservations expressed in its serious doubts letter were still valid. Therefore, in October 2013, the Commission adopted a Recommendation in which it concluded that ECA should: (i) withdraw its drafted measures to impose regulated access prices based on a TD HC FDC methodology on markets 4 and 5; (ii) apply instead a cost accounting methodology complying with the Regulatory Framework and especially its policy goals and principles (i.e. in particular fostering investment into NGA); (iii) and that the recently published non-discrimination and costing Recommendation, to promote competition and enhance the broadband investment environment should be taken into account in any new measure. In November 2013, however, ECA adopted its final measures for markets 4 and 5, not following the Commission's Article 7a Recommendation.

5. BROADBAND PLANS AND FINANCING

Estonia is one of the four countries in the world that are covered with a nationwide 4G network. There are two nationwide 4G networks already in commercial use and the third nationwide network will be launched at the end of 2014.

The Estonian national broadband plan is an integral part of the Estonian Digital Society Strategy 2020. One of the key measures to foster broadband deployment is the Estwin project. This project is led by the Estonian Broadband Development Foundation (ELA) which was

[6] *Konkurentsiamet*.

founded by 8 major Estonian telecommunications companies: Elion, EMT, Elisa, Tele2, Levira, Ericsson, Eltel, and Televõrgu AS. The project has the following features:

The overall layout of the network was designed in 2009 and was based on the geographic location of the population and existing optical networks. A fibre middle-mile network is currently being built so that after completion 98% of all households in Estonia will be located no further than 1,5 km from the nearest network access point. In total, this requires laying about 6400 km of fibre-optic cables. For each local roll-out area, a detailed plan is drawn up that takes into account the location of houses, the requirements of local governments, telecommunications carriers, the location of the existing communication nodes, etc. These detailed plans are agreed with all parties. Currently, 2300 km of network cables have been deployed and completion of the entire EstWin Network is envisaged for 2018.

Last mile connections are established by the operators who offer Internet services to end-users. Today, main last mile technologies include xDSL, DOCSIS3, FTTx, 3.5G and 4G. As a general rule, it is expected that last mile segments are rolled out by telecom operators under market conditions. Approximately 15% of network construction cost is self-financed by Estonia, while approximately 85% of financing is covered by ERDF funds.

6. Institutional Issues

6.1. The National Regulatory Authority

Most of the responsibilities under the regulatory framework are performed by two regulatory authorities - the Estonian Competition Authority[7] (ECA) and the Estonian Technical Surveillance Authority[8] (ETSA). In addition, the Ministry of Economic Affairs and Communications (the Ministry) is directly involved in the procedures leading to the approval of the National Radio Frequency Allocation Table and Numbering Plan, as well as in the elaboration of regulations governing the provision of universal service in Estonia.

Since the beginning of 2008, all regulatory tasks, regarding economic regulatory issues of non-competitive markets in the field of electronic communications, are carried out by the Communications Regulatory Division of ECA. In addition to regulatory tasks in the telecommunications field, the division is responsible also for regulatory issues of postal services, railway regulation and airport fees; it consists of 13 people. Spectrum, authorisation, numbering and terminal issues are carried out by the Electronic Communication Division of the Estonian Technical Surveillance Authority (ETSA), consisting of approximately 40 persons.

From the 1st of July 2014 onwards, there will be a shift of competences between ECA and ETSA. ETSA will deal with the issues it was previously entrusted with namely ex ante regulation, Universal Service Obligations, access and interconnection.

In September 2013, the Commission brought proceedings against Estonia before the Court of Justice of the EU for infringement of the independence requirement enshrined in Article 3(2)

[7] *Konkurentsiamet*, established by Regulation No. 101 of the Minister of Economic Affairs and Communications of 17 December 2007 (RTL1 2007, 97, 1628), which entered into force 1 January 2008.
[8] *Tehnilise Järelevalve Amet*.

of Directive 2002/21/EC.[9] In support of its action, the Commission relied on the fact that Estonia had failed to guarantee an effective structural separation between the regulatory functions performed by a National Regulatory Authority (the Ministry of Economic Affairs and Communications) and activities associated with ownership or control of a telecom undertaking, namely Levira Ltd. Indeed, the Ministry controlled State-owned shares in Levira Ltd. and at the same time performed regulatory tasks in the telecom sector. However, during the second quarter of 2013, the Commission was notified that the shares and the administration of the undertaking at stake had been transferred to the Ministry of Finance. In this context, the relevant independence requirement appeared to be no longer infringed.

Resources of the national regulatory authority			
	2011	**2012**	**2013**
Personnel[10] (ECA)	[9]. 62 (total)	[8]. 61 (total)	[7] 56 (total)
Personnel[11] (ETSA all)	87	88	83
Increase	[-5,4] %	[0] %	[-6%] %
Budget (ECA)	€ 1,84 Million	€ 1,86 Million	€ 1 86 Million
Budget (ETSA all)	€ 2,4 Million	€ 2,29 Million	€ 2,41 Million
Increase	[-1,3] %	[-2] %	[+2] % (ETSA and ECA)
Administrative charges[12]	€ [0] Million	€ [0] Million	€ [0] Million
Administrative costs[13] (ECA)	€ [1.84] Million	€ [1.86] Million	€ [1.86] Million
Administrative costs[14] (ETSA)	€ [2.4] Million	€ [2.29] Million	€ [2.4] Million

The financing of both authorities is based on the State Budget; the proposal for the budget is prepared by the Ministry of Economic Affairs and Communications. However, the operating budget and staff number is one of the smallest in the EU and therefore the workflow has to be prioritized carefully. ECA noted that as there have been new tasks added in the other sectors, they had to decrease the staff dealing with telecom issues. ETSA transferred to the state budget for the reporting year € 12 085 from fines, € 2 057 383,19 from frequency authorisation fees and € 3 383 878,95 from numbering authorisation fees. The NRAs have full control over the spending of their budget, subject only to independent audit.

The mandate of the Head of ECA and ETSA lasts for 5 years and is not renewable. The Head of ECA and ETSA may be removed in accordance with the Public Service Act, which applies to all officials. ECA and ETSA are accountable to the Minister of Economic Affairs and

[9] Case C-493/13.
[10] Number of staff in full time equivalents (fte).
[11] Number of staff in full time equivalents (fte).
[12] In the sense of Art. 12 of the Authorisation Directive (Directive 2002/20/EC as amended by Directive 2009/140/EC).
[13] Idem.
[14] Idem.

Communications and deliver their reports on their websites.[15]

The annual plan of the ECA and ETSA is formally approved by the Minister of Economic Affairs and Communications. However, according to the Electronic Communications Act, the accountability cannot restrict the independence of the ECA and ETSA.

The decisions of ECA and ETSA can be reviewed or suspended only by the Courts. In 2012, no decisions of both regulators were upheld.

7. SPECTRUM MANAGEMENT

The 800 MHz band: The tender for the third frequency licence (frequency block 811-821 MHz / 852-862 MHz) is now closed. On 8 January 2014, the frequency licence was issued to Tele2 Eesti AS. The other two frequency licences had already been issued to telecommunication providers. On 3 June 2013, the first frequency licence (801-811 MHz / 842-852 MHz) was issued to AS EMT. On 12 August 2013, the second frequency licence (791-801 MHz / 832-842 MHz) was issued to Elisa Eesti AS.

The UHF TV band: At the moment, the 700MHz band is used for broadcasting by the undertaking Levira Ltd. Following the full transition to digital television in 2010, there are 5 national free-to-air channels in the terrestrial digital broadcasting network. Six nationwide terrestrial multiplexes (MUX) are in operation, one for free-to-air digital TV channels with a 100% coverage of the territory, two with conditional access covering 90% of the territory, and three others are in a testing (HDTV, DVB-T2) phase.

Regarding re-farming the 1800 MHz band, an agreement has been reached with the operators, and the re-farming has been taking place on 12 March 2014. The frequency allocation plan has been modified accordingly. Regarding re-farming the 900 MHz band, an agreement has been reached with the operators, and the re-farming will take place on 2 February 2015. The frequency allocation plan has been modified accordingly At the moment the following bands have been authorised for neutral use: 800 MHz, 900 MHz, 1800 MHz, 2,1 GHz, 2,3-2,4 GHz, 2,6 GHz, and 3,4-3,8 GHz. Operators are offering LTE in the 800MHz, 1800 MHz and 2,6 GHz bands.

8. RIGHTS OF WAY AND ACCESS TO PASSIVE INFRASTRUCTURE

The procedures for granting rights of way are simple. The local authorities are responsible for granting rights of way. The work on the study on rights of way regarding all infrastructures, launched in 2011 by the Estonian Ministry of Justice, continued. Transparency regarding the procedures for granting rights of way is ensured through publication on the site www.ehr.ee. Electronic submission of requests is available. The maximum time to receive a reply to a request for a permit for deployment is 20 days. Estonia is developing a passive infrastructure mapping covering all telecommunications infrastructure.

Access to telecommunications passive infrastructure in Estonia is mandated on an asymmetric basis. Access to other utilities infrastructure is not provided. Access to publicly financed

[15] Available at http://www.konkurentsiamet.ee/?lang=en (ECA) and http://tja.ee/en (ETSA).

works is provided. Neither coordination of civil infrastructure works, nor a registry of permits for civil works is in place.

9. ACCESS AND INTERCONNECTION

In 2012 and 2013, there were no issues reported regarding access obligations or IP interconnection. No calendar has been set for migration of fixed networks towards IP interconnection architecture. No issues were reported concerning IP interconnection between OTT players and network operators. There are no reporting obligations for the operators to improve monitoring of the IP interconnection market and functioning of IP interconnection agreements.

10. CONSUMERS ISSUES

10.1. The European emergency number 112

The 112 emergency line is operative in Estonia. It is worth noting that it can be contacted via sms.

10.2. Number portability

The percentage of fixed portability increased by 9% in 2013 to a total of 19359 (January-December 2013). Regarding mobile portability, its decrease was reported to be of 31%, from 102595 to 70223 (total numbers). The 1-day rule is applicable from the moment the agreement is signed between the user and the recipient operator. The relatively low % of ported numbers in mobile is because of the high number (7 million) of total mobile numbers in use (mainly for international prepaid services).

The maximum time limit for loss of service during number portability is by law 15 minutes.

10.3. Contractual obligations

The Directive on Consumer Rights (2011/83/EC) has been implemented into Estonian Law.

10.4. Other consumer issues

In 2012, consumers submitted 94 complaints in the field of electronic communications to the Consumer Protection Board[16] (CPB), representing 4,3% of the total number of complaints. In addition, the CPB answered 598 written enquiries that concerned communications services. In 2013, consumers submitted 100 complaints (4,8% of the total) in the field of electronic communications, and 677 written enquiries.

A proposal for legislation on telemarketing is currently under scrutiny at the Estonian Parliament. It will add more obligations to the telecommunications operators with a view to enhancing consumer protection.

[16] *Tarbijakaitseamet*.

11. UNIVERSAL SERVICE

The following services are included in the scope of universal service in Estonia: telephony services, directory enquiry services and directories, and public pay telephones and other public voice telephony access points. Functional access to the internet is defined as a narrowband (up to 56 Kbps) access.

There have not been any discussions in Estonia regarding the extension of the scope of the Universal Service to include broadband connections, since the service is available to end-users throughout the country via wireless broadband with up to 3,1 Mbps download/1,8 Mbps upload speeds at an affordable price. Moreover, taking into account the EstWin project, a Universal Service obligation for broadband would not be of much relevance in the future.

The designation mechanism ensured in the law provides that no operator is *a priori* excluded from being designated both as regards the possibility of providing separately the different universal service elements and its provision at regional level. Until the end of 2011, the alternative operator Elisa Eesti AS was the designated undertaking for the provision of connection to the public telephone network. As the need for the consumption of the universal service was virtually non-existent and the market keeps providing alternative services to substitute for the universal service, there has been no established sole provider of the universal service after 31/12/2011.

A compensation mechanism exists but is not activated as no US operator has ever submitted any application for compensation. According to the law, the financing mechanism for universal service is sector financed. The universal service is not a required service and there were only a few connections established as universal service by the end of 2011.

12. NET NEUTRALITY

12.1. Legislative situation

Net neutrality is not considered to be an issue at the moment. Mobile network operators have declared that they do not currently have a policy of blocking VoIP traffic.

12.2. Quality of service

The quality of service is not regulated. There are no minimum levels for quality of service.