RYŠIŲ REGULIAVIMO TARNYBA

Communications Regulatory Authority of the Republic of Lithuania

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1. FOREWORD

I am honoured to present the fourteenth report of the Communications Regulatory Authority of the Republic of Lithuania (RRT) which has been drafted for the Seimas of the Republic of Lithuania, the Government of the Republic of Lithuania and for all parties interested in the Lithuanian communications market.

The RRT mission encompasses the most important ambitions of our activities – to ensure that the consumers have a choice in the areas regulated by the Communications Regulatory Authority. We carry out day-to-day activities so that our residents and businesses have an opportunity to choose from a range of services and products, so that they have access to the most advanced, high-quality solutions at the affordable prices.

Consumers can choose when there is something to choose from. Therefore, it is essential to ensure that Lithuania has an opportunity to exploit its significant national value – radio frequencies – to the maximum. In 2015, RRT took an active part in the activities of the Council of the International Telecommunication Union (ITU) that Lithuania was elected to for a four-year term. RRT represented Lithuania in the ITU World Radiocommunication Conference (WRC-15) where relevant strategic issues and international coordination agreements with the neighbouring countries were discussed at a global level. The radio frequency auction whose preparations were commenced in 2015 and which was held at the beginning of 2016 is of no less importance. After this auction three Lithuanian mobile communication operators were granted the right to use radio frequencies (channels) from the 880-915 MHz and 925-960 MHz duplex radio frequency band and from the 1710-1785 MHz and 1805-1880 MHz duplex radio frequency band as of 1 November 2017, thus ensuring that Lithuanian electronic communications users will continue to receive the highest-quality services and will be able to use the most advanced technologies. In 2015, RRT chaired the European Regulators Group for Postal Services (ERGP). During its meetings the issues relevant to the postal service users were discussed, for instance, the ones relating to the reduction of international parcel prices, what is especially relevant in Europe given the continuously growing scales of e-commerce.

Consumers choose the most beneficial solutions when they are aware of the options. Therefore, RRT takes care that service recipients and users are provided with the information on available services and quality thereof. In 2015, new websites were launched, the existing RRT websites were supported and improved: the map of Internet services where consumers may see which service providers provide broadband Internet services in specific locations (www.raskinterneta.lt); the maps reflecting the real speed of mobile Internet and probable network coverage (matavimai.rrt.lt, epaslaugos.rrt.lt/apreptis); Internet access speed measuring tool (www.matuok.lt), etc.

Consumers successfully use services if they trust them and rely on their quality and security. In 2015, RRT continued to test and inspect the quality of electronic communications services, assessed the quality of universal postal services, and inspected equipment supplied to the market in terms of its conformity to the set

requirements. Requests and disputes received by RRT were investigated in a competent and prompt manner. Three key principles, that the activity of RRT is based on, are to advise, resolve and reconcile, and the best appraisal of our work is the consumers' confidence in RRT as an institution defending their rights.

At the growing scales of cyber threats, the National Computer Emergency Response Team (CERT-LT) of RRT investigated over 40,000 cyber incidents in 2015, which is by 15% more than in 2014, provided assistance to consumers, promptly informed about the cyber threats and the due safeguard means.

I invite you to review the complete version of the report which covers significant activities carried out by RRT, the achieved results and plans for the future.

Sincerely

Feliksas Dobrovolskis

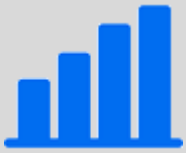
2. BRIEF OVERVIEW OF THE COMMUNICATIONS SECTOR DEVELOPMENT IN 2015

EUR 626.1 million

Electronic communications market revenue

3.1%

Annual market growth



EUR 120.6 million

Postal service market revenue

10.6%

Annual market growth

14.6%

Annual growth in a number of subscribers using the Internet via mobile communication technologies

10%

Annual growth in a number of subscribers receiving 30 Mbps and higher data upload speed

6.9%

Annual growth in a number of broadband communication subscribers

24.9%

Annual growth in a number of IPTV subscribers

9.9%

Annual growth in a number of delivered postal parcels

The Lithuanian communications sector covers two major service markets: of electronic communications and of postal service.

As for the general evaluation of such markets, at the end of 2015 RRT was notified of the activities carried out in the communications sector by 201 economic entities.

In 2015, the total revenue of the communications sector stood at EUR 747.7 million and it was by EUR 30.7 million or 4.3% higher than in 2014. In comparison with the economy of the whole of Lithuania, the growth of the communications sector has overtaken the GDP growth rate for the first time since 2009 (1.6%).

Electronic Communications Sector

At the end of 2015, the electronic communications activities were carried out by 135 economic entities or by 9 economic entities less than in 2014.

In 2015, the electronic communications market players invested in the electronic communications network less than in 2014. In 2015, such investments stood at EUR 78.9 million and, in comparison with 2014, they decreased by EUR 3.4 million or by 4.1% (see Fig. 1). Operators mainly invested in the development of fibre optic access network and the improvement of 4G network infrastructure, whereby data transmission services are provided.

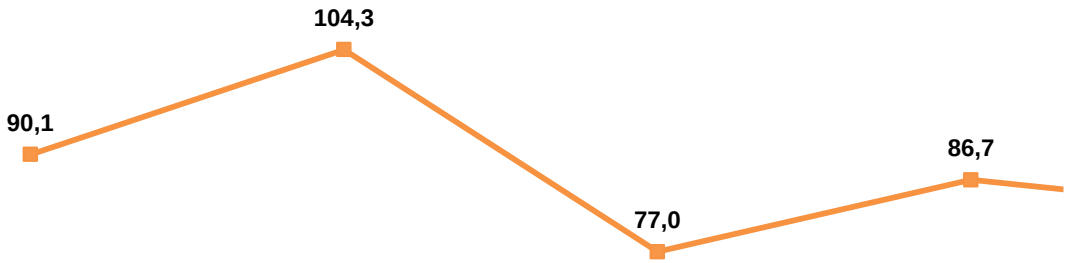


Fig. 1. Dynamics of investments in the electronic communications infrastructure in 2010-2015, million EUR
Source: RRT

In 2015, the total revenue of the electronic communications sector amounted to EUR 626.1 million and, compared to 2014, increased by 3.1% or by EUR 19.1 million (see Fig. 2). This has been the first growth of the revenue of the electronic communications sector since 2008. The major portion of the sector revenue (36.3%) was the revenue from the provision of the mobile telephone communication services, the smallest portion (7.7%) – from the fixed telephone services.

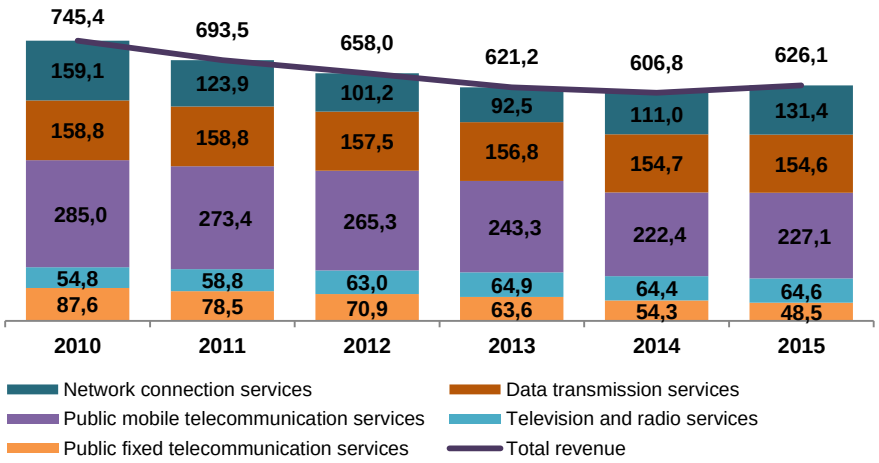


Fig. 2. Distribution of the revenue of the electronic communications sector, million EUR, 2010-2015

Source: RRT

Telephone communication. The number of subscribers of fixed telephone communication services decreased from 585.5 thousand to 560.8 thousand or by 4.2% during 2015, when compared to 2014. The number of subscribers of mobile telephone communication services fell from 4,264.6 thousand to 4,184.1 thousand or by 1.9% during 2015, when compared to 2014. The number of subscribers of mobile telephone communication services decreased for the third consecutive year.

When it comes to the use of telephone communications services, similar trends prevailed in 2015 as those in 2014: the duration of calls originated in the fixed telephone network, compared to the total duration of calls originated in 2014, decreased by 8.9% or by 84.5 million minutes. The duration of calls originated in the mobile telephone networks in 2015 was by 2.7% or by 223.6 million minutes longer than in 2014 (see Fig. 3).

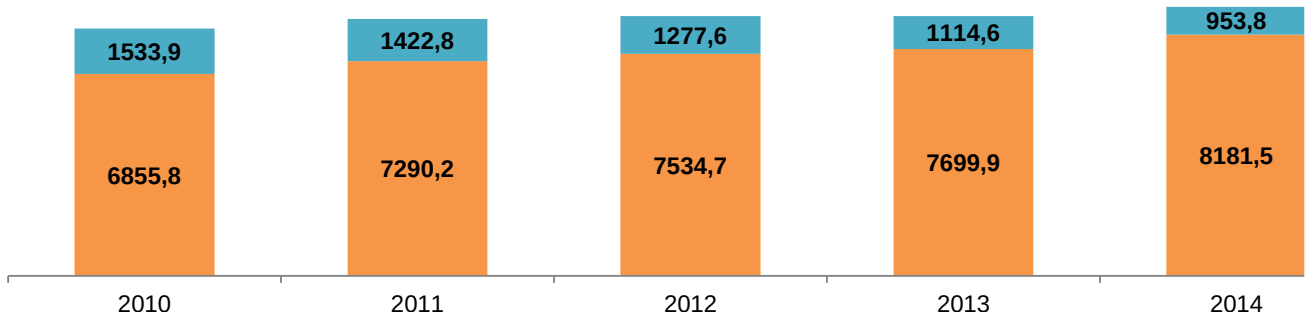


Fig. 3. Duration of originated calls, 2010-2015, million minutes

Source: RRT

Internet. In 2015, compared to 2014, revenue from Internet access services increased by 7.1% and accounted for EUR 127.4 million (see Fig. 4). The revenue from Internet access services comes from two service groups: retail Internet access services and wholesale Internet access services. In 2015, compared to 2014, the revenue from retail Internet access services grew by 4.8% and amounted at EUR 116.4 million, while the revenue from wholesale Internet access services increased by 39.6% and amounted to EUR 10.9 million.

Fig. 4. Revenue from the Internet access services in 2010-2015, million EUR

Compared to 2014, the number of broadband Internet access subscribers increased by 76.6 thousand, or by 6.9%, and amounted to 1.187 million in Lithuania in 2015 (see Fig. 5). It must be noted that in the past six years the number of Internet access subscribers has grown by more than one third (35%) in Lithuania.

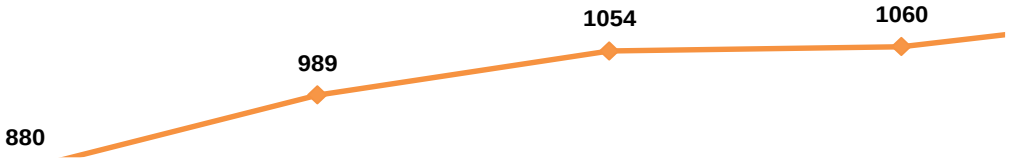


Fig. 5. The number of broadband Internet access subscribers in 2010-2015, in thousands

As for the structure of subscribers by used technologies, optical fibre communication lines (FTTx) remained the main technology to provide broadband communication services in Lithuania in 2015. According to the data of 2015, there were 517.1 thousand optical fibre communication lines in Lithuania, i.e. by 39.3 thousand lines or by 8.2% more than in 2014. This means that 43.6% of all subscribers using Internet access services were using optical fibre lines (see Fig. 6).

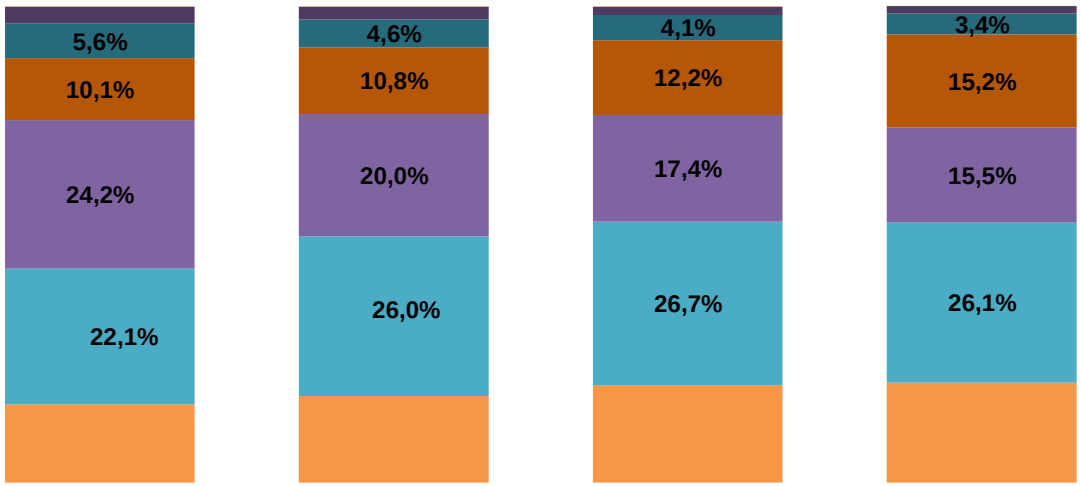


Fig. 6. Provision of broadband Internet access services by technologies used in 2010-2015, per cent
Source: RRT

It must be noted that in 2015 a relative share of subscribers receiving Internet access services via mobile communication technologies was by 2 pp higher than in 2014 when it comes to the total number of Internet access service recipients, as the number of such subscribers grew by 14.6% per year.

High-speed fixed broadband communication Internet access services (30 Mbps and higher) were usually provided via optical fibre communication lines (FTTx), cable television networks using DOCSIS 3.0 and via other lines (local networks LAN). The total number of subscribers receiving 30 Mbps and higher data upload speed

increased by 10%. On 31 December 2015, 60.1% of fixed broadband communication subscribers were using 30 Mbps and higher Internet speed, including 17.7% who were using the digital communications technology service capable of transmitting data at a speed greater than 100 Mbps.

Television. The next generation broadband communication networks successfully expanding in Lithuania determine the uptake of rebroadcasting television programmes applying IPTV (Internet Protocol Television) technologies. At the end of 2015, there were 14 companies providing the IPTV services, and 179.9 thousand subscribers were viewing television programmes this way; compared to the data of 2014, the number of subscribers increased by 23.4%, i.e. by one fourth. Even though the growth of the number of IPTV service subscribers was the fastest, television services provided by cable television networks remained the most popular pay TV services. In 2015, 55.1% of all pay TV subscribers chose this television, which was by 2.2 percentage points less than in 2014 (see Fig. 7).

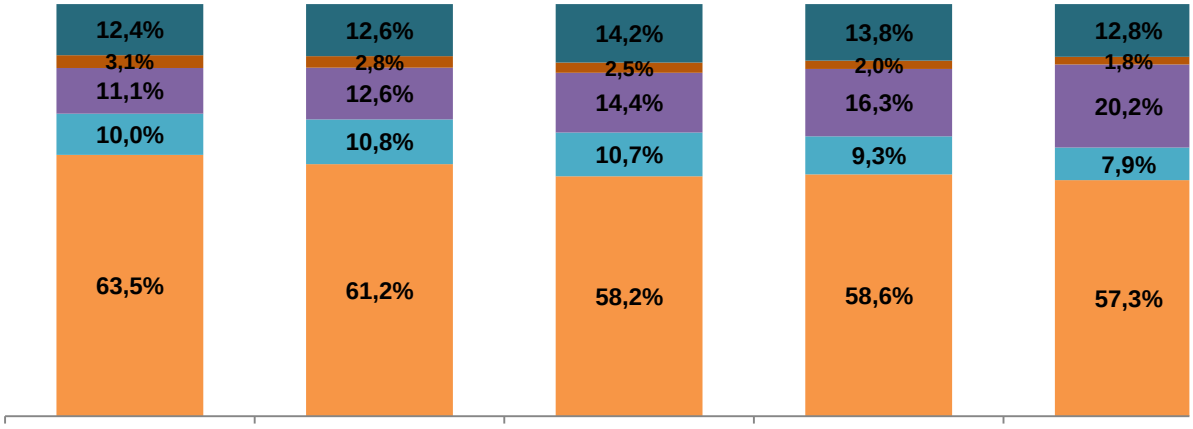


Fig. 7. Distribution of pay TV subscribers by ways of providing television services in 2010-2015, per cent
Source: RRT

Postal Sector

At the end of 2015, there were 66 natural or legal entities entitled to engage in the provision of postal service, i.e. by 3 entities less than at the end of 2014.

In 2015, the revenue from the provision of postal service, compared to the total revenue from postal activities generated in 2014, increased by 10.6% and amounted to EUR 120.6 million (see Fig. 8).

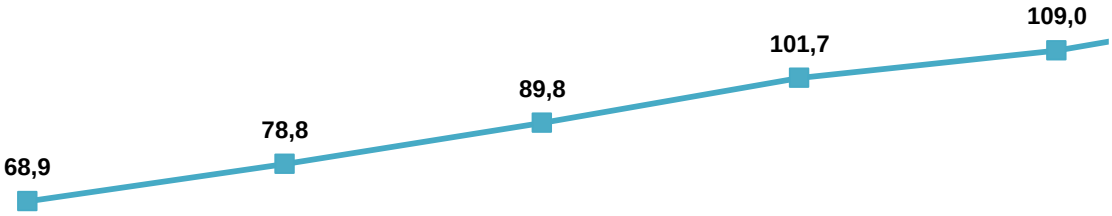


Fig. 8. Revenue from the postal service in 2010-2015, million EUR
Source: RRT

In the evaluation of postal service in terms of physical units of services in 2015, compared to 2014, the number of postal parcels grew by 9.9% and stood at 9.5 million units, and the number of letter-post items increased by 3.9% during 2015 and accounted for 74.3 million units.

3. RRT MISSION, STRATEGIC GOAL, PROGRAMME

MISSION

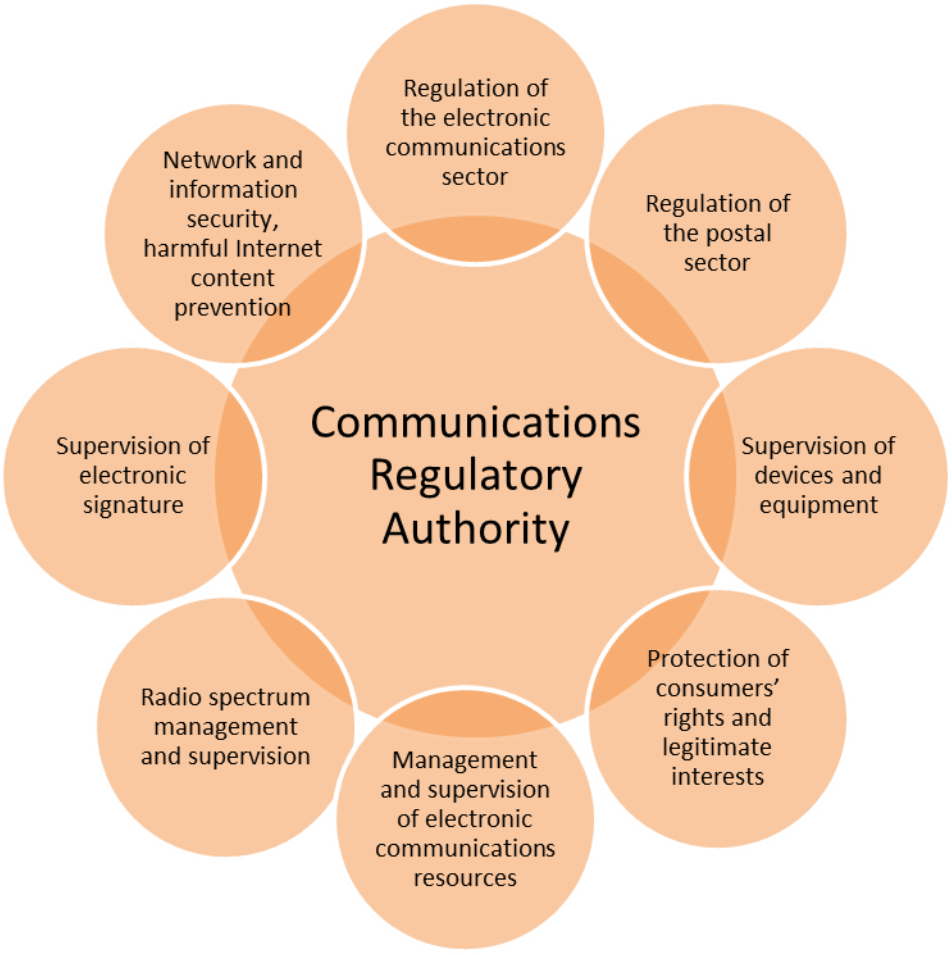
To ensure a wide range of technologically advanced, high-quality, secure and affordable ICT and postal services for each and every resident of the Republic of Lithuania; to create possibilities for the development of information and communications technologies and postal business, thus accelerating the development of information and knowledge society.

STRATEGIC GOAL

To ensure a wide range of technologically advanced, high-quality, secure and affordable electronic communication and postal services for each and every resident of the Republic of Lithuania, to allow for the development of electronic communications and postal business.
While implementing this strategic goal, RRT shall fully contribute to the implementation of the Digital Agenda for Europe, National Progress Strategy "Lithuania 2030", Programme of the Government of the Republic of Lithuania for 2012-2016, the Information Society Development Programme for 2014-2020 "Digital Agenda of the Republic of Lithuania" and other provisions of the important strategic documents.

COMMUNICATIONS MANAGEMENT AND CONTROL PROGRAMME

RRT shall implement the strategic goal by performing the continuous Communications Management and Control Programme ("the Programme") (it was commenced in 2001 and continued till 2015).



4. OBJECTIVES AND TASKS FOR 2015

Objective 1	**Objective 2**	**Objective 3**	**Objective 4**	**Objective 5**
Ensuring efficient and transparent competition on the ICT and postal service markets	Ensuring the protection of rights and legitimate interests of ICT and postal service recipients within the competence of RRT	Allowing for long-term investments in the electronic communications infrastructure and advanced development of ICT	Integration into the EU and international regulatory space and efficient activities of RRT	Ensuring performance of obligations that may be imposed on operators and providers of electronic communications services in the interests of national defence, national security and maintenance of public order, as well as in cases of extraordinary circumstances
Task	**Task**	**Task**	**Task**	**Task**
To ensure the absence of distortion and restrictions of competition in electronic communications and postal sectorsl	To reinforce security of electronic communications networks and information, as well as reliability and resistance of electronic communications networks	To perform radio frequency (channel) management, supervision of the use thereof, including monitoring and management of other electronic communications resources	To carry out effective integration into the EU decision making process	To ensure that operators and providers of electronic communications services perform their obligations that may be imposed on them in the interests of national defence, national security and maintenance of public order, as well as in cases of extraordinary circumstances
Task	**Task**		**Task**	
Supervision of electronic communications and postal activities conducted by economic entities ensuring the efficiency of these activities	Supervision of the provision of the ICT and postal services, including universal services		Efficient organization, publicity and control of RRT activities	
	Task			
	Assurance and supervision of the compliance of radiocommunication equipment and telecommunications terminal equipment existing on the market of the Republic of Lithuania with the mandatory requirements and electromagnetic compatibility requirements			
	Task			
	Performance of the			

	functions of electronic signature supervisory authority			

The information on the implementation of the programme objective and task assessment criteria for 2015 is provided in Annex 1 of the Report, and the financial report is provided in Annex 2.

5. Objective 1. PROMOTION OF COMPETITION IN ELECTRONIC COMMUNICATIONS AND POSTAL SECTORS

Electronic communications and postal services are essential for modern businesses, activities of the public administration institutions and people's lives. Electronic communications enable us to exchange information in real time and in large distances. Postal services alongside with electronic communications services allow for the movement of physical items between different locations, countries and continents. It is important that the electronic communications and postal services were accessible in as wide geographical territory as possible and that they were high-quality and affordable ones. One of the ways to achieve this is to create a playing field for competition and promote the competition. RRT, when carrying out market analyses and supervision of already established obligations, promoting the dissemination of information on electronic communications and postal services, also contributes to the promotion of competition in the electronic communications and postal sectors.

5.1. Competition in the Electronic Communications Sector

5.1.1. Market Analyses

The market analyses conducted by RRT aim at assessing whether the competition on a certain electronic communications market is effective and, if not, at preventing the abuse of the power on a specific market. In 2015, RRT initiated 1 survey of a new market and continued 8 market analyses commenced in 2014. In 2015, the following market analyses were carried out:

1. The market analysis on access granted to consumers to public communications networks at a fixed location;
2. The market analysis on access granted to service users, except for consumers, to public communications networks at a fixed location;
3. The market analysis on call termination on individual public communications networks at a fixed location;
4. The market analysis on voice call termination on individual public mobile telephone networks (commenced in 2015);
5. The market analysis on wholesale local access at a fixed location;
6. The market analysis on wholesale centralised access at a fixed location for the mass-market products;
7. The market analysis on the minimum set of leased lines;
8. The market analysis on trunk segments of leased lines;
9. The market analysis on wholesale high-quality access at a fixed location.

In 2015, RRT completed 4 market analyses: of the market of call termination on individual public communications networks provided at a fixed location; the market of voice call termination on individual public

mobile telephone networks; markets of access granted to consumers and service users, except for consumers, to public communications networks at a fixed location. The analyses of such markets showed that the competition on relevant markets was not effective and RRT listed the undertakings having significant market power on the said markets and imposed certain obligations on the said entities:

The undertaking Teo LT was recognised as having significant market power on the market of access to public communications network granted to consumers and service users, except for consumers, at a fixed location. In order to promote effective competition RRT obligated the economic entity Teo LT: to ensure the subscriber's right to use telephone communication services provided by any provider of public telephone communication services at its own expense following the prescribed procedure and on prescribed terms; handle accounting as defined in Article 32 of the Law on Electronic Communications of the Republic of Lithuania; in compliance with the Rules on Accounting Separation assign the wholesale local loop for the provision of the public telephone communications services. Also, RRT established for the economic entity Teo LT the obligations of non-discrimination, transparency, price control and cost accounting, as well as of accounting separation when assigning the wholesale local loop.

On the market of call termination on individual public communications networks at fixed locations RRT identified 9 undertakings as having significant market power: Teo LT with associated entities, Lietuvos Geležinkeliai AB with associated entities, Lietuvos Radijo ir Televizijos Centras AB, CSC Telecom UAB with associated entities, Linkotelus UAB, Mediafon UAB with associated entities, Nacionalinis Telekomunikacijų Tinklas UAB with associated entities, Telekomunikacijų Grupė UAB with associated entities and Ecofon UAB. RRT imposed the obligation to provide access, obligations of non-discrimination, transparency and price control on Teo LT with associated entities. The obligation to grant access and price control obligation were imposed on other economic entities. When establishing the obligations, the price for the termination of calls originated in the European Economic Area (EEA) on fixed communications networks was reduced from EUR 0.61 to EUR 0.13 by revoking the regulation on the prices of such services for calls originated in non-EEA.

On the market of voice call termination on individual public mobile communication networks RRT identified 6 undertakings as having significant market power: Bitė Lietuva UAB with associated entities, CSC Telecom UAB with associated entities, Linkotelus UAB, Ecofon UAB, Mediafon UAB with associated entities, Omnitel UAB with associated entities and Tele2 UAB with associated entities. RRT imposed the obligation to grant access and obligations of non-discrimination, transparency and price control on Bitė Lietuva UAB with associated entities, Omnitel UAB with associated entities and Tele2 UAB with associated entities. RRT imposed the obligation to grant access and price control obligation on other operators having significant power on this market. When establishing the obligations, the price for the termination of calls originated in the EEA on mobile communication networks was reduced from EUR 1.04 to EUR 0.94 and the prices of such services for calls originated in non-EEA were no longer subject to regulation.

In 2015, RRT conducted the national consultation and consultation with the European Commission on the results of the market analysis on wholesale local access at a fixed location and the market analyses on the minimum set of leased lines, trunk segments of leased lines, and wholesale high-quality access at a fixed location (the decisions on the results of the said market analyses were approved in January 2016). The results of the market analysis on wholesale centralised access at a fixed location for the mass-market products were submitted for the national consultation which was held in December 2015-January 2016. During Quarter I of 2016 after the public consultation the draft decisions were agreed by the European Commission and adopted in

March. Information on the undertakings having significant power on relevant markets and imposed obligations thereon effective on 31 December 2015 is provided in Annex 3.

5.1.2. Supervision of Execution of the Obligations Imposed on the Undertakings

In 2015, in order to promote competition RRT supervised how the undertakings having significant market power adhered to the obligations imposed thereon, as well as inspected and assessed how the obligations of transparency, non-discrimination, provision of access and price control imposed on the undertakings having significant power on relevant markets were fulfilled. The information on major failures to fulfil the imposed obligations and achieved results is provided below. In case of failures to fulfil the obligations, the undertakings were obligated to provide additional information and/or ensure the fulfilment of imposed obligations.

The universal postal service provider shall handle the accounting in line with the basic principles for handling cost accounting and the requirements for cost accounting system as set by RRT[1], as well as with other cost accounting related requirements, including the requirement to carry out the audit. In 2015, Jungtinė Auditorių Kontora UAB carried out the cost audit of the universal postal service provider Lietuvos Paštas AB for 2014. In the guidance report the auditor indicated that the information provided by Lietuvos Paštas AB to RRT was not exhaustive enough to ensure RRT that the cost accounting system was compliant with the requirements laid down in the Rules on Cost Accounting or other legal acts. The guidance proposals were provided. RRT

[1] The Cost Accounting Rules of the Universal Postal Service Provider approved by Order No 1V-55 of the Director of RRT of 11 January 2013, http://www.rrt.lt/lt/pasto-verslui/universalioji_pasto_paslauga.html.

addressed Lietuvos Paštas AB requesting to provide the annual report data for 2015 on the basis of the auditor's recommendations. The audit conclusion is published on the RRT website.

In order to verify how the undertakings having significant market power were fulfilling the obligations of cost accounting and accounting separation, the audits of Teo LT cost accounting system and accounting separation and of Lietuvos Radijo ir Televizijos Centras AB cost accounting system and accounting separation were carried out. Teo LT was audited by Auditas UAB, and Lietuvos Radijo ir Televizijos Centras was audited by BDO Auditas and Apskaita UAB. In the Teo LT audit conclusion, the auditor emphasized that the actual attendance sheets of each activity were not recorded; therefore, the transparency and reliability principles laid down in legal acts were not fully implemented in the cost accounting system. The guidance report indicates that it is recommended to introduce control procedures and it contains comments on fulfilment of the principles of causality and consistency. Lietuvos Radijo ir Televizijos Centras AB was recommended to implement the internal control procedures to eliminate the non-compliances detected during the audit. With regard to the results of the audit, RRT addressed the undertakings Teo LT and Lietuvos Radijo ir Televizijos Centras AB requesting to eliminate the drawbacks detected during the audit and ensure that the annual reports to be submitted next year comply with the requirements set forth in legal acts. The undertakings agreed to eliminate the determined drawbacks and provided the information on how the guidance proposals provided during the audit would be implemented. The audit conclusion is published on the RRT website[2].

5.1.3. Supervision of Installation and Use of the Electronic Communications Infrastructure

> *In 2015, the website www.raskinterneta.lt was launched; it publishes the map of broadband communication services provided by the Lithuanian electronic communications operators.*

In 2015, the investment project "Development of the Electronic Information System of Broadband Communication Services" was completed. The developed map of broadband communication services is available on the website www.raskinterneta.lt. The Internet service providers publish information about the locations where their services are provided free of charge, and based on the place of residence or business potential Internet users may easily and quickly find operators whose services are available. At the end of 2015, 32 service providers used the services of the system which is based on the voluntary participation of operators, and the rest of operators are invited to join the system and use an opportunity to promote their services.

RRT supervises the website www.e-infrastruktura.lt, where the data from the infrastructure spatial data bases administered by Vilnius, Klaipėda, Kaunas and Panevėžys municipalities are available. The system is open to other municipalities interested in cooperation as well.

5.1.4. Telephone Number Portability Service

[2] http://www.rrt.lt/lt/verslui/konkurencijos-prieziura/apskaitos-ir-kainu-kontrole.html#Sanaud_audit

The telephone number portability service has been provided in Lithuania for twelve years already (since 2004). The annually growing number of the users of this service proves the benefit of this service to the customers. This service gives the user a greater freedom to choose or replace a service provider according to the quality and variety of services, prices, loyalty systems, service advantages, etc. and other important service parameters.

According to the data of RRT, by 31 December 2015 the number of consumers who used the number portability service (i.e. migrated to the network of another service provider) accounted to 1,288,484, of which 1,234,820 were subscribers of mobile communication (Fig. 9), 53,341 – fixed communication subscribers and 323 – service numbers. The number portability service has already been used by 26.84% of all active telephone communication service subscribers.

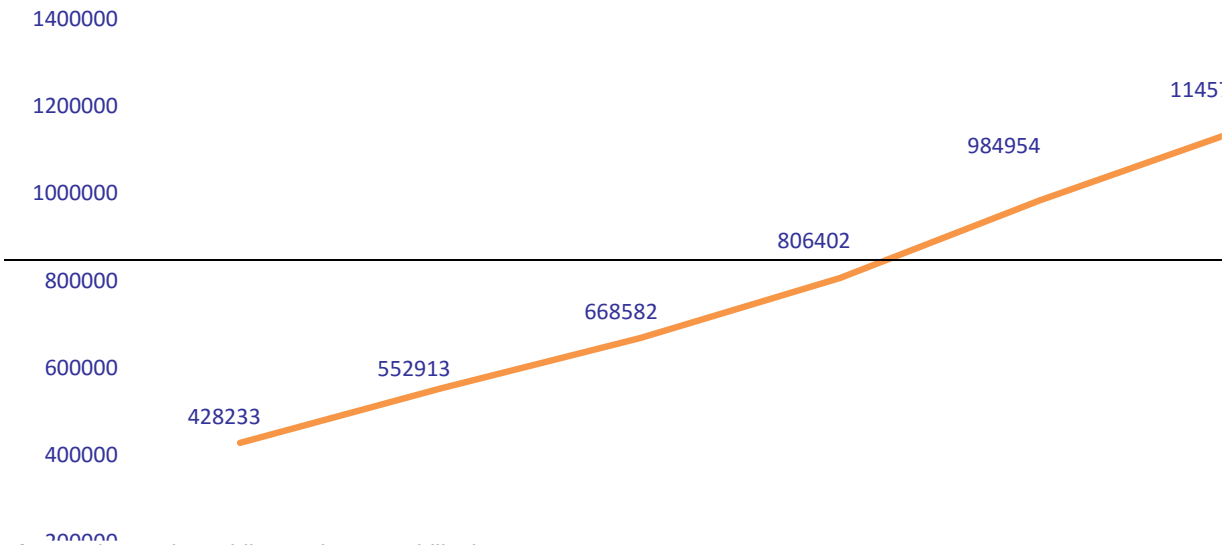


Fig. 9. Change in mobile number portability in 2009-2015
Source: RRT

As of 1 January 2016, public institution Numerio Perkėlimas and Mediafon UAB, that replaced the previous administrator Mano Numeris UAB, started administering the new central database which ensures the administration of the telephone number portability process between service providers. When a new administrator started administering the central database, the expenses incurred by the public communications network and/or public telephone communication service providers significantly decreased (from EUR 0.29 to EUR 0.01448, excluding value-added tax (VAT), for every subscriber's number designated to a service provider per year).

5.1.5 Resolution of Disputes between Undertakings

The Commission for Resolution of Disputes between the Undertakings Providing Electronic Communications Networks and/or Services ("the Dispute Resolution Commission") established by RRT resolved 2 disputes subject to the obligatory preliminary extrajudicial consideration of a dispute in 2015.

Lietuvos Radijo ir Televizijos Centras AB applied to the Dispute Resolution Commission with a request to resolve the dispute between Lietuvos Radijo ir Televizijos Centras AB and Teo LT, AB regarding the establishment of prices for DVB-T transmitter placement services. The Dispute Resolution Commission decided to partially uphold the request of Lietuvos Radijo ir Televizijos centras AB and determined that Teo LT should pay

Lietuvos Radijo ir Televizijos Centras AB the prices which do not exceed the prices established in the dispute ruling. The Dispute Resolution Commission did not uphold the requirement of Lietuvos Radijo ir Televizijos Centras AB to retrospectively apply the price established by the Dispute Resolution Commission, i.e. between 1 August 2013 and the date of implementation.

Omnitel UAB applied to the Dispute Resolution Commission with the request to resolve the dispute that arose between Omnitel UAB and Tele2 UAB regarding sending of short messages between networks they operate. In its request, Omnitel UAB requested to recognise that the actions of Tele2 UAB, which blocked the short messages originated in Omnitel UAB network and sent to Tele2 UAB network, were illegal and requested to obligate Tele2 UAB to accept all short messages originated in Omnitel UAB network and sent to Tele2 UAB network, including short messages incoming from Omnitel UAB network sent by transferring number A in a form of alphabetic characters, as well as short messages sent from short numbers. The Dispute Resolution Commission decided to uphold the request of Omnitel UAB to resolve the dispute that arose between Tele2 UAB and Omnitel UAB.

5.2. Competition in the Postal Service Sector

Compared to 2014, the overall postal service market, including the traditional postal market[3] and recorded deliveries of postal items (via couriers), grew by 10.8% in 2015 in terms of revenue and reached EUR 120.8 million. The traditional postal market increased by 14.4% in 2015 and amounted to EUR 53.2 million. In this market, in terms of revenue the largest share belonged to Lietuvos Paštas AB – 91.6%. Compared to 2014, the market of recorded deliveries of postal items grew by 8.1% in 2015 in terms of revenue and reached EUR 67.6 million. The dominating operators in 2015 remained the same as in 2014: DPD Lietuva UAB, Venipak LT UAB and DHL Lietuva UAB which hold the major share of this market, i.e. 30.6%, 14.8% and 14.6%, respectively.

The total letter-post item market, in terms of quantity, decreased by 8.8% in 2015. Recent years have seen a trend that postal parcels constitute not only an increasingly larger part of all postal items (in 2014 they accounted for 10.8% and in 2015 – 12.7% of all postal items), but also there has been an increase in their quantity. In 2015 in the postal parcel market, the number of sent and received parcels, compared to 2014, grew by 9.5%. The number of international parcels increased by 12.1%, and the number of domestic parcels grew by 8.8%. This shows that the growth of the number of postal parcels is largely due to the increasing popularity of electronic commerce and self-service parcel terminals.

In order to assess the current intensity of competition in the postal market, the ratio indicating market concentration[4] – Hirschman-Herfindahl index (HHI) – was calculated[5]. The ratio was calculated in terms of the volumes of letter-post items (the ratio in 2015 – 4,868.5) and of postal parcels (the ratio in 2015 – 2,225.3), and also in terms of revenue of postal service providers (the ratio in 2015 – 2,243.1) (see Table 1). When evaluating competition in the postal market, the calculated HHI values changed slightly during the period of 2008-2015 and showed that the concentration level of both the market of letter-post items and the market of postal parcels

[3] Traditional postal service means universal postal service and the delivery of postal items to addressees' boxes for incoming deliveries.

[4] Concentration means a market situation in which economic activity is concentrated under the control of one or several firms, in other words, when a small number of firms occupy the largest share of a particular market.

[5] HHI shows an uneven distribution of market powers of all market players and is the best known and most important index of the intensity of competition in the market. HHI is directly proportional to concentration (i.e. when the latter increases, the former increases as well, and when the former decreases, the latter decreases). The lower the HHI, the higher the level of competition, and vice versa: the increase in the HHI indicates a decrease in competition and anincrease in market power. HHI values:

- HHI < 1,000 indicates an unconcentrated market;
- HHI between 1,000 and 2,000 – moderate concentration;
- HHI above 2,000 – high concentration.

remained high, and the structure of the market was similar to that of an oligopolistic market and that, despite the relatively high number of postal service providers operating in the market, the market was occupied and dominated by a few large postal service providers.

Table 1. Market concentration indices in 2008-2015

Index	2008	2009	2010	2011	2012	2013	2014	2015
HHI by volume of letter-post items	5,521.4	5,519.1	5,297.6	5,079.0	5,184.7	5,236.3	5,007.5	5,343.4
HHI by volume of postal parcels	3,952.2	2,627.4	2,009.2	2,164.5	2,038.6	2,163.1	2,178.4	2,225.3
HHI by revenue	2,432.7	2,634.7	2,429.2	2,286.2	2,149.3	2,262.7	2,189.0	2,242.3

5.3. Supervision of Undertakings Engaged in Electronic Communications and Postal Activities

In 2015, 25 scheduled inspections of electronic communications service providers[6] were carried out. Violations related to non-compliance of typical agreements with the requirements of the Rules on the Provision of Electronic Communications Services were detected in the activities of 22 undertakings. The violations were eliminated during the inspections. There was no need to initiate non-scheduled inspections.

In 2015, an economic sanction was initiated and imposed on one undertaking engaged in electronic communications activities. Currently the legitimacy of the RRT decision is undergoing the evaluation of the court. Other cases of non-compliance with the requirements laid down in legal acts were eliminated upon providing the undertakings with the methodological assistance.

In 2015, 25 scheduled inspections of postal service providers[7] were carried out. Violations were detected in the activities of 6 postal service providers (the nature of violations – failure to comply with the requirements for labelling postal items, absence of documents the preparation whereof is mandatory under the legislation governing activities of postal service providers, absence of and failure to publish information necessary for a user to decide on the use of the service). The violations were eliminated during inspections.

In 2015, no economic sanctions were imposed on postal service providers.

Market players were advised on the issues related to legal acts governing their activities, market regulation, completion of statistical reports, interconnection of Internet networks, quality of universal service, problems subject to improper delivery of postal parcels, etc.

The exhaustive quarterly results of inspections are published on the RRT website.

[6] Order No 1V-107 of the Director of RRT of 20 January 2015 "On the Approval of the List of Undertakings to be Inspected by the Communications Regulatory Authority in 2015"

[7] Order No 1V-107 of the Director of RRT of 20 January 2015 "On the Approval of the List of Undertakings to be Inspected by the Communications Regulatory Authority in 2015"


25 scheduled inspections of electronic communications service providers were carried out
25 scheduled inspections of postal service providers were carried out
There were no non-scheduled inspections
1 economic sanction was imposed
There were no sanctions imposed

5.3.1. Supervision of the Euro Introduction during the Monitoring Period of Dual Display of Prices

After the Euro was introduced on 1 January 2015, RRT continued the implementation of the measures introduced in 2014 in line with the Law on the Euro Adoption in the Republic of Lithuania and other legal acts.

Between 1 January 2015 and 1 July 2015 the officials authorised by RRT carried out 201 inspections during which 15 violations were detected – prices were not indicated in two currencies, wrong currency exchange rate was applied during conversion, rounding up of the prices did not meet the requirements laid down in legal acts. The violations were eliminated during inspections.

Between 1 January 2015 and 1 July 2015 RRT received and investigated 21 complaints and 1 dispute related to the Euro adoption.

6. Objective 2. PROTECTION OF CONSUMERS' RIGHTS AND LEGITIMATE INTERESTS

6.1. Consumer Information Measures

RRT, following the principle that its activities must be reasonable, effective and beneficial to every user of electronic communications services, published information on its, as a regulatory authority, policies, results and information solutions created for the consumers on a regular basis.

In 2015, the activities of RRT were communicated as follows:

Consultations via free of charge helpline +370 800 20030 were provided. In 2015, the total of 1,144 calls were received.
40 press releases and 30 news updates were published.
Prompt competent answers to the questions of the media representatives were provided.
Meetings and discussions with market players were held on the RRT premises.
Information on the RRT website was constantly updated.
RRT employees participated in television and radio shows.
RRT administered 9 websites (see below). In 2015, a new website www.raskinterneta.lt was launched.
Functions of the Internet hotline were carried out (www.draugiskasinternetas.lt), information was provided (free content filtering programs accredited and published, quarterly reports published).

http://www.raskinterneta.lt/

http://www.rrt.lt/

https://www.cert.lt/

http://www.matuok.lt/

http://www.elektroninisparasas.lt/

http://www.esaugumas.lt

http://www.skaiciuok.lt/

http://e-infrastruktura.lt/

http://matavimai.rrt.lt/

6.2 Assurance of the Quality of Electronic Communications Services

6.2.1 Supervision of Universal Electronic Communications Services

RRT drafted the draft amendment of the Rules on the Provision of Universal Electronic Communications Services and proposed to reduce the density of payphones by 15%.

TEO LT has been recognised as an undertaking having significant market power on the market of public fixed telephone communication networks and services and it has been obligated to provide universal services[8].

The provider of universal services must ensure that one is able to send and receive local, national long-distance and international telephone calls, fax messages and data over a public communications network provided at a fixed location at the capacity able to ensure efficient Internet access taking into consideration the technologies used by the majority of subscribers, and the technological possibilities and ensure no less than 144 kbps upstream and downstream speed rate. The universal service provider is also obligated to provide services over payphones, provide the disabled service users with an opportunity to use universal services and provide information on the public telecommunication service subscribers.

RRT determined that in 2015 the annual declared average response time (29.55 s) of the universal service provider TEO LT exceeded the designated limit value (20.00 s). TEO LT informed that the reason for failure to comply with the said indicator is related to the situation on a labour market (lack of employees) and indicated that the non-compliance was eliminated by October 2015. No other violations of the requirements of the provision of universal services (including the requirements for the price ceiling of the universal electronic communications services) were detected in 2015.

In 2015, RRT published the report on the provision of electronic communications services and price changes for 2014. The information on the provision of universal services and price changes in 2015 is intended to be published by 1 May 2016.

At the request of RRT, in 2015 a representative survey of residents of the Republic of Lithuania was conducted for the purpose of establishing the needs of the users of universal electronic communications services in 2014. The main results of the survey are as follows:

Almost a third (31.2%) of the respondents stated that at home they used the public fixed telecommunication services provided by TEO LT (in 2013 – 30%, in 2012 – 33%). The majority of respondents (77%) stated that the services were satisfactory.
More than a half (52%) of fixed telecommunication service users stated that they also used the Internet over TEO LT communication lines (in 2013 – 50%, in 2012 – 48%).
29% of the respondents using the Internet over a fixed telephone line stated that the Internet data upstream and downstream speed rate was up to 10 Mb/s: 11% – up to 512 Kb/s, 7% – between 512 kb/s and 2 Mb/s, 11% – between 2 kb/s and 10 Mb/s. 11% of the respondents used 10-30 Mb/s data upstream and downstream speed, 10% – 30-100 Mb/s, 11% – higher than 100 Mb/s data upstream speed. A major portion (39%) of the respondents could not indicate the Internet speed rate.
The absolute majority (97%) of the respondents did not use payphones in 2014.

[8] Connection to a public communications network provided at a fixed location and public telecommunication services; public telecommunication services provided by public payphones; services of providing the information on the subscribers to public telecommunication services; possibility for the disabled service users to use electronic communications services.

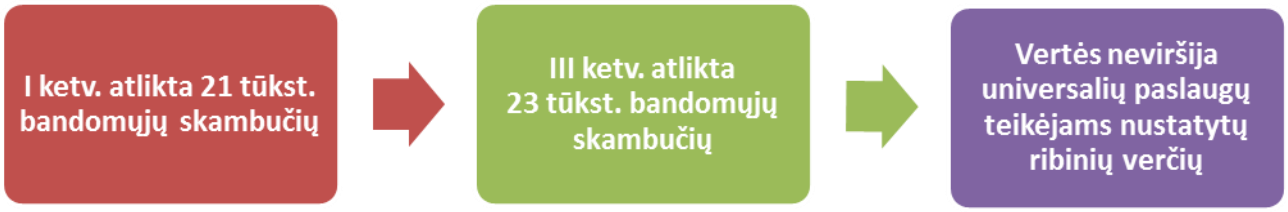
During Quarter II of 2015 at the request of RRT the survey was conducted to determine whether the universal electronic communications services were provided in the whole territory of the Republic of Lithuania at a designated extent and whether the designated extent met the needs of the universal electronic communications service users (including consumers and users with disability). The survey covered the evaluation of the use and necessity of payphones – it was determined that where it was possible to pay by a credit card or in cash and where additional services were introduced, the payphones would have been used by slightly more respondents (5-6%), but in general there was a downtrend in the need of payphones. Having analysed the situation on the market and having examined the information provided by TEO LT, RRT drafted the draft amendment of the Rules on the Provision of Universal Electronic Communications Services and proposed to reduce the density of payphones by 15%. TEO LT indicates that the density of payphones should be cut by up to 50%. The draft was published for the public consultation by 1 February 2016.

6.2.2 The Quality of Public Fixed Telecommunication Services

During Quarters I and III of 2015, while executing the monitoring of the provision of universal electronic communications services and compliance with the obligations to provide universal electronic communications services, RRT performed control measurements of the quality indicators of public fixed telecommunication services in the networks of the universal service providers.

During Quarter I of 2015 RRT performed more than 21 thousand test calls in the fixed telecommunication network of TEO LT, in Quarter III – 23 thousand test calls. The unsuccessful national call ratio (0.25% in Quarter I and 0.17% in Quarter III) and the average national setup time (0.37 s in Quarter I and 0.38 s in Quarter III) did not exceed the threshold values of service quality indicators imposed on universal service providers (no more than 5% and no more than 10 s).

Other service quality indicators declared by TEO LT in QI and QIII of 2015 did not exceed the threshold values imposed on universal service providers as well.



I ketv. atlikta 21 tūkst. bandomųjų skambučių
III ketv. atlikta 23 tūkst. bandomųjų skambučių
Vertės neviršija universalių paslaugų teikėjams nustatytų ribinių verčių

21,000 test calls in Q1
23,000 test calls in Q3
Values do not exceed threshold values imposed on universal service providers

6.2.3 The quality of public mobile telecommunication services

In 2015, when performing control measurements of the networks of public mobile telecommunication services, more than 2,815 test voice telephony (“VT”) calls were made and 3,625 short text messages (“SMS”) were sent in the public mobile telecommunication networks of Bitė Lietuva UAB, Omnitel UAB and Tele2 UAB.

Figures 10, 11 and 12 below show the comparisons of the quality indicators (VT call setup time, VT voice transmission quality, and SMS delivery time) with the results recorded last year[9].

Atlikta 2 815 balso bandomųjų skambučių	2,815 voice test calls made
Išsiųstos 3 625 trumposios tekstinės žinutės	3,625 short text messages sent

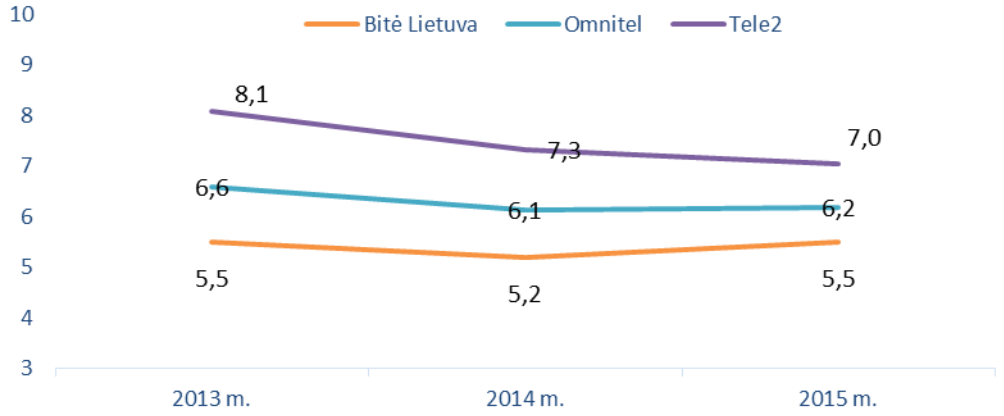


Fig. 10. Comparison of the average values of VT call setup time in 2013-2015, s
Source: RRT

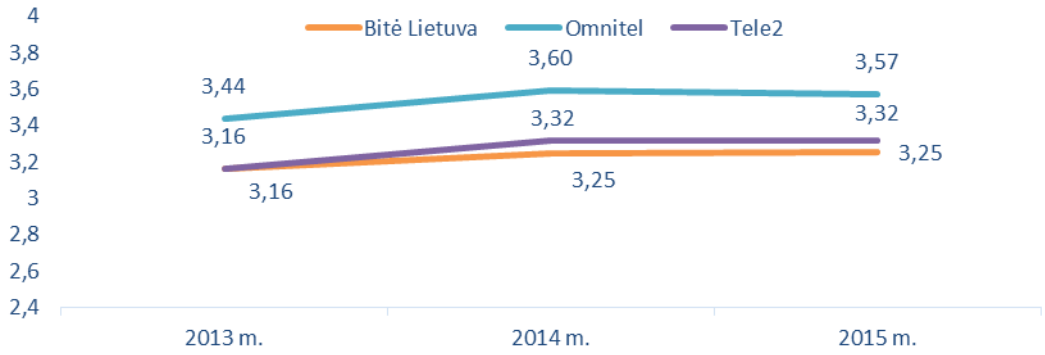


Fig. 11. Comparison of the average values of VT voice transmission quality in 2013-2015, MOS-LQO score
Source: RRT

Note: The higher the MOS-LQO score, the better the voice transmission quality. While measuring no terminal equipment that would support high-definition voice transmission technology (HD Voice) was used.

[9] The quality indicators of public mobile telecommunication services were assessed in accordance with the technical specifications ETSI TS 102 250-2 V1.6.2 (2008-09) of the European Telecommunications Standards Institute (ETSI) and the Methodology for Measuring the Quality Indicators of Public Mobile Telecommunication Services, approved by Order No 1V-260 of the Director of RRT of 3 March 2009.

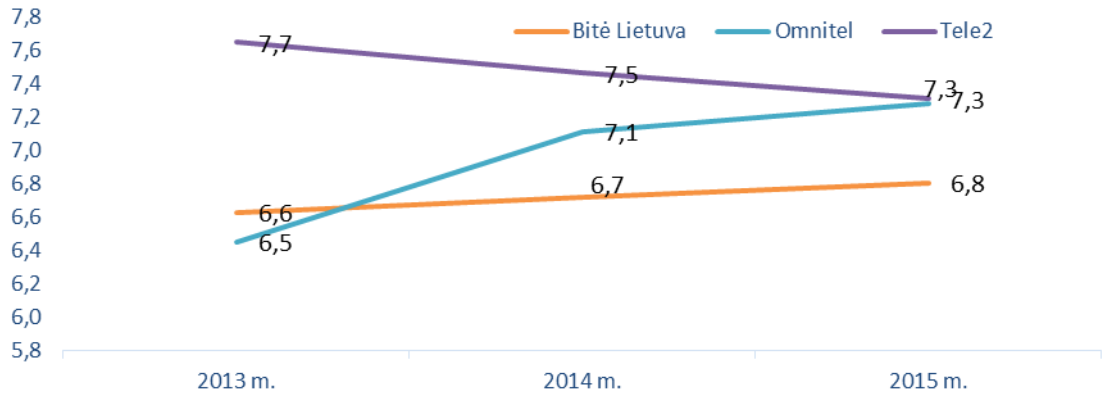


Fig. 12. Comparison of the average values of SMS delivery time in 2013-2015, s
Source: RRT

6.2.4 The Quality of Wireless Internet Access Services

In 2015, RRT continued the monitoring of the quality of wireless Internet access services. The developed wireless Internet access monitoring system based on the data of control measurements regularly performed by RRT allows the users to objectively evaluate the quality of Internet access services provided by mobile communication operators. The measurement results are published on the regularly updated interactive map on the website **matavimai.rrt.lt**. This information is useful to the users for the evaluation of the quality of mobile Internet access services and selection of the services meeting their needs.

In 2015, 37,000 data transmission tests were performed in the networks of the operators Lietuvos Radijo ir Televizijos Centras AB, Bitė Lietuva UAB, Omnitel UAB and Tele2 UAB. The measuring equipment was installed in a company car, and the measurements were carried out in most cities and on the main roads of Lithuania.

Figures 13 and 14 below show the data on the values of the Internet access quality indicators – the average data receipt speed rate and the average browsing speed rate – collected via the monitoring system.

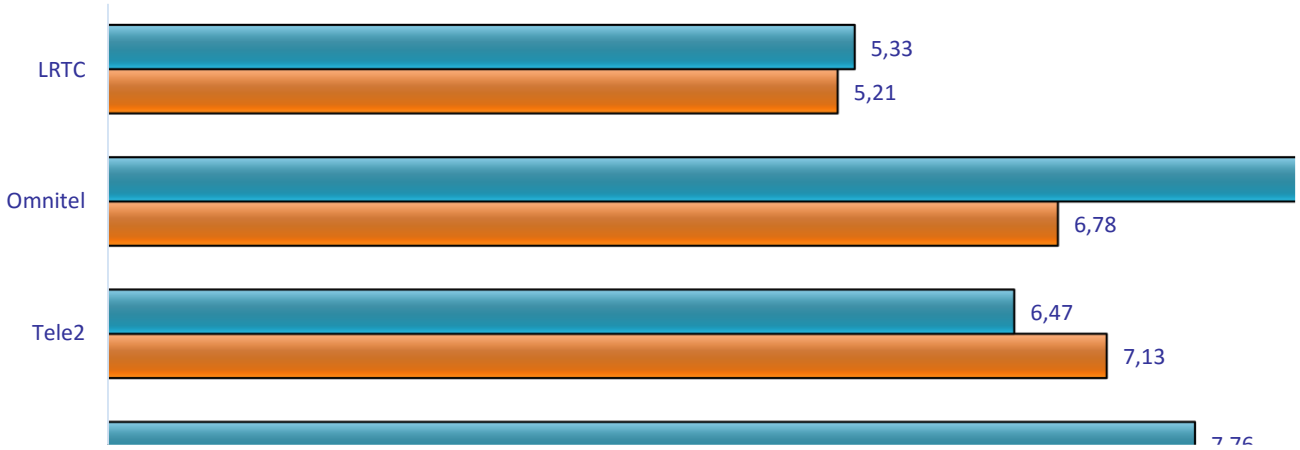


Fig. 13. The average data receipt speed rate in 2014 and 2015, Mb/s (results are based only on measurements performed in 3G technology networks; in case of LRTC – WiMAX)

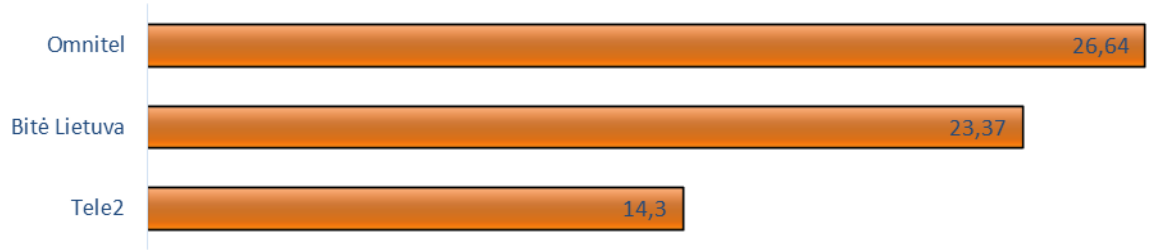


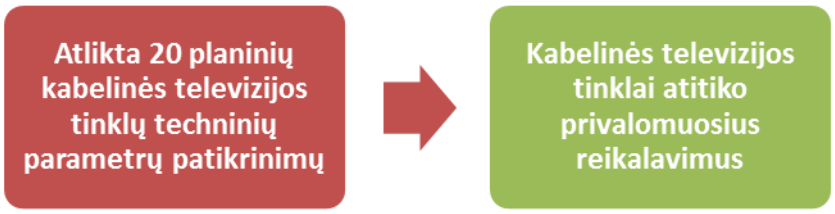
Fig. 14. The average browsing speed rate in LTE network in 2015, Mb/s

6.2.5 Cable Television Networks

In order to ensure that the users of the services provided over cable television ("CTV") networks receive high quality services RRT performs scheduled inspections of the technical parameters of CTV networks. During inspections it is assessed whether the main technical parameters of CTV networks determining the quality of radio and television signal transmission are compliant with the mandatory requirements provided in the Specification of the Requirements for Technical Parameters of Radio and Television Signals in Wire Distribution Networks[10].

In 2015, RRT performed 20 inspections of technical parameters of CTV networks. All of the inspected CTV networks were found compliant with the mandatory requirements.

Atlikta 20 planinių kabelinės televizijos tinklų techninių parametrų patikrinimų Kabelinės televizijos tinklai atitiko privalomuosius reikalavimus	20 scheduled inspections of technical parameters of cable television networks were performed Cable television networks were in line with the mandatory requirements



6.3 Investigation of Service Users' Requests (Complaints) and Disputes

RRT investigates requests, complaints and disputes between the end service users and electronic communications service providers.

If the consumer requests RRT, within the limits of its competence, to help clarify the situation, to provide information on consumer rights and other issues, RRT investigates such applications as requests (complaints)[11].

If consumers complain of the specific act/omission or decision of a person or undertaking, and also have sufficient evidence that the consumer's rights and interests protected by laws have been violated, ask to protect their violated rights or legitimate interests, and request a binding decision, RRT investigates such requests as

[10] Order No 1V-283 of the Director of RRT of 1 March 2006 "Regarding the Approval of the Specification of the Requirements for Technical Parameters of Radio and Television Signals in Wire Distribution Networks", http://www3.lrs.lt/pls/inter2/dokpaieska.showdoc_l?p_id=365147

[11] **The request** shall be examined in accordance with the Rules for Examination of Applications Submitted by Individuals and Services Provided to Them in Public Administration Institutions, Agencies and Other Public Administration Entities approved by **Resolution** No 875 of the Government of the Republic of Lithuania of 22 August 2007 "On the Approval of the Rules for Examination of Applications Submitted by Individuals and Services Provided to Them in Public Administration Institutions, Agencies and Other Public Administration Entities".

disputes[12]. Usually disputes arise where end service users and electronic communications service providers or users and postal service providers have different expectations in terms of creating, amending or terminating a legal relationship due to which end service users or users believe that their rights and legitimate interests have been violated. To restore the balance of violated interests, the parties may resolve the dispute in several ways – one of them is so-called alternative dispute settlement. Pursuant to the provisions of Articles 8 and 36 of the Law on Electronic Communications of the Republic of Lithuania and Article 13 of the Postal Law of the Republic of Lithuania, RRT is authorised to resolve the disputes between the provider of electronic communications services and the end user and disputes between the user and the postal service provider through a preliminary out-of-court procedure.

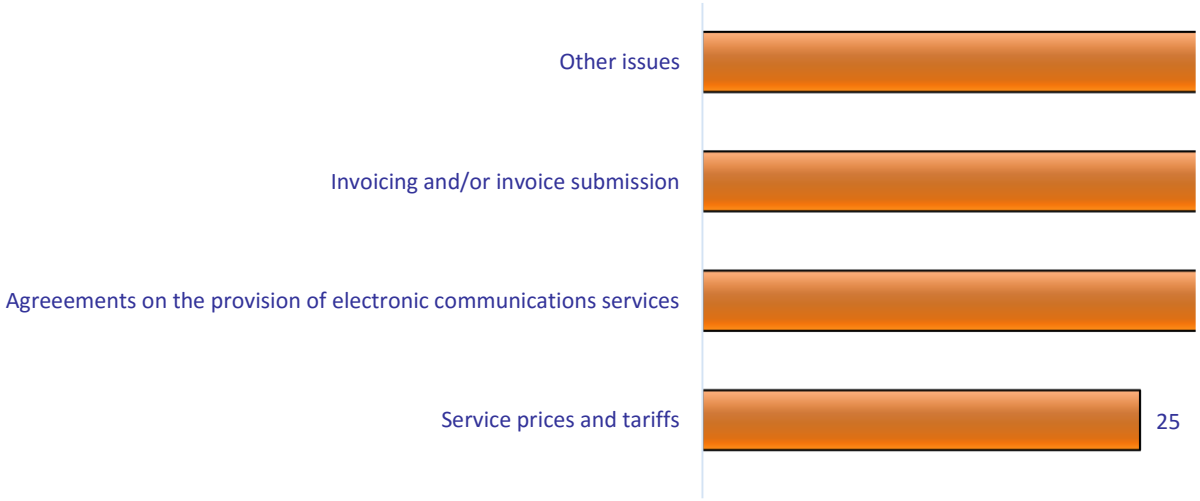
Where consumers wish to receive the official position held by RRT, they shall apply to RRT in writing.

6.3.1 Investigation of Electronic Communications End Service Users' Requests (Complaints)

Išnagrinėta 216 galutinių paslaugų gavėjų prašymų
Atsakyta į 300 asmenų elektroninių paklausimų
366 kartus konsultuota telefonu

216 requests of end service users have been investigated
300 electronic inquiries have been replied
366 consultations over the phone

In 2015, RRT investigated 216 requests and complaints from end service users regarding the acts or omissions of electronic communications service providers, of which – 195 from natural entities and 21 from legal entities. The reasons for lodging complaints are provided in Fig. 15.



[12] **The dispute** shall be examined in accordance with the Rules for Investigation of Disputes between the End Service Users and Electronic Communications Service Providers and Disputes between the Providers and Users of Postal and/or Courier Services approved by Order No 1V-1015 of the Director of RRT of 21 October 2011 "On the Approval of the Rules for Investigation of Disputes between the End Service Users and Electronic Communications Service Providers and Disputes between the Providers and Users of Postal and/or Courier Services".
[25] In accordance with the procedure established by the Rules for Examination of Applications Submitted by Individuals and Services Provided to Them in Public Administration Institutions, Agencies and Other Public Administration Entities.

Fig. 15. The reasons for lodging requests (complaints) in 2015

It was observed that persons applying with regard to the quality of electronic communications services (21 complaints) were mainly complaining about the quality of the data transmission services. In 2015, compared with 2014 where most complaints were related to the amount of transmitted data (a person denied having used up the amount of taxed transmitted data as indicated in the account), the complaints regarding the data downstream speed rate were prevailing.

In terms of the decisions on disputes, 61 disputes were resolved amicably, 147 disputes were replied to following the procedure prescribed by legal acts or they were forwarded to other institutions within their competence; the resolution of the remaining disputes will be finished in 2016.

6.3.2 Investigation of Requests (Complaints) from Postal Service Users

In 2015, RRT investigated 65 requests and complaints from the postal service users (see Fig. 16), of which – 60 from natural entities and 5 from legal entities.

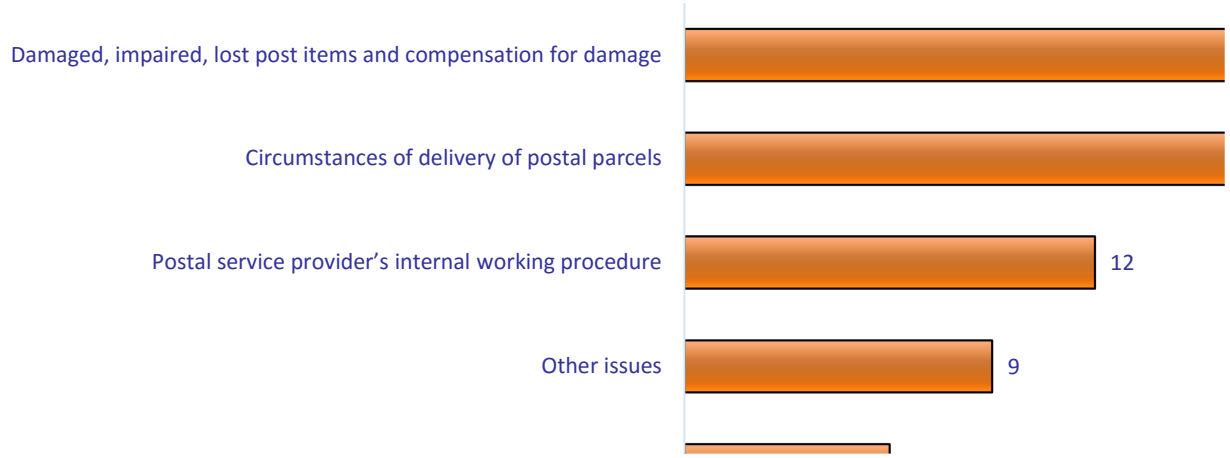


Fig. 16. The reasons for lodging requests (complaints) from postal service users in 2015

In 2015, a quite common reason for lodging a complaint that had not been singled out before was the internal working procedure of postal service providers which covers the inadequate conduct of employees and improperly issued or not issued payment receipts (12 complaints were received).

In terms of the decisions on disputes, 13 requests and complaints were resolved in favour of postal service users or amicably, 52 requests (complaints) were replied to following the procedure prescribed by legal acts or they were forwarded to other institutions within their competence.

6.3.3 Investigation of Disputes between End Electronic Communications Service Users and Service Providers

In 2015, RRT received 125 requests to resolve the dispute between the end service users and electronic communications service providers (of which 118 were resolved in 2015, the remaining will be resolved in 2016). Most of the received requests were lodged by natural entities – consumers using electronic communications

services for personal, family or household needs. The term for RRT to resolve the disputes between the end service users and electronic communications service providers was 16.7 working days in 2015.

The end service users most often applied to RRT regarding the telecommunication services as in 2014 (Fig. 17).

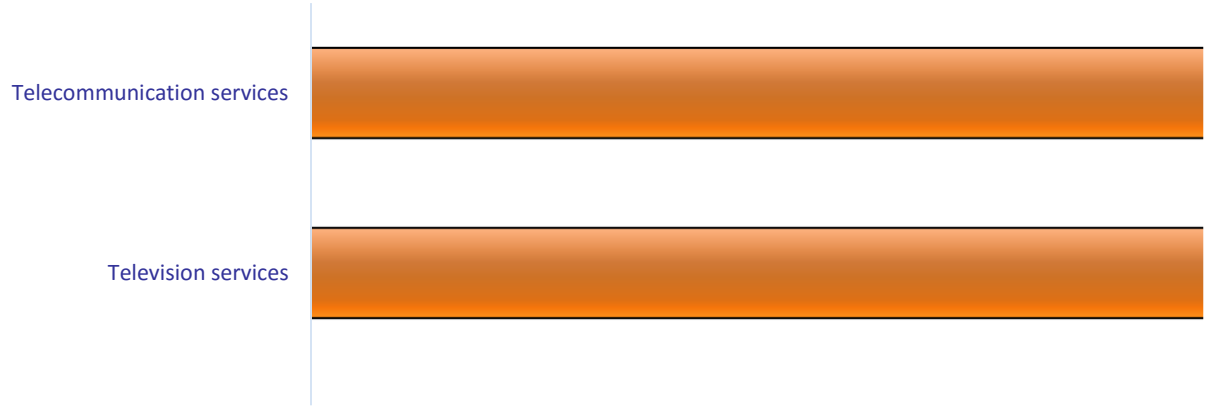


Fig. 17. Breakdown of requests to resolve the dispute by types of services in 2015[13]

Figure 18 provides the breakdown of disputes by the nature of disputes. Most (62) of the requests to resolve the dispute were related to the accuracy, validity and/or increase of fees specified in invoices, the disputed quantity of services provided, charges, etc. The issue of termination of the agreement prior to the expiry of the minimum period of use of electronic communications services stipulated in the agreement and, consequently, the default amounts charged by the provider of electronic communications services (31 cases) also remained relevant.

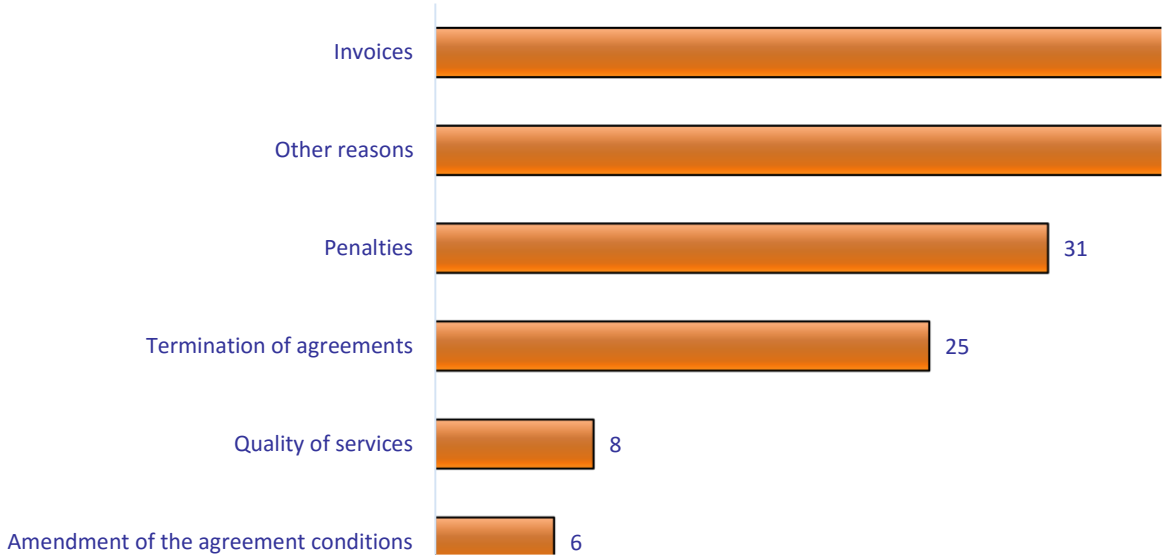


Fig. 18. Dispute breakdown by the nature of disputes in 2015 (some of the requests contained several reasons for applying)

[13] One dispute arose due to two services.

In 2015, Ms. Birutė applied to RRT and stated that the service provider (operator) illegally transferred the information on her unpaid bill to the debt-collection company (EUR 31.57). Ms. Birutė indicated that she paid the bills in due time within the deadline indicated by the service provider. RRT, having received Ms. Birutė's request, applied to the service provider and requested to explain the situation. Having examined the response, RRT determined that Ms. Birutė had paid before service provider assigned the debt-collection company the debt recovery right; however, due to technical problems the service provider recorded the paid amount one month later.

The service provider admitted its guilt and amicably resolved the situation – the applicant did not need to additionally pay to the service provider (EUR 31.57) or to the debt-collection company (EUR 7.62) for debt administration.

Most of the disputes of the end service users and service providers referred to RRT were resolved amicably (57) (Fig. 19), i.e. where the service provider recognised the demand from the end service user or where the service provider suggested the amicable resolution of the dispute, the end service user accepted it or did not express the disagreement with such a way of the dispute resolution.

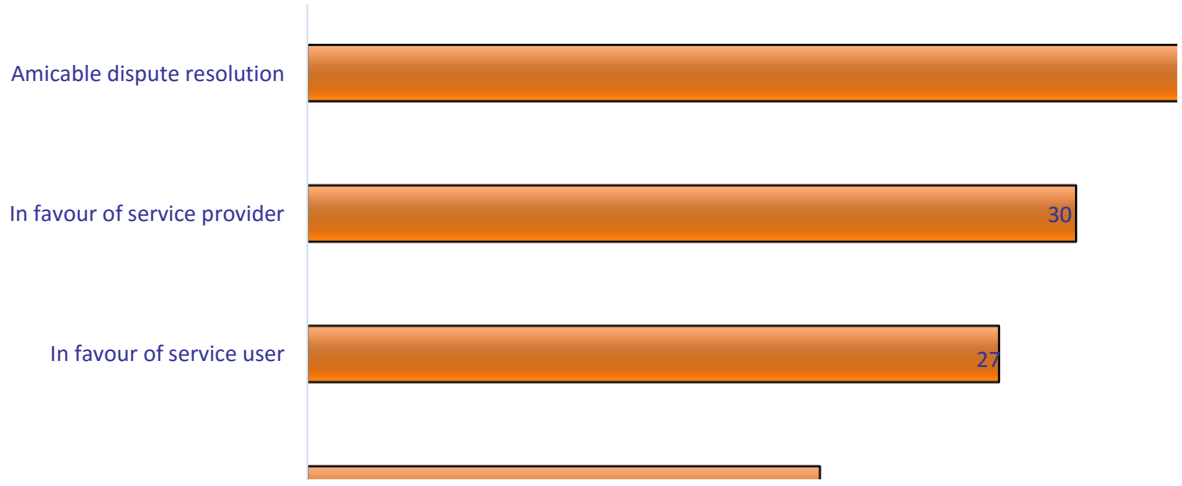


Fig. 19. Decisions on the disputes regarding electronic communications services (there were some complex decisions)

In 2012, Mr. Darius acquired 12 pre-paid service cards for LTL 60.00 (EUR 17.38), but he decided to activate them only three years later (in 2015). Having found out that the cards were no longer active, Mr. Darius applied to the service provider regarding money recovery; the service provider refused to refund on the basis of card payment receipts and grounded its decision by the fact that according to the rules on the provision of advance payment (prepayment) services, the cards were to be activated within 3 months from the date of the acquisition, otherwise the cards were to be blocked. At the request of RRT, the company was not able to provide the rules on the provision of services that were in effect in 2012. RRT stated that the service provider's rules on the provision of services had to stipulate the terms and conditions of the provision of services and in the absence of a copy of the said rules, the service provider's statement that the cards had to be activated within 3 months from the date of the acquisition, otherwise the service provider had the right to block them, was to be regarded as unproven. Therefore, RRT considered Mr. Darius' requirement to refund the amount of EUR 17.38 as reasonable and to be upheld.

6.3.4. Resolution of Disputes between Consumers and Postal Service Providers

In 2015, RRT received 9 requests to resolve the dispute (see Fig. 20) between the postal service users and postal service providers.

Most of the disputes of the postal service users and postal service providers received by RRT were resolved amicably (3 cases), in 2 disputes the decision was in favour of the user (i.e. its requirements were fully or partially upheld), the requirements of 2 users were not upheld, the resolution of 2 disputes was refused as RRT did not have the power to adopt decisions regarding the specific claims.

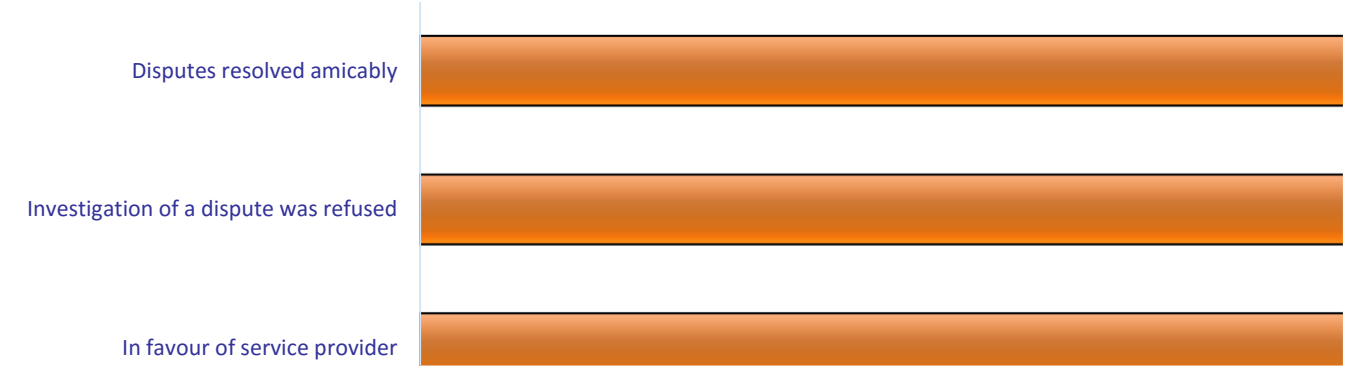


Fig. 20. Decisions on the disputes regarding postal services in 2015

Most (80%) of received requests were lodged by natural entities – consumers using postal services for personal, family or household needs.

6.4 Universal Postal Service

In 2015, RRT examined the detailed report on universal postal service ("UPS") costs of 2014 by Lietuvos Paštas AB. It was determined that UPS costs were accounted in compliance with the requirements laid down in the rules on UPS cost accounting.

The independent audit of Lietuvos Paštas AB cost accounting was carried out. It was determined that UPS accounting was carried out properly.

RRT received the request from Lietuvos Paštas AB regarding the compensation of the loss-making universal postal service. The request was found to be unreasonable.

6.4.1 Tariffs and Cost Accounting of Universal Postal Services

One of the most important goals in terms of legal regulation of the postal sector of the EU and Lithuania remains the continuous UPS provision under uniform conditions to all service users[14].

[14] After liberalisation of the postal market, the obligation on the UPS provider to ensure the continuous provision of universal postal services at least 5 working days a week within the territory of the Republic of Lithuania and ensure the UPS provision at least once a day, five days per week on equal terms for all users in the country remained. By 31 December 2019 Lietuvos Paštas AB is obligated to provide UPS and is responsible for the high-quality provision of UPS following the procedure laid down in the Postal Law.

In 2015, RRT received and analysed the detailed report on UPS costs of 2014 provided by Lietuvos Paštas AB and determined that Lietuvos Paštas AB had calculated its costs of UPS for the reporting period in observance of the requirements established in the Rules on UPS Cost Accounting – the cost accounting system of the provider of UPS was found compliant with the principles for handling cost accounting and other requirements established in the above Rules.

In 2015, RRT organized an independent audit of Lietuvos Paštas AB with the aim of establishing whether the cost accounting system used by the provider of UPS in 2014 complied with the principles and requirements for handling cost accounting as established in the Rules on Cost Accounting of the Provider of Universal Postal Services. During the audit the analysis of the structure of the cost of the services provided by the company was performed, the verification of correctness of the annual report on cost accounting was prepared. The auditor provided proposals of an advisory nature for optimizing the cost accounting system and the conclusions of the independent audit that in most important aspects the data provided in the annual cost accounting report of 2014 by Lietuvos Paštas AB was correct and the cost accounting report was prepared in observance of the requirements laid down in legal acts.

In 2015, RRT received the request from Lietuvos Paštas AB regarding the compensation of the loss-making universal postal service. Lietuvos Paštas AB indicated that the performance of the obligation to provide UPS in 2014 was loss-making in rural areas and it resulted in an unreasonably large financial burden. Lietuvos Paštas AB provided RRT with the calculations of losses incurred when providing UPS in rural areas, which accounted for EUR 949,076 in 2014. RRT, having examined the information provided in the request of Lietuvos Paštas AB and other available data, determined that the request of Lietuvos Paštas AB was unreasonable in terms of compensation of loss-making UPS.

Upon receipt of the application from Lietuvos Paštas AB regarding compensation of the loss-making service of delivery of periodical publications to subscribers in rural areas for 2014 and the first half of 2015, RRT submitted its conclusions to the Ministry of Transport and Communications stating that it did not identify significant non-conformity of the data provided in the requests and enclosed annexes provided by Lietuvos Paštas AB to the requirements set forth in the Rules on Cost Accounting of the Provider of Universal Postal Services approved by Order No 1V-55 of the Director of RRT of 11 January 2013.

6.4.2 Control of the Quality of Universal Postal Services

Lietuvos Paštas AB, as the UPS provider, is obligated to implement Standard LST EN 13850 “Postal Services. Quality of Services. Measurement of the transit time of end-to-end services for single piece priority mail and first class mail”. An independent internal monitoring of the transit time of end-to-end services for ordinary priority mail items carried out in 2015, where control letter-item batches were sent, revealed that 81.1% of priority letter-post items were delivered on the working day following the dispatch (D+1) (in 2014 – 85.4%), and 99.0% of priority letter-post items were delivered on the third working day following the dispatch (D+3) (in 2014 – 98,40%). The requirements for the quality of UPS set forth by the Ministry of Transport and Communications[15] provide for that **85%** of priority letter-post items must be delivered on the working day following the dispatch **(D+1)**, and **97%** – **D+3** (Table 2). As the results of measurement of the transit time of end-to-end services for single piece priority letter-post items carried out in 2015 are poorer than those stipulated in the requirements, RRT intends to perform

[15] Order No 3-128 of the Minister of Transport and Communications of the Republic of Lithuania of 28 February 2013 “On the Approval of the Description of the Requirements for Quality of Universal Postal Services”

a more detailed examination of the results of the measurement carried out in 2015 and of the causes that led to the worse quality of UPS in 2016.

Table 2. Results of measurement of the transit time of end-to-end services for single piece priority letter-post items in 2013-2015, qualitative indicators in Lithuania, %

Year	D+1	D+2	D+3
Set requirements	**85**	--	**97**
2013	**90.03**	98.10	**99.56**
2014	**85.40**	96.20	**98.40**
2015	**81.10**	96.30	**99.00**

Source: Spinter Tyrimai UAB
Note: D is the date of the acceptance of the postal item for sending. D+2 indicator has not been determined.

6.5 Protection of Consumers' Rights and Legitimate Interests in the Equipment Sector

6.5.1 Supervision of the Market of Radio and Telecommunications Terminal Equipment

RRT carries out the assurance and supervision of conformity of radio and telecommunications terminal equipment in the Republic of Lithuania to the mandatory requirements laid down in the Technical Regulation on Radio and Telecommunications Terminal Equipment[16] ("the **RTTE** Regulation"), as well as monitoring of the compliance of equipment existing on the market of the Republic of Lithuania with the requirements laid down in the Technical Regulation on Electromagnetic Compatibility[17] ("the **EMC** Regulation").

In 2015, the data on 3,822 types of radio equipment and telecommunications terminal equipment imported from third countries were analysed (see Fig. 21). Compared to 2014, the number of imported types of equipment dropped significantly in 2015. This relates to the fact that many manufacturers of Eastern countries have established their representative offices in the EU; therefore, import of radio and telecommunications terminal equipment from the Member States of the European Union rather than directly from the manufacturers of third countries is increasing.

[16] The Technical Regulation on Radio and Telecommunications Terminal Equipment establishing the conditions for free movement, placement on the market and use of radio equipment and telecommunications terminal equipment, as well as the essential requirements and obligations relating to the information on interface specifications, etc. The Regulation implements Directive 1999/5/EC of the European Parliament and the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (OJ 2004 special edition, section 13, volume 23, p. 254) in Lithuania.
[17] Order No 1V-1328 of the Director of RRT of 15 December 2006 "On the Approval of the Technical Regulation on Electromagnetic Compatibility", http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=292606

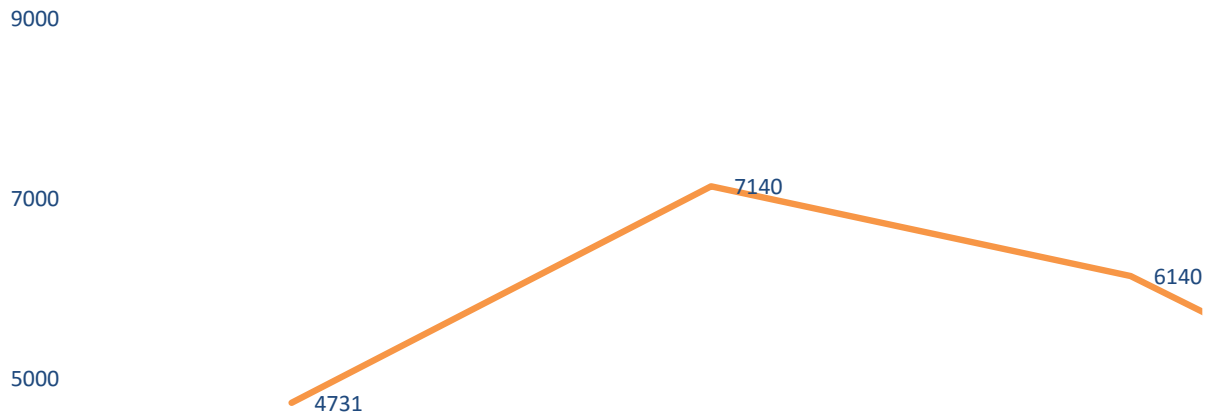


Fig. 21. Number of types of equipment imported from third countries in 2012-2015, pcs.
Source: RRT

Conformity to the Administrative Requirements of the RTTE Regulation

In 2015, 74 types of radio equipment and telecommunications terminal equipment were examined for the compliance with the administrative requirements of the RTTE Regulation (Fig. 22). The year of 2015 is the first year when the market has been free of the products without CE marking − this shows that the equipment manufacturers are aware of the labelling requirements; however, 24 types of equipment did not have declarations of conformity, i.e. they were not compliant with the administrative requirements. After the request, the declarations to 22 types of equipment were provided, and declarations of conformity to 2 types of equipment were not submitted and such equipment was removed from the market.

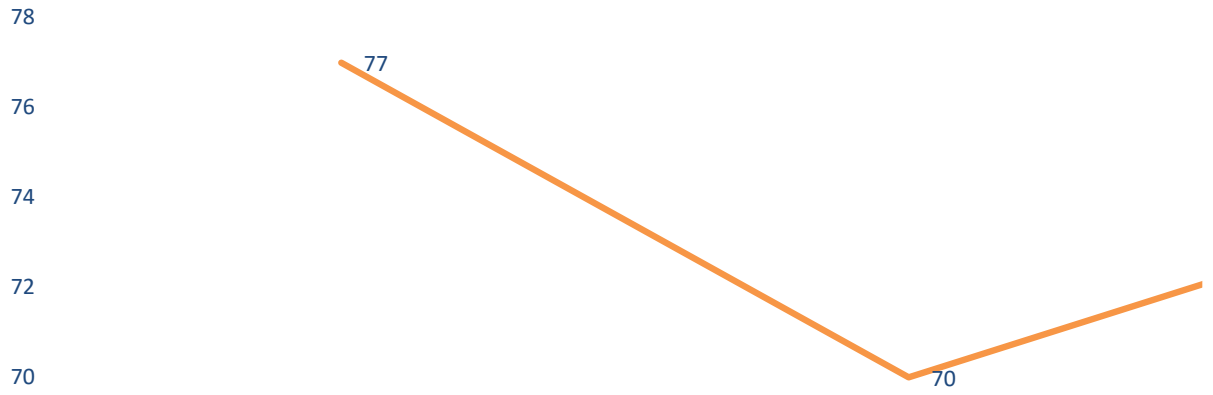


Fig. 22. Number of types of radio equipment and telecommunications terminal equipment inspected in 2013-2015

Conformity to the Requirements of the RTTE Regulation by Testing

In 2015, radio and telecommunications terminal equipment of 25 types was taken from the market for laboratory testing. 7 types of equipment were found non-compliant with the requirements of the RTTE Regulation.

Other devices identified as non-compliant with the requirements included 3 types of radio stations and 4 types of short range devices (remotely controlled toys). The main non-compliance parameter is the non-conformity of secondary radiation of the transmitter to the requirements set in the standards. The placement of these devices on the market has been suspended until the deficiencies are eliminated.

Compliance of Devices and Equipment with the Electromagnetic Compatibility Requirements

In 2015, 34 types of equipment (Fig. 23) were inspected for the compliance with administrative requirements (marking, declaration of conformity) of the EMC Regulation.

Fig. 23. Number of types of devices checked for compliance with the administrative requirements of the EMC Regulation in 2013-2015.

Out of 35 types of equipment 19 types were taken for laboratory tests. 11 types of equipment out of all types tested in laboratory did not comply with the requirements of the EMC Regulation (69% of tested devices). Such a high per cent of non-compliance comes as a result of a targeted selection of LED lighting fixtures and voltage converters in accordance with the EMC inspection programme. The main reason for non-compliance with the requirements of the EMC Regulation was interferences in power access. All products causing interferences and being non-compliant with the requirements of the EMC Regulation will not enter the national market or their supply will be suspended and they will not reach the customer's household.

6.5.2 The activities of RRT in ensuring free movement and provision of equipment to the EU market

Assessment of Conformity of Radio and Telecommunications Terminal Equipment

Atlikta 42 tipų 44 radijo ryšio įrenginių bandymai
13 tipų įrenginiai neatitiko RTTE reglamento esminių reikalavimų

Sustabdytas jų tiekimas rinkai

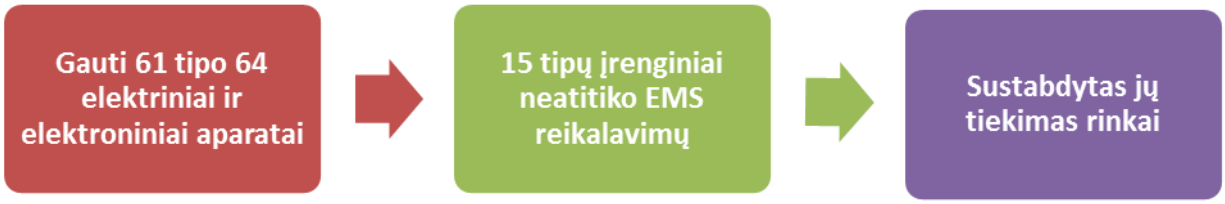
44 tests of radiocommunication equipment carried out
13 types of equipment found non-compliant with the essential requirements of the RTTE Regulation
Supply to the market suspended

Only such radio and telecommunications terminal equipment which complies with the essential requirements laid down in the RTTE Regulation may enter the EU market; therefore, the manufacturers from Lithuania and Member States of the EU shall submit the equipment for conformity assessment prior to placing the products on the market. In 2015, RRT received 44 units of radio equipment of 42 types which were tested and 42 test records were drafted. 13 types of equipment were found non-compliant with the essential requirements of the

RTTE Regulation. Such equipment will not be placed on the national market until the required level of electromagnetic compatibility is reached, as well as effective use of radio frequency range.

While carrying out market supervision, RRT took 27 units of radio equipment of 25 types to assess their conformity to the essential requirements of the RTTE Regulation in the areas of electromagnetic compatibility and effective use of radio frequency range. The tests showed that 7 types were non-compliant with the mandatory requirements. Trade in equipment of such types was suspended.

Compliance of Devices and Equipment with the Electromagnetic Compatibility Requirements (EMC)



Gauti 61 tipo 64 elektriniai ir elektroniniai aparatai
15 tipų įrenginiai neatitiko EMS reikalavimų

Sustabdytas jų tiekimas rinkai

64 electric and electronic devices of 61 types received
15 types of equipment found non-compliant with the EMC requirements
Supply to the market suspended

The EU market may be entered only by electric and electronic devices, for instance, domestic appliances, which are compliant with the requirements of the EMC Regulation: vacuum cleaners, refrigerators, coffee mills, dishwashers, microwave ovens, etc., as well as all electric and electronic equipment used for industrial, scientific, medical purposes. In 2015, RRT tested 64 electric and electronic devices of 61 types and drafted 61 test records. It was determined that devices of 15 types failed to comply with the essential requirements of the EMC Regulation – they will not be supplied to the national market until the sufficient level of electromagnetic compatibility is reached (in terms of disturbance radiation and disturbance resistance).

In 2015, the Accredited Device and Equipment Electromagnetic Compatibility Control Department tested conformity of three vehicles, two elevators and 12 types of new electronic medical devices with the requirements of electromagnetic compatibility under the contracts with the manufacturers and certification bodies[18].

When carrying out market supervision, 21 electric or electronic devices of 19 types were taken to assess their conformity to the essential requirements of the EMC Regulation. The tests showed that devices of 11 types were non-compliant with the mandatory requirements; trade in devices of such types was suspended.

When assessing conformity of electric and electronic devices and vehicles supplied to the EU market to the harmonised standards, 803 electromagnetic compatibility tests in total were carried out (of which – 394 electromagnetic disturbance radiation and 409 disturbance resistance tests). In total 156 test records were issued, of which 48 (31%) were found non-compliant with the EU electromagnetic compatibility requirements, thus the entry of such products failing to comply with the harmonised standards into the EU market was prevented.

According to the concluded long-term bilateral agreements, RRT cooperated with certification centres, equipment manufacturers and performed compatibility tests on the equipment supplied by them:

- certification centre Sertika – compatibility evaluation of medical devices;

[18] According to UN Regulation No 10 on vehicles and harmonised standards under EU Directive 93/42/EEC (for medical devices)

- Certification Centre for Electrical Appliances EGSC – evaluation of electromagnetic compatibility of electrotechnical equipment;
- local manufacturers of electric and electronic equipment: Snaigė AB, Elgama-Elektronika UAB, Teltonika UAB, Šviesos Konversija UAB MGF, Eltesta UAB, Trikdis UAB and many others, including electronic equipment manufacturers from Latvia, Estonia, Denmark and Germany regarding the assessment of conformity to the essential requirements of EMC.

6.5.3 Elimination of Radio Interference

Gauti 385 prašymai dėl radijo trukdžių tyrimo
Iš jų
114 atvejų nustatyti trukdžių šaltiniai

385 requests on investigation of radio interferences received
Of which
114 cases where sources of interference were detected

In 2015, RRT received 385 requests to eliminate radio interferences from natural and legal entities.

Most requests – 213 (see Fig. 24) – were related to problems caused by reception of terrestrial television programmes, and the second largest part of requests regarded radio interference with public mobile communication base stations.

The requests regarding the radio interference examination may be submitted by both natural and legal entities. This service is free of charge. Information is provided via free of charge helpline +370 800 20030 and on the w

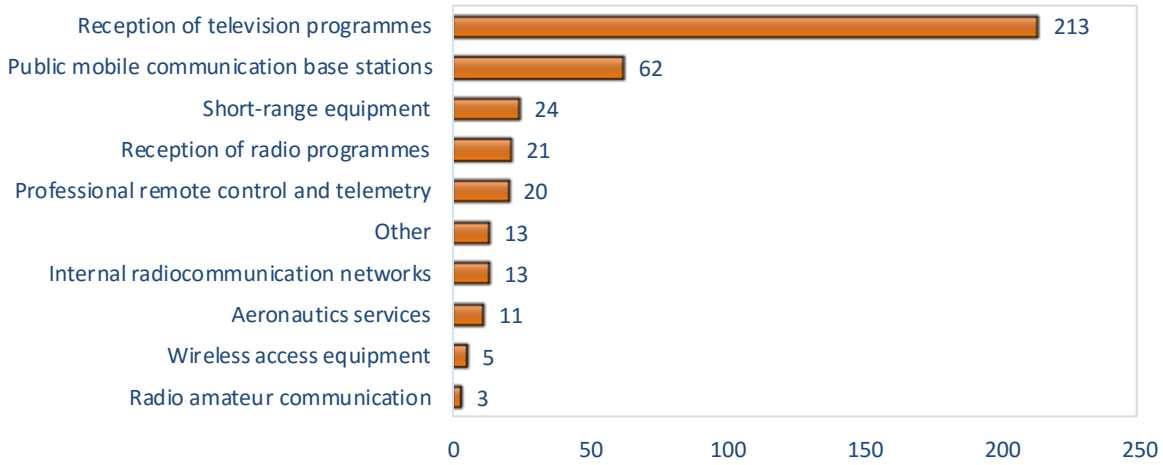


Fig. 24. Breakdown of requests to eliminate radio interferences in 2015.

Out of 385 received requests, radio interference was determined in 114 cases (see Fig. 25), of which 53 occurred due to newly launched public mobile communication LTE base stations which interfered with the reception of TV programmes. Installation of radio frequency filters at the cost of suppliers eliminated radio interferences. 110 complaints were related to short-term problems where interferences lasted for a short period of time and disappeared before the cause was detected. 103 investigations were completed having determined that a complainant was using equipment unable to receive programmes or the equipment was faulty.

RRT specialists consulted the entities at the place of destination on further actions to be taken to improve the quality of television programme reception.

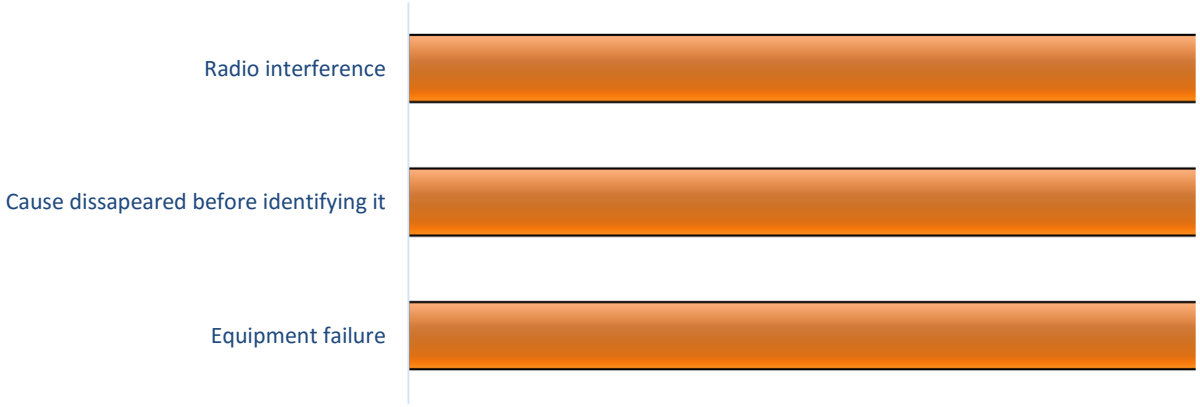


Fig. 25. Reasons for filing complaints on interferences in 2015

6.6 Assurance of Network and Information Security

6.6.1 Activities of the National Unit CERT-LT When Investigating Incidents

*The greatest challenge faced by Lithuanian Internet users in 2015 was **malicious software**. The modifications of this problem of a special concern are: viruses requesting to pay ransom and botnets (compromised computer networks). By using the latter, malevolent parties distribute spam, perform service disturbance attacks and other malicious activities.*

In 2015, CERT-LT investigated **41,583** reports received from electronic communications service providers, foreign CERT services investigating international incidents and Lithuanian Internet users on potential breaches in the electronic space (see Fig. 26). It must be noted that 17% of all incidents are thoroughly investigated by CERT-LT specialists, including Distributed Denial of Service (DDoS) attacks, compromises of information systems and other exceptional incidents, as well as incidents that are reported to the website of CERT-LT by filling out a special form (www.cert.lt/pranesti.html) or via e-mail. The remaining part of incidents is processed automatically by transferring information on the incident and recommendations to persons that incident-related IP addresses belong to. Compared to 2014 (**36,136** reports), the number of received reports was larger by 15%.

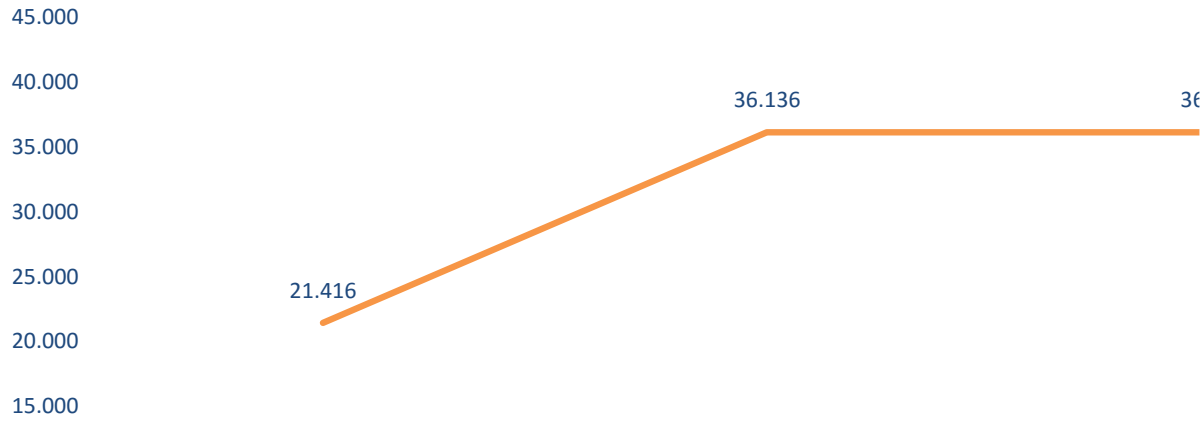


Fig. 26. The number of incidents investigated by the national CERT-LT team in 2012-2014.

Statistics and analysis of the reports on network and information security incidents investigated by CERT-LT in 2015 are provided below.

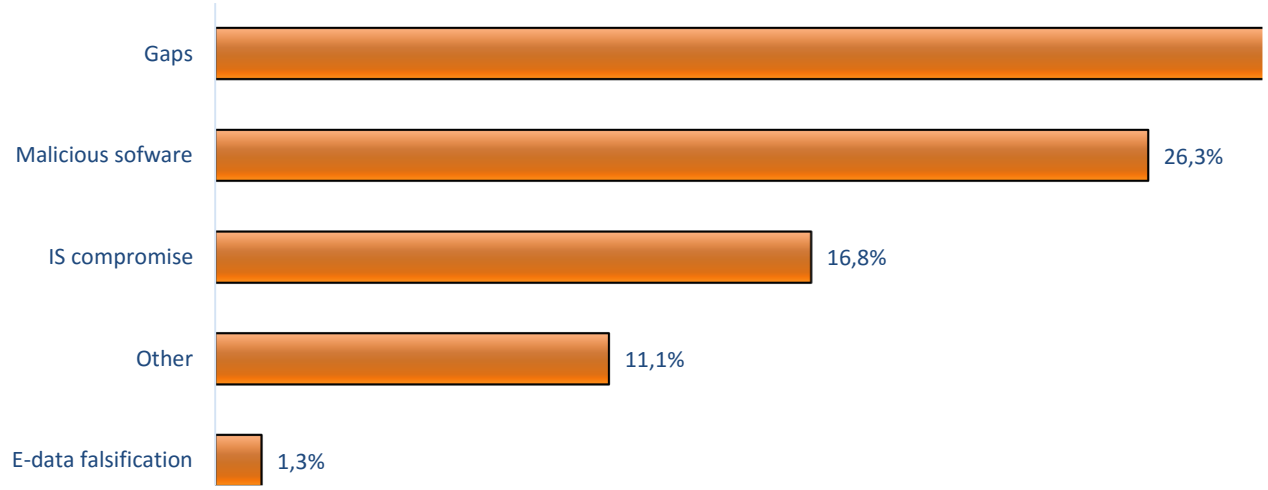


Fig. 27. The nature of the reports on network and information security incidents investigated by CERT-LT in 2015, %
Source: RRT

Security gaps in equipment. In 2015, 18,427 (in 2014 – 13,827) reports on security gaps in equipment owned by natural entities were investigated (routers, computers, servers). In most cases, such gaps do not pose any immediate threat to the security of the data of equipment owners; however, they allow malevolent parties to use such equipment for Distributed Denial of Service (DDoS) attacks as attack boosters. On the website https://www.cert.lt/irankiai.html users may check whether their network equipment does not have any security gaps in SSDP, NTP, SNMP, DNS, NetBIOS protocols.

Malicious software, compromises of information systems. In 2015, 10,928 (in 2014 – 11,276) cases of the use of malicious software were investigated. Malicious software was most often used to involve users' computers in a botnet. Computer users may be long unaware of their computers being involved in botnets (usually computers work without faults, sometimes the Internet connection may become slow). Also, 6,975 cases of compromised information systems were investigated (in 2014 – 4,853). In most cases, the websites using popular content control systems ("Wordpress", "Joomla") were compromised.

Denial of service (DoS) attacks. In 2015, 50 reports (in 2014 – 165) on denial of service attacks (DoS)

were investigated. Generally, such attacks are carried out by automated means using botnet resources. In order to terminate ongoing DoS attacks, CERT-LT gave recommendations to website owners or companies providing electronic information hosting services on how to stop such attacks, and coordinated actions with Internet service providers and CERTs operating in other countries.

Reports on phishing. In 2015, 559 reports on phishing (in 2014 – 630) were investigated. Malevolent parties create false websites in order either to obtain online account details or derive benefit from that. Typically, phishing websites pretend to be representatives of Lithuanian commercial banks or public institutions and they notify of allegedly received or performed new transaction, they also ask to log into a false e-banking system. In Q1 of 2015, phishing websites targeting the clients of "DNB", "Danske" and "SEB" were spread. The most frequent false or phishing websites are those of payment systems (for instance, PayPal), social networking websites (Facebook, VK.com), electronic mail systems (Gmail, Yahoo), and Internet sites. There were also cases of false websites of banks operating in Lithuania and abroad. All phishing websites were quickly eliminated by the actions of CERT-LT.

In 2015, CERT-LT continued the development of the Lithuanian Internet Network Infrastructure Monitoring System (LITIS) which analyses the Lithuanian Internet Infrastructure Facilities (Internet names, addresses and address spaces, routes, autonomous systems, etc.). LITIS monitors changes in routes, their accuracy, collects data on the accessibility of internet infrastructure facilities of high significance.

6.6.2 The activities of CERT-LT in the Area of Incident Prevention

"CERT-LT alerts – be very careful during holidays!"
"CERT-LT alerts: false e-mails have become more active"
"Attention: malicious software is spread on social network "Facebook"
"Attention: viruses encrypting files are spreading"

Prevention of cyber security incidents is carried out by promoting **CERT-LT** activities. It includes press releases (several examples of the headlines are provided above), which is one of the main tools to prevent potential violations in cyberspace. In its notices, RRT drew the public's attention on the then-relevant cyber security challenges, provided alerts and recommendations on how to avoid large-scale risks and eliminate the consequences of incidents.

CERT-LT efforts led to the reduced number of cases of compromises of content control systems by using "Stealrat" code by up to 5 times (when comparing the data of 2015 and 1 April 2016). This code designed to create computer botnets was very actively used in Quarters I-II of 2015 – CERT-LT used to record both new and familiar infected websites every day. Till autumn of 2014 such incidents were resolved automatically. In 2015, the CERT-LT employees witnessing such inefficiency were resolving compromise accidents manually all year round. Such a solution brought results and the number of cases of compromises became stable and started decreasing later on. Such actions helped significantly reduce the spread of a malicious code by the end of 2015.

Detailed information and recommendations for computer users are published on specialised websites www.cert.lt and www.esaugumas.lt, and on CERT-LT "Twitter" account.

On the website of CERT-LT, users can report on network and information security problems by filling in a special form at https://www.cert.lt/pranesti.

It must be noted that in 2015 CERT-LT organised 2 meetings with Internet service providers during which the current situation was presented, obstacles in the fight against security gaps in equipment were discussed, proposals were considered, and experiences of service providers were exchanged.

6.6.3 Cloud Computing

In 2015, RRT drafted Practical Recommendations for Cloud Computing Service Users which draw attention of the cloud computing service users to risk factors that must be considered when selecting the cloud computing service providers and types of offered cloud computing services. Such recommendations were translated into English in order to publish them not only in Lithuania, but also in other Member States of the European Union through assistance of international organisations such as ENISA. The recommendations are available in Lithuanian at http://rrt.lt/failai/rekomendacijos, and in English at http://rrt.lt/failai/rekomendacijos_en.

To create a forum of Lithuanian cloud computing service providers for closer cooperation by involving as many providers in the process as possible, the voluntary list of cloud computing service providers was compiled which currently includes 13 registered service providers.

In 2015, a new recast of the Rules on Assurance of Security and Integrity of Public Communications Networks, Public Electronic Communications Services and Electronic Information Hosting Services was approved. The essential amendment of the Rules is related to the implementation of the provisions of the Law on Cyber Security based on which the rights and duties have been stipulated for the electronic information hosting service providers in Lithuania by ensuring security and integrity of the services they provide. The electronic information hosting service providers shall inform the service users on the countries where their electronic information is stored, implement adequate technical and organisational measures of cyber security assurance in order to ensure the security of their services, inform the service users on more significant incidents, breaches of integrity and scheduled activities during which the security and/or integrity of electronic information hosting services would likely be disturbed.

6.6.4 Internet Content Monitoring through Implementation of the "Safer Internet" Project

RRT has been carrying out the "Safer Internet"[19] project with other partners in Lithuania for nine years.

When implementing the aforementioned project, in 2015 RRT regularly provided information for the website **www.draugiskasinternetas.lt** of the Safer Internet project administered by ITC and partners, where children and parents may find relevant information about safety on the Internet, Safer Internet project, Safer Internet Day events, activities of international organizations Insafe and INHOPE, etc. The hotline administered by RRT is also available on the website (http://www.draugiskasinternetas.lt/lt/main/report). Here the Internet users are invited to report on observed harmful or fraudulent content, the information on the helpline is available; through the hotline the emotional and psychological support for children is provided and it may be contacted on the free of charge phone number 116 111 (the common European number for the helplines responding to children in need in many European countries). The section "For Parents – Content Filtering Applications" of the website at www.draugiskasinternetas.lt contains advice for parents regarding the use of control and/or filtering applications.

For the purpose of public awareness raising, in 2015 a social campaign was traditionally organized to celebrate the international Safer Internet Day ("SID 2015")[20] which was celebrated around the world on 10 February 2015 with the slogan "Let's create a better Internet together!". The main highlight of SID 2015 – a national Safer Internet conference "Challenges and Results of the Safer Internet Centre Activities" organised in the Lithuanian University of Educational Sciences.

6.6.5 Hotline Activities

When performing the Internet hotline functions, RRT received 609 reports on illegal or harmful content on the Internet in 2015 (see Fig. 28). Compared to 2014 (733 reports), the number of received reports decreased by 17%.

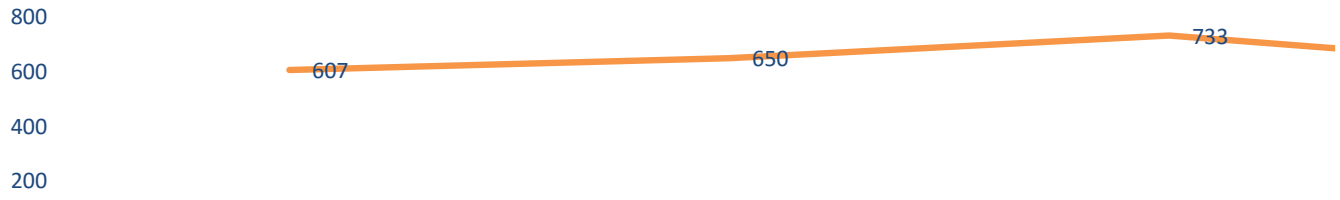


Fig. 28. The statistics of reports to the Internet hotline in 2012-2015.

Internet users sent reports on the information found of the Internet relating to incitement of racial or ethnic hatred, pornography, sexual abuse of children, as well as unauthorized publication of personal information.

[19] Objectives of the Safer Internet project are to increase public awareness about harmful content conduct on the Internet; promote safer usage of the Internet and new technologies, especially among children; provide public with a contact point to anonymously report illegal and harmful content, and provide help to children who faced cyber-bullying, sexual grooming, harmful content or other bad or intimidating experience over the Internet.

[20] The organisers of the conference "SID 2015" – RRT, ITC, Child line Vaikų Linija, association Langas į Ateitį, TEO LT, Lietuvos Radijas ir Televizija AB, Lithuanian Academic and Research Network LITNET, Professional Volunteering Project "Who needs it?", Lithuanian Municipal Public Library Association, Kaunas University of Technology

Following investigations further actions were taken in 226 cases (see Fig. 29), which accounted for 37% of all received reports.

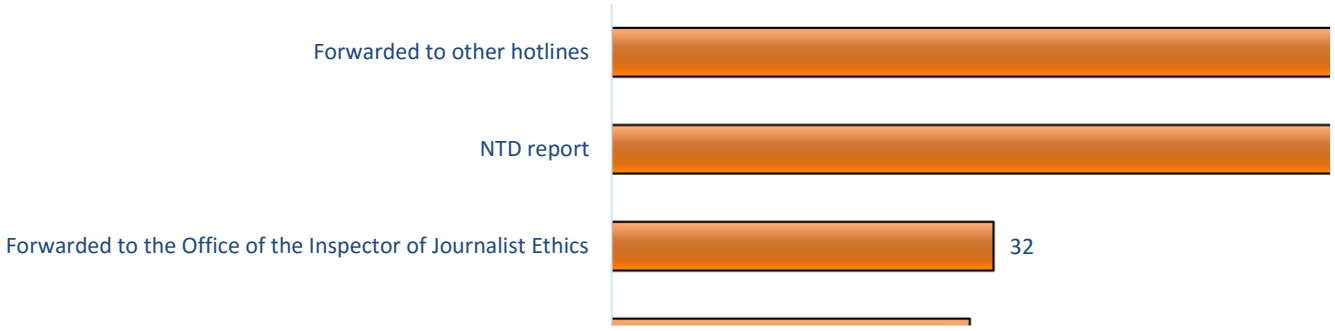


Fig. 29. The statistics of reports to the Internet hotline in 2015.
Source: RRT
NTD (Notice and Take Down) reports are forwarded to Internet service providers in different countries notifying them of the illegal Internet content contained in their networks in order to remove it as soon as possible.

No actions were taken with regard to other reports, since they did not contain information on the Internet content which was not harmful or illegal under the Lithuanian legislation or it was published from foreign countries, where such content is not considered illegal, or from service stations (for instance, pornography in some of the countries is legal).

In 2015, the conformity of marking of computer games was inspected in accordance with the requirements laid down in the Law on the Protection of Minors against the Detrimental Effect of Public Information of the Republic of Lithuania. All major shopping centres and the largest online computer games shop were inspected. In total 750 computer games were inspected. During inspections 23 computer games were found non-compliant with the marking requirements under legal acts; therefore, the parties concerned were instructed to properly mark them. During inspections the employees responsible were consulted over the requirements of legal acts in relation to the marking of computer games. Defects were eliminated in all inspected points of sale.

6.7 Supervision of Electronic Signature and Promotion of the Use Thereof

RRT experts participated in preparing for signing the mutual electronic document among Lithuania, Latvia and Estonia. In 2015, Minister of National Defence of the Republic of Lithuania Juozas Olekas, Minister of Defence of the Republic of Latvia Raimonds Bergmanis, and Minister of Economic Affairs and Communications of the Republic of Estonia Kristen Michal electronically signed the memorandum on cooperation in cyber security.

The number of issued valid qualified certificates of electronic signature grew by 7.46%.

As of 1 July 2016 RRT will commence the supervisory activities in terms of trust services for electronic transactions.

RRT supervises the compliance of certification service providers with the set requirements and seeks the compatibility of electronic signature equipment in Lithuania and internationally, as well as the recognition of

certification service providers operating in Lithuania at the international level. Having examined the information provided by the qualified certification service providers, no violations were found in 2015.

In 2015, RRT supervised and qualified certification services provided by three providers in Lithuania: UAB Skaitmeninio Sertifikavimo Centras, State Enterprise Centre of Registers and Residents' Register Service. As of 1 January 2016, the certification functions carried out by the Residents' Register Services were taken over by the Identity Documents Personalisation Centre under the Ministry of the Interior of the Republic of Lithuania which was registered as a certification service provider issuing qualified certificates.

The summarised data received from certification service providers in 2015 and the data of the previous year show that, compared to 2014, the total number of valid qualified certificates issued by the Lithuanian certification service providers by the end of 2015 increased by 7.45% (at the end of 2014 – 894,672 valid qualified certificates, at the end of 2015 – 961,345 valid qualified certificates). It must also be noted that in 2015 the most rapidly growing number was that of qualified certificates issued together with SIM cards (in 2015, the number of such qualified certificates increased by 60%). This information shows that the Lithuanian residents are more and more provided with the electronic signature means, and the interest in electronic signature is growing.

In 2015, RRT prepared the draft resolution of the Government of the Republic of Lithuania "On the Assignment of the Supervisory Authority for Supervision of Trust Services", and as of 1 July 2016 it will start carrying out the supervisory functions in terms of trust services for electronic transactions, as well as will compile, handle and publish the national trusted list of such services.

As of 1 July 2016 the reliability assurance services shall mean the services of confirmation of electronic signatures, electronic stamps, website identification certificates, time-stamping, electronic signature validity, long-term electronic signature protection and electronic registered delivery services as defined in the eIDAS Regulation which will replace the legal regulation of electronic signatures.

To promote the use of e-signature, RRT, through methodological assistance, consulted entities over the issues on the use of electronic signature and improved the Remote Electronic Signature Training System www.elektroninisparasas.lt which was used by 4,298 users in 2015. Also, the instructions helping the users to set up their computers and sign electronic documents were drafted (available at www.rrt.lt/failai/atmintine, and on the website www.elektroninisparasas.lt).

7 Objective 3. PROMOTION OF INVESTMENTS AND DEVELOPMENT OF ADVANCED ICT TECHNOLOGY

The assurance of conditions for the next-generation wireless broadband network development has been the main measure to promote the investments in the electronic communications sector for several years now.

The development of wireless broadband networks has been mostly carried out by means of UMTS, WiMAX and LTE technology. At the end of 2015, the broadband wireless access mobile radiocommunication networks installed by means of UMTS (Universal Mobile Telecommunications System), WiMAX (Worldwide Interoperability for Microwave Access) and LTE (Long-Term Evolution) technologies covered 99% of the territory of the Republic of Lithuania.

The auction to use radio frequencies held at the beginning of 2016 will provide Lithuania with the opportunities to continue seeking the most advanced technological progress and quality of services. Supervision of a radio spectrum, consistent planning of radio frequencies will remain the priority of RRT to achieve the best results both for the market and end service users.

In 2015, RRT carried out preparatory activities and in 2016 it held the auction for granting the right to use radio frequencies (channels) from the 880-915 MHz and 925-960 MHz duplex radio frequency band ("900 MHz radio frequency band") and from the 1710-1785 MHz and 1805-1880 MHz duplex radio frequency band ("1800 MHz radio frequency band"). Winners of the auction were granted the right to use radio frequencies from the said radio frequency bands between 1 November 2017 and 31 October 2032. The permits to use radio frequencies (channels) from the 900 MHz and 1800 MHz radio frequency bands are neutral in terms of technology and services; therefore ,such radio frequency bands will be fit to deploy advanced next-generation wireless broadband networks. Winners of the auction will have to ensure that within 3 years from the date of the permit issue, the territory where public mobile telecommunication services will be provided, i.e. the services available to the public for sending or receiving national or national and international direct or indirect calls using a relevant telephone number or numbers indicated in the National Telecommunication Numbering Plan, provided via the public mobile communications network, will cover at least 98% of the territory of the Republic of Lithuania. Every permit holder will also have to ensure that as of 1 January 2020 the high-speed wireless broadband communication (30Mb/s and higher) covers the territory with the population of at least 85% of the Lithuanian residents with an 85% reception likelihood.

The long-term plans of the development of the electronic communications sector in the European Union are mainly associated with the installation of the second digital dividend (694-790 MHz). This issue became of a special relevance when on 19 February 2015 the Radio Spectrum Policy Group approved the long-term strategy on the future use of UHF radio frequency band (470-790 MHz) in the European Union (RSPG15-595). The strategy recommends the Member States to free up the 694-790 MHz radio frequency band for wireless broadband systems by the end of 2010 by retaining the right to postpone this term by up to two years and start the bilateral negotiations with the non-EU states on the international coordination agreements. Having approved the said document, planning of the TV broadcasting transition to the 470-694 MHz radio frequency band became

very important. Transition of TV broadcasting will not only take re-planning of radio frequencies (channels), but also the replacement of TV programme transmission and reception equipment.

The development of advanced ICT technologies in the border states of the EU are significantly dependent on the radio frequency use plan of the non-EU states, as in the case of failure to agree on the terms and conditions on the common use of different radiocommunication systems, the border territories of the Republic of Lithuania might become buffer zones with very limited options to use radio frequency bands harmonised at the EU scale. Pursuant to reports and recommendations on the use of frequencies drafted by the International Telecommunications Union (ITU), working groups of the Electronic Communications Committee (ECC) of the European Conference of Postal and Telecommunications Administrations (CEPT), RRT annually initiates the international negotiations with the neighbouring countries on setting the conditions for coordination of mobile communication stations in the border territories. On 25-27 August 2015 the international negotiations on radio frequency coordination were held between the representatives of communications administrations of the Republic of Lithuania and the Republic of Belarus in Vilnius. During the meeting the agreement on the use of terrestrial broadband mobile service stations (MFCN) in the border territories in the 2300-2390 MHz frequency band was approved and signed. On 3 November 2015 the international agreements on coordination of terrestrial mobile service radiocommunication stations and aeronautics radio navigation service radiocommunication stations operating in the 694-790 MHz radio frequency band were signed with the representatives of the communications administrations of the Russian Federation and the Republic of Belarus.

7.1 Installation of Modern Technologies – LTE Networks

LTE technology-based networks are the main means of access to fourth-generation or 4G mobile radiocommunication services for the residents of Lithuania

In 2015, LTE networks were most intensively deployed and next-generation mobile data transmission services were provided by the mobile radiocommunication operators which, by way of the auction held in 2013, were granted the right to use radio frequencies(channels) from the 800 MHz (791-821 MHz and 832-862 MHz). At the end of 2015, 2,271 LTE (4G) base stations operating in the 800 MHz, 1800 MHz (1710-1785 MHz and 1805-1880 MHz) and 2600 MHz (2500-2560 MHz and 2620-2690 MHz) radio frequency bands were registered.

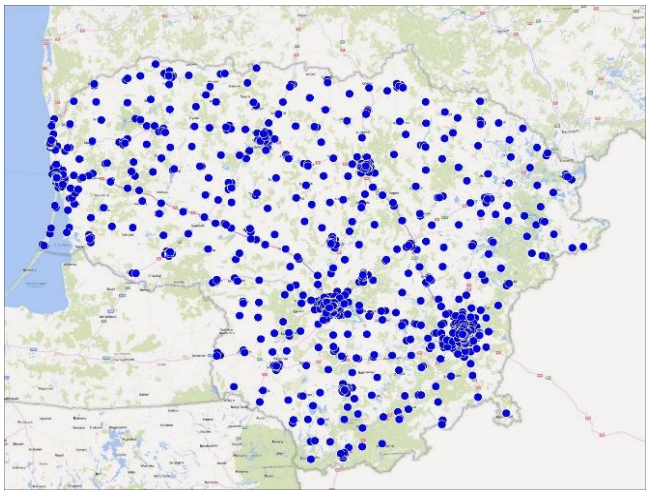


Fig. 30. LTE (4G) base stations registered in the 800 MHz, 1800 MHz and 2600 MHz radio frequency bands (at the end of 2015)

In 2015, Lietuvos Radijo ir Televizijos Centras AB started deploying LTE-technology based network by

> *RRT carried out the calculations of the areas likely to be covered by LTE mobile radiocommunication network that provide every user with an opportunity to assess the quality of mobile communication services in their residential environment.*

means of the 2310-2390 MHz radio frequency band – at the end of the year the company had 29 LTE radiocommunication stations registered.

In 2015, the calculations of probable coverage zones of LTE mobile radiocommunication networks of mobile radiocommunication operators Bitė Lietuva UAB, Omnitel UAB and Tele2 UAB LTE were made for the first time and in December 2015 they were published on the website of RRT http://epaslaugos.rrt.lt/apreptis/ which had published GSM and UMTS mobile radiocommunication network coverage zones.

Probable coverage zones were estimated by three different signal levels. Service providers, having used the maps available on the website, may assess the likely quality of radiocommunication in a specific location of the Republic of Lithuania: 1) connection is only possible in open areas, where the signal level is 115 dBm; 2) radio connection is possible in cars, low-rise building areas, rural areas, where the signal level is 105 dBm; 3) at 95 dBm connection is possible everywhere at the height of 1,5 m. The calculations showed that probable coverage areas different in LTE mobile radiocommunication networks of different operators (see Fig. 31).

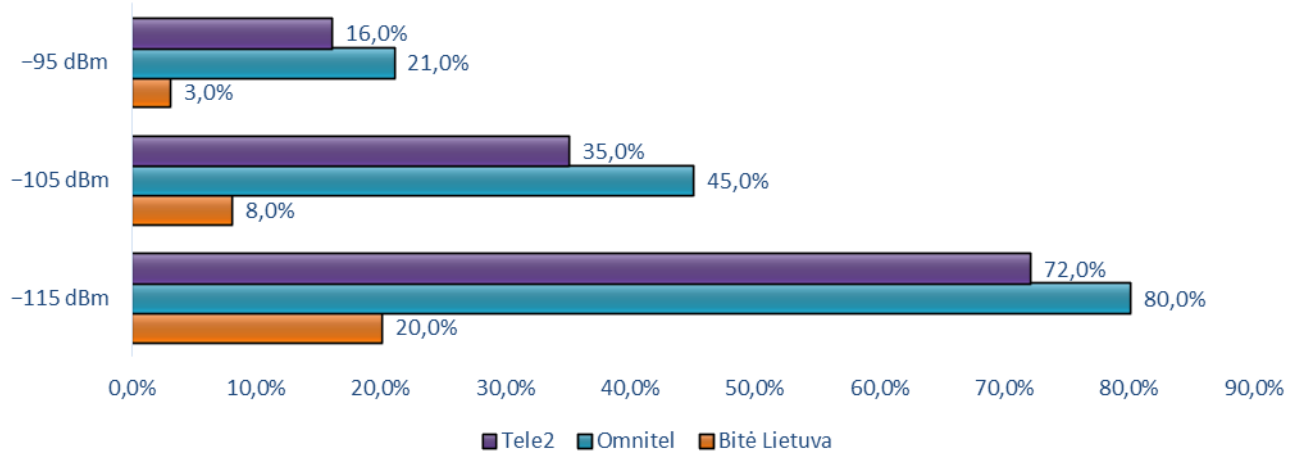


Fig. 31. Probable coverage of LTE mobile communication networks, % of the territory of the Republic of Lithuania

In 2015, RRT participated in the implementation of the measure “Development of next-generation access infrastructure” initiated by the Ministry of Transport and Communications of the Republic of Lithuania. The task of the Service was to count LTE-technology based coverages of mobile radiocommunication operators based on LTE development plans submitted for 2020 and define the territories where 30 Mb/s speed connection would not likely be available by 2020. The Service, when making calculations, examined extreme cases by choosing the optimistic and worst-case scenarios of coverage assessment. The results revealed that by 2020 the mobile radiocommunication operators using available radio frequencies would cover 30 Mb/s speed zone from 42% (fully loaded network at 95% of reception probability) to 92% (not loaded network at 50% of reception probability) of the territory of the Republic of Lithuania. It was also determined that the calculation results highly depended on initial conditions: coverage probability, network load, antenna height, amplification and steerability; and in the future, when drafting forecasts regarding the implementation of the goals of the Digital Agenda for Lithuania for 2020, it is necessary to take account of the actual breakdown of the residents and needs for data flows.

7.2 Digital Television and Radio

- *A new digital terrestrial television station was launched.*
- *The preparation for optimisation (initiated by TEO LT) of the third and fourth digital terrestrial TV networks owned by TEO LT was commenced.*
- *RRT suggested the alternatives for re-planning radio frequencies assigned for television broadcasting under which 30% of the radio frequency band would be freed up.*

At the beginning of 2015, the coverage of the first digital terrestrial television network via which almost all non-encrypted (free of charge) television programmes are transmitted in the border regions was improved: power of transmitters in Jurbarkas, Nida, Tauragė, Ignalina, Visaginas stations was increased, a new station in Dieveniškės was built. As of 10 July 2015 digital terrestrial television signals have been transmitted over TV channel 28 (at 530 MHz frequency), a taller antenna mast has been used in Švenčionys (before that the antenna was installed on a water supply tower). This solution improved the reception of non-encrypted digital terrestrial television programmes not only in the regions of Švenčionys and Molėtai, where the terrain is not favourable for radio wave propagation, but also for the residents of Dieveniškės and residents living in the territory of the Republic of Belarus (see Fig. 32 and 33).

A new digital terrestrial television station was built in Jonava antenna mast installed in 2015 to improve the reception of digital terrestrial television in Jonava district, especially in its north-western part.

Taking account of the said development, 93 stations were operating in digital terrestrial television networks at the end of 2015: 36 – in the first network, 27 – in the second, 24 – in the third and 6 – in the fourth network.

In 2015, the preparation for optimisation (initiated by TEO LT) of the third and fourth digital terrestrial TV networks owned by TEO LT was commenced; its full implementation is expected in the first half of 2016.

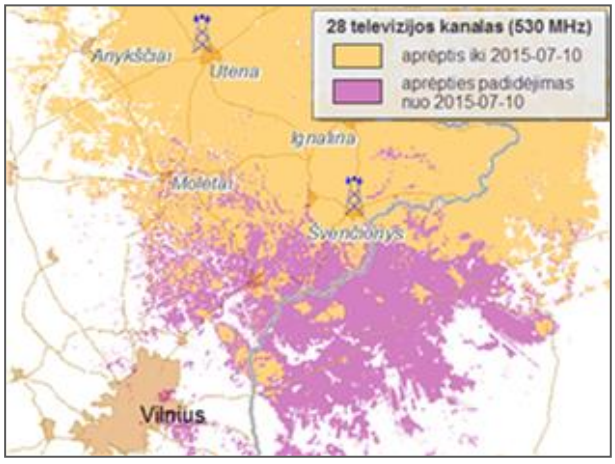


Fig. 32. Change in coverage of TV channel 28

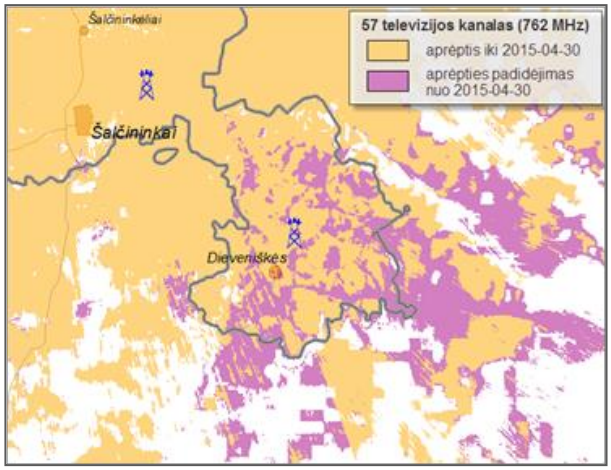


Fig. 33 Change in coverage of TV channel 57

28 televizijos kanalas (530 MHz)	TV channel 28 (530 MHz)
Aprėptis iki 2015-07-10	Coverage by 10 July 2015
Aprėpties padidėjimas nuo 2015-07-10	Coverage increase as of 10 July 2015
57 televizijos kanalas (762 MHz)	TV channel 57 (762 MHz)
Aprėptis iki 2015-04-30	Coverage by 30 April 2015
Aprėpties padidėjimas nuo 2015-04-30	Coverage increase as of 30 April 2015

The optimisation aims at making the coverage of the third and fourth digital terrestrial television networks uniform, and use part of the station of the fourth network in the third network. To ensure that the planned changes do not affect the reception of non-encrypted television programmes, the TV programme “Lietuvos rytas.tv” previously broadcast over the third digital terrestrial television network owned by TEO LT has been broadcast over the second digital terrestrial television network owned by Lietuvos Radijo ir Televizijos Centras AB since 1 August 2015. To provide TEO LT with an opportunity to develop the fourth digital terrestrial television network in the regions of Alytus, Telšiai, Utena and Tauragė, the relevant amendment of the Plan for the Development of Digital Terrestrial Television was approved by Order No 1V-1156 of the Director of RRT of 24 September 2015. On such grounds the Service issued TEO LT permit No (15.7) 9R-1073 to use radio frequencies (channels) in digital terrestrial television networks on 23 November 2015. This permit granted the right to use (alongside with the used frequencies) television channel 23 (490 MHz) in Alytus and Tauragė frequency distribution zones, television channel 30 (546 MHz) – in Utena frequency distribution zone and television channel 56 (754 MHz) − in Telšiai distribution zone.

In 2015, by the decision of TEO LT, transmission of rebroadcast encrypted (paid) high definition television programmes (“National Geographic HD”, “Discovery HD Showcase” and “Eurosport HD”) over digital terrestrial television stations was terminated in Vilnius (on 1 April) and Kaunas (on 1 June). Having shut down these stations, 14 operating local digital terrestrial television stations remained in Lithuania. In summer 2015, the location of Plungė local digital terrestrial television station was changed: the station was moved from antenna mast in Truikiai village, Plungė District, to a building in the town of Plungė (at the address: Salantų g. 16, Plungė).

RRT is actively involved in the activity of re-planning radio frequencies designated for television broadcasting at a regional scale. The need for re-planning occurred due to the intended use of the 694-790 MHz radio frequency band for broadband mobile radiocommunication systems which, in the long run, would have to exclude television broadcasting systems from this band. Although according to legal acts adopted in the EU, the 694-790 MHz radio frequency band will be freed up from digital terrestrial television only in 2020-2022, the re-planning process, especially in the western part of Europe, has been taking place for several years now. Currently, television broadcasting frequencies are used based on the frequency plan signed in Geneva in 2006. Bearing in mind the fact that when drafting the Geneva plan for 2006 the limits of effective use of frequencies were reached, the discovery of new frequencies or expansion of the existing frequency zones in order to restore lost resources of the 694-790 MHz radio frequency band is a great challenge which is hardly possible without large restrictions of radiation parameters or higher interferences between the stations. Despite this, RRT was able to propose re-planning plans under which the opportunity, even 30% of the currently used radio frequency band were freed up, to develop the same amount of networks (7) as could be developed based on currently issued permits (such result may be achieved if the terrestrial digital broadcasting standard would be changed from DVB-T into DVB-T2 in 5 networks out of 7) remained possible. Prospective frequency plans and the vision of digital terrestrial television future were presented and discussed during the meeting with broadcasting market players held in autumn 2015.

At the end of 2015, 12 national coverage terrestrial radio networks consisting of 192 VHF radio stations were operating; local and regional radio programmes were broadcast via 84 additional stations. In 2015, 12 new

radio broadcasting stations were launched in various locations of Lithuania, conditions of the use of 3 radio frequencies were amended; such changes led to improved radio programme broadcasting and reception conditions. Moreover, the decisions to amend the conditions for the use of 6 radio frequencies allowing the broadcasters to design radio stations more efficiently were adopted. In Šiauliai the used radio frequency was replaced with another one, thus the freed up radio frequency could be designated for the higher coverage radio broadcasting station.

7.3 Mobile Radiocommunication

- *The total number of base stations increased by 20.15%.*
- *Maps created on the basis of the calculations of the probable coverage zones of GSM, UMTS and LTE mobile radiocommunication networks of mobile radiocommunication operators are published on the website of RRT at http://epaslaugos.rrt.lt/apreptis.*

The number of LTE network base stations has been rapidly growing for several years. Especially the number of radiocommunication stations operating in the 790-862 MHz radio frequency band has been increasing. At the end of 2015, 10,647 base stations owned by public mobile radiocommunication network operators were operating in the designated radio frequency bands (see Fig. 34). Compared to 2014, the total number of base stations increased by 20.15%.

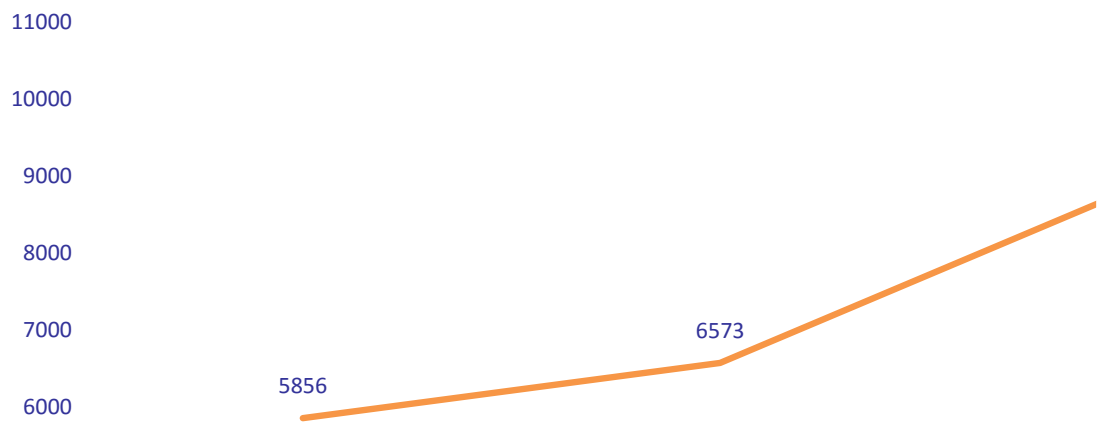


Fig. 34. The growth of public mobile radio network base stations in 2012-2015.

In 2015, the public NEXEDGE-technology based digital radiocommunication network was developed in the 400 MHz radio frequency band. 5 permits to establish public radiocommunication networks of narrow-band core (trunk) systems in the territories of individual municipalities of Lithuania were issued. On their basis, the operator established 6 new base stations and at the end of the year 69 base stations were registered with this radiocommunication network. Moreover, digital mobile radio (DMR) standard stations were launched in the 400 MHz radio frequency band. In 2015, 3 new DMR standard digital radiocommunication stations were registered. There is still a demand for radiocommunication networks where radio frequencies are used to meet the needs of

internal telecommunications. In 2015, 40 permits to use radio frequencies (channels) were issued for establishing new networks. However, the total number of internal radiocommunication networks is not increasing as part of radio frequency users terminated or did not continue permits for the use of radio frequencies (channels).

In 2015, RRT received 1,227 requests or inquiries regarding the use of mobile radiocommunication. Upon investigation of the said requests, 607 replies were prepared, 2,899 new radiocommunication network stations and radio stations operating under the amended conditions for the use thereof were registered, 311 permits to use mobile service radio frequencies, 383 permits to use ship stations and 193 permits to use aircraft stations were issued – some 4,000 permits in total.

In 2015, RRT executed supervision of the radio frequencies designated for mobile radiocommunication through which 1,400 internal radiocommunication networks, 124 terrestrial stations and 488 aircraft stations of the aeronautics mobile service, 36 shore stations and 1,008 ship stations of the marine mobile service were operating.

In 2015, GSM (GSM-900 and GSM-1800), UMTS, LTE and WiMAX network operators of public mobile radiocommunication systems registered 2,086 base stations and at the end of the year the total of 10,864 base stations were used. Compared to 2014, the number of GSM-900 base stations increased by 5.71%, number of GSM-1800 base stations grew by 21.72%, number of UMTS base stations went up by 18.03%, number of WiMAX (mobile radiocommunication) – by 4.5%, and number of LTE base stations grew almost twice (Fig. 35).

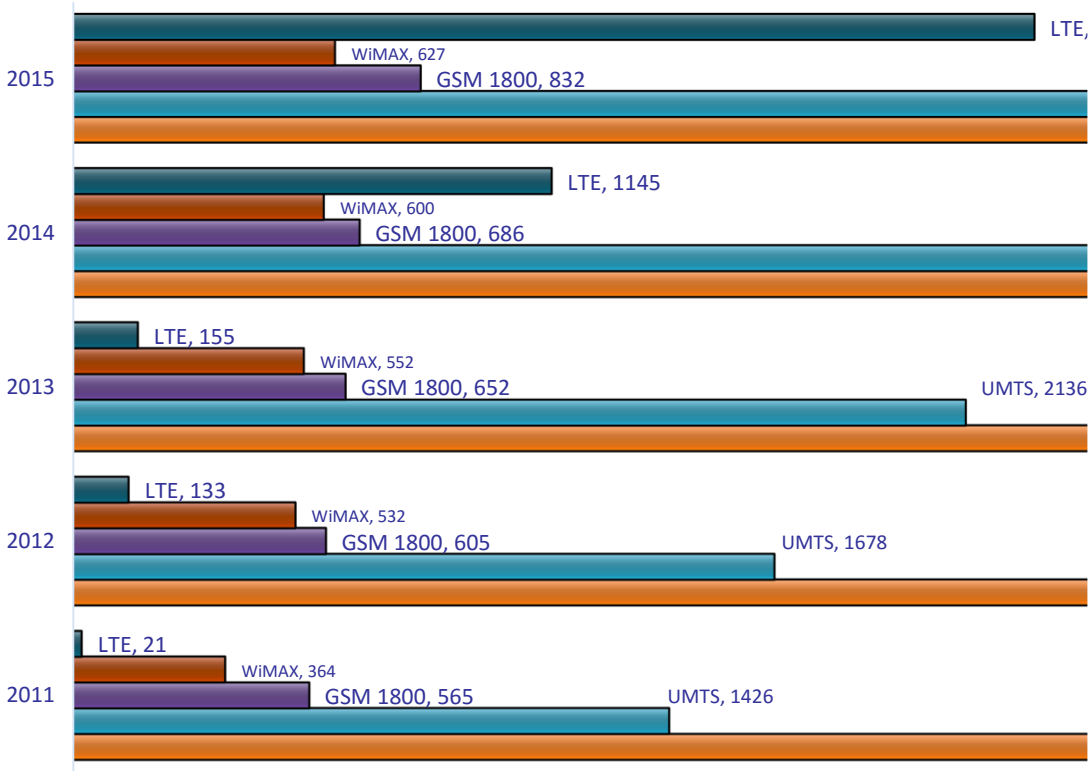


Fig. 35. Public mobile radiocommunication network base stations in 2008-2015.

In 2015, the most rapid increase was witnessed in the number of base stations operating in the UMTS 900 MHz frequency band, LTE 800 MHz frequency band and in the 1800 MHz frequency band. RRT registered 377 UMTS base stations in the 900 MHz frequency band, 355 LTE base stations in the 1800 MHz frequency band, and 720 LTE base stations operating in the 800 MHz frequency band (Fig. 36).

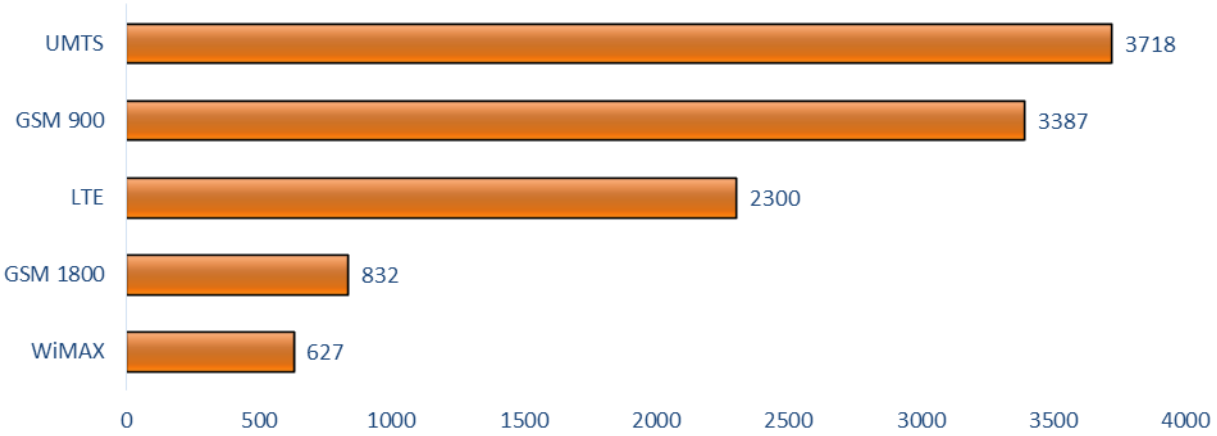


Fig. 36 Number of base stations at the end of 2015.

In 2015, operators were also actively changing the conditions for the use of base stations. The new conditions for the use were established for the following stations during the year: 533 UMTS stations, 146 GSM-900 stations, 96 GSM-1800 stations and 38 LTE stations.

In 2015, 228 base stations were used in the digital terrestrial mobile radiocommunication network designated for the activities pertaining to maintenance of public order, state rescue services, guarding the state borders and national security; 13 base stations were used in the TETRA-technology based network of the public radiocommunication network.

Applications submitted for coordination of aeronautics mobile service radio frequencies of neighbouring countries undergo continuous evaluation for compatibility in the radio frequency coordination system administered by the European Organisation for the Safety of Air Navigation EUROCONTROL. In 2015, 1,291 applications were submitted; each of them was reviewed and evaluated. 11 new radio frequencies were successfully coordinated for the Lithuanian users.

In 2015, RRT calculated the probable coverage zones of GSM, UMTS and LTE mobile radiocommunication networks of mobile radiocommunication operators Bitė Lietuva UAB, Omnitel UAB and TELE2 UAB and created maps which are published on the website of RRT at http://epaslaugos.rrt.lt/apreptis/. The calculations of the probable coverage zones of mobile radiocommunication networks were made using the same methods; the same calculation model was applied to all operators taking account of a location terrain and impact of forests. The reliability of a selected calculation model was tested by measuring operating radiocommunication stations. It must be noted that GSM and UMTS mobile radiocommunication networks where a very strong level (more than 90 dBm) of the signal is maintained already covers almost the whole territory of the Republic of Lithuania (see Fig. 37 and 38).

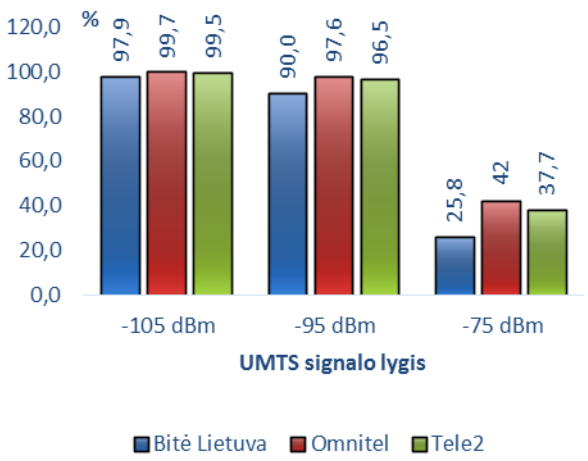


Fig. 37 Probable coverage of UMTS mobile radiocommunication networks, % of the territory of the Republic of Lithuania

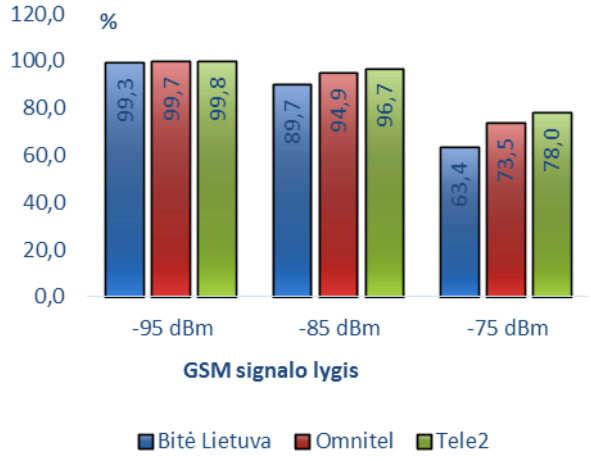


Fig. 38. Probable coverage of GSM mobile radiocommunication networks, % of the territory of the Republic of Lithuania

UTMS signalo lygis
GSM signalo lygis

UTMS signal level
GSM signal level

7.4 Fixed Radiocommunication

Lines designated to establish a radio communication between fixed accurately set stations are called radio relay links ("RRLs"). Recently, the number of RRL stations has been growing (see Fig. 39).

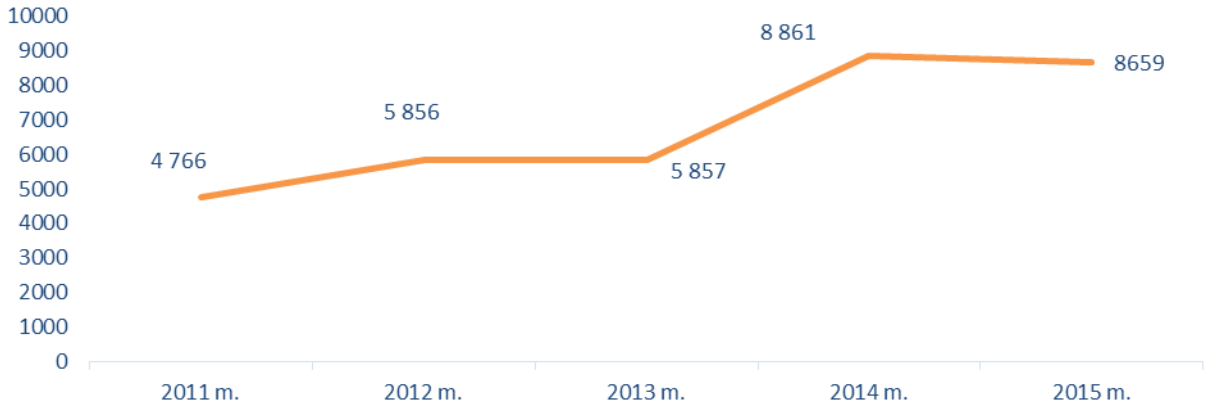


Fig. 39 Change in the number of radio relay stations in 2011-2015.

The growth of RRLs may be explained by the general development of mobile radiocommunication networks and increasing demands for data transmission. The demand for RRLs of higher transmission capacity has also been annually increasing as recently the data transmission flows have been growing and the operators have been replacing outdated low-capacity RRLs with the new systems of higher transmission capacity. Therefore, in 2015, the same as in 2014, the use of RRLs whose operation was launched before 2000 was terminated. They were replaced with next-generation RRLs by often increasing the width of a radio frequency (channel), because the market saturation with mobile devices having Internet access options contributed to the growth of the operators' demand for data transmission. The trend to reduce costs by increasing the efficiency of the equipment used was prevailing.

In 2015, RRT issued 530 permits to use radio relay stations. In 2015, operators refused to use frequencies (channels) designated for 366 RRL stations.

In 2015, the interest in the radiocommunication transmission systems whose frequency is over 40 GHz was growing. Such RRLs are used in short distances, but the data transmission capacity is equivalent to that of the fiber-optic data transmission lines. It may happen that there will be more of such continuously operating systems in the future, since the procedure for issuing permits for the use thereof is simple and the charges for maintenance of such RRLs are very low. Electronic registration of RRL stations is available for the following radio frequency bands: 64-64.5/65-65.5 GHz and 74.625-75.875/84.625-85.875 GHz. As a result, the registration of radio relay links for radio frequency users has been facilitated. Currently there are more and more manufacturers which can supply this type of radiocommunication equipment for the said radio frequency bands.

At present, radio frequencies up to 38.5 GHz are used for fixed radiocommunication in Lithuania. Over the last five years, there have been few changes in the percentages of the number of RRL stations in terms of radio frequency bands.

To make sure that the users of the Lithuanian fixed radiocommunication service are protected against harmful interferences at an international scale and impeccable operation is carried out effectively, all newly built fixed service stations are coordinated with the neighbouring countries and are notified to the ITU Master International Frequency Register. Also, fixed service stations of the neighbouring countries have been coordinated. Last year, 482 fixed service stations were coordinated with the communications administration of the Republic of Belarus, 342 stations – with the communications administration of the Republic of Latvia, 396 – with the communications administration of the Republic of Poland and 344 – with the communications administration of the Russian Federation (Fig. 40). In total, 310 fixed service stations have been notified to the Master International Frequency Register of the International Telecommunication Union that were prior coordinated with all neighbouring countries. The neighbouring countries are sending RRT the requests to coordinate their fixed service stations: 460 were coordinated for the Republic of Belarus, 372 – for the Republic of Latvia, 422 – for the Republic of Poland, 494 fixed service stations were coordinated for the Russian Federation (Fig. 41).

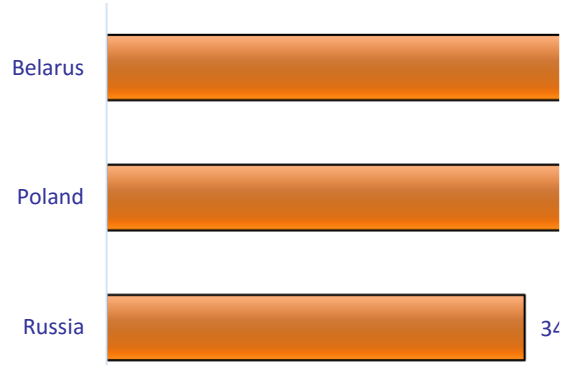


Fig. 40 Lithuanian fixed service stations coordinated with the neighbouring countries in 2015

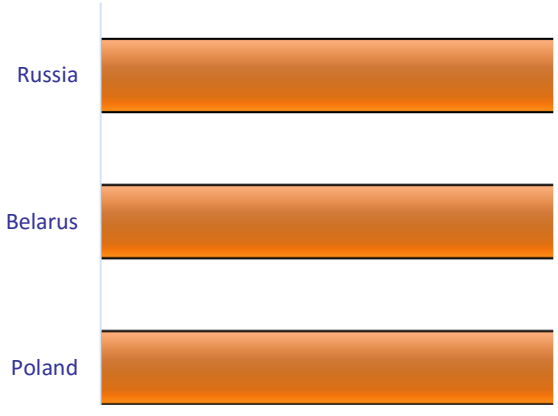


Fig. 41. Fixed service stations of the neighbouring countries coordinated with Lithuania in 2015

Fixed service stations are coordinated under international bilateral or multilateral agreements between the states and they are notified to the Master International Frequency Register under the ITU rules.

7.5 Satellite Radiocommunication Networks

- *In 2015, the international procedure for coordination of orbital resources of satellite network "Lituanicasat-2" was launched.*
- *RRT coordinated a satellite radiocommunication Earth station of the Russian Federation operating in the 6 GHz band and refused to coordinate the station in the 5 GHz band.*

In 2015, RRT launched the international procedure for coordination of orbital resources of satellite network "Lituanicasat-2". The coordination application is published in the International Frequency Information Circular. The requests to coordinate satellite network "Lituanicasat-2" with other satellite or terrestrial networks were submitted by nine states. The requests from the communications administrations of Germany, Egypt, Indonesia, Iran, Qatar, Korea, Russia, Vietnam and the USA to coordinate orbital resources allocated to the Lithuanian nano-satellite "Lituanicasat-2" network were received. Pursuant to the Rules for Management, Assignment and Usage of Orbital Resources, Including Position in Geo-Stationary Orbit, RRT allocated orbital resources to the "Lituanicasat-2" network operator that could be used only upon fulfilling the stipulated conditions.

Lithuania continues the cooperation with the selected operators in terms of the provision of satellite mobile radiocommunication (MSS) services in the 2 GHz band at the EU scale. During the meeting with the representatives of "Inmarsat" and "Echostar" the RRT representatives were familiarised with the satellite manufacturing process and launch dates. RRT lodged its requirements for the terms and conditions on the use of radio spectrum and operation of additional terrestrial components. In addition, RTT expressed its opinion to the EC Communications Committee regarding the conditions of terrestrial components planned to be used by "Inmarsat". The operators are planning to commence the provision of their services in 2016 – as established in the new guidelines for the implementation of the operators' systems.

Coordination of satellite radiocommunication networks. In 2015, RRT examined 26 International Frequency Information Circulars of ITU Spaces Services (BRIFIC Space Services). Also, the consents were sent to the communications administration of the USA stating that it may use satellite networks under the established conditions in unplanned bands; the inquiries on satellite network coordination were sent to the communications administrations of Malaysia, Papua New Guinea, Norway, USA, Egypt and Sweden.

In 2015, the requests were received from and replies were sent to the communications administrations of Cyprus, Russia, Kazakhstan, Sweden, Belarus and Greece on the inclusion of their territories in the satellite network servicing zones.

Coordination and use of Earth stations. RRT coordinated one satellite radiocommunication Earth station of the Russian Federation operating in the 6 GHz band and refused to coordinate the station that was intended to be operated in the 5 GHz band. The request to coordinate the Earth station was received from the administration of Belarus, and the USA and Azerbaijan embassies were issued the permits to use Earth stations. The international coordination procedure of Earth Station VIL01_LRT was completed and assigned frequencies were notified to the Master International Frequency Register. RRT established the conditions for the use of ESOMP (Earth station on mobile platform) – Earth stations installed on mobile platforms operating on fixed service networks and using directional antennas – in the 29.5-30 GHz and 19.7-20.2 GHz bands without permits.

RRT allocated frequencies to be used for the satellite radiocommunication network in Lithuania over which the broadband satellite radiocommunication would be provided by means of low Earth orbit satellites. By this ambitious project, using 700 satellites flying at the height of 900 km, the company "OneWeb" seeks to ensure broadband communication on any spot of the Earth, where this cannot be achieved by terrestrial radiocommunication infrastructures. As this network will use the *Ku* band frequencies over which Earth stations with geostationary satellites may operate without the permits, RRT, seeking a less complicated operation mode, offered the operator to set a harmonised mode of Earth stations operating with geostationary satellites at the European scale.

7.6 Radio Amateur activities

In 2015, there were 725 radio amateur stations holding valid licences (710 individual stations and 15 radio amateur club) registered in Lithuania (Fig. 42).

- *In the World Radiocommunication Conference it was achieved that radio amateurs would be allocated additional resources from the 5 MHz frequency band.*
- *In 2015, radio amateurs were provided with an option to use the 70 MHz frequency band.*

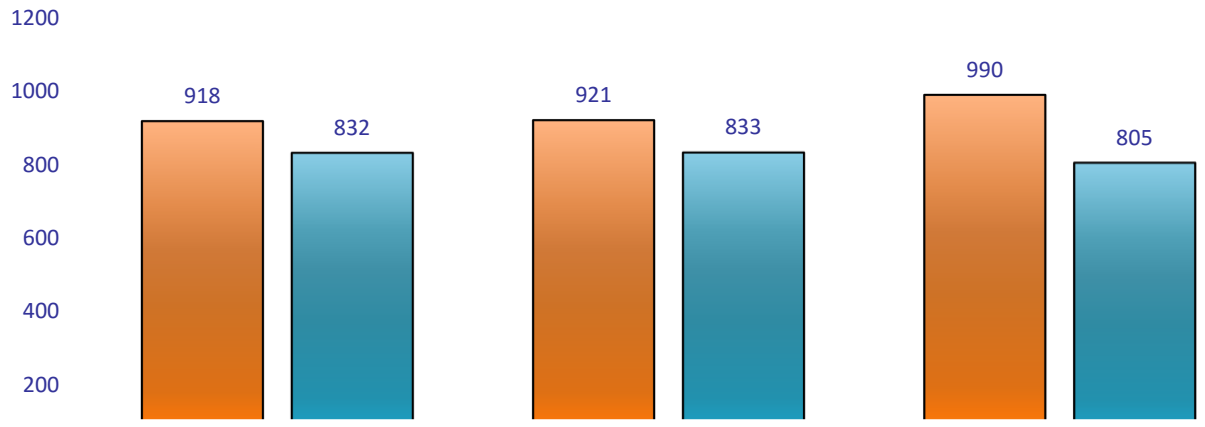


Fig. 42 The change in the number of radio amateurs and call signs assigned to them in 2012-2015
Source: RRT

In 2015, the total of 796 permits were registered with the Radio Amateur Register – 475 CEPT (the European Conference of Postal and Telecommunications Administrations) permits for the radio amateur activities of Class A, 235 – for the radio amateur activities of Class B, i.e. 181 CEPT permits for beginners (new form) and 54 permits of national class (old form), also 86 licences to use radio call signs, of which 71 – for individual stations and 15 – for radio amateur clubs).

The radio amateur qualification examination commissions formed by the order of the Director of RRT in five major cities in Lithuania (Kaunas, Klaipėda, Panevėžys, Šiauliai and Vilnius) which, according to the prepared and approved questions of level B and A, examine the persons wishing to engage in radio amateur activities and radio amateurs wishing to obtain licenses for radio amateur activities of a higher class than those they already

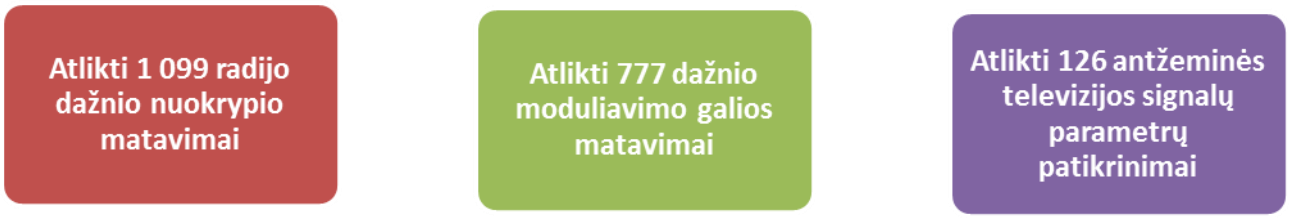
have and Harmonised Amateur Radio Examinations Certificates (HAREC) issued according to the CEPT Recommendation T/R 61-02.

Radio amateurs' examination. In 2015, 25 persons took qualification exams, 19 persons passed the examinations and became radio amateurs.

In 2015, 222 requests of radio amateurs were examined, 230 orders were drafted: 167 on granting or withdrawal of permits to engage in radio amateur activities, 63 on granting and/or withdrawal of permits to use radio call signs. Also, 227 permits were issued: 166 permits for radio amateur activities (102 permits of Class A and 64 – CEPT radio amateur licences of class B) and 61 permits to use radio call signs, of which 23 – to use occasional radio call signs. 24 Harmonised Amateur Radio Examinations Certificates (HAREC) were issued.

The delegation of RRT, when taking part in the World Radiocommunication Conference 2015, together with other delegations achieved that radio amateurs were allocated one more part of the 5 MHz frequency band (precise limits of the band will be specified when the Council approves a recast of the plan for the frequency use). In 2015, radio amateurs were provided with an option to use the 70 MHz frequency band.

7.7 Radio Spectrum Monitoring



Atlikti 1 099 radijo dažnio nuokrypio matavimai
Atlikti 777 dažnio moduliavimo galios matavimai
Atlikti 126 antžeminės televizijos signalų parametrų patikrinimai

1,099 measurements of radio frequency deviation carried out
777 measurements of frequency modulation power carried out
126 inspections of terrestrial television signal parameters carried out

In order to ensure the quality of the broadcast programmes and to avoid potential radio interference from the frequency modulation radio programme broadcasting stations, 1,099 measurements of radio frequency deviation and 777 frequency modulation power, as well as 126 measurements of the terrestrial television signal parameters and other measurements were performed in 2015.

The constant focus is placed on the quality of the signals of frequency modulation programme broadcasting stations due to the fact that typically such stations, while radiating signals of inadequate quality, used to cause radio interference not only to the stations broadcasting other programmes, but also to aeronautics services. In view of the statistics of the last few years (Fig. 43), it has been observed that the number of such violations, where the signal standards do not comply with the valid technical requirements, is decreasing. This was achieved by continuous and consistent activities of RRT in this area. All the violations in terms of radio frequency deviation standards were eliminated in 2015.

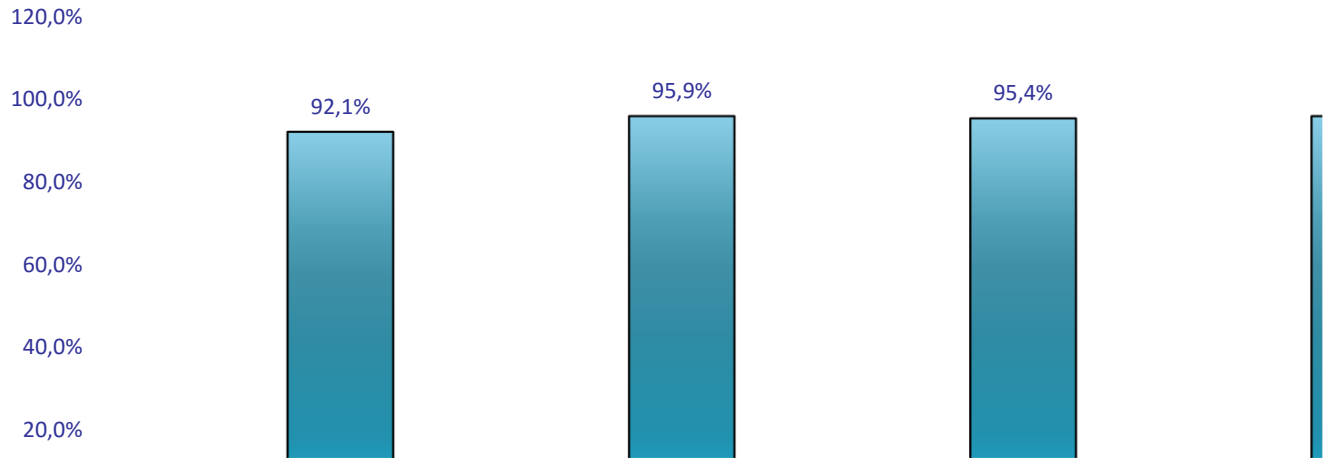


Fig. 43 The statistics of the results of radio frequency deviation measurements in 2011-2015, %
Source: RRT

To ensure cross-border obligations stipulated in the international agreements, the strength of electromagnetic fields created by base mobile communication stations owned by Lithuanian and foreign operators was regularly measured in the border zones. Measurements were carried out on 33 border points; during the measurements 74 violations of the conditions stipulated in the permits to use radio frequencies (channels) of the national mobile communication operators were detected and in 78 cases it was recorded that the neighbouring countries breached the international agreements. All said violations were eliminated. To detect the violations new equipment manufactured by "Rohde & Schwarz" (German manufacturer) and acquired by RRT designed to measure public mobile communication network parameters was used. This equipment was installed in the RRT mobile radio monitoring station.

In 2015, the search for unauthorised use of radio frequencies and unauthorised users was performed all over Lithuania; 59 cases of unauthorised use of radio frequencies were recorded (Fig. 44). 52 cases were successfully investigated. In 7 cases, the users were not identified because of the interrupted use of frequencies. The majority of violations were found in the frequency bands above 1000 MHz – in 43 cases it was determined that public mobile communication radio relay stations were illegally operated, and in 8 cases voice transmission radiocommunication stations were used.

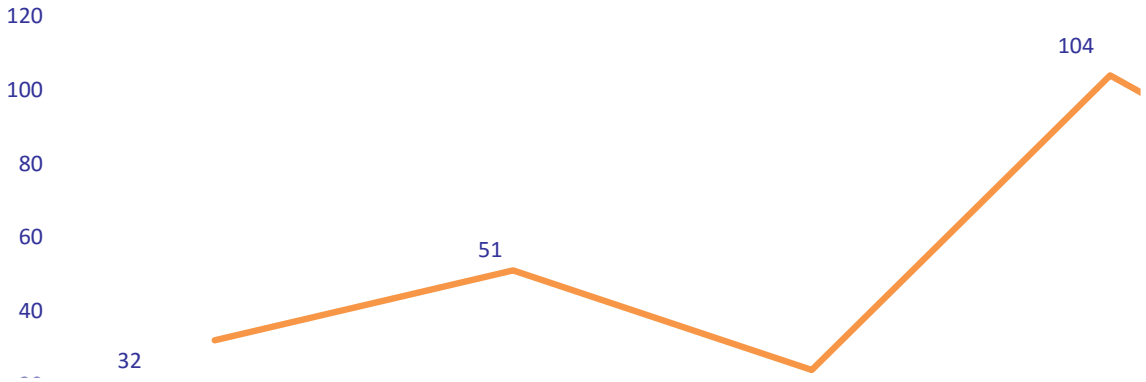
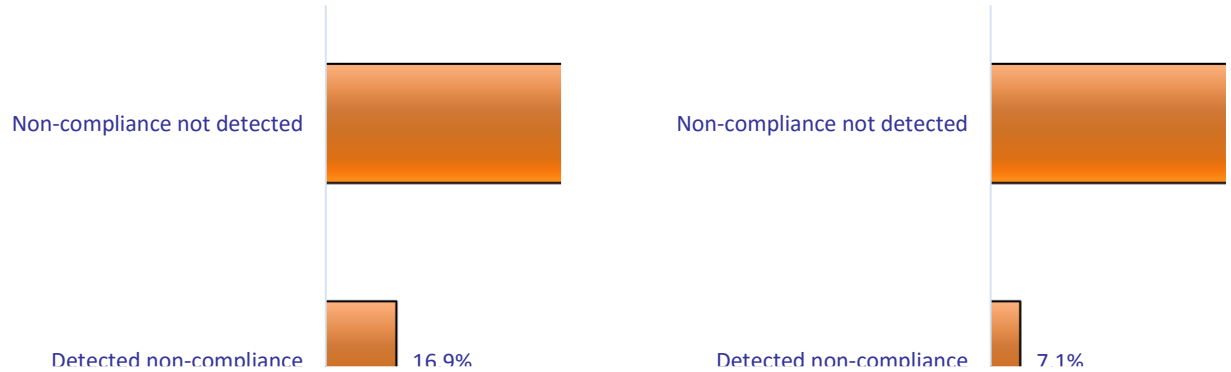


Fig. 44. The statistics of the cases of unauthorized use of radio frequencies in 2011-2015, units

7.8 Inspection of Radiocommunication Networks and Stations

Radiocommunication stations and networks are inspected to ensure their electromagnetic compatibility and prevent radio interferences, as well as to ensure the observance of the conditions for the use of radio frequencies established in the project and licences issued by RRT. The inspections are carried out by visiting the sites where radio facilities are installed.

In 2015, 160 scheduled inspections of internal radiocommunication networks were carried out, of which 7 of newly installed internal radiocommunication networks; also, 29 scheduled inspections of radio and television programme broadcasting stations were performed, of which 27 inspections of newly installed stations. It was found that 16.9% of internal radiocommunication networks and 7.1% of broadcasting stations were not in line with the conditions for the use of frequencies. Figure 45 shows the number of facilities non-compliant with the conditions for the use of frequencies in comparison with all inspected facilities.



Internal radiocommunication networks RTV broadcasting stations

Fig. 45. The results of inspections for compliance with the project and/or the conditions stated in the licence in 2015

When inspecting internal radiocommunication networks 29 violations were detected. The most common violation is too high effective radiation power (13 cases), the second most common violation is that a fixed station was installed in a geographical location other than permissible one. There were also other violations detected – non-permissible radio frequencies were used, not all of the network stations were registered, non-permissible types of antennas were used or antennas were improperly installed, etc.

When inspecting radio and television programme broadcasting stations, 4 violations were detected, including the cases where the transmitter output power was not compliant with the conditions indicated in the licence, non-permissible types of antennas were used or antennas were improperly installed. All detected violations were eliminated.

7.9 Management of Other Resources

Management of telephone numbers. In 2015, RRT continued supervising the National Numbering Plan and assigned telephone numbers (see Table 3).

Table 3. The summary of the permits to use telephone numbers issued/revoked in 2015

Designation of numbers	Right granted (numbers assigned)	Right revoked (numbers refused)	Total number of numbers assigned
Short numbers 10XX	0	3	16
Short numbers 18XX	3	2	51
Short numbers 19XXX	0	0	38
Short numbers 116 XXX	0	0	3
Numbers of public fixed telecommunication services	14,639	62,501	942,246
Numbers of public mobile telecommunication services	21,846	0	68,853,559
Service numbers 7XX XXXXX, 8XXXXXXX and 9XXXXXXX	23,977	36,381	64,702

Management of network identifiers. In 2015, 3 national signalling point codes and 2 international signalling point codes were assigned, 1 national signalling point code was revoked.

The total number of signalling points assigned since 2004 is shown in Fig. 46.

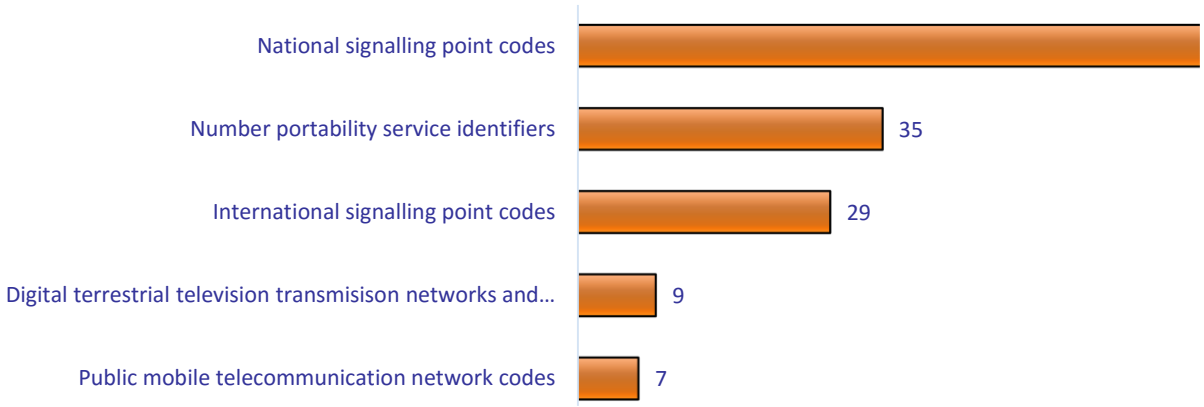


Fig. 46 Statistics of the number of signalling points

Internet addresses. Since the end of 2009 (Fig. 47) RRT has been authorised to issu e permissions regarding the use of the state name of Lithuania before the top-level domain ".lt". Authorisations granted to RRT ensure that the name of Lithuania will be used adequately and Lithuania will be properly represented on the Internet. The name of Lithuania is the official long or short name of the state of Lithuania, i.e. "the Republic of Lithuania" or "Lithuania" in all the official languages of the EU Member States and in all the grammatical forms of the said languages.

Examples of the websites are provided on the right.

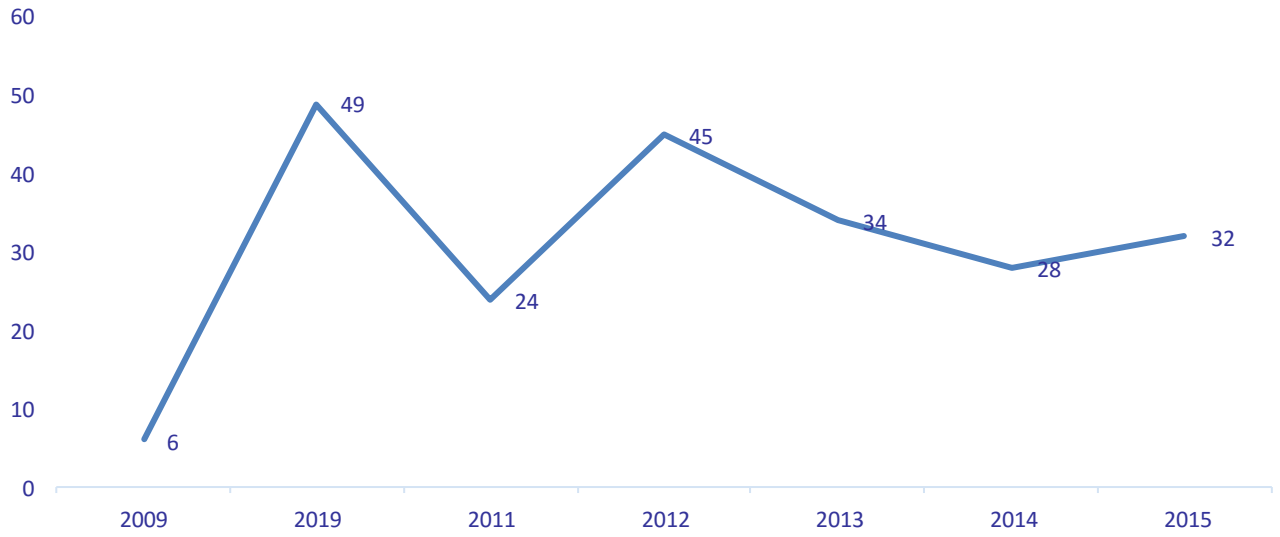


Fig. 47. Statistics of the permissions to use the top-level domain ".lt"
Note. RRT commenced carrying out this function at the end of 2009, which led to a low number of licences issued in 2009.

In 2015, RRT issued 32 licences granting applicants the right to use the name of Lithuania in the second level domain name before the top-level domain ".lt". RRT investigates the received applications based on the date of receipt and registration with RRT. In 2015, RRT refused to issue one licence as two applications on the same domain name were received.

Licences are issued for an unlimited period of time. If the application corresponds to all established requirements, RRT issues the licence within no longer than 5 working days.

8 Objective 4. INTEGRATION INTO DECISION MAKING SYSTEM IN THE EU AND INTERNATIONAL REGULATORY SPACE

Lithuanian institutions joined by RRT representatives made an effort for Lithuania to be elected to the Council of the International Telecommunication Union (ITU) for the term of 2015-2018. RRT representatives actively participate in the work and events of the ITU Council for the preparation for the ITU Council meetings in order to ensure the representation of Lithuania's interests, its visibility and awareness in the international forum.

In 2015, RRT chaired the European Regulators Group for Postal Services and its most important meetings (plenary sessions, meetings of the contact network and management committee).

The year of 2015 was related to new challenges as Lithuania had been elected to the Council of the International Telecommunication Union (ITU) for the term of 2015-2018 for the first time. The ITU Council is the ITU management body which ensures the management of ITU activities between the Plenipotentiary Conferences held every 4 years. The ITU Council has broad power in the field of telecommunications when it comes to ensuring adequate guidelines in terms of the ITU activities, policy and strategy that have to reflect rapid changes in the area of today's telecommunications. ITU organises important global events, such as World Radiocommunication Conference (WRC), during which the radio frequency spectrum and positions of geostationary satellites are allocated at an international level – limited resources which make the telecommunication activities impossible without them, also electronic communications and information society development plans are drafted, etc.

In the context of the EU it must be noted that in 2015 RRT had chaired the European Regulators Group for Postal Services for the first time (ERGP). The Head of RRT, Feliksas Dobrovolskis, chaired two plenary sessions of ERGP, where the head of all national regulators of the EU postal sector took part – one of the meetings was held in Vilnius, as well as the other important meetings of ERGP.

RRT greatly contributed to the formation of the position of Lithuania regarding the provisions of Regulation No 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 (Regulation No 2015/2120). This Regulation aims at establishing common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services. Also, this Regulation sets out a new mechanism for setting retail prices of regulated roaming services within the Union in order to abolish additional charges imposed on retail roaming services and to avoid the distortion of the European markets.

With a view to this Regulation, the transitional period will come into force as of 30 April 2016 during which roaming prices should significantly decrease – they should go down by up to 4 times in comparison with the current prices. The Regulation also stipulates new requirements for service providers related to internet access or network neutrality which will be applicable as of 30 April 2016. The said requirements would ensure the end users' right to access the information and content irrespective of service providers or location of service providers, or information, content, origin of services or destination.

8.1 Documents Considered in the EU Council Working Parties

RRT representatives were providing information which served as a basis for the formation of the position of Lithuania regarding two provisions of the EU legal acts.

In 2015, the Telecommunications and Postal Services Attaché representing Lithuania in the EU Council Working Party on Telecommunications and Information Society was provided with the information which served as a basis for the formation of the position of Lithuania regarding the provisions of Regulation No 2015/2120 that the EU institutions had negotiated on since 2014. RRT representatives, when providing their opinion on this Regulation, agreed that roaming prices (for call minutes, short messages (SMS) and data transmission) should be closer to national prices, but they sought that operators did not incur losses when providing such services, i.e. that the provisions of the legal act would not impose the obligations to provide roaming services at prices lower than cost prices on the operators. They were also seeking to provide for the provisions which would ensure that the users fairly use such services. Regulation No 2015/2120 comes into force on 30 April 2016 and during the transitional period the roaming prices should decrease by up to 4 times in comparison with the current prices. Also, RRT representatives provided their opinion on the provisions of the network neutrality set out in this Regulation that relate to the assurance of open internet access and transparency measures to ensure such access.

Another important legal act which was discussed in the EU institutions in 2015 was the Directive of the European Parliament and of the Council concerning measures to ensure a high level of network and information security across the Union (the NIS Directive). RRT, when providing its opinion on the provisions of the NIS Directive, sought that the NIS Directive ensured a high level of cloud computing services security and prompt and efficient investigation of incidents. At the end of 2015, the final agreement on the provisions of the NIS Directive was reached, general measures ensuring the sufficient security of networks and information across the European Union were provided for.

It must be noted that in 2016 the European Commission plans to present a legal act for the in-depth review of the electronic communications sector regulation of 2009. Moreover, in 2016 the aspects of the EU frameworks and interoperability are planned to be revised (including the EU institutions (Commission, EU Comitology Committees, EU Agency (BEREC) and national regulators) in order to make and implement the electronic communications policy more efficiently. The European Commission also plans to revise the e-commerce regulation aiming at eliminating obstacles in terms of delivery of goods bought online within the territory of the EU; the issue of competitiveness of prices of delivery (postal) services of goods bought online will be revised as well. When such documents are presented, the formation of national positions in the Member States of the EU and negotiations in the EU institutions on these proposals will commence.

8.2 Issues Discussed in the Committees and Working Groups of the European Commission (EC)

A document, which is important to Lithuania, on the use of the UHF (470-790 MHz) radio frequency band was drafted.

The goal for 2016 is to sign agreements with the telecommunications administrations of the Russian Federation and the Republic of Belarus which will enable using the 1452-1492 MHz radio frequency band for a certain designation in a larger part of the territory of the Republic of Lithuania.

In 2015, RRT representatives participated in the activities of the Radio Spectrum Committee (RSCOM) and Radio Spectrum Policy Group (RSPG). Issues relating to harmonisation of radio communications in the EU Member States are discussed in this Committee and in the Group, and conclusions on relevant issues related to radio frequency management and use thereof are drawn.

In 2015, the Draft RSPG Opinion on Common Strategic Objectives for WRC-15 (World Radiocommunication Conference 2015) and the Draft RSPG Opinion on a long-term strategy on the future use of the UHF band (470-790 MHz) in the European Union were finalized. The RSPG Opinion on UHF is very significant for Lithuania, since it evaluates the importance of digital terrestrial television and radio spectrum demand in each country, the development of broadband radiocommunication in this radio frequency band, the possibility of convergence of technologies and associated benefits, and it determines the date of assignment of the 694-700 MHz radio frequency band for wireless broadband access.

It is very important for Lithuania to achieve that the plans for the development of broadband radio communication in the EU border countries are directly related to the plans of the countries outside the European Union (especially the ones bordering the Republic of Lithuania) to use this frequency band for television broadcasting.

RRT actively participated when RSCOM was drafting and adopting Commission Implementing Decision 2015/750/EU of 8 May 2015 on the harmonisation of the 1452-1492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union. This Decision provides for that by 8 October 2015 the Member States had to designate the 1452-1492 MHz frequency band and provide terrestrial systems over which electronic communications services could be provided with an option of using it. Unfortunately, due to aeronautics radio navigation systems operating in this radio frequency band in the Russian Federation and the Republic of Belarus, Lithuania had to exercise the exception provided for in the Decision that *Member States shall not be bound by the obligations in geographical areas where coordination with third countries makes it necessary for them to deviate from the parameters set out in the Annex*. RRT will seek that in 2016 agreements with the telecommunications administrations of the Russian Federation and the Republic of Belarus are signed that will enable using the 1452-1492 MHz radio frequency band for a designation provided for in the Decision in a larger part of the territory of the Republic of Lithuania.

In 2015, the proposals were submitted on the Decision of RSCOM regarding the harmonisation of the 694-790 MHz radio frequency band for electronic communications services and other designations in the European Union. The draft provides for that the 703-733 MHz and 758-788 MHz radio frequency bands will be designated for electronic communications systems; however, large discussions take place as to who and under which

conditions the remaining part of this radio frequency band will be used by. RSCOM plans to adopt this decision at the beginning of 2016.

8.3 Body of European Regulators for Electronic Communications (BEREC)

> *At the request of the EC, BEREC drafted the significant analysis of the electronic communications regulation system and its potential changes. This analysis will have an effect on drafting the Digital Single Market Strategy Implementation Measures for 2016.*
>
> *RRT representatives actively contributed to the activity of BEREC working groups.*

RRT representatives actively participate in the activities of the Body of European Regulators for Electronic Communications (BEREC). BEREC consists of national electronic communications regulatory authorities of 28 Member States of the European Union (EU), Member States of the European Economic Area (EEA) and candidate countries and are represented by the heads thereof. Taking account of Article 5(4) of BEREC Regulation 1211/2009[21], the Board of Regulators consisting of the heads of national regulatory authorities shall adopt the annual work programme of BEREC before the end of each year preceding that to which the work programme relates. The work programme for 2015[22] provides for the following strategic priorities: i) promotion of competition and investment; ii) European internal market development; and iii) empowering and protecting consumers.

The objectives of the BEREC work programme for 2015 aim at preparing for future challenges caused by the changes in the market, technology development and EU policy goals and guidelines. Such strategic priorities are implemented by 9 BEREC working groups (Regulation, Economic and Market Analysis, Consumers', Roaming, Network Neutrality, etc.) whose activity is organised under 27 approved Project Requirement Documents in line with the provisions of the work programme. Such working groups consist of the representatives of all members of BEREC (national regulatory authorities).

In May 2015, the European Commission approved the Digital Single Market Strategy whose three pillars are: i) better online access to digital products and services for European consumers and businesses; ii) an environment where digital networks, services and innovation can prosper; iii) digital as a driver for growth. In June 2015, the European Commission submitted BEREC the questions related to the review and analysis of the electronic communications regulation that is crucial in order to draft the measures for implementing the Digital Single Market Strategy. The BEREC working group drafted the opinion[23] on the review of the electronic communications regulation provisions, and on 10 December 2015, having it approved by the members of BEREC, the document was submitted to the European Commission. This opinion is the expertise of all members of BEREC and the general opinion which recommends maintaining the balance between the mandatory

[21] http://eur-lex.europa.eu/legal-content/LT/TXT/PDF/?uri=CELEX:32009R1211&from=LT
[22] http://berec.europa.eu/eng/document_register/subject_matter/berec/annual_work_programmes/4779-work-programme-2015-berec-board-of-regulators
[23] BEREC Opinion on the Review of the EU Electronic Communications Regulatory Framework http://berec.europa.eu/eng/document_register/subject_matter/berec/opinions/5577-berec-opinion-on-the-review-of-the-eu-electronic-communications-regulatory-framework

provisions of the EU and practical application of regulation at the discretion of national regulators. This balance of competences ensures that the EU regulators may consistently and efficiently achieve the aims provided for in the Digital Single Market Strategy as the processes of the EU national market development differ and have national features.

In addition, RRT representatives actively participated in BEREC expert working groups when drafting documents and providing comments in 2015. An RRT representative takes part in drafting a document on the analysis of manifestations of oligopolies and regulation in the EU, which is significant to the EU Member States, where several market players directly or indirectly affect the market development. The document aims at seeking solutions as to how several operators could be recognised as having significant power on the certain electronic communications market so that fair conditions could be provided to all market players. RRT representatives participate in the activity of the working group when drafting a document (discussing and providing comments) on next-generation network development in order to move to all IT-based services. As for the Net Neutrality Expert Working Group, a representative of RRT contributed to drafting the document on monitoring quality of Internet access in the context of net neutrality to ensure quality of Internet services and quality supervision in 2015. Moreover, since autumn 2015, the RRT representative has been one of the drafters appointed by the Net Working Group to draft the guidelines for the implementation of the provisions of Regulation (EU) 2015/2120 of the European Parliament and of the Council related to network neutrality that would ensure the proper implementation of Regulation (EU) 2015/2120 (the guidelines are to be approved by BEREC by 30 August 2016).

8.4 European Regulators Group for Postal Services (ERGP)

In 2015, the ERGP Group plenary sessions were chaired by Director of RRT Feliksas Dobrovolskis.

Deputy Director Lina Rainienė chaired the task force of ERGP.

Four significant documents related to the EU postal market and the changes thereof were drafted and approved.

In 2015, RRT chaired the European Regulators Group for Postal Services (ERGP)[24] and drafted significant documents which would have a direct effect on the regulation and development of the postal sector in the EU.

The RRT representative chaired the ERGP Task Force which, at the request of the European Commission, analysed the current situation in the Member States of the EU and potential effect of the Decision of the European Court of Justice in Case C-340/13 on the application of the provisions of Article 12 of the Postal Services Directive. This working group drafted the ERGP Report on the Possible Impact of Article 12 Application after ECJ C-340/13. The Report analysed the practice of discounts applied by the universal postal service providers to bulk mailers in the Member States of the EU and conditions for discounts, also the attitude of the EU Member States towards the possible impact of the decision of the European Court of Justice in Case C-340/13 on the actions of the universal postal service providers was summarised.

[24] **The European Regulators Group for Postal Services** consists of national postal regulatory authorities of 28 Member States of the European Union (EU), Member States of the European Economic Area (EEA) and candidate countries and are represented by the heads thereof. When liberalising the postal market and making it open to competition, the EU needed to consolidate coordination, cooperation and consultations between the national post regulatory authorities. The aim of ERGP is to give advice and help the European Commission when consolidating the EU postal market within its competence.

In 4 working groups of ERGP – Subgroup on Regulatory Accounting and Price Regulation, Subgroup on Implementation and Evolution of the USO, Subgroup on End-User Satisfaction and Monitoring of Market Outcomes, Subgroup on Regulatory Cross-Border Parcels Delivery for e-Commerce Purposes – important documents[25] and reports analysing the EU postal market, its changes, trends and development opportunities were drafted over 2015:

ERGP Report on the Quality of Service, Consumer Protection and Complaint Handling 2014 – an Analysis of Trends.
ERGP Report on Core Indicators for Monitoring the European Postal Market.
ERGP Report on Legal Regimes Applicable to European Domestic or Cross-Border e-Commerce Parcels Delivery and, particularly, any Provisions that Could Be in Conflict with Each Other.
ERGP Report on the Outcome of the Public Consultation on the Evolution of the Universal Service Obligation.

Moreover, in December 2015 the ERGP plenary session took place in Brussels during which ERGP approved the document drafted by the joint ERGP and Body of European Regulators for Electronic Communications (BEREC), taking account of the request of the European Commission, (*BEREC-ERGP opinion on price transparency and regulatory oversight of cross-border parcels delivery, taking into account possible regulatory insights from the electronic communications sector*) which provides the European Commission with the insights on opportunities to apply the experience of the electronic communications sector regulation in postal and e-commerce sectors. Through such regulation the national regulatory authorities would be empowered to take measures to ensure the quality of delivery of international parcels, price transparency and accessibility.

In 2016, RRT assigned the National Regulatory Authority of Bulgaria the right of chairmanship of ERGP and it will hold the position of a vice-chair of ERGP together with the representatives of the Italian national postal regulatory authority.

8.5 International Telecommunication Union (ITU)

> *During the conference WRC-15 RRT signed the agreements with the communications administrations of the Republic of Belarus and Russian Federation on the conditions for the use of mobile service and aeronautics mobile service in the 694-790 MHz band.*
>
> *RRT, as a fully-fledged member, took part in the meeting of the ITU Council and submitted a proposal on the efficiency of activities of the Council working groups.*

One of the most important areas of ITU activities is the harmonisation of designation of radio frequencies – limited national resource – and the use thereof in the whole world. In November 2015, the most significant international event of the ITU Radio Sector – World Radiocommunication Conference (WRC-15) – took place in Geneva. The WRC-15 decisions influence the terrestrial and satellite radiocommunication services: mobile communication, air navigation and communications systems, satellite and meTeorology services, marine navigation, digital broadcasting, etc.

During the WRC-15 conference the issues which have a major direct significance to the Lithuanian electronic communications market were discussed. The Lithuanian delegation was actively cooperating at the

[25] ERGP Reports are published on: http://ec.europa.eu/growth/sectors/postal-services/ergp/index_en.htm

stage of preparation for the conference and stood by its position during the conference; it sought to protect the interests of Lithuanian radiocommunication users and NATO defence interests on each item on agenda. RRT representatives were appointed the coordinator of topic 9.1.5 of the WRC-15 agenda of CEPT Group and the chair of the CPG PTD preliminary study sub-group.

One of the relevant WRC-15 topics was the allocation of the 694-790 MHz radio frequency band to the mobile service, except for aeronautics mobile service, by the primary right and compatibility with other services. During the conference Lithuania signed the agreements with the communications administrations of the Republic of Belarus and Russian Federation on the conditions for the use of mobile service and aeronautics mobile service in the 694-790 MHz band. Such agreements were concluded by other CEPT countries bordering the non-EU countries and using the aeronautics mobile service in this radio frequency band as well.

A special attention was drawn to the search of additional radio frequency resources for the needs of the mobile service. The question of the potential use of the 470-960 MHz radio frequency band by the mobile service was included in the preliminary agenda of WRC-23. Lithuania, among other CEPT countries, supported the allocation of the 1427-1518 MHz and 3400-3800 MHz radio frequency bands to IMT systems.

The conference also addressed the needs of broadband public protection and disaster relief (PPDR) services. Lithuania is looking for opportunities to designate part of the spectrum to the needs of PPDR systems from the 694-791 MHz band. This has already been commenced by drafting the agreement with the administration of the Russian Federation by starting to coordinate part of the 2x5MHz + 2x3 MHz spectrum for the PPDR system. The administrations are called to discuss the opportunity to designate part of the spectrum to the broadband PPDR systems from the 694-894 MHz radio frequency band at a global scale and from 380-470 MHz in Region 1 of ITU by observing the specifications of the channel designation for the regional and national needs based on ITU-R Recommendation M.2015.

A new 5351,5-5366,5 kHz radio frequency band was designated to the activities of radio amateurs. Radio amateurs will be able to use radio frequencies from this radio frequency band exercising the secondary right (without interfering with other users and without the demand for protection) provided that the radiation power of radio stations e.i.r.p. (equivalent isotropically radiated power) does not exceed 15 W.

During the conference it was decided to designate the 4200-4400 MHz radio frequency band to wireless avionics intra-communications (WAIC).

One crucial issue was raised after the disappearance of Malaysia Airlines Flight MH370, a Boeing 777-200 with 238 passengers on board in 2014. The urgent procedure was applied to resolve this problem. The conference decided to designate the 1087,7-1092,3 MHz radio frequency band to aeronautics satellite service by the primary right to transmit messages from aircraft to satellite. This way ICAO was enabled to develop the standards of Global Flight Tracking (GFT) and install this system.

The proposals for the agenda of the future conferences were discussed as well. The more relevant ones are dedicated to the upcoming WRC-19 and WRC-23 conferences: designation of new radio frequency bands to IMT needs (potential 5G technology needs) in the range 24-86 GHz, the need for radio frequency bands for small satellites operating in the range of up to 1 GHz, fixed satellite service non-geostationary orbit satellites operating in the 3700-4200 MHz, 4500-4800 MHz, 5925-6425 MHz and 6725-7025 MHz bands, technical, operational and regulation issues, regulation of radio frequencies used for suborbital flights and other issues.

ITU Council. In 2014, Lithuania was elected to the ITU Council (for the term of 2015-2018) for the first time. The participation in the ITU Council enables Lithuania to be visible among the ITU members and to further

consolidate in the ITU forum. Moreover, the participation in the ITU activity is crucial for the country which is actively developing electronic communications and which creates information society susceptible to knowledge.

RRT representatives together with other European countries (Bulgaria, Switzerland, the Netherlands, France, Denmark and Poland) presented Draft Resolution No 1333 on modifying the activities of the ITU Council working groups during the meeting of the ITU Council held in May 2015. A similar proposal was also presented by the representatives of the United States of America. The amendments proposed by Lithuania and the USA were similar – new provisions are designed to modify the settled and ineffective procedure for appointing chairs and deputy chairs of the Council working groups, as currently the ITU working groups have been chaired by the same people for a long time (some of them have been the chairs for about 10 years). The guidelines that would be used to modify the procedure for appointing chairs and deputy chairs of the Council working groups were agreed upon stating that the term of the chairs and vice-chairs were 4 years without the possibility of renewal and after the term expiry the chair could become the chair of another working group of the Council.

RRT plans to actively prepare for and participate in the ITU Council in 2016 as well; the organisation of ITU events (such as “Regional Development Forum” and “Regional Preparatory Meeting”) in April 2017 in Vilnius is discussed with the ITU representatives.

8.6 European Conference of Postal and Telecommunications Administrations (CEPT)

The ratification of the ECO Convention on 1 February 2015 enabled Lithuania to become a member of CEPT ECO; therefore, the representatives of Lithuania will be able to use ECO data bases, and Lithuanian residents may be employed in ECO.

The issues related to planning the use of radio frequencies coordinated at a European scale and to radio spectrum management, as well as to telecommunications and postal services regulation are resolved in the European Conference of Postal and Telecommunications Administrations (CEPT), more specifically – through the activity of its committees (the Electronic Communications Committee (ECC), the European Committee for Postal Regulation (CERP) and the Committee for ITU Policy(Com-ITU)), as well as through the activity of the working groups. All these activities are coordinated by the permanent European Communications Office (ECO). Lithuania became a member of ECO on 1 February 2015 after the ratification of the ECO Convention.

The ratification of the ECO Convention enabled the representatives of the Lithuanian institutions to not only use, but also to contribute to supporting data bases and systems administered by ECO. It must be noted that the support and development of Spectrum Engineering Advanced Monte Carlo Analysis Tool and European Frequency Information System (EFIS) administered by ECO requires a lot of financial resources. SEAMCAT software is used to calculate the interfering and to resolve complicated problems related to radio spectrum engineering and compatibility of radio systems; it enables modelling different scenarios of radio interferences between radiocommunication systems and carry out compatibility studies of various radiocommunication systems (GSM, UMTS, LTE, etc.) operating in the same or adjacent radio frequency bands. EFIS is a European portal for spectrum information where businesses may find all information on licensing at a European scale; it also publishes information on radio frequencies (channels) and licensing terms and conditions in the CEPT countries. Thus, the use of such tools opens new opportunities to businesses, investments in new, more effective

technologies, development of broadband communications and it helps ensure a greater diversity of electronic communications services to consumers.

The membership in ECO also allows voting on decisions related to ECO activities and enables the representatives of Lithuania to be employed in ECO established in Copenhagen.

CEPT takes up an active position in the area of strategic planning and decision-making while Europe is preparing for ITU conferences; the common positions of the European countries regarding global regulation of electronic communications and postal services, technology development and progress of information society are formed. Therefore, RRT representatives take an active part in the activities of CEPT committees and their working groups:

In Com-ITU Committee prior to the meetings of the ITU Council, World Telecommunications Development Conference (WTDC-17) and other important ITU events the positions of European countries and possibilities of presenting common positions are discussed. In this committee Lithuania presented the said proposal on Draft Resolution on modifying the activities of the ITU Council working groups which was later presented and reviewed by the ITU Council in May 2015. In 2016, RRT is planning to contribute to the activities of Com-ITU subject to the preparation for WTDC-17 Conference; therefore, it presented the candidacy of its representative to the position of the Chair of Com-ITU Committee WTDC-17 working group.

ECC. When preparing for WRC-15, the RRT officials took an active part in the activity of Conference Preparatory Group (CPG) of the Electronic Communications Committee (ECC) and its sub-groups. This working group was drafting information, studies and European Common Proposals (ECPs) on each item on the agenda of WRC-15: conditions of deployment of next-generation radiocommunication systems, additional radio frequency identification, regulatory conditions for satellite radiocommunication networks, application of new technologies to ensure maritime and aviation safety, etc. These issues are urgent for Lithuania in order to promote the development of mobile broadband communications, whilst ensuring that new radio frequency bands provided for radiocommunication systems cause no limitations for radiocommunication systems operating in Lithuania to ensure more flexible regulation of small satellites, as well as efficient use of radio frequencies for maritime and aviation safety, traffic efficiency and safety. Lithuanian representatives presented proposals for the use of radio frequencies, compatibility of different radio systems considering that due to neighbouring non-EU countries Lithuania must coordinate additional radio frequency usage conditions.

The issues related to the management of radio frequencies were discussed in the ECC's Working Group Frequency Management and in is sub-groups: trends of development of broadband mobile radiocommunication and other systems, needs of broadband public protection and disaster relief (PPDR) services, use of short-range radiocommunication equipment. This working group drafted the following documents over the year: 1) ECC Recommendation for Mobile/Fixed Communications Networks (MFCN) and Programme Making and Special Events (PMSE) – common use of the systems in the 2300-2400 MHz radio frequency band, 2) CEPT Report 57 for harmonised compatibility and sharing conditions for Wireless Access Systems including Radio Local Area Networks in the bands 5350-5470 MHz and 5725-5925 MHz for the provision of wireless broadband services on wireless access; and 3) ECC Recommendation for coordination of mobile and fixed radiocommunication networks in border areas in the 1452-1492 MHz, 3400-3600 MHz and 3600-3800 MHz radio frequency bands. These documents will be taken into account when drafting or amending Lithuanian legal acts regulating radiocommunication as all said radio frequency bands, except for 1452-1492 MHz, are intensively used when installing RLAN networks of next-generation radiocommunication and wireless access systems. Lithuania will be able to refer to the provisions of the ECC Recommendation for coordination of the 1452–1492 MHz radio

frequency band in border areas when resolving contentious issues with the administration of the Russian Federation.

In 2015, the RRT representative chaired the **CEPT ECC Project Team (PT1).** This working group drafts documents related to ITU radio frequencies. In 2015, a document was drafted to define the technical conditions of the system functioning as, taking account of WRC-15 Resolution No 223, the studies of compatibility between the mobile satellite service operating in the 1518-1525 MHz frequency band and IMT system operating in the 1492-1518 MHz frequency band must be conducted. This activity will be continued in 2015; the completion of the said document is planned as well.

The ECC Working Group Spectrum Engineering and its sub-groups discussed the issues related to the harmonised use of mobile and fixed radiocommunication networks in the 400 MHz, 700 MHz, 1350-1400 MHz and 1492-1525 MHz radio frequency bands. To defend the interests of Lithuania it is necessary to take account of the specificity of the use of radio spectrum of non-EU countries bordering the external border of the European Union, which restricts the possibilities of Lithuania to use radio frequencies (channels) for the purpose designated for the European Union. Taking account of the documents drafted in this working group (sub-group), Lithuania could provide for relevant radio frequency bands for the users of PPDR systems, and the band of radio frequencies used by RLAN could be expanded up to 6 GHz. Lithuania has several thousands of mobile and fixed service radiocommunication stations; therefore, to ensure their operation, the up-to-date technology news and provisions of recommendations and decisions need to be known so that they are transposed into the national legislation, if necessary.

8.7 Eastern Partnership Electronic Communications Regulators Network (EaPeReg)

> *The EaPeReg technical workshop on network and information security took place in Vilnius.*
>
> *In 2015, the EaPeReg Network Spectrum and Benchmarking Expert Working Groups were established; the RRT representatives will also be a part of them.*

The aim of the Eastern Partnership Electronic Communications Regulators Network (“the EaPeReg Network”) established in 2012 is to promote the cooperation among Eastern Partnership countries (Armenia, Belarus, Georgia, Moldova and Ukraine) in the field of electronic communications, exchange experiences with regulatory authorities of the European Union Member States, and improve the legal system by bringing it closer to the EU standards. In 2015, two plenary sessions and 4 technical workshops were held, of which 3 dealt with broadband communications, tariff regulation and 4G technologies. The RRT representative read reports and presented a good practice of Lithuania.

The technical workshop on cyber security was held in 2015 in Vilnius. Its aim was to share Lithuanian and international experience in the field of network and information security with the experts of Eastern Partnership countries by familiarising them with the innovations and challenges of cyber security both at the national and EU level. During the workshop the issues of cyber security strategies, protection of infrastructure of a special significance, incident investigation and management, cloud computing, electronic signature were discussed. The reports were given by the cyber security experts of RRT, Ministry of National Defence, Kaunas University of Technology, Vilnius Gediminas Technical University, the European Union Agency for Network and Information

Security (ENISA) and the European Telecommunications Standards Institute (ETSI). A representative from the Postal and Telecommunications Service in Sweden shared the peculiarities of the crisis management system in Sweden. The cyber security expert from the Data Exchange Agency under the Ministry of Justice of Georgia presented Georgian experience in the field of information and cyber security.

In 2015, the EaPeReg Network Spectrum and Benchmarking Expert Working Groups were established that RRT appointed its representatives to. During the plenary session held at the end of 2015, the National Communications and Information Regulatory Authority of Ukraine raised an initiative to create a common international roaming area of Eastern Partnership countries to reduce the differences between roaming prices among the Eastern Partnership countries and join the roaming area of the European Union later on. This issue is of special relevance to Lithuania as the prices of roaming services in many Eastern Partnership countries are quite high. In 2016, the establishment of the third EaPeReg International Roaming Expert Working Group is planned and it is reasonable for RRT to be involved in this.

In 2016, the EaPeReg Network will be chaired by Belarus which became the member of EaPeReg in 2015, and Latvia will be the vice-chair**.**

8.8 The International Association of Internet Hotlines INHOPE

In 2015, RRT representatives participated in 2 INHOPE General Assemblies where the perspectives of the expansion of the INHOPE network, its management, further activities and funding of the Fund and of the Association of INHOPE were discussed, as well as the cooperation with EUROPOL and INTERPOL, development of the new INHOPE Report Management System and of the database ICCAM and other relevant issues pertaining to the activities of Internet hotlines. RRT representatives also participated in the meetings of the INHOPE working groups, provided information for the documents prepared by INHOPE, hotline report statistics, participated in distance training and workshops taking over the best practices of hotlines.

8.9 Forum of European Supervisory Authorities for Electronic Signatures (FESA)

The RRT representative chaired the FESA.

The issues related to electronic identification and trust services for electronic transactions in the internal market were discussed.

The members of the Forum of European Supervisory Authorities for Electronic Signatures (FESA) are in charge of the supervision of electronic signatures. Currently FESA consists of 29 members. The objective of FESA is to promote cooperation between institutions supervising electronic signatures, harmonise their activities and prepare common positions.

During the meetings of FESA held in 2015 the following issues relevant for Lithuania were discussed: preparation for the implementation of Regulation (EU) No 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market repealing Directive 1999/93/EC (the eIDAS Regulation); drafting associated standards, aspects of handling trusted lists, etc. The FESA comments on the document drafted by ENISA which provide the guidelines for the implementation of the requirements of Article 19 of the eIDAS Regulation (incident reports) were prepared and submitted. In 2015,

the amendment of the FESA status was drafted and approved in order to adjust to the regulation stipulated in the eIDAS Regulation, as well as to a new role of a supervisory institution.

In 2015, the RRT representative chaired the Forum of European Supervisory Authorities for Electronic Signatures as he was elected to this position for a two-year term in 2014.

8.10 Independent Regulators Working Group on Network and Information Security

The RRT representative chaired this working group.

The issues related to high impact incidents in the operator networks, implementation of the new EU Directive, etc. were discussed.

The Independent Regulators Working Group on Network and Information Security (IRG WG on NIS) is the most experienced in the field of cyber security in Europe as it has been engaged in the activities of regulatory authorities since 2003.

The most relevant topics among the discussed ones in 2015 were: high impact incidents in operator networks, preparation for the implementation of the new EU Directive on network and information security in the Member States, training on response to cyber security incidents, practice of developing topology of national internet networks and network reliability studies.

The RRT representative has been chairing this working group. Lithuania has been chairing this international working group and has been providing secretarial services for three years already.

9 Objective 5. PERFORMANCE OF OBLIGATIONS IN THE INTERESTS OF NATIONAL DEFENCE, NATIONAL SECURITY AND MAINTENANCE OF PUBLIC ORDER

RRT was obligated to procure, manage, maintain and upgrade equipment for the purposes stated in Article 77(1) and/or Article 77(4) of the Law on Electronic Communications of the Republic of Lithuania.

The National Investment Programme for 2015-2017 provided for the continuous (launched in 2012) investment project “Installation of special signal processing and decoding software and hardware in operators' switching nodes” whose total value was EUR 1,274,328, of which EUR 434,430 were allocated from the state budget. The adjusted value of this investment project was EUR 1,700,375 in 2015, of which EUR 1,274,328 were the funds of the reporting year and EUR 426,047 – RRT’s over-performance and unused contributions of the previous year for the payment of suppliers’ non-completed contractual obligations in 2014. The amount of EUR 1,256,740.64 was used for the investment project (of which EUR 434,430 − state budget funds).

Under the contracts of agency, in 2015 the State Security Department of the Republic of Lithuania implemented the procedures for the procurement of special signal processing and decoding software and hardware, and 3 agreements were signed for the procurement of the aforementioned equipment. The procured equipment will, in accordance with the procedure laid down in legal acts, be transferred to the State Security Department under loan for use agreements.

10 IMPACT EVALUATION FACTORS OF STRATEGIC OBJECTIVE IN 2015

Code of the evaluated factor	Name and measurement unit of impact evaluation factor	Planned values for 2015	Actual values for 2015	Factor implement ation percentage
E-01-01	1. The possibility to use services of mobile radiocommunication of wireless broadband access (UMTS, WIMAX, LTE) networks is ensured (share of households, %)	95.0	99.0	104.2
E-01-02	2. Residents who use a 30 Mbps or faster Internet connection (share of the total population, %)	40	39.2	98
E-01-03	3. Market share of alternative networks and service providers (fixed, mobile telephone communication) (%, in terms of revenue)	4.2	2.5	59.5
E-01-04	4. Improvement of the main ICT service qualitative indicators (compliance of qualitative indicators with the determined values, %)	97.0	100	103.1
E-01-05	5. The decline in the number of the same IP addresses involved in malicious activities detected on the networks of Internet service providers (share of repeated IP addresses, %)	70	51	127
E-01-06	6. Development of the market of postal services in terms of revenue (compared to previous years, %)	3.5	10.0	286
E-01-07	7. The growth of number of qualified certificates provided by providers of certification services (%, compared to previous years)	5	7.45	149

Source: RRT

Impact factor E-01-01 – the possibility to use services of mobile radiocommunication of wireless broadband access (UMTS, WIMAX, LTE) networks is ensured (share of households, %) (Fig. 48.): at the end of 2015, wireless broadband access mobile radiocommunication networks covered 99% of households (based on calculated signal level of the registered LTE stations (105 dBm), calculated signal level of UMTS stations (95 dBm) and calculated signal level of mobile WiMAX stations). The factor was implemented by 104.2%.

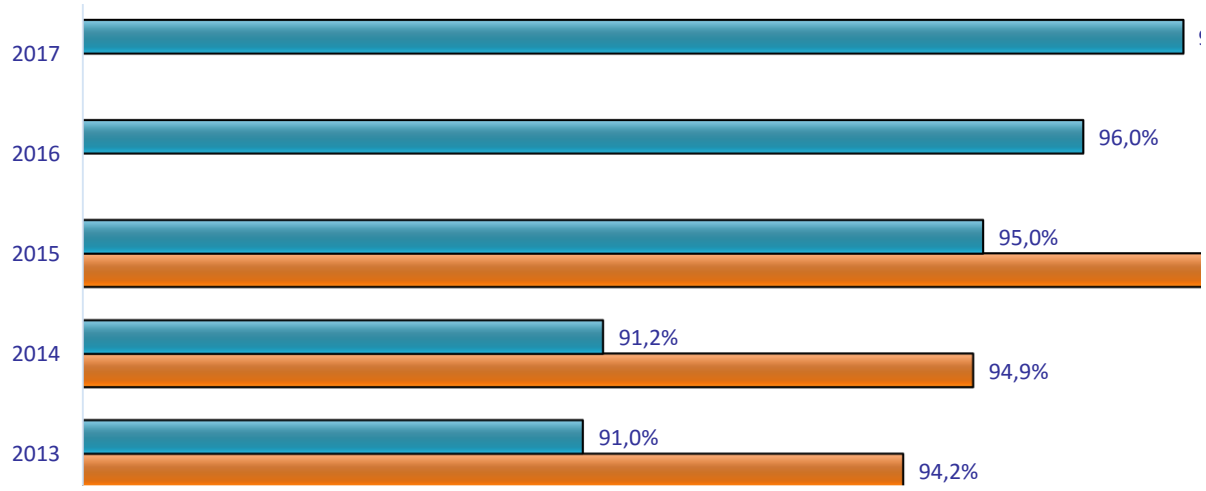


Fig. 48. The possibility to use services of mobile radiocommunication of wireless broadband access (UMTS, WIMAX, LTE) networks is ensured (share of households, %)
Source: RRT

Impact factor E-01-02 – residents who use a 30 Mbps or faster Internet connection (share of the total population, %) (Fig. 49.): at the end of 2015, a share of residents who used a 30 Mbps or faster broadband connection (including all households, %) stood at 39.2%. The factor was implemented by 98%.

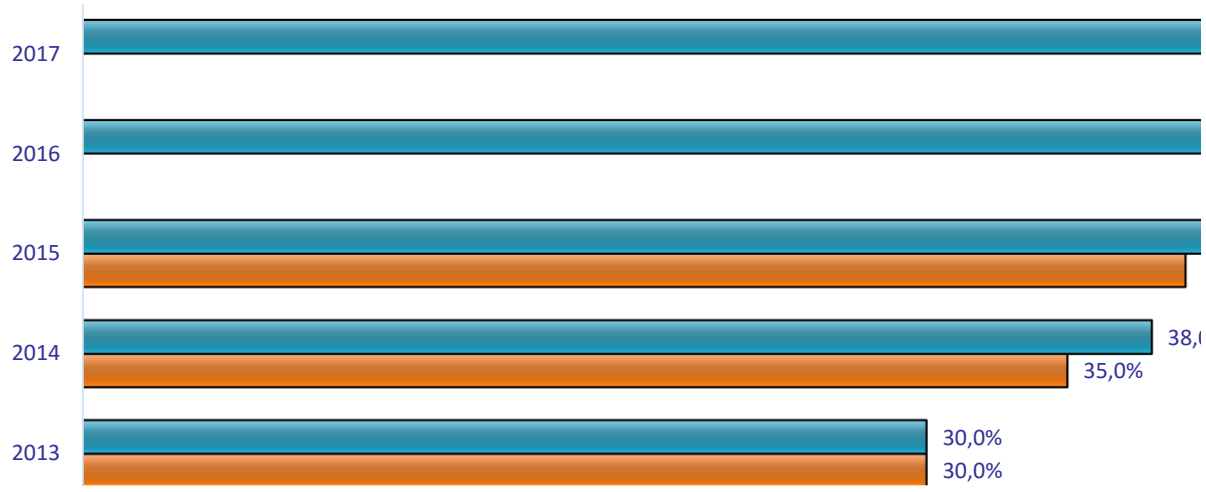


Fig. 49 Residents who use a 30 Mbps or faster Internet connection (share of the total population, %)
Source: RRT

Impact factor E-01-03 – market share of alternative networks and service providers (fixed, mobile telecommunication) (%, in terms of revenue) (Fig. 50): in 2015, the 9-month market share of alternative networks and service providers (alternative public fixed and mobile telecommunication service providers) accounted for around 2.5% of the total market value in terms of revenue. The reason for the market share of alternative networks and service providers being less than planned was to do with the decreasing service prices for consumers, increasing competition between mobile communication operators, competitive pressure on fixed telecommunication service providers; the revenue of major operators on the recovering market of mobile communications was growing more rapidly than the revenue of other service providers. This was also affected by the merger of service providers. The factor was implemented by **59.5**%.

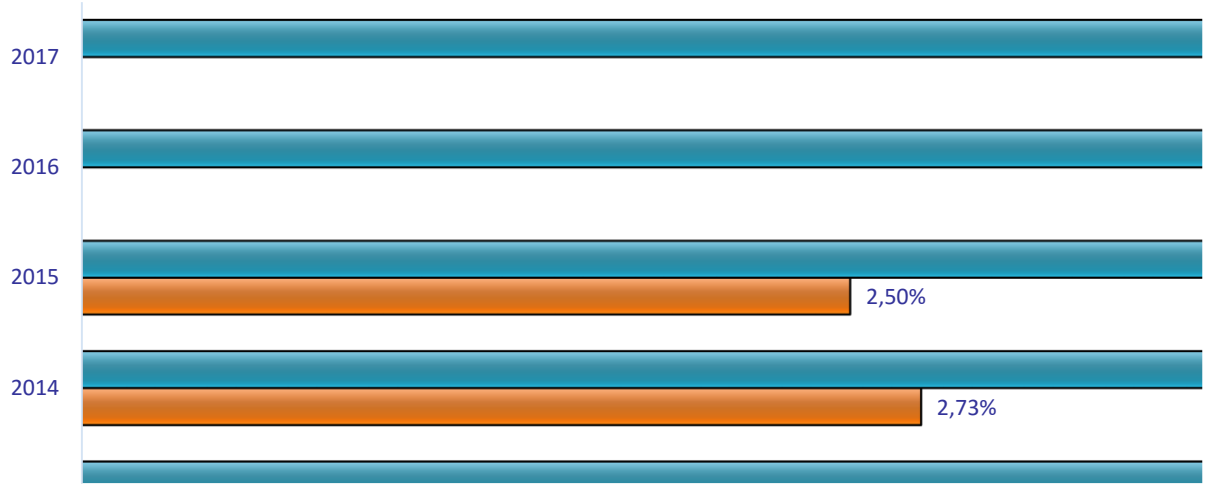


Fig. 50 Market share of alternative networks and service providers (fixed, mobile telephone communication) (%, in terms of revenue)
Source: RRT

Impact factor E-01-04 – improvement of the main ICT service qualitative indicators (compliance of qualitative indicators with the determined values, %) (Fig. 51): the quality of universal electronic communications services provided by the universal electronic communications service provider TEO LT, AB (TEO LT) meet the requirements of the Description of the Requirements for Quality of Universal Services approved by Order No 1V-214 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 15 February 2006. The report is published on the website of RRT. In order to evaluate if service providers do not exceed limit values of service quality indicators, RRT performs measurements of quality indicators in networks of service providers and publishes evaluation reports on service quality indicators on the website of RRT. The measurement results show that the measured service quality indicators do not exceed the limit values. The factor was implemented by 103.1%.

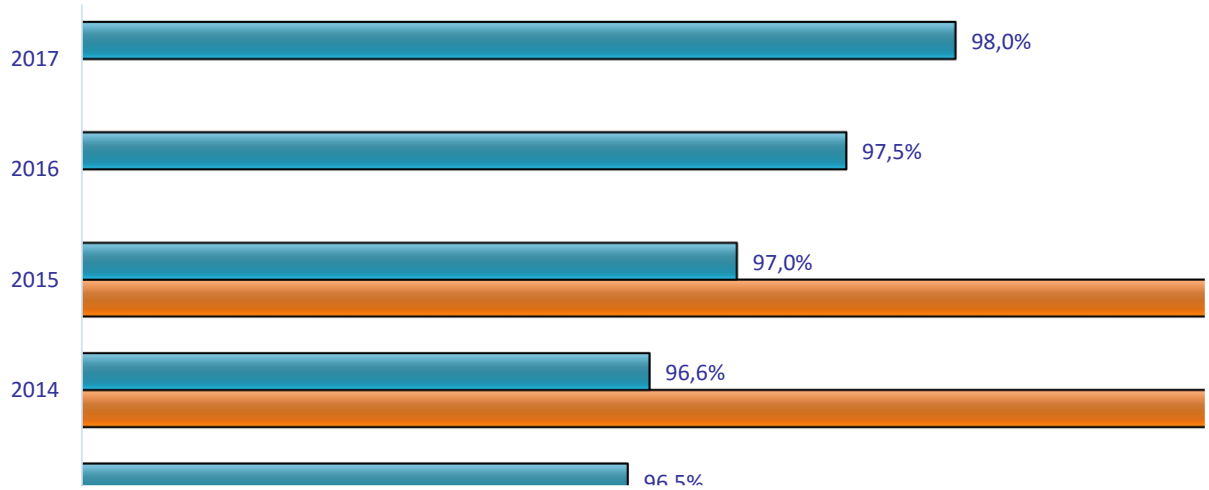


Fig. 51 Improvement of the main ICT service qualitative indicators (compliance of qualitative indicators with the determined values, %)
Source: RRT

Impact factor E-01-05 – the decline in the number of the same IP addresses involved in malicious activities detected on the networks of Internet service providers (share of repeated IP addresses, %) (Fig. 52): 51% of IP addresses involved in malicious activities are recurrent (in 2014, 80% of IP addresses were recurrent; in 2015, the planned indicator was 70%). Usually, these are end-terminal equipment users who have routers used by users who are not registered Internet access service providers. The factor was implemented by 127%.

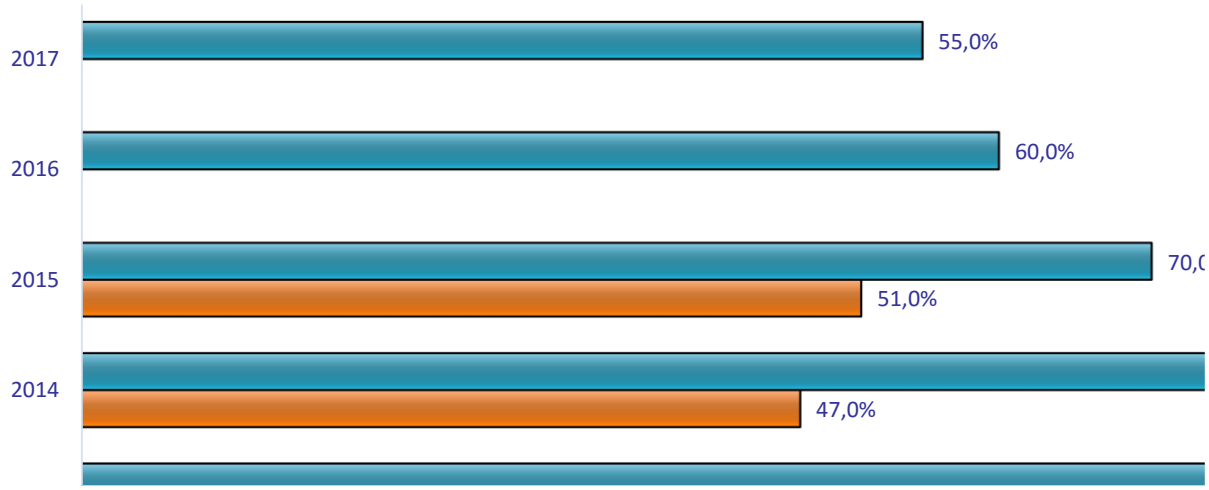


Fig. 52 The decline in the number of the same IP addresses involved in malicious activities detected on the networks of Internet service providers (share of repeated IP addresses, %)
Source: RRT

Impact factor E-01-06 – the growth of the postal market by revenue (%, compared to the previous year) (Fig. 53): in Q1-Q3 of 2015 the postal market **grew by 10.0%,** compared to the same period in 2014 (in 2014 – EUR 77.7 million; in 2015 – EUR 85.5 million). Such growth of the postal service market is mainly related to the increase of revenue from registered, priority and other post items. The factor was implemented by 286%.

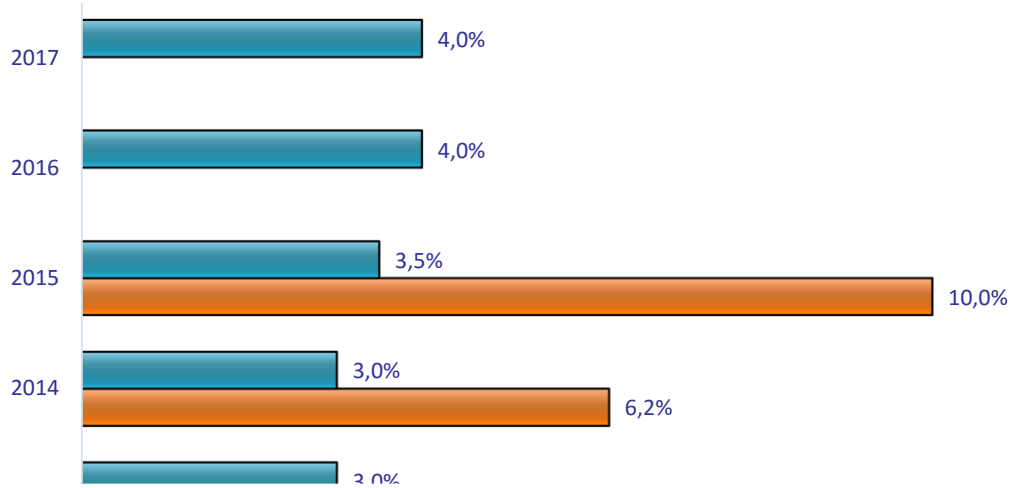


Fig. 53 Development of the market of postal services in terms of revenue (compared to previous years, %)
Source: RRT

Impact factor E-01-07 – the growth of number of qualified certificates provided by providers of certification services (%, compared to previous years) (Fig. 54): at the end of 2014, the number of valid qualified certificates was 894,672 and at the end of 2015, 961,345 valid certificates were issued. Compared to 2014, the number of certificates went up by 7.45%. The factor was implemented by 149%.

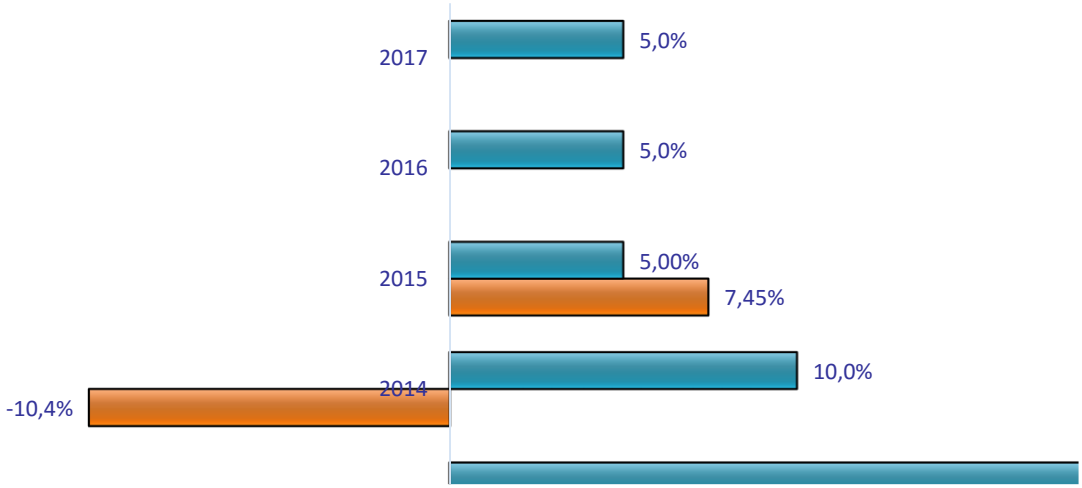


Fig. 54 The growth of number of qualified certificates provided by providers of certification services (%, compared to previous years)
Source: RRT

11 RRT ACTIVITY ORGANISATION IN 2015

11.1 RRT Management

RRT Direktorius
RRT Taryba

Director of RRT
RRT Council

RRT is managed by the director. The Director is appointed by the President of the Republic of Lithuania upon the submission of the Prime Minister for a term of 5 years. The Director is in charge of all issues within the competence of RRT, represents RRT in the Republic of Lithuania and abroad, approves the RRT structure, articles of association of structural divisions, lists of positions and job descriptions, employs and dismisses RRT civil servants and employees, approves the RRT strategic plan, signs resolutions adopted by the RRT Council, issues orders, approves legal acts by the orders and monitors adherence to such legal acts (Orders of 2015 are provided in Annex 4), submits the annual report to the Seimas and the Government and publishes it, and ensures that laws and other legal acts are followed by RRT. By 31 March the Director submits the written annual report of RRT to the RRT Council, and by 1 May the report is submitted to the Seimas and the Government and published.

The RRT Council ("the Council") is a collegial body of RRT which consists of seven members. The RRT Director is the Chair of the Council. The Council is appointed by the President of the Republic of Lithuania upon the submission of the Prime Minister for a term of 5 years. The Council adopts resolutions. In 2015, 8 meetings of the Council were held to discuss draft legal acts approved by orders of the Director of RRT, amendments of RRT Programme Estimate for 2015, RRT Programme Estimate for 2015 (funded from RRT's over-performance and unused contributions of the previous year), RRT Programme Estimate for 2016, amendments of the provision of the RRT structure and structural divisions, amendments of RRT internal working regulation, as well as draft orders of the Director of RRT (on supervision of the use of radio frequencies (channels), including radio monitoring, setting tariff coefficients, amendments of the Rules on Market Analyses). In 2015, the Council discussed and approved the amendment of the Digital terrestrial Television Development Plan, draft strategic activity plan of RRT for 2016-2018; the Council also held a hearing of the RRT annual report of 2014 and approved of its submission to the Seimas and the Government, it held a hearing of the 2014 report on the implementation of the Law on Electronic Signature of the Republic of Lithuania, and discussed and provided proposals on economic sanctions.

11.2 Human Resources

In 2015, RRT employed 162 civil servants and employees under employment agreements and 1 official – the Director of RRT. The average age of RRT employees is 44 years of age. Figure 55 presents a level education of the RRT staff by fields of study. 7 employees of RRT have a doctoral degree.

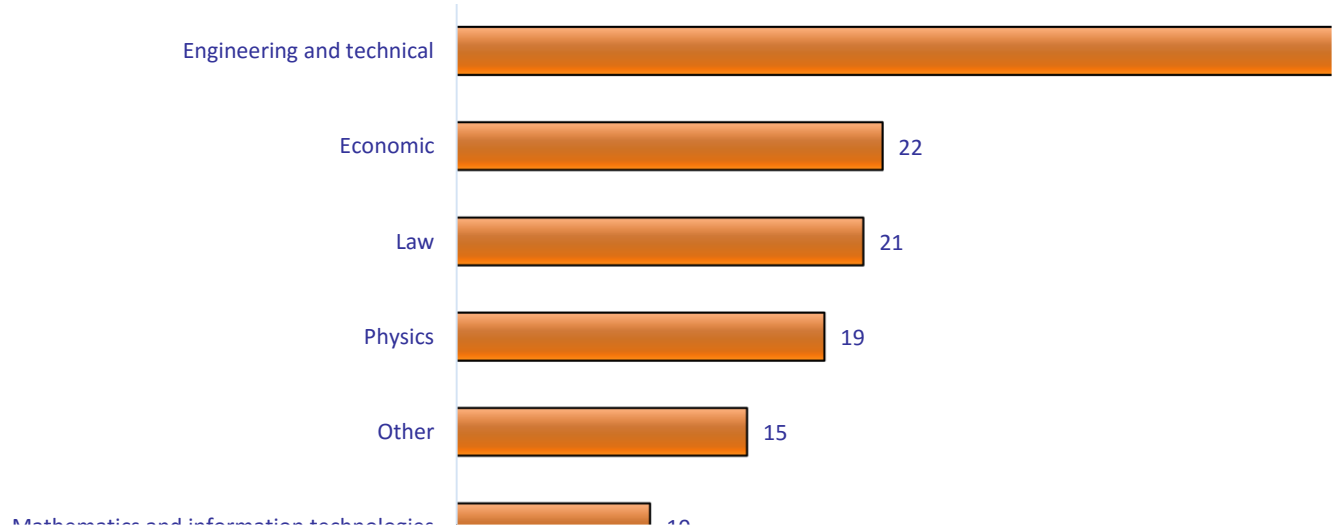


Fig. 55 Level of education of RRT staff in 2015

RRT social activity. RRT started the year 2015 by commemorating the 25th anniversary of the Freedom Defenders' Day. By lighting a candle of remembrance in windows, RRT employees participated in the campaign "Memory Alive, because it Witness" together with other institutions and residents of Lithuania. In spring, RRT staff participated in the annual environment cleaning campaign "DAROM" ("Let's do it!"). Around Christmas time, RRT staff joined the social support campaign "Our small works – big joy to others". Funds donated by RRT employees made the dreams of 5 children with disability come true; their dreams were published on the charity and support foundation website www.algojimas.lt.

11.3 Improvement of Skills

- *Specialist skills in the area of ICT were improved.*
- *General competences in the area of the communications sector market regulation and supervision were consolidated.*
- *Voluntary in-service training initiative "RRT employees to RRT employees" was continued.*

In order to improve staff skills related to the implementation of the strategic goals of the Authority and development of their special knowledge in the area of RRT regulation, 149 RRT employees participated in training events held in 2015.

In order to develop the staff competence in the area of ICT, training "Fixed communication, mobile communication and data transmission networks" was conducted (attended by 68 employees); training "Small satellites, communications, navigation, tracking and other modern space technologies" (attended by 34 employees) was conducted; training "Achivements of new physics and use thereof" (attended by 27 employees) took place.

In order to improve staff general competences in the area of regulation and supervision over the market of the communications sector, 69 employees attended various seminars.

60 civil servants improved their knowledge of the EU working languages which are of special relevance as RRT takes an active part in the activities of the EU institutions, committees and working groups by presenting the position of Lithuania, sharing trans-national and inter-institutional experience.

Abilities and skills of focusing on the customer were improved by civil servants providing services to residents (attended by 26 employees), as well as knowledge in the area of professional ethics and corruption prevention (10 employees) and managerial, leadership and change management skills (65 employees).

In 2015, the voluntary in-service training initiative "RRT employees to RRT employees" was continued and it was organised by RRT employees themselves by presenting relevant topics to the colleagues: the presentation of the wireless Internet access monitoring system developed by RRT was organised, knowledge was shared as to how personal activities could be made more efficient by means of the document management system, training "Supervision of the Electromagnetic Compatibility (EMS) Regulation, Harmonised Standards, EMS Testing" was conducted.

12 PRIORITIES OF RRT ACTIVITIES IN 2016

RRT continued activities commenced in the previous year and set the following objectives for 2016:

1. *Protection of the rights and legitimate interests of users of electronic communications and postal services and users of radiocommunication and terminal equipment*
2. *Ensuring security of electronic communications networks and services provided via such networks and prevention of cyber and security incidents*
3. *Promotion of investments in next generation wireless broadband communication networks and of harmonised development of advanced technologies and services*

Protection of the rights and legitimate interests of users of electronic communications and postal services and users of radiocommunication and terminal equipment

The main objective is the protection of the rights and legitimate interests of end service users, including consumers, related to the investigation of complaints of service users and supervision of the provision of universal services.

To implement this priority RRT will carry out the following activities in 2016:

In 2016, a large focus will be placed on the quality of wireless broadband services, including the issues related to data transmission over mobile telecommunication networks, and on the improvement of the cooperation with the service providers and institutions protecting consumers' rights. RRT carries out the monitoring of the quality indicators of wireless Internet access services. By means of equipment of RRT the control measurements are carried out (the results are published on the website of RRT http://matavimai.rrt.lt/) in order to compare the services provided by service providers Lietuvos Radijo ir Televizijos Centras AB, Bitė Lietuva UAB, Omnitel UAB and Tele2 UAB under real conditions. Between 2016 and 2018 the focus will be placed on the measurements of data transmission speed in motion, where the measurements are carried out when driving down the city streets and roads. This best reflects the changes in the service quality indicators taking account of the location and mobility of a user.

In 2016, RRT plans to enhance the supervision of the market of radiocommunication and terminal equipment, devices and units[26] to ensure that high-quality equipment compliant to the EU requirements is used in the Republic of Lithuania. Equipment will be inspected for its compliance with the technical requirements set by the EU, technical competences of RRT employees will be improved; procurement of new technical equipment and application of new testing methods are planned.

Protection of the rights and legitimate interests of postal service users will remain the important area of RRT's activities. To ensure more efficient functioning of the postal infrastructure, the greatest focus will be on continuous supervision of access to the postal network to provide postal service users with an opportunity to use the postal network owned by Lietuvos Paštas AB under transparent and non-discriminatory conditions.

[26] Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility and Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC

Ensuring security of electronic communications networks and services provided via such networks and prevention of cyber and security incidents

The key objective of this priority activity is to ensure network and information security which is crucial for the development of electronic services.

According to this priority, RRT will carry out the following activities in 2016:

One of the most significant activities for 2016 is prevention of cyber and security incidents. This activity is carried out by RRT CERT-LT unit. CERT-LT aims at prompt response to security incidents in Lithuanian public communications networks and at coordination of actions by eliminating them, especially where there is a potential risk posed to integrity of public communications networks, functionality of services provided over such networks or data security.

At the increasing popularity of the cloud computing concept in the ICT area, which serves as a basis for developing and providing more and more advanced electronic information hosting services (for instance, website hosting, storing information in virtual data storages, virtual document management systems), security of cloud computing services will become one of the most crucial issues of cyber security. In 2016, RRT will continue informing service users on cloud computing services on the website www.esaugumas.lt and will provide recommendations as to how to safely use such services.

Prevention of cyber incidents and security breaches will be carried out on the cooperation basis. With the Law on Cyber Security of the Republic of Lithuania coming into force, the Cyber Security and Telecommunications Service under the Ministry of National defence has been assigned to carry out the functions of the National Cyber Security Centre (NCSC) as defined in the said law. RRT will continue its cooperation with NCSC insofar it relates to the activities of CERT-LT, will exchange information on incidents subject to information infrastructures of a special significance.

Promotion of investments in next generation wireless broadband communication networks and of harmonised development of advanced technologies and services

The main objective of this priority activity is to allow for the development of next generation wireless broadband networks by tackling the electromagnetic compatibility challenges, coordinating the actions with the neighbouring countries and transposing the provisions of the EU legislation into domestic law.

To implement this priority RRT will carry out the following activities in 2016:

With a view to the emerging new radiocommunication technologies the operators intensively develop next generation public mobile communication systems in the 800 MHz, 1800 MHz, 2100 MHz, 2600 MHz radio frequency bands. The operation of such systems always lead to the problems related to electromagnetic compatibility with the operating digital terrestrial television, UMTS, GSM networks that call for immediate solution by RRT.

The density of LTE network stations operating in the 800 MHz radio frequency band is restricted due to protection of radionavigation systems of the neighbouring countries. While developing LTE in the 700 MHz radio frequency band, the LTE systems will be hindered by high-capacity terrestrial television stations operating in the said frequency band of the neighbouring countries. This will result in smaller territories covered by LTE base stations and higher prices of LTE network development. The restrictions of LTE station density will be applied in the 700 MHz radio frequency band as well. Specific restrictions will be known upon signing

the coordination agreements with the neighbouring countries. To solve the aforementioned problems, RRT will actively cooperate with the communications administrations of the Russian Federation and Republic of Belarus.

The priority will be implemented by transposing the mandatory provisions of the EU legislation into domestic law of the Republic of Lithuania and by improving the national legal regulation whose supervision and implementation RRT is in charge for. Pursuant to Regulation No 910/2014 of the European Parliament and of the Council[27] on electronic identification and trust services for electronic transactions in the internal market, the national legal regulation of electronic signature will be further improved in 2016. While implementing Decision No 585/2014/EU of the European Parliament and of the Council[28] on the deployment of the interoperable EU-wide eCall service, the national legal regulation will be further improved in 2016 with a view to subscribers and/or public electronic communications service users being able to use the services of institutions providing emergency call services and provision of location data to the Emergency Call Response Centre. Pursuant to Decision No 243/2012/EU of the European Parliament and of the Council[29] and to ensure effective and harmonised management of radio frequency bands (channels) and use thereof at the EU and international levels, draft legal acts will be drafted in 2016-2017 and legal acts for the implementation of the long-term radio spectrum policy programme will be adopted. During the implementation of Implementing Regulation (EU) No 1079/2012 of the European Commission[30] laying down requirements for voice channels spacing for the single European sky under which the Member States shall ensure that all assignments of radio frequencies (channels) are changed into frequencies subject to 8.33 kHz channel spacing by 31 December 2018, legal acts implementing the said provisions will be drafted in 2016-2018.

To ensure effective competition on the electronic communications markets, RRT plans to carry out 3 electronic communications market analyses in 2016: market analysis on broadcasting transmission services in order to provide end users with content services, market analysis on broadcasting transmission means provision services and stage 1 of the market analysis procedure for call origination on the public communication network in a fixed location.

The chart of RRT activity priorities for 2016 is provided below.

[27] As of 1 July 2016 the provisions of Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market repealing Directive 1999/93/EC[27], (Regulation No 910/2014) shall be applied.
[28] Decision No 585/2014/EU of the European Parliament and of the Council of 15 May 2014
[29] Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012
[30] Implementing Regulation No 1079/2012 of the European Commission of 16 November 2012

ANNEX 1. IMPLEMENTATION OF EVALUATION FACTORS OF OBJECTIVES AND TASKS OF THE PROGRAMME IN 2015

Code of the evaluated factor	Names and measurement units of evaluation factors of the Programme's objectives and tasks	Values of evaluation factors		
		Plan for 2015	Implemented	Implementation percentage
	Objective 1 – ensuring efficient and transparent competition on the ICT and postal service markets			
R-01-81-01-01	1. The share of the market of alternative public fixed telephone communication networks and service providers (%, in terms of the number of subscribers (service users))	10.5	10.1*	96
R-01-81-01-02	2. Market share of postal service providers (except for Lietuvos Paštas AB) (%, in terms of revenue)	62	59*	95
R-01-81-01-03	3. Share of the EU legislation transposed into domestic law and implemented within the deadlines set within the competence of RRT (% of to be transposed and implemented)	98	100	102
R-01-81-01-04	4. Functionality of the electronic information system of communications cable duct system and interfaces with Lithuanian municipalities (the number of connected municipalities)	4	4	100

Code of the evaluated factor	Names and measurement units of evaluation factors of the Programme's objectives and tasks	Values of evaluation factors		
		Plan for 2015	Implemented	Implementation percentage
	Task 1 of Objective 1 – to ensure the absence of distortion and restrictions of competition in electronic communications and postal sectors			
P-01-81-01-01-01	1. The share of inspections performed on how the undertakings having significant market power follow the imposed obligations (% of the imposed obligations)	100	100	100
P-01-81-01-01-02	2. HHI index measuring concentration in the postal market	2100	2035	103
P-01-81-01-01-03	3. The number of performed analyses of markets under EC Recommendation 2014/710/EU and of other markets subject to ex ante regulation	2	3	150
P-01-81-01-01-04	4. The share of subscribers who used the right of number portability (% of the total number of active subscribers)	>13.5	>22	163
P-01-81-01-01-05	5. The share of examined reports on violations of electronic communications infrastructure construction, installation and usage (% of the total number of received reports on violations)	100	100	100
	Task 2 of Objective 1 – supervision of electronic communications and postal activities conducted by economic entities ensuring the efficiency of these activities			
P-01-81-01-02-01	1. The number of planned inspections of electronic communications service providers	25	25	100
P-01-81-01-02-02	2. The number of planned inspections performed on postal service providers, including their divisions	25	25	100
P-01-81-01-02-03	3. Methodological assistance provided to undertakings on the issues within the competence of RRT (% of the total number of received inquiries)	100	100	100
	Objective 2 – ensuring the protection of rights and legitimate interests of ICT and postal service recipients within the competence of RRT			
R-01-81-02-01	1. Index of consumers' satisfaction with ICT and postal services (share of service users positive about quality, %)	97/77	91/0**	94/0
R-01-81-02-02	2. The share of types of radiocommunication equipment and telecommunications terminal equipment complying with the administrative requirements of the Regulation (% of the total number of types of inspected	75	68	91

Code of the evaluated factor	Names and measurement units of evaluation factors of the Programme's objectives and tasks	Values of evaluation factors		
		Plan for 2015	Implemented	Implementation percentage
	equipment)			
R-01-81-02-03	3. The share of types of equipment complying with the administrative requirements of the EMS Regulation (% of the total number of types of inspected equipment)	75	88	117
	Task 1 of Objective 2 – to reinforce security of electronic communications networks and information, as well as reliability and resistance of electronic communications networks			
P-01-81-02-01-01	1. The share of investigated electronic communications networks and information security incidents (% of the total number of received reports on incidents)	100	100	100
P-01-81-02-01-02	2. The number of published reports on the issues of the security of electronic communications networks and information	30	43	143
P-01-81-02-01-03	3. The share of investigated reports on websites publishing sensitive information or violating the procedure for publication of restricted information (% of the total number of reports received over the Internet hotline)	100	100	100
P-01-81-02-01-04	4. The number of published reports on violations of the procedure for control of information prohibited from computer networks of public use and dissemination of restricted public information	4	4	100
P-01-81-02-01-05	5. The share of examined applications for approval of filtering tools (% of the total number of received applications)	100	-	-
P-01-81-02-01-06	The number of cooperation agreements signed with CERT centres of other countries	5	-	-
P-01-81-02-01-07	The share of Lithuania's critical electronic communications and Internet network infrastructure and Lithuania's cyber space elements that are under regular monitoring (% of the total number)	95	100	105
	Task 2 of Objective 2 – supervision of the provision of the ICT and postal services, including universal services			
P-01-81-02-02-01	1. The share of the complaints received from of ICT and postal service users, including consumers, examined within the competence of RRT (% of the total number of received complaints)	100	100	100
P-01-81-02-02-02	2. The share of performed control measurements of technical parameters of electronic communications networks and	100	100	100

Code of the evaluated factor	Names and measurement units of evaluation factors of the Programme's objectives and tasks	Values of evaluation factors		
		Plan for 2015	Implemented	Implementation percentage
	lines (% of the total number of scheduled measurements)			
P-01-81-02-02-03	3. The share of performed control measurements of quality indicators of electronic communications services (% of the total number of scheduled measurements)	100	100	100
	Task 3 of Objective 2 – assurance and supervision of the compliance of radiocommunication equipment and telecommunications terminal equipment existing on the market of the Republic of Lithuania with the mandatory requirements of the Regulation and compliance of equipment with the EMS Regulation			
P-01-81-02-03-01	1. The number of types of radiocommunication equipment and telecommunications terminal equipment inspected for compliance with the administrative requirements of the Regulation	70	74	106
P-01-81-02-03-02	2. The number of inspected types of equipment for compliance with the administrative requirements of the EMC Regulation	30	34	113
P-01-81-02-03-03	3. The number of types of radiocommunication equipment and telecommunications terminal equipment taken from the market for laboratory testing in order to determine if they comply with the technical requirements of the Regulation	25	25	100
P-01-81-02-03-04	4. The number of types of equipment taken from the market for laboratory testing in order to determine if they comply with the technical requirements of the EMS Regulation	15	19	127
P-01-81-02-03-05	5. The number of performed tests on radiocommunication equipment and telecommunications terminal equipment and tests of electromagnetic compatibility on equipment, and the number of issued test protocols (% of the total number of the equipment submitted for testing)	100	100	100
P-01-81-02-03-06	6. The number of investigated reports concerning the placing on the market of radiocommunication equipment of Class 2 (% of the total number of received reports)	100	100	100
	Task 4 of Objective 2 – to perform functions of electronic signature supervisory institution			
P-01-81-02-04-01	1. The growth of the number of users of the remote training system for the use of	10	42.7	427

Code of the evaluated factor	Names and measurement units of evaluation factors of the Programme's objectives and tasks	Values of evaluation factors		
		Plan for 2015	Implemented	Implementation percentage
	electronic signatures and electronic documents (% compared to the previous year)			
P-01-81-02-04-02	2. The share of applications regarding activities of certification service providers investigated within the competence of RRT (% of the total number of received applications)	100	100	100
P-01-81-02-04-03	3. Methodological assistance provided on the issues of electronic signature (% of the total number of received inquiries)	100	100	100
	Objective 3 – allowing for long-term investments in the electronic communications infrastructure and advanced development of ICT			
R-01-81-03-01	1. The share of issued permits granting the right to use radio frequencies (channels) on digital terrestrial television networks (% of the total number of received applications)	75	100	133
R-01-81-03-02	2. The share of residents of the territory of the Republic of Lithuania covered by wireless broadband access mobile radiocommunication networks (UMTS, WIMAX, LTE) (%)	95.0	99.0	104
R-01-81-03-03	3. Broadband communication penetration (the number of subscribers per 100 residents, %)	45	40.3*	90
	Task 1 of Objective 3 – to perform radio frequency (channel) management, supervision of the use thereof, including monitoring and management of other electronic communications resources			
P-01-81-03-01-01	1. The share of issued permits granting the right to use radio frequencies (channels) on mobile radiocommunication internal networks (% of the total number of received requests)	95	99.2	104
P-01-81-03-01-02	2. The share of issued permits granting the right to use radio frequencies (channels) on new radiocommunication technology-based networks (radio stations) (% of the total number of received applications)	80	80	100
P-01-81-03-01-03	3. The share of issued permits granting the right to launch experimental radiocommunication networks (% of the total number of received applications)	90	100	111
P-01-81-03-01-04	4. The share of inspections and control measurements of newly installed radio and television broadcasting stations (% of the total number of newly installed stations)	100	100	100

Code of the evaluated factor	Names and measurement units of evaluation factors of the Programme's objectives and tasks	Values of evaluation factors		
		Plan for 2015	Implemented	Implementation percentage
P-01-81-03-01-05	5. The share of radio broadcasting stations whose emission parameters are inspected on a quarterly basis (% of the total number of installed stations)	100	100	100
P-01-81-03-01-06	6. The number of inspections of radio and television broadcasting stations	24	29	121
P-01-81-03-01-07	7. The number of inspections of internal radiocommunication networks	180	160	89
P-01-81-03-01-08	8. The share of the decisions of the Electronic Communications Committee (ECC) regarding radio frequencies (channels) implemented in Lithuania (%)	70	70	100
	Objective 4 – integration into the EU and international regulatory space and efficient activities of RRT			
R-01-81-04-01	1. A possibility for RRT to provide services at the fourth maturity level (the share (%) of the total number of services provided by the Authority)	100	–	–
R-01-81-04-02	2. The share of consumers (service users) who know where to apply regarding the issues related to violations of rights subject to ICT and postal services (%)	80	30**	38
	Task 1 of Objective 4 – efficient integration in the EU decision making process			
P-01-81-04-01-01	1. The number of notifications, draft documents, positions of Lithuania prepared and coordinated for participation in the committees and working groups of the EU Council and of the European Commission, in the committees and working groups of the Body of European Regulators for Electronic Communications (BEREC), the European Regulators Group for Postal Services (ERGP), the European Conference of Postal and Telecommunications Administrations (CEPT), the International Telecommunication Union (ITU), and the Universal Postal Union (UPU), the meeting of the Baltic regulators, other international events, and workshops	35	80	229
P-01-81-04-01-02	2. The number of permanent working groups and committees of the EU and international organizations in the activities whereof the participation of RRT representatives is ensured	20	26	130
	Task 2 of Objective 4 – efficient organization, publicity and control of activities of RTT			

Code of the evaluated factor	Names and measurement units of evaluation factors of the Programme's objectives and tasks	Values of evaluation factors		
		Plan for 2015	Implemented	Implementation percentage
P-01-81-04-02-01	1. The share of civil servants who participated in in-service training events in the accounting year (%)	80	92	115
P-01-81-04-02-02	2. The share of the developed Communications Activity Information System (%)	100	100	100
	Objective 5 – ensuring performance of obligations that may be imposed on operators and providers of electronic communications services in the interests of national defence, national security and maintenance of public order, as well as in cases of extraordinary circumstances			
R-01-81-05-01	1. Ensured fulfilment of obligations relating to surveillance of electronic communications traffic	Yes	Yes	Yes
	Task 1 of Objective 5 – to ensure that operators and providers of electronic communications services perform their obligations that may be imposed on them in the interests of national defence, national security and maintenance of public order, as well as in cases of extraordinary circumstances			
P-01-81-05-01-01	1. The share of the procured equipment used for the purposes stated in Article 77(1) and/or Article 77(4) of the Law on Electronic Communications of the Republic of Lithuania (% of equipment to be purchased)	100	100	100

Data of Q3 of 2015:

**On 14-22 March 2015 Spinter Tyrimai UAB conducted a representative survey of residents of Lithuania for the purpose of establishing the use of universal electronic communications services (fixed telephone communication, services via payphones and information on subscribers services), awareness of an option to address the Communications Regulatory Authority in case of complaints regarding communications services, awareness of consultations provided via free of charge helpline and assessment of the quality of electronic communications (telephone and Internet access) services. The survey of postal service users was not planned for 2015.

The reasons for failure to implement the factors:

The factor **R-01-81-01-01** was implemented by **96%, i.e. it was basically achieved.** The number of subscribers of alternative public fixed telecommunication service providers stood at 56.8 thousand at the end of Q3 of 2015 and grew by 0.7% during Q3 of 2015. Compared to the end of Q3 of 2014, the number of subscribers of alternative public fixed telecommunication service providers decreased by 2.4%. Alternative public fixed telecommunication service providers held 10.10% of the market at the end of Q3 of 2015 by the number of subscribers. The total number of subscribers of fixed telecommunication services amounted to 562.4 thousand at the end of Q3 of 2015 (of which: 89.9% – TEO LT subscribers, 2.7% – CSC Telecom UAB, 2.0% – Baltnetos Komunikacijos UAB, 2.8% – subscribers of all Nacionalinis Telekomunikacijų Tinklas UAB companies providing fixed telecommunication services).

The factor **R-01-81-01-02** was implemented by **95**%. The share of postal service providers (except for Lietuvos Paštas AB) on the market accounted for 59% by revenue according to the data of three quarters of 2015. The factor was affected by the growth of the share of the postal service market held by Lietuvos Paštas AB which occurred due to new services related to self-service parcel terminals and due to significant increase of the number of international post items.

The factor **R-01-81-02-01** was implemented by **94**%. On 14-22 March 2015 Spinter Tyrimai UAB conducted a representative survey of residents of Lithuania. It aimed at establishing the use of universal electronic communications services (fixed telephone communication, services via payphones and information on subscribers services), awareness of an option to address the Communications Regulatory Authority in case of complaints regarding communications services, awareness of consultations provided via free of charge helpline and assessment of the quality of electronic communications (telephone and Internet access) services. 91% of the respondents were positive about the quality of telecommunication services or found it satisfactory, and 84% of the respondents were positive about the quality of Internet services. The survey covered only the use of universal electronic communications services; therefore, the consumers' satisfaction with all ICT services cannot be assessed. The survey of postal service users was not planned for 2015.

The factor **R-01-81-02-02** was implemented by **91**%. When assessing the compliance of radiocommunication equipment and telecommunications terminal equipment placed on the market with the administrative requirements of the Technical Regulation of Radiocommunication Equipment and Telecommunications Terminal Equipment, 74 types of equipment were inspected, of which 24 types failed to comply with the administrative requirements, i.e. a declaration of conformity was not submitted. After the request, the declarations to 22 types of equipment were provided, and declarations of conformity to 2 types of equipment were not submitted and such equipment was removed from the market. Many devices were found non-compliant with the administrative requirements by carrying out consistent inspections in problematic segments of the market, i.e. remotely controlled toys and short-range radiocommunication devices. Many violations with the administrative requirements of the Regulation were detected in these segments in the previous year as well (typically, declarations of conformity were not submitted).

The factor **P-01-81-02-01-05** – no applications on certifying filtering means were received in 2015.

The factor **P-01-81-02-01-06** – due to limited participation of the employees of CERT-LT unit in international events, the cooperation agreements with CERT centres of other countries were not signed in 2015. The process of signing the memorandum with the national CERT of Georgia was commenced.

The factor **R-01-81-03-03** was implemented by **90**%. At the end of Q3 of 2015, broadband communication penetration stood at 40.3%, it increased by 0.9 pp during the third quarter and grew by 2.9 pp during the year. The number of subscribers of Internet access services using broadband communication technologies (fixed and mobile) totalled to 1,165.7 thousand at the end of Q3 of 2015, of which 824.7 thousand (70.7%) received broadband Internet access services over public fixed communication networks (both wired and wireless), 341.0 thousand (29.3%) – over public mobile communication networks using a computer. At the end of Q3 of 2015, the broadband Internet access services were used by 70.1% of households.

The factor **P-01-81-03-01-07** was implemented by **89**%. In total 160 inspections for compliance of internal radiocommunication networks with the project and conditions stipulated in the permit to use frequencies (channels) were carried out – 7 inspections of newly launched radiocommunication networks and 153 scheduled inspections of operating internal radiocommunication networks. This factor was planned taking account of the fact

that more than 20 new internal radiocommunication networks are launched annually on an average, and in 2015, only 7 new radiocommunication networks were launched.

The factor **R-01-81-04-01** was not implemented. The Communications Activity Information System, intended for the provision of RRT services electronically, to ensure a two-way communication channel between RRT and natural and legal entities, to automate an electronic database of electronic communications network operators and service providers, postal service providers, processes of collection of statistical information about the electronic communications and postal sectors and its transfer to the electronic database, to automate preparation of summaries and provision of data for the performance of other functions of RRT, has been developed. Due to the drawbacks subject to validation of the System found during the State Control Audit, the system has not been provided for the public use. To validate the Communications Activity Information System, the information system regulations and information system data protection regulations are drafted and they will be agree upon by the competent authorities and approved by 1 June 2016. Upon the validation of the System, the system will be provided for the public use and electronic services will be provided at the fourth maturity level (currently the services are provided at the third maturity level).

The factor **R-01-81-04-02** was implemented by 30%. On 14-22 March 2015 Spinter Tyrimai UAB conducted a representative survey of residents of Lithuania. It aimed at establishing the use of universal electronic communications services (fixed telephone communication, services via payphones and information on subscribers services), awareness of an option to address the Communications Regulatory Authority in case of complaints regarding communications services, awareness of consultations provided via free of charge helpline and assessment of the quality of electronic communications (telephone and Internet access) services. 30% of the respondents are aware of the option to apply to RRT in case of complaints regarding communications services, and 9% know that RRT provides consultations via free of charge helpline +370 800 200 30. The survey covered only the use of universal electronic communications services; therefore, it cannot be assessed whether or not the users of all ICT services are aware of where to apply regarding the violated rights or the quality of services.

ANNEX 2. RRT FINANCIAL STATEMENT OF 2015

In 2015, the RRT's activities were funded from the state budget and the budget of RRT consisting of income received from the services provided by RRT and activities carried out.

The revenue received by RRT in 2015 for the services provided and activities completed according to the Communications Management and Control Programme

Item No	RRT revenue groups	Revenue in 2015	
		EUR	%
1.	Supervision of observance of the conditions for engaging in electronic communications activities	24,691.81	0.37
2.	Supervision of observance of the conditions for engaging in provision of postal services	19,116.24	0.29

3.	Revenue from tenders and auctions for granting the right to use radio frequencies (channels) and telephone numbers	3,268.92	0.05
4.	Setting conditions for the use of radio frequencies (channels) and radio stations and the conditions for engaging in radio amateur activities	99,170.01	1.51
5.	Supervision of the use of radio frequencies (channels), including radio monitoring	5,712,314.91	86.87
6.	Supervision of the use of telephone numbers.	654,284.55	9.95
7.	Tests of radiocommunication equipment and telecommunications terminal equipment, tests of electromagnetic compatibility of devices and equipment	62,472.62	0.95
8.	Other	333.12	0.01
9.	**TOTAL (1+2+3+4+5+6+7+8)**	**6,575,652.18**	**100**

In 2015, RRT was carrying out one programme, i.e. Communications Management and Control Programme, code 01.81.

To fund this programme under the Law on the Approval of Financial Indicators of the State Budget and Municipal Budgets for 2015 of the Republic of Lithuania the amount of EUR 7,385,310 of the general appropriations was allocated, of which EUR 2,751,390 – for salaries, EUR 2,461,770 – asset acquisition (of which EUR 434,430 of the state budget funds for the procurement of equipment as defined in Article 77(1) or Article 77(4) of the Law on Electronic Communications of the Republic of Lithuania).

The additional amount of EUR 638,897 of over-performance and unused contributions in the state budget that was used to fund the Communications Management and Control Programme carried out by RRT by exceeding the general appropriations approved by the Seimas of the Republic of Lithuania was transferred from 2014 to 2015.

Therefore, the approved estimate of funding the Communications Management and Control Programme carried out by RRT of 24 March 2015 indicates the total amount of EUR 8,024,207 (EUR 7,385,310 + EUR 638,897) to be allocated in 2015.

In 2015, the plan of RRT contributions was EUR 6,950,880. Taking account of income received in 2014 and unused funds and pursuant to the provisions of the Law on Electronic Communications of the Republic of Lithuania subject to costs incurred and charges collected, on 25 May 2015, by Order No 1V-642 of the Director of the Communications Regulatory Authority, RRT established the recalculation rate 0.73 for the tariffs of supervision of the use of radio frequencies (channels), including radio monitoring, and of telephone numbers which was in effect from 1 June 2015 to 30 November 2015. The application of the tariff recalculation rate allows a flexible balance between RRT revenue and expenses, i.e. to repay the market its overpayments through reduced tariffs, where the revenue received in the current year is higher than expected. Thus, the principle that market players do not pay more than necessary to regulate and supervise the market is implemented.

Upon the application of the balancing rate, the total amount of revenue contributions transferred by RRT to the state budget was EUR 6,572,867.19 that was later used to fund the activity of RRT. It must be also noted that the revenue received by RRT from services provided and activities carried out under the Communications Management and Control Programme is the sum of services provided and activities carried out by RRT (documented value) prior to the payment to the state budget, and the contributions mean RRT revenue transferred to the state budget as per established procedure and within the set deadlines (monetary value); therefore, these amounts differ in the reporting period.

12.1.1.1.1.1 Use of funds for the Communications Management and Control Programme carried out by RRT in 2015

Item No	Type of expenditure	Communications Management and Control Programme
		Pay-box expenses 2015 (EUR)
1.	**Total expenses**	**4,610,627.1**
	Of which:	
	Remuneration	2,686,371.7
	Social insurance contributions	847,620.1
	Expenses for goods and services	1,056,117.1
	Social allowances (benefits)	20,125.0
	Other expenses (for current purposes)	393.2
2.	**Tangible and intangible asset expenses**	**2,356,167.9**
	Of which:	
	Procurement of fixed assets	2,356,167.9
	TOTAL (1+2)	**6,966,795.0***

* Of which EUR 434,430 of the state budget funds were intended for the procurement of equipment as defined in Article 77(1) and/or Article 77(4) of the Law on Electronic Communications of the Republic of Lithuania.

ANNEX 3. REGULATED MARKETS OF THE ELECTRONIC COMMUNICATIONS SECTOR

Market No acc. to Rec. 2003/ Rec. 2007*/ Rec. 2014*/	Description	Undertakings having significant market power	Imposed obligations						
			Provision of access	Non-discrimination	Transparency	Price control and cost accounting	Accounting separation	Wholesale line lease	Selection of a public telecommunication service provider
1.;2. / 1. / n.	The market of consumers' access to public telecommunication network at a fixed location	TEO LT, AB		X	X	X	X	X	X
7. / n. / n.	The market of the minimum set of leased lines	TEO LT, AB	X	X	X	X	X		
8. / 2. / n.	The market of call origination on the public telecommunication network provided at a fixed location	TEO LT, AB	X	X	X	X			
9. / 3. / 1.	The market of call termination on individual public telecommunication networks at a fixed location	TEO LT, AB	X	X	X	X	X		
		Lietuvos Geležinkeliai AB, Lietuvos Radijo ir Televizijos Centras AB, Digitela UAB, CSC Telecom UAB, Eurocom SIP UAB, Linkotelus UAB, Mediafon UAB, Nacionalinis Telekomunikacijų Tinklas UAB, Telekomunikacijų Grupė UAB	X			X			
11. / 4. / 3a	Wholesale market of unbundled access (including shared unbundled access) to the physical network infrastructure provided at a fixed location	TEO LT, AB	X	X	X	X	X		
12. / 5. / 3b	Wholesale broadband communication access market	TEO LT, AB	X	X	X	X	X		
13. / 6. / 4.	The market of wholesale leased lines terminating segments disregarding the technology used to provide guaranteed (allocated) transmission capacities	TEO LT, AB	X	X	X	X	X		
14. / n. / n.	The market of trunk segments of national leased lines	TEO LT, AB	X	X	X	X	X		
16. / 7. / 2	The market of voice call termination on individual public mobile telephone networks	Omnitel UAB, Bitė Lietuva UAB, Tele2 UAB, CSC Telecom UAB, Linkotelus UAB, Mediafon UAB	X	X	X	X			
18. / n. / n.	The market of broadcasting transmission services to deliver broadcast content to end users	TEO LT AB, Lietuvos Radijo ir Televizijos Centras AB	X	X	X	X	X		
n. / n. / n.	The market of services of providing broadcasting transmission means	Lietuvos Radijo ir Televizijos Centras AB	X	X	X	X	X		

ANNEX 4. ORDERS OF THE DIRECTOR OF RRT

1. Order No 1V-37 of the Director of RRT of 9 January 2015 "On the Amendment of Order No 1V-940 of the Director of RRT of 7 October 2011 "On the Approval of Forms of Documents Drafted by the Officials Authorised by the Communications Regulatory Authority of the Republic of Lithuania and on the Repeal of Some of the Orders of the Director of the Communications Regulatory Authority of the Republic of Lithuania";

2. Order No 1V-205 of the Director of RRT of 10 February 2015 "On the Amendment of Order No 1V-893 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 9 September 2010 "On the Approval of the List of Radio Frequencies (Channels) that may be used without an Individual Permit";

3. Order No 1V-284 of the Director of RRT of 27 February 2015 "On the Amendment of Order No 1V-1160 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 24 December 2008 "On the Approval of the Plan for the Use of Radio Frequencies";

4. Order No 1V-568 of the Director of RRT of 5 May 2015 "On the Amendment of Order No 1V-853 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 27 August 2010 "On the Approval of the Rules on Inspections of Activities of Economic Entities";

5. Order No 1V-656 of the Director of RRT of 29 May 2015 "On the Approval of the Regulations on the Management of Numbers and Codes and the Right to Use Domains with the Name of Lithuania and on the Information System of the Administration of the List of Electronic Communications Service and Network Providers and of the Regulations on Security of the Management of Numbers and Codes and the Right to Use Domains with the Name of Lithuania and on the Information System of the Administration of the List of Electronic Communications Service and Network Providers";

6. Order No 1V-777 of the Director of RRT of 23 June 2015 "On the Amendment of Order No 1V-297 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 17 September 2004 "On the Approval of the Rules on Market Analyses";

7. Order No 1V-776 of the Director of RRT of 23 June 2015 "On the Amendment of Order No 1V-1013 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 21 October 2011 "On the Approval of the Rules on Security and Integrity of Public Communications Networks and Public Electronic Communications Services";

8. Order No 1V-941 of the Director of RRT of 11 August 2015 "On the Amendment of Order No 1V-311 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 1 April 2005 "On the Approval of the Rules on Measurements of the Strength of Electromagnetic Field in Radio Monitoring Stations";

9. Order No 1V-1004 of the Director of RRT of 28 August 2015 "On the Amendment of Order No 1V-1160 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 24 December 2008 "On the Approval of the Plan for the Use of Radio Frequencies";

10. Order No 1V-1156 of the Director of RRT of 24 September 2015 "On the Amendment of Order No 1V-419 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 28 April 2005 "On the Approval of the Plan for the Development of Digital Terrestrial Television";

11. Order No 1V-1257 of the Director of RRT of 13 October 2015 "On the Amendment of Order No 1V-940 of the Director of RRT of 7 October 2011 "On the Approval of Forms of Documents Drafted by the Officials Authorised by the Communications Regulatory Authority of the Republic of Lithuania and on the Repeal of Some of the Orders of the Director of the Communications Regulatory Authority of the Republic of Lithuania";

12. Order No 1V-1291 of the Director of RRT of 19 October 2015 "On the Amendment of Order No 1V-824 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 28 September 2005 "On the Approval of the Rules on the Auction Granting the Right to Use Electronic Communications Resources";

13. Order No 1V-1292 of the Director of RRT of 19 October 2015 "On the Approval of the Specification of the Auction Granting the Right to Use Radio Frequencies (Channels) from the 880-915 MHz and 925-960 MHz Duplex Radio Frequency Band and from the 1710-1785 MHz and 1805-1880 MHz Duplex Radio Frequency Band";

14. Order No 1V-1422 of the Director of RRT of 18 November 2015 "On the Amendment of Order No 1V-282 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 1 March 2006 "On the Approval of the Procedure for Detecting and Eliminating Radio Interferences";

15. Order No 1V-1499 of the Director of RRT of 2 December 2015 "On the Amendment of Order No 1V-1104 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 13 December 2005 "On the Approval of the Rules on Assigning Telephone Numbers and of the National Telecommunication Numbering Plan".