COMMUNICATIONS REGULATORY AUTHORITY OF THE REPUBLIC OF LITHUANIA

ANNUAL REPORT 2017

+370 5 210 5633

www.rrt.lt

Mortos str. 14, LT-03219

rrt@rrt.lt

1. FOREWORD

Allow me to present the sixteenth 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 interested in the Lithuanian communications market.

Lithuania's progress in the field of information and communication technologies is illustrated by compelling figures showing the direction and pace at which we move in the processes of life affected by digitalisation. In 2017, as many as 27.9% of fixed broadband subscribers were using the internet of the speed of 30 kb/s to 100 Mb/s in Lithuania, and 44% of all broadband subscribers were using the 100 Mb/s and higher internet connection in Lithuania. In 2017, the overall number of active SIM cards for internet access services reached 2.44 million. Of which, 1.77 million SIM cards were used to provide internet access services via 4G networks. This indicator grew by 49% in 2017, compared to 2016. The growing e-commerce scales resulted in increased volume of postal items. In 2017, their amount went up by 15.7%, i.e., from 11.79 million units in 2016 up to 13.9 million units in 2017.

In 2017, major changes took place in the field of international roaming services. As of 15 June 2017, the roam like at home principle came into force in the whole of the European Union that allows the EU citizens to use the mobile services at the same fees as at home when travelling in the Union. To balance the regulatory effect of roaming services on the Lithuanian internal market and maintain stability of local fees, RRT has provided the Lithuanian roaming service providers with an opportunity to apply a low additional fee to cover the required roaming costs. Despite the applied additional fee, the roaming fees were significantly going down to the travelling Lithuanians. Data transmission service fees decreased seven-/tenfold. The shrinking fees, accordingly, led to the significant growth of the use of services: after the entry into force of a new regulation in the middle of 2017, the use of voice calls and SMS services went up two-/threefolrnetd, and the use of data transmission services increased tenfold.

In 2017, a new website of RRT www.nebūkberyšio.lt was launched; it grants the Lithuanian electronic communications service users the convenient access to the information resources administered by RRT on various electronic communications services provided in Lithuania, quality, development and security thereof. To promote the use of the electronic signature, we updated the website www.elektroninisparasas.lt as well; the website contains the most relevant information on trust services for digital operations, such as electronic signatures, electronic stamps, and electronic time stamps.

RRT has continued to participate in the international activities which not only help gather experience, but also share it with others being the internationally recognised experts. In 2017, we became the successful tenderers in the tender organised by the European Commission and, as senior partners, together with the colleagues from Poland and Germany started the implementation of the EU Twinning Project "Supporting the Georgian National Communications Commission (GNCC) in developing of its electronic communications regulatory framework and operational capacities in line with EU regulatory framework". By implementing the

project, we will help the Georgian Electronic Communications Regulatory Authority to improve the Georgian electronic communications regulatory framework for it to be in line with the EU law, will strengthen the regulator's capacities in the fields of fixed and mobile broadband development, market analyses, radio frequency auctions, internet management, assurance of network and information security. Moreover, in 2017, the Republic of Lithuania presented its candidacy to the ITU Council. For the second term and the candidacy of the Deputy Director of RRT to the position of the Director of the ITU Radiocommunication Bureau; the candidacy activities will be actively continued this year as well.

In 2017, RRT accomplished a lot in the fields of electronic communications, regulation of the postal and rail transport markets, supervision of equipment electromagnetic compatibility, protection of consumer rights, safer internet, and supervision of trust services. I invite you to take notice of this report in terms of what has been accomplished in various activities of RRT, which initiatives were implemented, and which results were achieved.

Sincerely

Feliksas Dobrovolskis

2. BRIEF OVERVIEW OF THE COMMUNICATIONS SECTOR DEVELOPMENT IN 2017

2.1 Electronic Communications Sector

At the end of 2017, the electronic communications activities were carried out by 127 economic entities (by 13 economic entities fewer than in 2016).

In 2017, the electronic communications market players invested EUR 76.9 million in the electronic communications network infrastructure, which was by 21.4% less than in 2016 (see Fig. 1). Operators were mostly investing in the development of fibre optic access network and 4G network infrastructure, whereby data transmission services are provided.

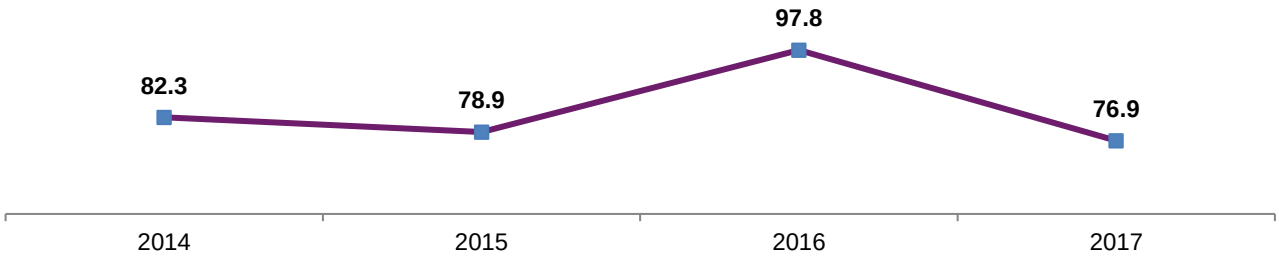
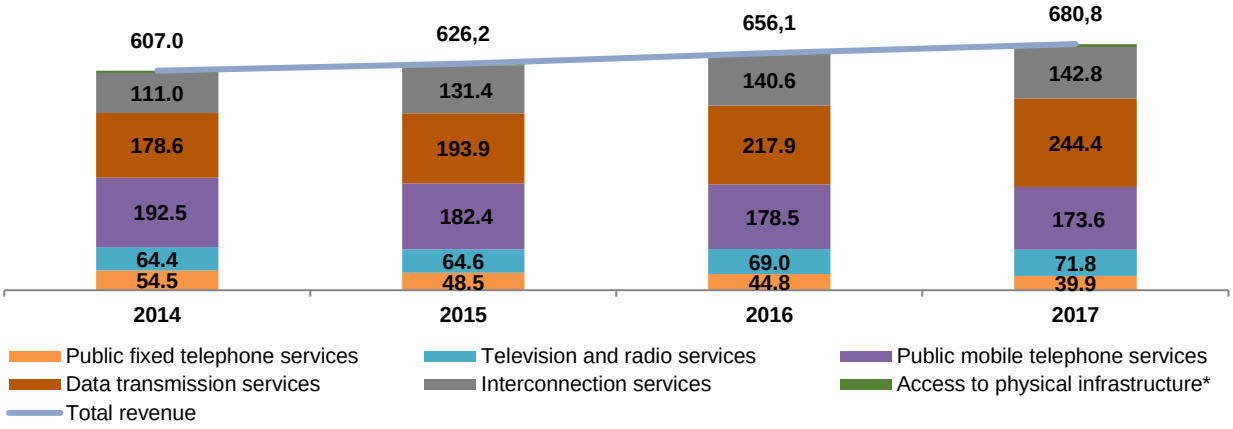


Fig. 1. **Dynamics of investments in the electronic communications infrastructure, EUR million, 2014-2017**

In 2017, the total revenue of the electronic communications sector amounted to EUR 680.8 million and, compared to 2016, increased by 3.8% or by EUR 24.6 million (see Fig. 2). The growth of revenue of the electronic communications sector has continued for the third year in a row. The major portion of the sector revenue was the revenue from the provision of the data transmission services (37.2%) and mobile telecommunications services (25.6%).



** In 2017, the revenue from access to physical infrastructure covers the revenue from WLR revenue received from granting full unbundled access to local line, from granting shared unbundled access to local line, revenue from granting access to dark fibre, revenue from granting access to the communications cable duct system, revenue from granting access to another physical infrastructure. With a view to such revenue in 2016, as in the previous periods, only the revenue from granting the access to dark fibre was distinguished.*

Fig. 2 **Structure of the revenue of the electronic communications sector, EUR million, 2014-2017**

Telephone Communication. The number of subscribers of fixed telephone communication services decreased from 529.9 thousand to 485.9 thousand or by 8.3% in 2017, compared to 2016. The number of active subscriber identification cards (SIM cards) used for the provision of mobile telephone services[1] went up from 3,600.1 thousand to 3,738.7 thousand or by 3.8% in 2017, compared to 2016.

[1] This number does not include SIM cards for internet access services, where the internet access service payment plan is applied rather than public mobile telephone service plan, as well as SIM cards for M2M services.

When it comes to the use of telephone communication services, a similar trend prevails in 2017, as in 2016: the duration of calls originated in the fixed telephone network, compared to the duration of calls originated in 2016, decreased by 12.4% or by 99.0 million minutes. It has been the first time in 6 years when the duration of calls originated in mobile networks stopped increasing (it was by 0.4% or by 38.1 million minutes shorter than in 2016 (see Fig. 3).

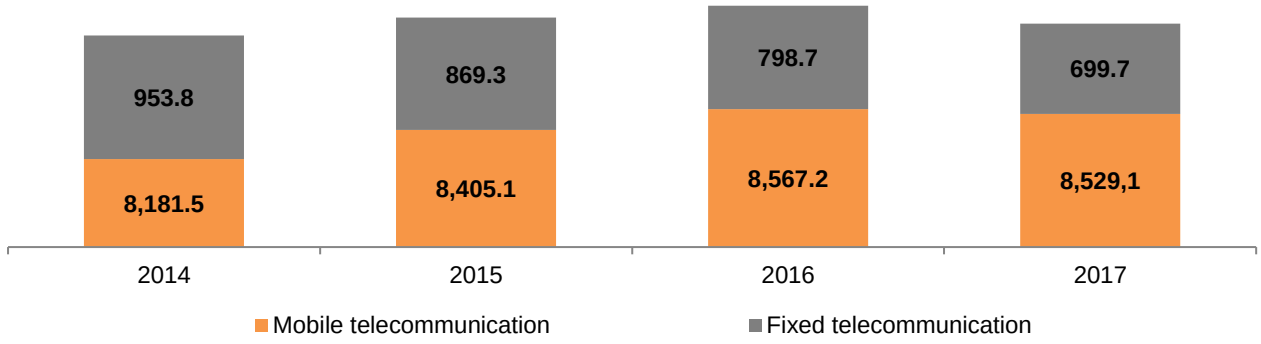


Fig. 3 **Duration of originated calls, million minutes, 2014-2017**

Internet. In 2017, compared to 2016, revenue from internet access services increased by 12.4% and accounted for EUR 221.5 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 2017, compared to 2016, the revenue from retail internet access services grew by 13.4% and stood at EUR 215.7 million, while the revenue from wholesale internet access services decreased by 15.2% and amounted to EUR 5.8 million.

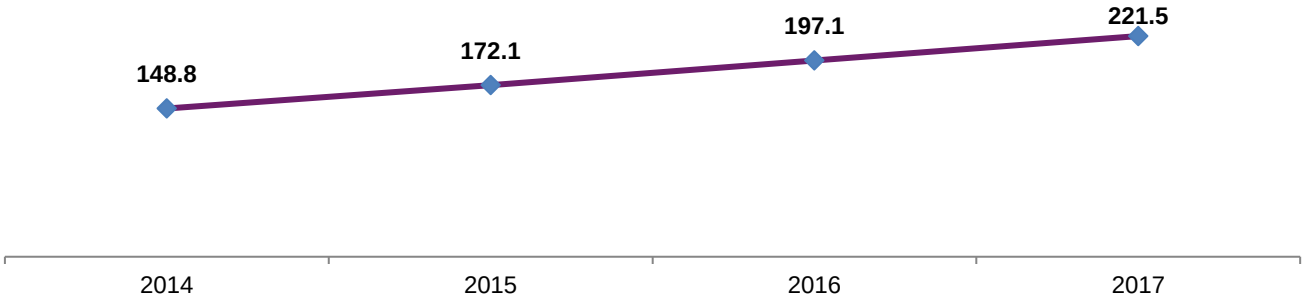


Fig. 4 **Revenue from the internet access services, EUR million, 2014-2017**

In 2017, compared to 2016, the number of subscribers to broadband internet access services provided by means of fixed communications technologies dropped by 59 thousand or by 6.9% and equalled 798.8 thousand (see Fig. 5). In the last six years the number of internet access subscribers using fixed communications technologies has grown by 3.4% in Lithuania.

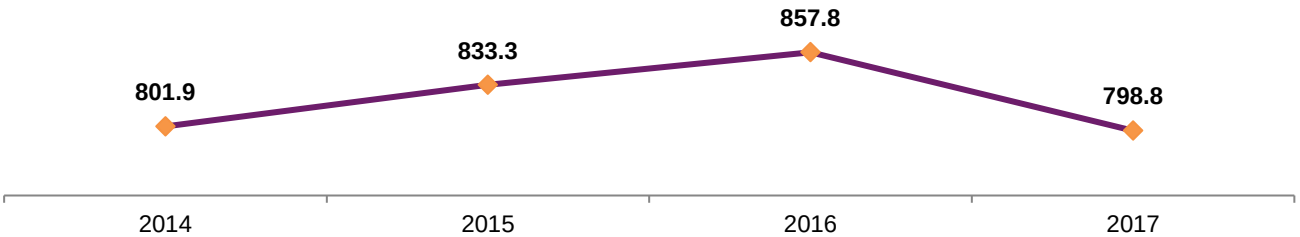


Fig. 5 **The number of subscribers to internet access services provided by means of fixed communications technologies, in thousands, 2014-2017**

As for the structure of subscribers by used technologies, optical fibre communication lines (FTTx) remained the main technology to provide internet access services by means of fixed communications technologies in

Lithuania in 2017. According to the data of 2017, there were 565.6 thousand optical fibre communication lines in Lithuania, i.e., by 20.3 thousand lines or 3.7% more than in 2016. As many as 70.8% of all subscribers to internet access services were using optical fibre lines (see Fig. 6). The share of this market grew by 7.2 pp over the year, and the share of subscribers to internet access services provided by means of the xDSL technology, which is the second most popular technology, shrank by 0.4 pp.

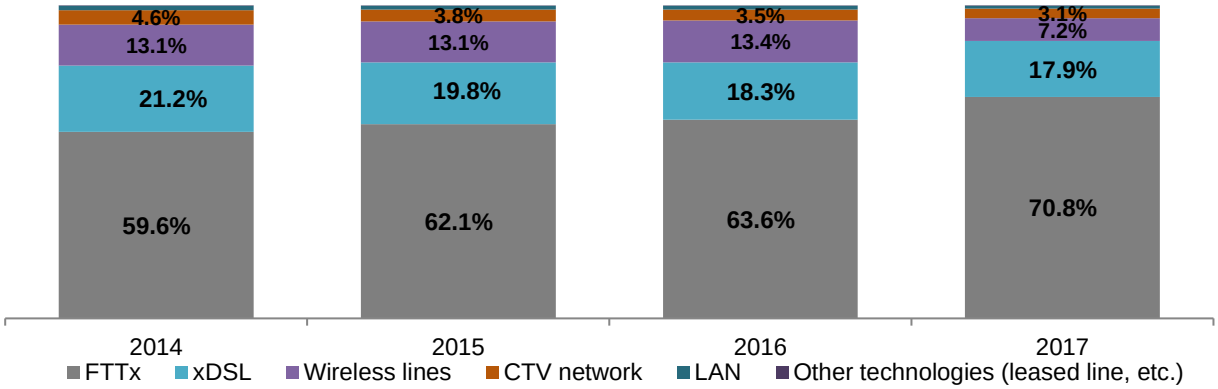


Fig. 6 **Structure of subscribers to internet access services provided by means of fixed communications technologies by technologies, %, 2014-2017**

Internet access services (30 Mb/s and higher) were provided via optical fibre communication lines (FTTx), cable television networks using DOCSIS 3.0 technology, and via other lines (local networks (LAN)). The total number of subscribers receiving 30 Mb/s and higher data upload speed increased by 6.7% over the year. On 31 December 2017, 72% of fixed broadband communication subscribers were using 30 Mb/s and higher internet speed, including 44.0% who were using 100 Mb/s and higher speed.

Television. At the end of 2017, the number of subscribers to pay-TV services accounted for 712.9 thousand, which was by 0.8% more than at the end of 2016. Television services provided by means of cable television networks remained the most popular pay-TV services. In 2017, 52.7% of all pay-TV subscribers were choosing this television (by 0.6 percentage point less than in 2016) (see Fig. 7). In 2017, only the number of IPTV (Internet Protocol Television) subscribers was growing – such services were provided by 18 undertakings, and 229.4 thousand subscribers were viewing television programmes by such means (compared to the data of 2016, the number of subscribers increased by 11.3%).

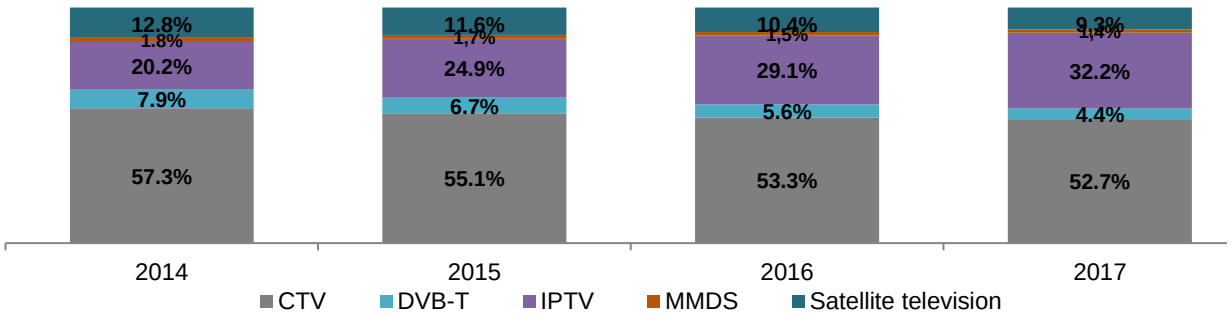


Fig. 7 **Structure of pay-TV subscribers by ways of providing television services, %, 2014-2017**

2.2 Postal Sector

At the end of 2017, the postal services were provided by 46 undertakings, i.e., by 9 undertakings fewer than at the end of 2016.

The overall postal market covers sending and delivery of items of correspondence and parcels and other postal services. In 2017, compared to 2016, the overall postal market grew by 12.5% in terms of revenue and accounted for EUR 147.1 million (see Fig. 8).

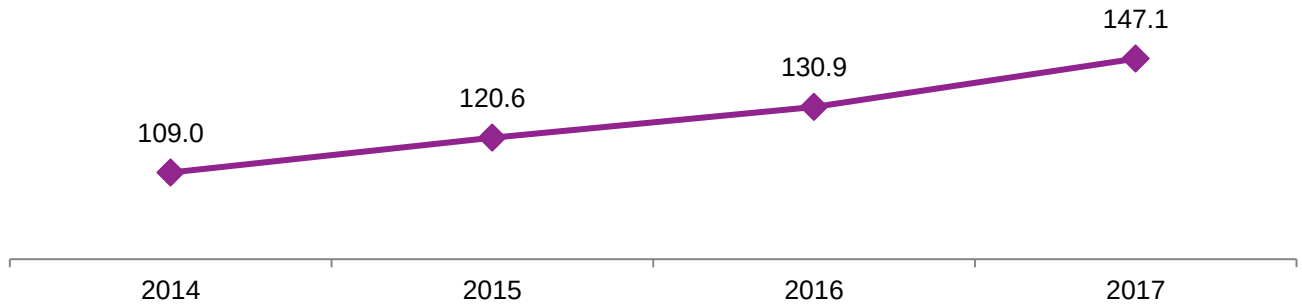


Fig. 8 **Revenue from the provision of postal services, EUR million, 2014-2017**

The largest postal market share, in terms of revenue, was held by Lietuvos Paštas AB (see Fig. 9).

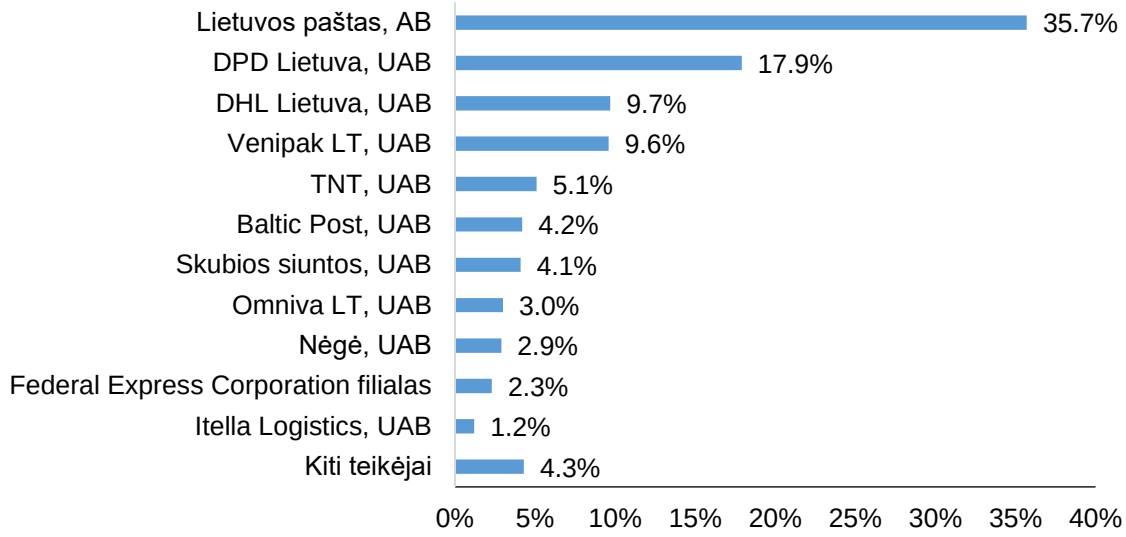


Fig. 9 **Market shares held by postal market players in 2017, %**

The traditional postal market increased by 9.8% in 2017 in terms of revenue and amounted to EUR 53.8 million. In this market, in terms of revenue, the major share was held by Lietuvos Paštas AB – 95.5%, and the second largest player was UAB Baltic Post which held 2.1% of the market. Compared to 2016, the market of recorded deliveries of postal items grew by 13.8% in 2017 in terms of revenue and reached EUR 93.2 million. In 2017, the largest service providers in this market were: UAB DPD Lietuva, UAB DHL Lietuva, and UAB Venipak LT (see Fig. 10).

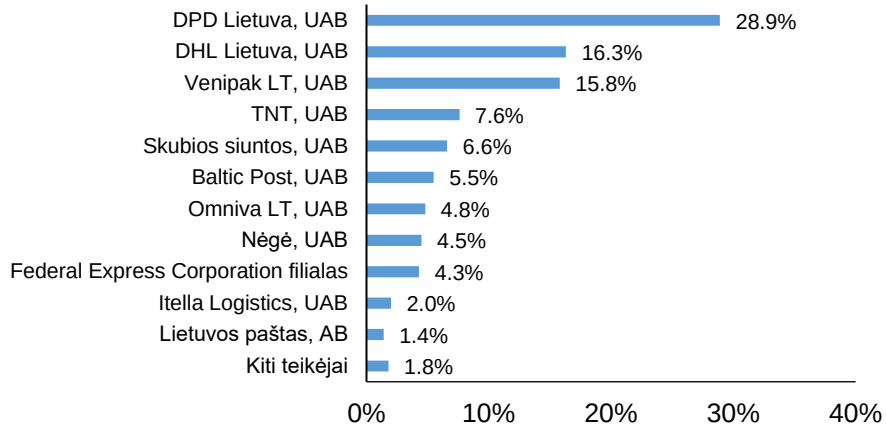


Fig. 10 **Allocation of the market of recorded deliveries of postal items in 2017, %**

The total letter-post item, in terms of the quantity of postal items, increased by 0.3% in 2017 and amounted to 61.6 million items of correspondence. Whereas, the number of postal parcels that were handed over increased by 15.7 in 2017, compared to 2016, and stood at 13.9 million units. Recently, it has been observed that parcels constitute increasingly larger part of all postal items (in 2016 – 16.5% of all postal items, in 2017 – 18.3%). The number of international parcels increased by 20.1% in 2017, compared to 2016, and the number of domestic parcels grew by 14.4%. This shows that the growth of the number of postal parcels is largely due to the increasing popularity of electronic commerce in the country.

The competition on the postal market is shown not only by market shares held by service providers, but also by concentration indicators. To assess the current intensity of competition in the postal market, the ratio indicating market concentration[2] – Hirschman-Herfindahl index HHI[3] – was calculated. The ratio was calculated in terms of the volumes of letter-post items and of postal parcels, and in terms of the revenue of postal service providers (see Table 1). The calculated HHI values changed insignificantly from the complete liberalization of the market between 2013 and 2016. In 2017, compared to the previous periods, the concentration on the market of letter-post items went up. This is to be related to the withdrawal of one of the larger market players from the market in 2017. Other HHI indices went down in 2017, compared to 2016. The dynamics of HHI indicators shows that the concentration level of the market of letter-post items is high and the market of postal parcels is of the medium concentration level. Irrespective of quite a large number of postal service providers operating in the respective markets, the major market shares were held by several large postal service providers, whereas the market shares held by the former and the latter postal service providers differ significantly in terms of allocation of the market of recorded deliveries of postal items in 2017.

Table 1. **Market concentration indices in 2013-2017**

Index	2013	2014	2015	2016	2017
HHI by volume of letter-post items	5,236.3	5,007.5	5,343.4	7,272.3	7,645.1
HHI by volume of postal parcels	2,163.1	2,178.4	2,225.3	2,084.5	1,158.9
HHI by total revenue	2,262.7	2,189.0	2,242.3	1,965.5	1,793.1

3. RRT MISSION AND STRATEGIC GOALS

[2] 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.

[3] 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 an increase 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.

Elektroninių ryšių sektoriaus reguliavimas

Pašto sektoriaus reguliavimas

Aparatūros ir įrenginių priežiūra

Vartotojų teisių ir teisėtų interesų apsauga

Elektroninių ryšių išteklių valdymas ir priežiūra

MISIJA

Užtikrinti kiekvienam Lietuvos gyventojui technologiškai PAŽANGIŲ, KOKYBIŠKŲ, SAUGIŲ, ĮPERKAMŲ informacinių ir ryšių technologijų (IRT) ir pašto paslaugų pasirinkimo įvairovę, bei VEIKSMINGĄ KONKURENCIJĄ elektroninių ryšių, pašto ir geležinkelių transporto sektoriuose.

STRATEGINIS TIKSLAS

Didinti veiksmingą konkurenciją elektroninių ryšių ir pašto srityse, užtikrinti efektyvų elektroninių ryšių išteklių naudojimą ir apsaugoti IRT ir pašto paslaugų naudotojų teises, taip spartinant skaitmeninės visuomenės plėtrą.

STRATEGINIS TIKSLAS

Siekti, kad būtų sudarytos veiksmingos konkurencijos geležinkelių transporto rinkoje sąlygos ir būtų užkirsta galimybė viešosios geležinkelių infrastruktūros valdytojui, geležinkelio įmonėms (vežėjoms), geležinkelių paslaugų įrenginių operatoriams piktnaudžiauti savo įtaka geležinkelių transporto rinkoje.

Geležinkelių transporto rinkos reguliavimas

Radijo spektro valdymas ir priežiūra

Patikimumo užtikrinimo paslaugų teikėjų priežiūra

Žalingo interneto turinio prevencija

Tinklų ir informacijos saugumas

4. OBJECTIVES AND TASKS OF THE COMMUNICATIONS MANAGEMENT AND CONTROL PROGRAMME FOR 2017

TIKSLAI		UŽDAVINIAI			
1	Užtikrinta veiksminga ir skaidri konkurencija elektroninių ryšių ir pašto paslaugų rinkose	Užtikrinti, kad elektroninių ryšių ir pašto sektoriuose nebūtų konkurencijos iškraipymų ir ribojimų			
2	Pagal Tarnybos kompetenciją užtikrinta IRT ir pašto paslaugos gavėjų teisių ir teisėtų interesų apsauga	Stiprinti elektroninių ryšių tinklų ir informacijos saugumą, elektroninių ryšių tinklų patikimumą ir atsparumą	Vykdyti elektroninių ryšių ir pašto paslaugų, įskaitant universaliąsias paslaugas, teikimo priežiūrą	Užtikrinti Lietuvos rinkoje esančių radijo ryšio įrenginių atitiktį privalomiems RRĮ reglamento reikalavimams bei įrenginių atitiktį elektromagnetinio suderinamumo reikalavimams	Vykdyti patikimumo užtikrinimo paslaugų teikėjų ir jų teikiamų patikimumo užtikrinimo paslaugų priežiūrą
3	Sudarytos sąlygos ilgalaikėms investicijoms į elektroninių ryšių infrastruktūrą ir pažangi IRT plėtra	Vykdyti radijo dažnių (kanalų) valdymą, jų naudojimo priežiūrą, įskaitant stebėseną, kitų elektroninių ryšių išteklių valdymą			
4	Integracija į ES ir tarptautinę reguliavimo erdvę ir efektyvi Tarnybos veikla	Efektyviai integruotis į ES ir tarptautinių organizacijų sprendimų priėmimo procesą	Organizuoti efektyvią Tarnybos veiklą, užtikrinti veiklos viešumą ir kontrolę		
5	Užtikrintas įpareigojimų, kurie gali būti nustatyti operatoriams ir elektroninių ryšių paslaugų teikėjams valstybės gynybos, nacionalinio saugumo ir viešosios tvarkos palaikymo interesais, taip pat ypatingų aplinkybių atvejais, vykdymas	Užtikrinti, kad operatoriai ir elektroninių ryšių paslaugų teikėjai vykdytų įpareigojimus, kurie gali būti nustatyti valstybės gynybos, nacionalinio saugumo ir viešosios tvarkos palaikymo interesais, taip pat ypatingų aplinkybių atvejais			

5. PROMOTION OF COMPETITION IN ELECTRONIC COMMUNICATIONS AND POSTAL SECTORS

5.1 Competition in the electronic communications sector. 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 influence on a specific market.

In 2017, RRT completed 3 market analyses:

1. The market analysis of broadcasting transmission services to deliver broadcast content to end users;
2. The market analysis of services of providing broadcasting transmission means;
3. The market analysis of call origination on the public communications network provided at a fixed location.

The undertaking AB Lietuvos Radijo ir Televizijos Centras and undertaking Telia Lietuva, AB were recognised as the undertakings having significant market power on **the market of broadcasting transmission services to deliver broadcast content to end users**.

Result. RRT imposed the obligation on AB Lietuvos Radijo ir Televizijos Centras and Telia Lietuva, AB, including the associated entities, to provide access, obligations of non-discrimination, transparency, price control, and cost accounting, as well as accounting unbundling obligation.

The undertaking AB Lietuvos Radijo ir Televizijos Centras was recognised as the undertaking having significant market power on **the market of services of providing broadcasting transmission means**.

Result. RRT imposed the obligation to provide access, obligations of non-discrimination, transparency, price control and cost accounting, as well as accounting unbundling obligation on AB Lietuvos Radijo ir Televizijos Centras.

On the market of call origination on the public communications network provided at a fixed location RRT did not identify any undertakings having significant market power and lifted obligations imposed on Telia Lietuva, AB.

Information on the undertakings having significant power on relevant markets and imposed obligations thereon effective on 31 December 2017 is provided in Annex 4.

5.2 Competition in the postal services sector

The Postal Law of the Republic of Lithuania specifies that with a view to ensuring the user interests and promoting effective competition, the postal service provider which manages a postal network must negotiate if requested by another postal service provider and enter into an agreement with another postal service provider whenever the latter applies to the postal service provider regarding the use of the postal network, including the post code system, database of addresses, subscriber letter boxes, and the information on changes in the address, the services of readdressing and returning to the sender It also stipulates that the postal service provider which manages the postal network must ensure that such an agreement on the use of the postal network is entered into in compliance with non-discriminatory, proportionate and transparent terms and conditions and that it shall pay the fee agreed by the parties to the agreement for the use of the postal network of another postal service provider.

In 2017, RRT inspected whether the conditions for the use of the postal network managed by AB Lietuvos Paštas were transparent, proportionate and non-discriminatory.

To allow for effective competition, RRT inspected the general conditions for the receipt of postal items at the postal network managed by AB Lietuvos Paštas made publicly available by AB Lietuvos Paštas and compared them with the conditions of the services provided to business clients under the agreements.

Result. During the inspection, there were cases detected when the general conditions for the receipt of postal items at the postal network managed by AB Lietuvos Paštas did not meet the non-discriminatory, proportionate and transparent terms and conditions entrenched in Article 8 of the Postal Law of the Republic of Lithuania. RRT notified AB Lietuvos Paštas of the flaws detected, and they were eliminated.

Another instrument to ensure competition in the postal services sector is the settlement of disputes between postal service providers through preliminary extrajudicial consideration of a dispute. In 2017, RRT did not receive the requests to resolve the disputes between the postal service providers.

5.2.1 Supervision of Execution of the Obligations Imposed on the Undertakings

In 2017, to promote competition RRT performed supervision of how the undertakings having significant market power adhered to the obligations imposed thereon[4]. The list of obligations imposed on the undertakings is provided in Annex 4 to the RRT Report.

In 2017, while carrying out prevention activities it was verified how the undertakings having significant market power were fulfilling the obligations of cost accounting and accounting unbundling.

In 2017, cost accounting system and accounting unbundling audits of Telia Lietuva, AB and AB Lietuvos Radijo ir Televizijos Centras for 2016 were conducted.

Result. In the finding of the audit of Lietuvos Radijo ir Televizijos Centras AB, the auditors provided the opinion that the reports on cost accounting and accounting unbundling drafted by the economic entity in 2016 were compliant with the requirements laid down in legal acts in all significant aspects. In the finding of the audit of Telia Lietuva, AB, the auditors presented the qualified opinion on the network element “communications cable duct system” being reasonable and attribution of costs to this element, as well as on the proper unbundling of protective tubing assets and attribution of associated costs. The auditors were not able to assess the effectiveness and eligibility of technical and technological decisions made by the management in terms of Telia Lietuva, AB communications cable duct system cost modelling and verify whether cost distribution, where it comes to the use of that element, fully complies with the requirements laid down in legal acts.

The following comments of an advisory nature were provided during the audit:

1. AB Lietuvos Radijo ir Televizijos Centras was recommended by the auditors to make internal control more efficient – to create as many automatic links between the tables in the cost accounting system as possible thus ensuring the correctness of moved data, also to connect the cost accounting system with the other applications used in the activities of AB Lietuvos Radijo ir Televizijos Centras and in cost distribution activities.

[4] RRT 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.

2. The auditors of Telia Lietuva, AB recommended introducing additional control procedures by amending the cost distribution methodologies and cost distribution principles. The auditors also suggested that the company conducts modelling so that RRT was able to assess the effect of the changes on the costs, change the driver used to distribute the communications cable duct costs (km*mm2) into the economically logical and reasonable driver and coordinate all the driver replacements with RRT.

With regard to the results of the audit, RRT addressed economic entities Telia Lietuva, AB and AB Lietuvos Radijo ir Televizijos Centras requesting to eliminate the drawbacks detected during the audit. The audit conclusions are published on the RRT website.

In 2017, it was checked whether AB Lietuvos Radijo ir Televizijos Centras was adhering to the relevant requirements of legal acts when providing the services to Public Enterprise Lithuanian National Radio and Television.

In 2017, it was verified whether AB Lietuvos Radijo ir Televizijos Centras properly unbundled the services provided to Public Enterprise Lithuanian National Radio and Television from other services, whether the costs for such services were correctly allocated and whether the prices did not exceed the ones provided for in legal acts.

Result. No irregularities were detected during the audit. The Ministry of Transport and Communications was provided with the finding of the audit conducted by RRT which specified that the revenue gained by AB Lietuvos Radijo ir Televizijos Centras from the services provided to Public Enterprise Lithuanian National Radio and Television exceeded the costs incurred by 4%, i.e., it did not exceed the 10% threshold.

In 2017, the performance of the transparency obligations imposed on Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2, AB Lietuvos Radijo ir Televizijos Centras was audited.

In 2017, RRT while carrying out the supervision of transparency obligations imposed on undertakings having significant market power – Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2, AB Lietuvos Radijo ir Televizijos Centras, checked whether the information published by the undertakings was in line with the requirements laid down in legal acts.

Result. During the supervision of obligations conducted by RRT, several minor flaws were detected, and they were immediately eliminated.

5.2.2 Telephone number portability service

21% – the growth of mobile telephone numbers ported in 2017, compared to 2016.

The telephone number portability service allows the mobile or fixed telecommunications service users to change the electronic communications service provider without changing a telephone number. This service is one of the means to promote competition between mobile telephone service providers and fixed telephone service providers.

The growing number of ported numbers illustrates that service providers are actively competing over service users (see Table 2), and service users have an opportunity to change service providers by choosing the most acceptable service offers. The telephone number portability service has been provided in Lithuania for 14 years already – since 2004.[5]

In 2017, compared to 2016, the **number of ported mobile telephone numbers** grew by almost 21% or by 23 thousand ported numbers. The growth is to be linked with the fact that in 2017, the service providers were offering new payment plans which provided more data transmission services, more additional content services (e.g. the data are not counted when using social networks, media applications, traffic applications, film and record services, music distribution applications, etc.), they were offering smart phones and other devices for attractive prices.

In 2017, the number of **ported fixed telephone numbers** was lower by 39% or by almost 5 thousand numbers fewer than in 2016. This decrease is to be linked with the fact that in 2017, major service providers were not conducting new procurement procedures and were not looking for new service providers.

Table 2. **Number of telephone numbers ported in 2012−2017, pcs.**

	2012	2013	2014	2015	2016	2017
Ported mobile telecommunication service numbers	137,820	178,552	160,775	89,091	111,902	**135,036**
Ported fixed telecommunication service numbers	5,612	12,966	6,352	6,406	12,535	7,615

5.2.3 Resolution of disputes between undertakings

In 2017, the RRT Commission for the resolution of disputes between undertakings and disputes between postal service providers received a request to settle one dispute which is to be settled in 2018.

On 27 December 2017, UAB TCG Telecom addressed the RRT Commission for the resolution of disputes between undertakings and disputes between postal service providers (hereinafter – the Dispute Resolution Commission) with a request to settle a dispute between UAB TCG Telecom and UAB Tele2 regarding the termination of the agreement on sending short text messages.

UAB TCG Telecom requested the Dispute Commission to recognise that UAB Tele2 wanted to terminate the agreement on unreasonable grounds. The applicant also requested to oblige UAB Tele2 to refrain from terminating the agreement until the dispute between service providers is resolved and requested to apply interim measures until the final settlement of the dispute between the parties.

Result. The Dispute Resolution Commission adopted a decision to examine the dispute and commenced the dispute settlement procedure. To ensure continuous provision of the services, the Dispute Resolution Commission applied the interim measures and obliged UAB Tele2 to refrain from the termination of the service provision agreement. Information on the progress of the dispute settlement is published on the RRT website.

[5] This service gives the end service user a greater freedom to choose and replace a service provider taking account of the quality and variety of services, prices, loyalty systems, service advantages and other features that services users find relevant.

5.3 Supervision of Undertakings Engaged in Electronic Communications and Postal Activities

20 – number of scheduled inspections of **electronic communications** service providers.

17 – number of scheduled inspections of **postal service** providers.

In 2017, as many as 20 scheduled (in 2016 – 25) **inspections of electronic communications service providers** were carried out during which the drawbacks in the activity of 14 undertakings related to the non-compliance of typical terms and conditions of the agreements with the requirements of the Rules on the Provision of Electronic Communications Services were detected.

Result. Having provided a methodological assistance, all identified drawbacks were eliminated within the set time limits.

In 2017, the total of 17 scheduled inspections of **postal service providers were carried out**. It must be noted that the lower number of scheduled inspections was caused by the decrease in the number of undertakings operating on the market due to the mergers between minor and major undertakings.

Result. The non-compliances with the requirements laid down in legal acts were not identified in the activity of economic entities, and the insignificant ones were eliminated during the inspection.

In 2017, RRT drew up[6] and conducted a survey with regard to the opinion of undertakings engaged in electronic communications and postal activities (37) whose scheduled inspections took place in 2017 (hereinafter – the respondents) on supervision carried out by RRT. The survey results are provided below:

- 100% of the respondents stated that the pre-information notice on the future scheduled inspection of performance submitted by electronic means is useful.
- 100% of the respondents knew the performance would be checked under the check lists.
- 50% of the respondents do not use an opportunity of access to the documents on the RRT website.
- 77% of questioned electronic communications service providers and 100% of postal service providers stated that they found the questions presented in the check lists clear and understandable.

[6] Based on the provision of paragraph 7.22 of Resolution No 511 of the Government of the Republic of Lithuania of 4 May 2010 “On the optimisation of supervisory functions carried out by the institutions”, *improving performance taking account of the undertaking’s opinion*.

6. PROTECTION OF CUSTOMER RIGHTS AND LEGITIMATE INTERESTS

6.1 Investigation of service users' requests (complaints) and disputes

REQUEST (COMPLAINT). Where an applicant requests RRT, within its competence, to help explain the situation, assess the potential breach of their rights or legitimate interests or inaction of the electronic communications service provider, provide information on the rights of service users or other issues, assess whether the service provider was not violating the requirements referred to in legal acts, to take actions to ensure the compliance with legal acts, RRT shall investigate such an inquiry as a request (complaint).

DISPUTE. Where an end service user files a complaint with regard to the breach of the rights of legitimate interests arising out of the electronic communications service provision agreement (decisions which resulted in negative effects) or regarding inaction of the electronic communications service provider and requests to protect their infringed rights or legitimate interests seeking binding decisions to the parties to the dispute (e.g. to revoke the illegitimate requirement, to recalculate fees, impose an obligation to apply lower service tariffs, cancel calculated penalties, etc.), RRT shall investigate such a request as a dispute.

6.1.1 Investigation of electronic communications service users' requests (complaints)

207 – number of complaints **regarding electronic communications services**.

60 – number of amicably resolved complaints.

20 – typical agreements of electronic communications service providers reviewed.

In 2017, RRT investigated 207 requests and complaints (hereinafter – the complaints) from the applicants regarding the provision of electronic communications services and questions arising out of them.

In 2017, 186 complaints from natural persons and 21 complaints from legal persons were investigated. Most questions and disagreements concerned the provision of mobile telecommunications services in 2017 (see Fig. 11).

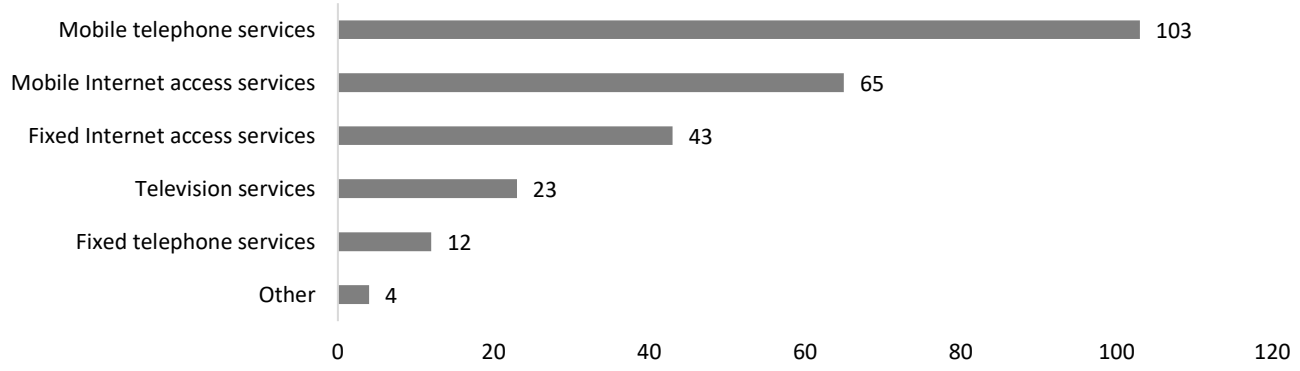


Fig. 11 **Breakdown of complaints by types in 2017**

The analysis of the grounds for filing a complaint shows that most complaints were received with regard to the payment for services in 2017 (see Table 3).

Table 3. **Number of complaints by reasons**

Grounds for complaint	Number of complaints
Regarding payment for services	48
Regarding agreement termination consequences (penalties, losses, etc.)	35
Regarding quality of electronic communications services	26
Regarding the agreement execution	20
Regarding amendments of agreement conditions	17
Regarding international roaming services	17
Regarding termination of agreement	10
Regarding credit limit (financial thresholds)	6
Regarding telephone number portability	1
Other causes (regarding discrimination, security of services, etc.)	26

All complaints were replied to according to the procedure established in legal acts. It must be noted that 60 complaints were resolved amicably, in 7 cases the non-compliance with legal acts was identified and service providers were provided with the methodological assistance, in 10 cases RRT forwarded the received complaints (or part of issues raised therein) to other authorities for investigation within their competence.

When carrying out the prevention of the breaches of the end service users' rights and legitimate interests, RRT revised 20 standard electronic communications service agreements drafted by electronic communications service providers as in how they comply with the requirements laid down in the Rules on the Provision of Electronic Communications Services. Having discerned the irregularity or potential risk due to a failure to comply with legal acts, RRT provided comments, consultations and recommendations to electronic communications service providers.

In 2017, RRT, while monitoring the provision of electronic communications services and receiving repeated inquiries, provided the electronic communications service providers with 18 consultations (recommendations) by drawing their attention to the regulation established by legal acts, good practice or case-law to ensure the protection of the end service users' rights and legitimate interests.

To raise the service users' awareness on the conditions of the provision of electronic communications services, RRT published press releases, news related to the questions relevant to the users in 2017 (changes in the regulation of roaming services, regulation of the open internet access, etc.). Moreover, RRT held meetings with electronic communications service providers to discuss problematic issues and find optimal solutions to the problems.

In 2017, 980 consultations were provided by phone via free of charge help line +370 800 20 030 and 411 consultations were given via e-mail over the inquiries on the provision of electronic communications services.

6.1.2 Investigation of Requests (Complaints) from Postal Service Users

57 – number of complaints **regarding postal services** examined.

7 – number of amicably resolved complaints.

3 – number of times when methodological assistance was provided where a failure to comply with legal acts was identified.

In 2017, RRT investigated 57 complaints from the postal service users, of which – 52 from natural persons and 5 from legal persons. Breakdown of such complaints by types: universal postal service – 29, postal service – 28. 38 complaints concerned the actions made by AB Lietuvos Paštas (not all the complaints related to the provision of the universal postal service); 19 of them were filed with regard to other postal service providers. The analysis of the grounds for filing a complaint shows that the main cause was the claim for damages in 2017 (see Table 4).

Table 4. **Number of complaints by reasons**

Grounds for complaint	**Number of complaints**
Regarding claim for damage	19
Regarding the service quality (damaged, impaired, lost postal items; delayed delivery of postal items; delivered to the wrong recipient, at the wrong address, non-returned postal items, etc.)	16
Regarding the return of postal items	9
Regarding payment for service	4
Other causes (regarding customs procedures; notifications of receipt of postal items; weight of postal items; requirements for packages of postal items)	12

As many as 7 complaints out of all requests and complaints examined in 2017 were resolved amicably, 50 requests or complaints were responded to following the procedure laid down in legal acts by providing the RRT's assessment of the situation. Out of the latter 50 cases, RRT identified a failure to comply with legal acts, where that compliance is supervised by RRT, in 3 cases and it provided methodological assistance to service providers, whereas in 8 cases, RRT forwarded the complaint or part thereof to other authorities for investigation within their competence.

In 2017, RRT conducted the legislation breach prevention. RRT provided 3 consultations (recommendations), organised 3 meetings with postal service providers to identify the problematic issues and find solutions thereto.

6.2 Dispute Settlement Outside the Court

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. To restore the balance of violated interest, the parties may resolve the dispute in several ways; one of them is so-called **alternative dispute settlement**.

Pursuant to the Law on Consumer Protection of the Republic of Lithuania[7] (hereinafter – the LCP), the Law on Electronic Communications of the Republic of Lithuania (hereinafter – the LEC), the Postal Law of the Republic of Lithuania (hereinafter – the Postal Law), 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.

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, or where the service or factors related to its provision do not meet the expectation, due to which end service users or users believe that their rights and legitimate interests have been violated.

Disputes resolved applying different procedural rules. This depends on the addressing person:

- in case it was a user (i.e., a natural entity seeking to conclude or concluding agreements with a purpose not related to their business, trade, craft or profession (purpose of consumption)), the dispute shall be resolved by RRT in accordance with the procedure laid down in the LCP and rules on out-of-court consumer dispute settlement procedure[8];
- the disputes between all other end service users or consumers are resolved according to the Rules on the Investigation of the Disputes between the End Service Users, except for Consumers, and Electronic Communications Service Providers and Disputes between the Users, except for Consumers, and Postal Service Providers[9].

RRT, to raise public awareness on out-of-court dispute settlement and encourage the end service users and consumers to defend their rights in this manner, publishes information on alternative ways to settle disputes on its website under the title “Alternative dispute resolution”, it provides an application template, publishes decisions adopted by RRT, and other relevant information.

6.2.1 Resolution of Disputes between End Service Users and Electronic Communications Service Providers

72 – number of examined disputes **regarding electronic communications services.**

28 – number of requests to resolve a dispute containing a requirement related to payments for services.

In 2017, RRT received 75 requests to resolve the dispute between the end service users and electronic communications service providers (of which 64 were resolved in 2017, the remaining will be resolved in 2018); also, 8 requests received in 2016 were resolved. Thus, the total of 72 disputes between the end service users and electronic communications service providers were resolved in 2017. Most of the resolved requests (86%)

[7] Pursuant to the provisions of Article 22(1)(1) of the LCP, Article 8(2)(2) and Article 36 of the LEC and Article 13 of the Postal Law, 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.

[8] The Rules approved by Order No 1R-382 of the Minister of Justice of the Republic of Lithuania of 30 December 2015 “On the Approval of the Rules on Out-Of-Court Consumer Dispute Settlement”.

9 The Rules are approved by Order No 1V-1015 of the Director of RRT of 21 October 2011 “On the Approval of the Rules on the Investigation of the Disputes between the End Service Users, except for Consumers, and Electronic Communications Service Providers and Disputes between the Users, except for Consumers, and Postal Service Providers”.

were lodged by natural entities – consumers using electronic communications services for personal, family or household needs.

The average term for RRT to resolve the disputes was 49 days in 2017 (legal acts provide for a period of 90 days).

In the disputes resolved in 2017, the end service users were mainly (49%) addressing RRT regarding internet access services, including data transmission services (Fig. 12).

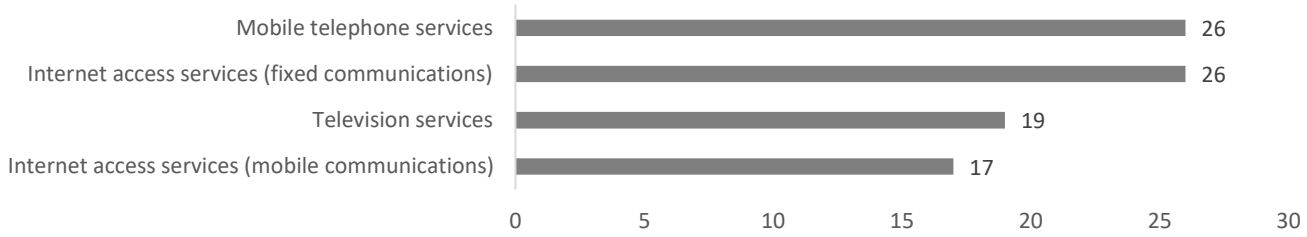


Fig. 12 **Breakdown of requests to resolve the dispute by types of services in 2017**[10]

Figure 13 provides the breakdown of disputes by the nature of disputes. The majority of requirements contained in the requests to resolve the dispute (25%) related to the fees applied by the electronic communications service providers. The issues pertaining to the consequences of the termination of the agreements on the provision of electronic communications services (penalties), termination of agreements, performance, quality of services, etc. also remained relevant.

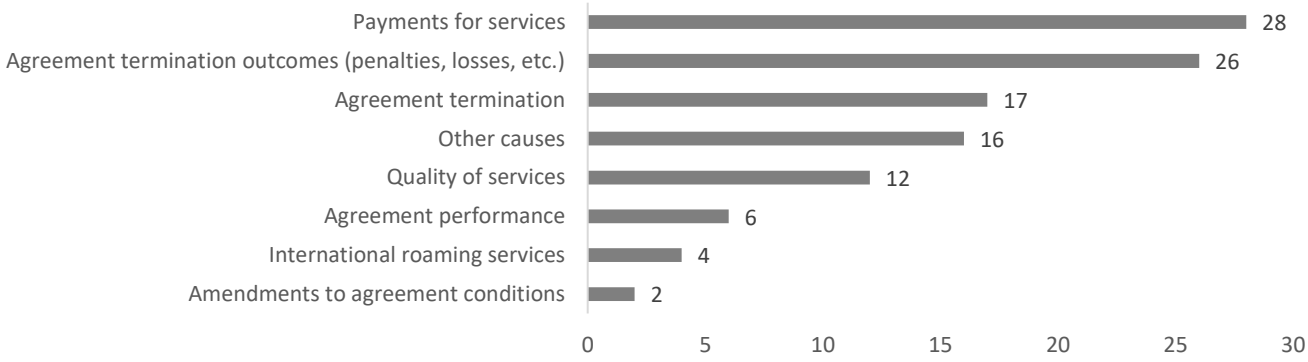


Fig. 13 **Dispute breakdown by the nature of disputes in 2017 (some of the requests contained several reasons for applying)**

It must be noted that most (43%) of the disputes between the end service users and electronic communications service providers that were referred to RRT were resolved amicably (Fig. 14).

[10] Cases, where on request covered several types of electronic communications services, are also included.

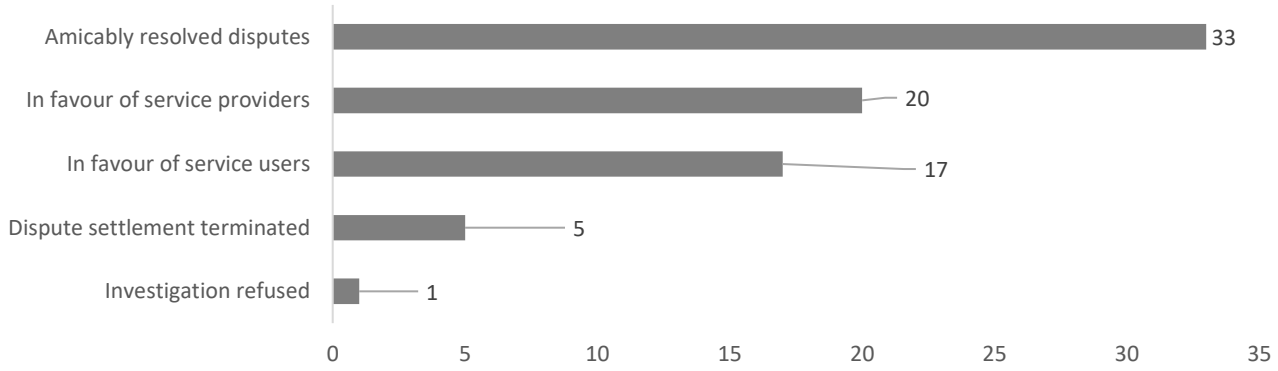


Fig. 14 **Decisions on the disputes regarding electronic communications services**[11]

6.2.2 Resolution of Disputes between Consumers and Postal Service Providers

9 – number of resolved **disputes regarding postal services.**

5 – number of decisions to refrain from upholding the users' requests.

In 2017, RRT received 11 requests to resolve the dispute between the users and postal service providers (of which 8 were resolved in 2017, the rest will be completed in 2018); 1 request received in 2016 was also resolved. Thus, the total of 9 disputes between the users and postal service providers were resolved in 2017.

Figure 15 provides the breakdown of disputes by the nature of disputes. The majority (55%) of requests to resolve the dispute contained the claim for damage.

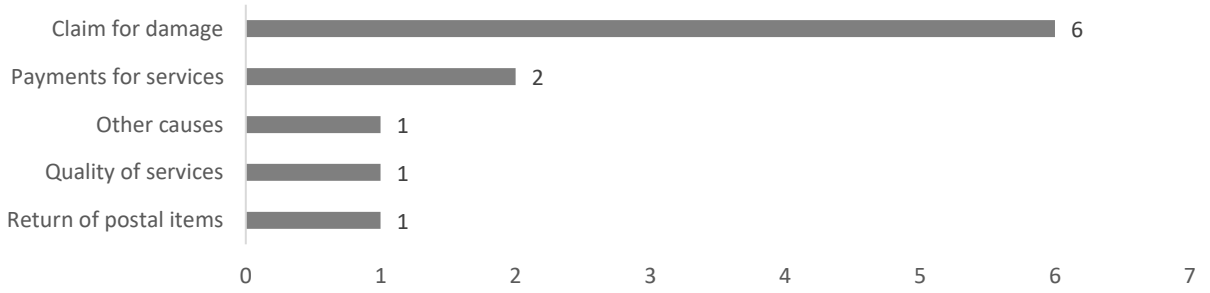


Fig. 15 **Dispute breakdown by the nature of disputes in 2017 (some of the requests contained several reasons for applying)**

In 5 proceedings the users' requirements were not upheld), 1 request was withdrawn (the parties failed to agree on the provision of the postal service), investigation of 3 requests was terminated as RRT was not authorised to decide on specific requirements filed, and 1 dispute was settled amicably (Fig. 16)[12].

[11] there were complex decisions.
[12] 1 decision was of a complex nature.

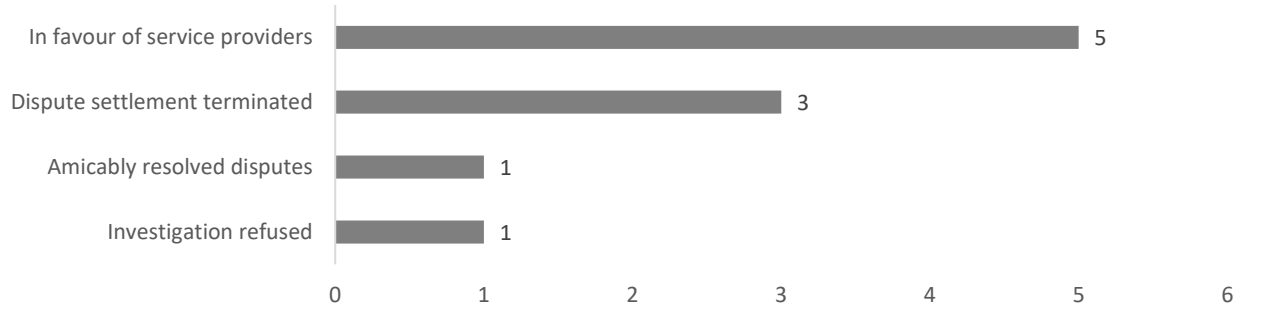


Fig. 16 **Decisions on the disputes regarding postal services in 2017**

2 requests were lodged by legal persons, the rest of requests were filed by natural persons – users using postal services for personal, family or household needs. The average period for settling the disputes by RRT is 44 days (legal acts provide for a period of 90 days).

REGARDING THE RIGHT TO COMPENSATION IN THE EVENT OF THE CROSS-BORDER POSTAL ITEM DAMAGE

RRT examined the consumer's claim for damage in the case of the damaged postal item. The consumer states that the postal item recipient received the postal item with the bent package and damaged content. Considering that the articles contained in the postal item were damaged and no longer fit for use, the consumer requested to compensate the losses incurred (damage suffered – EUR 1,000.00) and postal item posting expenses (EUR 21.26). RRT, having examined the evidence collected during the dispute settlement procedure, determined that t**he postal service of the country of destination did not record the package impairments or damages of the articles** (the CN 24 report was not made out), **the recipient did not raise any claims with regard to the parcel package impairment or damaged content of the postal parcel**, and the fact of the damaged postal parcel was discovered **after handing in the parcel to the postal item recipient**.

RRT stated that in such cases the operator is not under any obligation to compensate the damage incurred by the sender.

Article 12(9) of the Postal Law provides for the cases when the compensation is not paid.

RRT notes that the postal item sender chooses the postal item package, therefore the sender, when posting articles (goods), must assess the physical properties of the article (merchandise) posted, duration of shipment and choose the postal service and package which would protect the content of the postal item throughout the dispatch of the postal item. It must be also noted that the postal item recipients should thoroughly examine the postal item package prior to signing the delivery documents. In this case, where there is external damage of the package of the postal item, the postal item recipient should submit the comments to the postal service of the country of destination.

6.3 Assurance of electronic communications network and information security

54,414 – number of reports processed by CERT-LT in 2017.

By one tenth more than in 2016.

In 2017, CERT-LT processed 54,414 reports (Fig. 17) from electronic communications service providers, foreign CERT services investigating international incidents and Lithuanian internet users. Compared to 2016 (49,463 reports), the number of cyber incidents increased by one tenth.

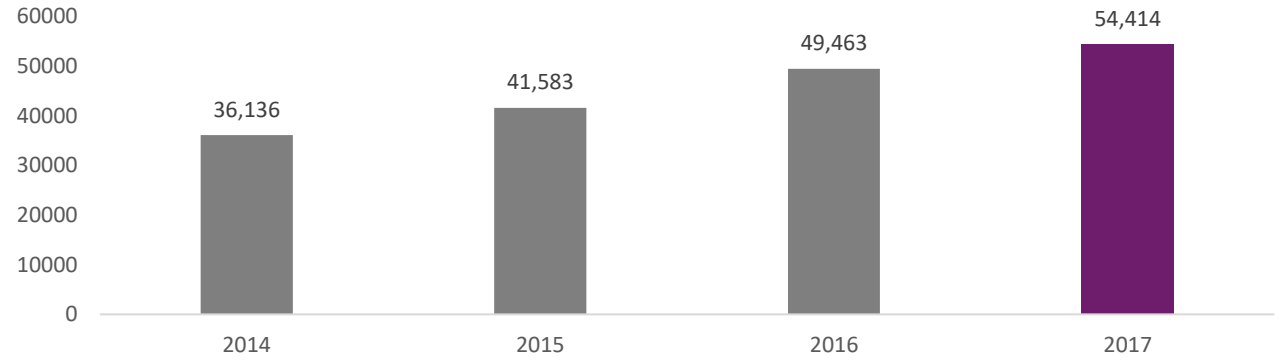


Fig. 17 **The number of incidents investigated by the national CERT-LT team in 2014-2017**

According to the statistical data of CERT-LT (Table 5), two major cyber security problems in Lithuania are **malicious software** (malicious codes) and **insecure information systems**, including the websites. The said security issues complement each other and increase the potential risk for internet users. In some of the cases, the insecure websites (content management systems) are compromised and malicious codes are uploaded for malware distribution purposes. In other cases, the compromised website is uploaded the shell which allows the malevolent parties to carry out a more various malicious activity – alongside the said malicious software distribution, the networks and information systems may be scanned, information may be collected, compromised devices may be controlled, etc.

Table 5. **Reports on incidents processed by CERT-LT by types in 2017**

Types of processed reports	Number
On malicious software	10,839
On information system compromise	10,951
On denial of service (DoS) attacks	50
On phishing	1,237
On breaches of integrity	15
On device security vulnerabilities	24,612
Other	6,710

Malicious Software (malicious codes). In 2017, 10,839 (in 2016 – 11,212) cases of the use of malicious software were processed. With an increasing popularity of cryptocurrency, the developers of ransomware are especially active. The growing number of internet users that were affected by this type of malicious software has been recorded for two years in a row. Where the system is compromised, no effort is made to hide the operation

traces; the most important purpose of such viruses is to encrypt files which are important to the system owner (e.g. DOC, DOCX, XLS, XLSX) or even a file system expecting that the owner will be determined to pay a ransom to return the files. In certain cases (e.g. encrypted accounting database of the company and no backups) the losses may be extremely high.

CERT-LT reminds everyone that in case of receiving a suspicious e-mail with attachments, caution must be exercised – make sure that the sender has actually sent you this e-mail, scan attachments using the antivirus software or free-of-charge internet tool www.virustotal.com. Do not open e-mail attachments if you do not know the sender.

Insecure information systems. In 2017, the total of 10,951 incidents of information system compromise was recorded (in 2016 – 10,673 cases of compromise). The compromised devices used to conduct malicious activities and breached, compromised websites are attributed to this type of incidents. Since the autumn of 2017, the increasing use of compromised websites to generate cryptocurrency has been observed. Instead of infecting the visitors' devices with a malicious code, as it was done previously, the website visitors' computers (or smart devices) are more often exploited for more intense calculations.

CERT-LT records some 10 newly compromised websites on a daily basis.

The detailed information is provided in the CERT-LT's annual report for 2017.

On 19 December 2017 the Parliament of the Republic of Lithuania adopted the amendments to the Law on Cyber Security which consolidated the field of information resources security, and the functions of the national incident investigation unit of electronic communications networks and information security performed by RRT were handed over to the newly established National Cyber Security Centre under the Ministry of National Defence as of 1 January 2018. The Law on Electronic Communications was amended accordingly. The changes implemented on the grounds of the adopted amendments to the laws will help ensure the overall and coordinated implementation of the information resources security policy, as well as explicit and consistent regulation of cyber security.

6.4 Internet content monitoring through implementation of the "Safer Internet" project

3,405 - reports on unlawful or harmful content on the internet.

4 – times by which the number of received reports exceeded the number of reports received in 2016

To enhance the activities related to the protection of minors against the effect of harmful internet content, RRT and partners were carrying out the "Safer Internet" project. RRT has been implementing this project for eleven years already.

Since Quarter III of 2017, the internet users have been able to report unlawful or harmful internet content on the RRT internet hotline website available at https://pranesk.draugiskasinternetas.lt.

On 1 September 2017, the amendments of the Law on Education of the Republic of Lithuania came into force; they entrenched the internet hotline activity carried out *de facto* by RRT at a legislative level. This law will authorise RRT to receive information from the public and municipal institutions, as well as from other entities required to carry out the specified functions, give mandatory instructions so that electronic information hosting service providers and public communications networks and/or public electronic communications service providers remove information stored on their server computers or eliminate an opportunity to access information whose dissemination is prohibited or which is used to bully minors.

In 2017, the internet hotline was granted the "YouTube Trusted Flagger" status – the internet hotline reports are investigated as a priority (unsuitable content published on "YouTube").

When performing the internet hotline functions, RRT received 3,405 reports on unlawful or harmful content on the internet in 2017 (see Fig. 18). Compared to 2016 (842 reports), the number of received reports increased by more than four-fold. The growing number of reports relates to the received reports on narcotic substance (mainly cannabis) advertisements and potential distribution. The number of reports on violence or bullying against individuals went up as well.

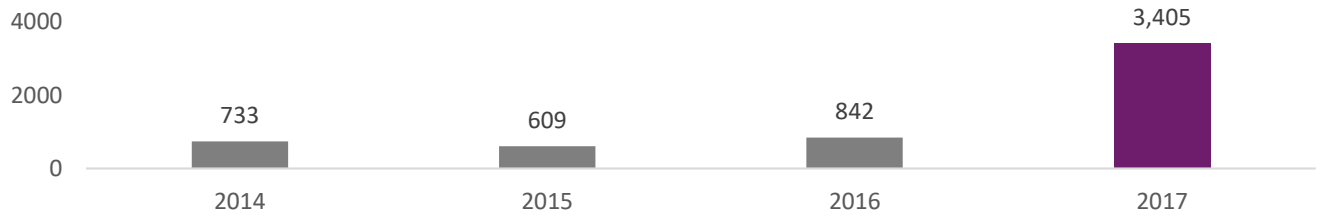


Fig. 18 **The statistics of reports to the internet hotline in 2014–2017**

Following investigations further actions were taken in 717 cases (see Fig. 16), which accounted for 21% of all received reports.

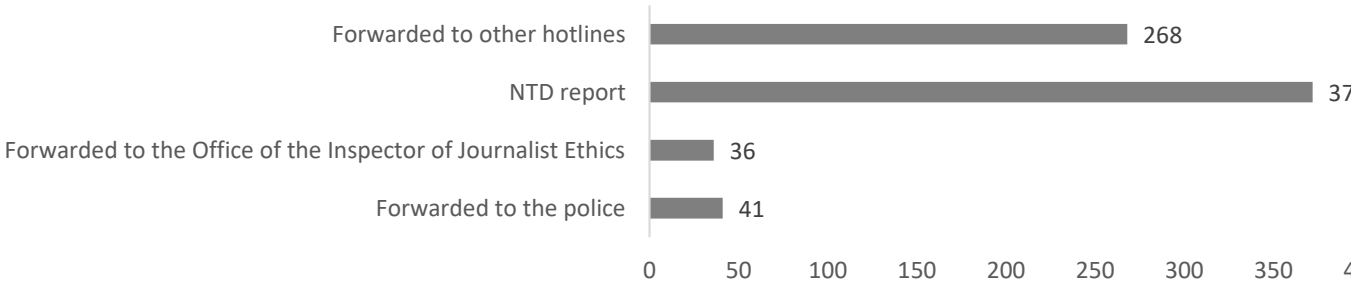


Fig. 16 **The statistics of reports to the internet hotline in 2017**

NTD (Notice and Take Down) reports are forwarded to internet service providers, website owners, social

network administrators in different countries notifying them of the illegal internet content contained in their networks 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 form service stations.

In 2017, for the purpose of public awareness raising RRT organised a traditional social campaign to celebrate the international Safer Internet Day (hereinafter – SID 2017) which was celebrated throughout the world on 7 February 2017 with the slogan “Be the change: unite for a better internet!”.

In 2017, RRT, as a partner, took part in the Safer Internet events held in 11 Lithuanian municipalities. During the events, the primary school teachers teaching 6-11-year-old pupils were presented the Safer Internet project which includes different activities were provided with the methodological and information material designed to organise Safer Internet events for children at their schools.

6.5 Assurance of the Communications Service Quality

6.5.1 Supervision of universal electronic communications services

In 2017, RRT initiated amendments to legal acts which would enable reducing the number of payphones in Lithuania.

In 2017, the universal electronic communications services were provided by Telia Lietuva AB in Lithuania. When conducting the supervision of the requirements for the scope and prices of universal electronic communications services, no irregularities were detected in 2017. Having checked the compliance with the quality requirements for universal electronic communications services, it was determined that the average duration of response by service providers’ customer service was by 20 seconds longer in II, III and IV quarters in 2017. RRT addressed Telia Lietuva, AB and requested to eliminate the flaws. Telia Lietuva, AB notified that the time of answering the calls became longer due to a greater number of serviced calls after the merger between UAB Omnitel and Telia Lietuva, AB. Moreover, a lot of failures were recorded due to the storms that took place in the summer. Telia Lietuva, AB, having considered the larger flows, updated the customer service system which will allow ensuring the appropriate time of answering calls.

In 2017, RRT published the report on the provision of electronic communications services and price changes for 2016. The information on the provision of universal services and price changes in 2017 is intended to be published by 1 May 2018.

In 2017, RRT, having considered the demand and extent of electronic communications services provided over payphones, initiated the amendments of legal acts that would allow for reducing the number of payphones in Lithuania to the number meeting the service users’ needs.

6.6 Tariffs and Cost Accounting of Universal Postal Services

The universal postal service is a postal service of a certain volume and provided under certain conditions whose provision must be ensured in the whole of the territory of the Republic of Lithuania. The universal postal service in Lithuania was provided by AB Lietuvos Paštas in 2017.

Prices of the universal postal service must be based on costs. RRT has approved the highest tariffs of the universal postal service. In 2017, the tariffs of the universal postal service were not changed.

The audit of AB Lietuvos Paštas cost accounting system used in 2016 was carried out in 2017.

In 2017, the accounting and control company UAB Auditas carried out the cost audit of the universal postal service provider AB Lietuvos Paštas for 2016 at the request of RRT. The audit finding is published on the RRT website.

Result. During the audit it was determined that the cost accounting system used by AB Lietuvos Paštas and the annual universal postal service report for 2016 and analytical annexes thereto were compliant with the requirements of legal acts, except for allocation of certain costs. The audit finding specified that AB Lietuvos Paštas did not follow the principles of impartiality, causation and consistency established in Order No 1V-625 of the Director of RRT of 1 July 2005 “On the Approval of the Rules for Accounting for Costs of the Universal Postal Service Provider” when allocating the following costs incurred in 2016:

- costs of depreciation, operation of property retired from active use and other costs related to maintenance of that property;
- costs of electronic systems “eSelf-Service” and “eDelivery” for business;
- costs of working time spent on distribution of cross-border universal incoming items of correspondence by the Mail Distribution Department based on amended standards.

With regard to the irregularities referred to in the audit finding, RRT addressed AB Lietuvos Paštas with a request to eliminate the drawbacks and submit the updated cost information for 2016, including the updated report on the universal postal service for 2016 and analytical annexes thereto, as well as take account of the said comments when drafting information for 2017.

In 2017, RRT verified whether the request from AB Lietuvos Paštas to compensate the losses from the universal postal service had any grounds.

In 2017, AB Lietuvos Paštas submitted RRT a request to compensate the losses amounting to EUR 2.26 million incurred due to the obligation to provide the universal postal service in 2016. In 2017, RRT verified whether the request from AB Lietuvos Paštas to compensate the losses from the universal postal service had any grounds.

Result. RRT, having examined the information submitted together with the request of AB Lietuvos Paštas and other data possessed, having considered the flaws that were referred to in the audit finding on the cost accounting system in 2016, determined that the request of AB Lietuvos Paštas to compensate the losses incurred from the provision of the universal postal service in 2016 had no grounds and submitted this conclusion to the Ministry of Transport and Communications of the Republic of Lithuania.

In 2017, RRT assessed whether the requests from AB Lietuvos Paštas to compensate the losses from the service of delivery of periodical publications to subscribers in rural areas had any grounds.

RRT, when performing one of its functions in 2017, received the requests of AB Lietuvos Paštas to compensate the losses from the provision of the service of delivery of periodical publications to subscribers in rural areas incurred in the second half of 2016 and first half of 2017. The losses for the second half of 2016 calculated by the company accounted for EUR 3.7 million, and for EUR 3.02 million for the first half of 2017.

Result. The analysis of information possessed at the time of request examination and information provided by AB Lietuvos Paštas led to the conclusion that the losses incurred in the second half of 2016 were justified. When assessing the losses incurred in the first half of 2017, it was determined that the sum of losses to be compensated was lower than the amount referred to in the request and it did not exceed EUR 2.78 million.

6.6.1 Control of the quality of universal postal services

The information provided by AB Lietuvos Paštas with regard to the universal postal service quality indicators for 2017 revealed that the requirements set for the universal postal service were met in 2017 (see Table 6). The inspection of the transit time of end-to-end services for mail items carried out by AB Lietuvos Paštas in 2017 revealed that 88.60% of priority letter-post items were delivered on the working day following the dispatch (D+1) (in 2016 – 83.10%), and the third working day (D+3) indicator remained unchanged and it, as in 2016, represented 98.60% of priority letter-post items delivered on the third working day following the dispatch. The results of the inspection of the transit time of end-to-end services for single piece priority letter-post items carried out in 2017 shows the improvement of the universal postal service quality indicators, especially that of D+1 service. This confirms that the measures applied in 2016 and 2017 and the plans of corrective and preventive actions designed to improve the universal postal service quality indicators and implemented by AB Lietuvos Paštas were effective. In 2017, the results of the universal postal service quality analysis meet the quality requirements set for the universal postal service.

Table 6. **Results of inspection of the transit time of end-to-end services for single piece priority letter-post items in 2014-2017, qualitative indicators in Lithuania (%)**

2014-2017 quality indicators (%) (total in Lithuania)			
Year	D+1	D+2	D+3
Set requirements	**85**	**--**	**97**
2014	85.40	96.20	98.40
2015	81.10	96.30	99.00
2016	83.10	98.60	98.60
2017	88.60	97.50	98.60

Source: Information provided by AB Lietuvos Paštas
Note: D is the date of the acceptance of the postal item for sending. D+2 indicator has not been determined.

Having taken account of the received information, in 2017, RRT examined the results of inspection carried out in 2015 in detail and identified the reasons that led to deteriorating quality of the universal postal service.

Causes for delayed delivery of postal items were determined. It was identified that the postal item delivery was largely affected by a lack of AB Lietuvos Paštas employees (postmen) and staff turnover which was caused by low salaries and working conditions beside the flaws in the process of the provision of the postal service.

In 2017, AB Lietuvos Paštas drafted and implemented the plan of corrective and preventive actions. In 2017, the results of the universal postal service quality analysis show that the universal postal service quality indicators met the minimum thresholds.

6.6.2 Supervision of International Roaming Services

In 2017, RRT received 5 requests from international roaming service providers to allow applying an additional fee for roaming services in the EU/EEA countries due to the assessment of projected losses.

After the detailed analysis of the submitted data, RRT allowed the service providers to apply additional fees for roaming services to the extent that enables avoiding losses and, as a result, the increase in the prices of local services. Thus, RRT ensured the appropriate implementation of the provisions of the Regulation and consideration of the interests of the end service users.

RRT is responsible for the supervision of Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union[13] (OJ 2012 L 172, p. 1) (hereinafter – the **Roaming Regulation**) and of Commission Implementing Regulation (EU) No 2016/2286 of 15 December 2016 laying down detailed rules on the application of fair use policy and on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by a roaming provider for the purposes of that assessment (OJ 2016 L 34 p. 46) (hereinafter – the **EC Regulation**).

The Roaming Regulation provided for that as of 15 June 2017 the international roaming service providers, when providing the services in the EU and European Economic Area (hereinafter – the EU/EEA) Member States, may not apply any additional fees and must apply the same pricing to their service users as in Lithuania (hereinafter – the “roam like at home pricing”).

Taking account of the fact that the Roaming Regulation established new regulation having a significant effect on the activity of service providers to prepare for the appropriate implementation of the **Roaming Regulation** and **EC Regulation**, the intense cooperation with the international roaming service providers operating in Lithuania was carried out. It must be noted that the Roaming Regulation and EC Regulation pursuing the balanced implementation of the roam like at home pricing and stability of the prices for local services provided for the exceptions and enabled the providers to address the market regulator with a request to assess the losses and apply the additional fee for international roaming services in the EU/EEA countries which would be loss-making.

Taking account of the said exceptions from the regulation, RRT received 5 requests from international roaming service providers, grounded on the assessed projected losses, to allow applying an additional fee for international roaming services in the EU/EEA countries. After RRT had verified, clarified the submitted information and had determined the justified planned amount of the losses, all 5 requests were upheld and additional fees to be applied by the international roaming service providers for a period of 12 months were calculated.

As of 15 June 2017, RRT carries out the supervision of the requirements of the Roaming Regulation and EC Regulation. According to the Regulation, the international roaming service providers had to provide RRT with the fair use policy to be applied to service users. **RRT has considered the rules and has not identified any irregularities**.

[13] As amended by Regulation (EC) No 2015/2120 of the European Parliament and of the Council of 25 November 2015 (OJ 2015 L 310, p. 10) and Regulation (EU) No 2017/920 of the European Parliament and of the Council of 17 May 2017 (OJ 2017 L147, p.1),

To properly implement the Regulation and ascertain that the additional fees are reasonably applied, RRT collected the data on the scope of and revenue from international roaming services in the EU/EEA in October 2017. The assessment of the application of additional fees will be completed in 2018.

Result. When monitoring the implementation of the requirements of the Regulation, **several cases of a failure to comply** with the Regulation **were identified**. One service provider failed to set the roam like at home pricing to all payment plans and was offering alternative payment plans instead. Another service provider was applying a period of monitoring the unfair use which was shorter than that established in the EC Regulation. The third service provider was improperly applying the conditions of the provision of roaming services in the EU/EEA countries to the prepayment service users. The identified irregularities were eliminated in all cases.

6.7 Quality of Public Fixed Telecommunication Services

In 2017, RRT measured quality indicators[14] on Telia Lietuva, AB public fixed communications network and recorded the following values: share of unsuccessful calls – 0.26%, number of measurements – 12,462, setup duration – 0.47 s, number of measurements – 12,391.

Performed measurements of quality indicators On Telia Lietuva, AB network	
Share of unsuccessful calls: 0.26%	Setup duration: 0.47 s
12,462 thousand − number of measurements	**12,391** thousand − number of measurements

6.7.1 Quality of Public Mobile Telecommunication Services

9,114 – number of test voice telephony calls	8,908 – number of short text messages sent

In 2017, when performing further test measurements of the networks of public mobile telecommunication services, more than 9,114 test voice telephony (hereinafter – VT) calls were made and 8,908 short text messages (hereinafter – SMS) were sent in the public mobile telecommunication networks of UAB Bitė Lietuva, Telia Lietuva, AB and UAB Tele2.

Below (Fig. 20, 21 and 22) are provided the comparisons of the values of quality indicators (VT call setup time, VT voice transmission quality, and SMS delivery time) among three operators[15].

14 In order to evaluate whether service providers do not exceed limit values of service quality indicators, RRT performs independent measurements of quality indicators in networks of service providers and publishes evaluation reports on service quality indicators.

15 The quality indicators of public mobile telecommunication services were assessed in accordance with the technical specifications ETSI TS 102 250-2 V2.2.1 (2011-04) 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.

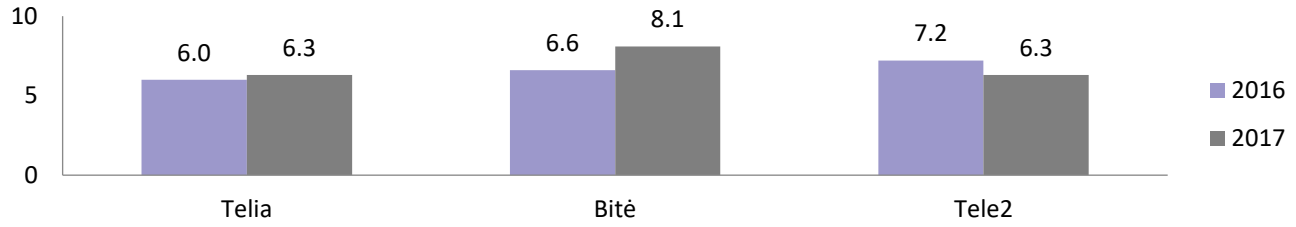


Fig. 20 **Average values of VT call setup time (s)**

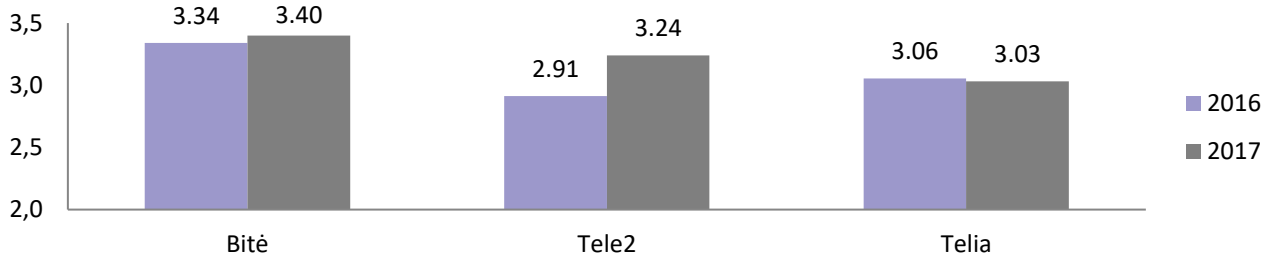


Fig. 21 **Average VT voice transmission quality values (broadband assessment P.863-SWB 'POLQA' sampling)**
Note: The higher the MOS-LQO score, the better the voice transmission quality.

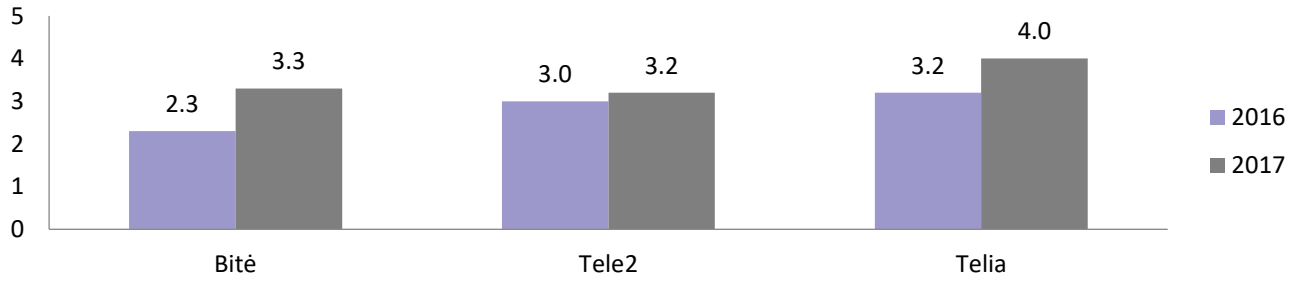


Fig. 22. **Average values of SMS delivery time (s)**

6.7.2 The quality of wireless internet access services

94,000 – number data transmission tests performed on operators' networks.

www.matavimai.rrt.lt is a wireless internet access monitoring system used to regularly publish the updated measurement results by RRT. 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 2017, 94,000 data transmission tests were performed in the networks of the operators AB Lietuvos Radijo ir Televizijos Centras, UAB Bitė Lietuva, Telia Lietuva, AB and UAB Tele2. The measuring equipment was installed in a company car, and the measurements were carried out in most cities and on main roads of Lithuania.

Figures 23 and 24 below show the data on the values of the internet access quality indicators – the average data receipt speed rate calculated according to the data collected via the monitoring system.

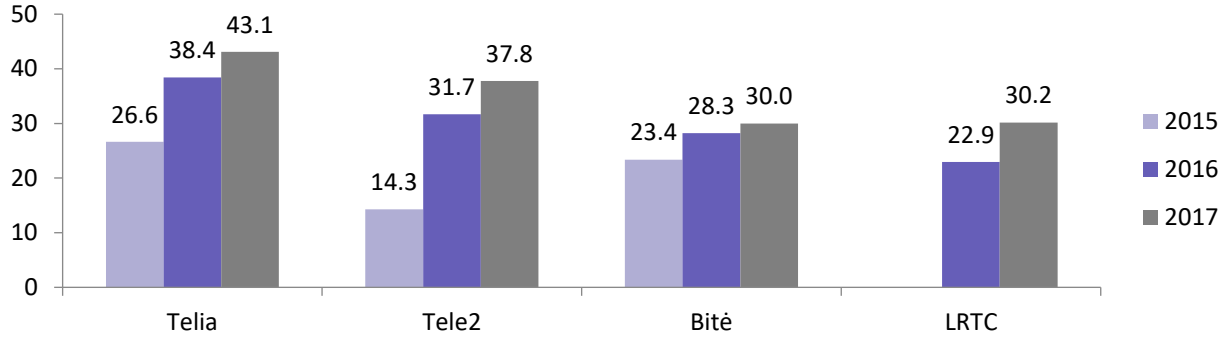


Fig. 23 **The average receipt speed rate on LTE networks in 2015-2017, Mb/s**

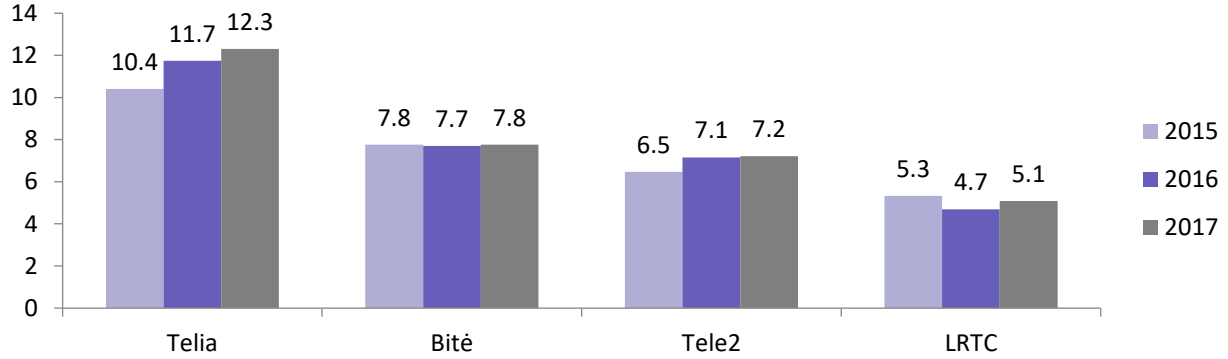


Fig. 24 **The average data receipt speed rate in 2015-2017, Mb/s (results are based only on measurements performed in 3G technology networks; in case of LRTC – WiMAX)**

6.7.3 Internet Access Speed Measuring Tool "matuok.lt"

http://matuok.lt/ is internet access speed measuring tool administered by RRT.

In 2017, the internet access speed measuring system users conducted over 119,000 measurements in total or 326 measurements per day on average. According to the user measurement data, Table 7 provides the average values of the speed rate provided by the internet access service providers (the table only includes the internet access service providers whose users performed over 1,000 measurements; it does not cover the internet access service plans held and equipment used by the users).

Table 7. **Average data receipt speed rate values of internet access services providers by measurements carried out by the users**

Internet access service provider	Data receipt speed rate, Mb/s	Number of measurements, pcs.
UAB Cgates	87.1	7,860
UAB Penkių Kontinentų Komunikacijų Centras	82.9	2,223
Public Enterprise Infostruktūra	72.9	1,005
UAB Kauno Interneto Sistemos	68.0	1,040
UAB KLI LT	53.6	7,353
Telia Lietuva, AB	50.6	37,574
SPLIUS, UAB	49.5	2,937
UAB INIT	49.1	3,846
UAB Nacionalinis Telekomunikacijų Tinklas	44.6	1,052
UAB Balticum TV	34.0	2,981
UAB Tele2	24.6	16,831
UAB NNT	20.4	1,181
UAB Bitė Lietuva	19.2	7,870
AB Lietuvos Radijo ir Televizijos Centras	11.4	15,883

By using this tool, the users are able to assess the speed of the internet access provided, accumulate and analyse the measurement results on their own. The upgraded measuring tools has a new measurement module installed which is based on OOKLA data transmission speed measuring technology which provides users with an opportunity to accurately measure not only data transmission speed provided by their internet access service providers, but also to find out other internet access service quality indicators, such as delay, fluctuations. The speed value may be also compared with the average value received by the users of the same service provider and with the average value of the measurements carried out by all users of matuok.lt.

6.8 Protection of customer rights and legitimate interests in the equipment sector

6.8.1 Surveillance of the market of radio equipment and electric and electronic devices

5 – number of body massagers taken from the Lithuanian market because of emitted interferences.

In 2017, the data on 5,480 types of radio equipment imported from third countries were analysed (Fig. 25). Compared to 2016 (7,822 types), the number of imported types of radio equipment dropped in 2017. The decrease is linked with the entry into force of the amendments to legal acts in 2016, transposition of the provisions of Directive 2014/53/EU of the European Parliament and of the Council[16] under which the manufacturers of third countries shall have representative offices or authorised persons in the EU Member States through which the products are sold. It must be noted that both private entities and small-sized business enterprises usually buy electronic goods from online shops located in the third countries. This is especially relevant in the sector of mobile telephones..

RRT carries out the assurance and supervision of conformity of radio equipment existing in the Republic of Lithuania to the mandatory requirements laid down in the Technical Regulation on Radio Equipment (hereinafter – the **Radio Equipment Regulation**).

In addition, RRT monitors the compliance of electric and electronic devices existing on the market of the Republic of Lithuania with the requirements laid down in the Technical Regulation on Electromagnetic Compatibility (hereinafter – the **EMC Regulation**).

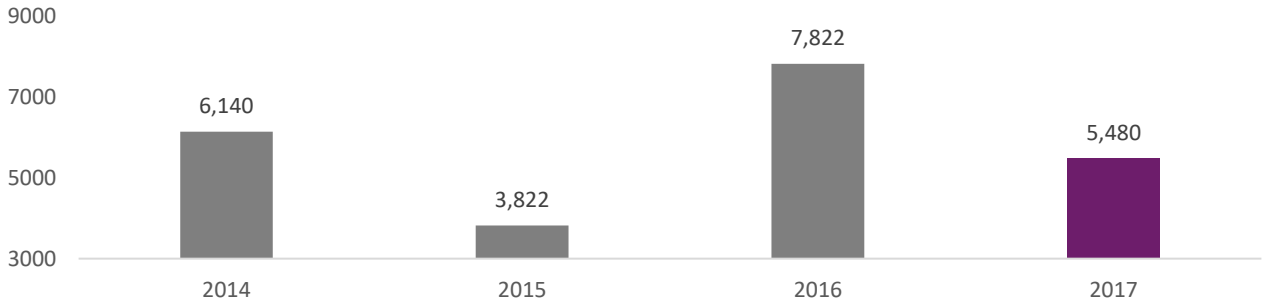


Fig. 25 **Number of types of radio equipment imported from the third countries in 2014-2017, pcs.**

Conformity to the formal requirements of the Radio Equipment Regulation In 2017, 70 types of radio equipment were examined for the compliance with the formal requirements of the Radio Equipment Regulation (Fig. 26). In 2017, as in 2016, the market was free of the products without CE marking − this shows that the equipment manufacturers are aware of the labelling requirements; however, 21 types of radio equipment did not meet the following requirements: 7 types of equipment were not accompanied by the manuals in the Lithuanian language and 14 types lacked the EU declarations of conformity. After the RRT's requirement to eliminate the flaws, all irregularities were eliminated.

[16] Directive 2014/53/EC 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 (OJ 2014 L 153, p. 62)

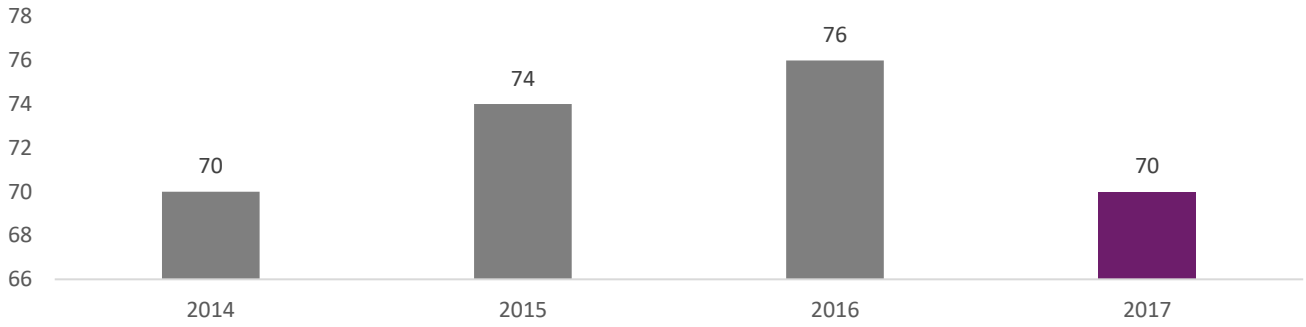


Fig. 26 **Number of checked types of radio equipment in 2014-2017, pcs.**

Conformity to the fundamental requirements of the Radio Equipment Regulation by testing. In 2017, 18 types of radio equipment were taken from the market for RRT laboratory testing. 10 types of equipment were found non-compliant with the requirements of the Radio Equipment Regulation. Other devices identified as non-compliant with the requirements included 2 types of radio stations and 8 types of short range devices (remotely controlled toys, wireless door chimes). The main non-compliance parameter is the non-conformity of secondary radiation of the transmitter to the requirements set in the standards. The supply of these devices to the market has been suspended until the deficiencies are eliminated.

Conformity of electric and electronic devices to the EMC Regulation requirements. In 2017, 40 types of electric and electronic devices were inspected for the compliance with the formal requirements (marking, declaration of conformity) of the EMC Regulation. 4 types of equipment did not meet those requirements as the EU conformity declarations were not provided. The supply of these devices to the market has been suspended until the deficiencies are eliminated. Out of 40 types of equipment, 25 were taken for RRT laboratory testing as it was decided to mainly focus on the verification of fundamental requirements. 10 types of equipment out of electric and electronic devices tested in the accredited laboratory did not comply with the fundamental requirements of the EMC Regulation. In 2017, after the body massagers emitting interferences were found on the market, all types of that equipment existing on the Lithuanian market were tested, and 5 types of body massagers of different manufacturers were taken from the market. The main reason for a failure to comply with the fundamental requirements of the EMC Regulation was interferences in power access and radiation of interferences. All products causing interferences and failing to comply with the fundamental requirements of the EMC Regulation will not enter the national market as their supply will be suspended, i.e., they will not reach the consumers' households.

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

The total of 91 pieces of radio equipment of 69 types was tested. After 300 tests, 17 types of radio equipment did not meet the fundamental requirements for the effective use of radio spectrum and electromagnetic compatibility.

The RRT Accredited Device and Equipment Electromagnetic Compatibility Control Department conducted the assessment of electric and electronic equipment and radio equipment placed on the market (devices or radio equipment placed on the EU market for the first time) and of those taken from the market[17].

Assessment of conformity of radio equipment to the fundamental requirements. In 2017, RRT carried out 300 tests of the compliance of new radio equipment placed on the EU market and of equipment taken from market with the fundamental requirements for the effective use of radio spectrum and electromagnetic compatibility under the harmonised EN standards. The total of 91 pieces of radio equipment of 69 types was tested. It was determined that 17 types of radio equipment taken from the market and placed on the market did not meet the fundamental requirements of Directive 2014/53/EU or Technical Regulation on Radiocommunication Equipment. **Trading** of that equipment as non-compliant with the fundamental requirements **was suspended**, **and new radio equipment was not placed on the national market** until the required level of electromagnetic compatibility was reached, as well as effective use of radio frequency range.

Other devices identified as non-compliant with the fundamental requirements included **unmanned aircraft (drones)**, radio-controlled security systems, radio stations, short range devices (remotely controlled **toys**) and radio microphones. The main non-compliance parameter is the **non-conformity of secondary radiation of the transmitter** to the requirements set in the harmonised EN standards. The placement of these devices on the market[18] has been suspended until the deficiencies are eliminated.

Compliance of devices and equipment with the electromagnetic compatibility requirements (EMC). In 2017, RRT conducted the assessment of conformity of new electric and electronic devices placed on the EU market and of those taken from the market (i.e., electrical appliances, lighting equipment, electric and electronic equipment used in industry, science and medicine, as well as lifts, escalators and moving walks) to the fundamental electromagnetic compatibility requirements.

The total of 96 electric and electronic devices and vehicles of 84 types were tested. After 331 tests, 23 types of devices were found non-compliant with the fundamental requirements for electromagnetic compatibility.

96 electric and electronic devices and vehicles of 84 types were tested. It was determined that devices of 23 types failed to comply with the fundamental requirements of the EMC Regulation – **they were not placed on the national market** until the sufficient level of electromagnetic compatibility (in terms of disturbance radiation and immunity to disturbances) is reached. This way the users were protected against devices of poor quality emitting harmful electromagnetic interferences.

In 2017, among electric and electronic devices under the EMC Regulation, the conformity of 8 vehicles and 6 types of new electronic medical devices with the requirements of electromagnetic compatibility under the contracts with the manufacturers and certification bodies was tested[19]. The compliance of the new diesel trains with the electromagnetic compatibility requirements was tested.

When assessing conformity of electric and electronic devices and vehicles supplied to the EU market to the harmonised standards, 631 electromagnetic compatibility tests in total were carried out (of which – 456 electromagnetic disturbance radiation and 175 immunity to disturbances tests) in 2017. As many as 153

[17] Equipment must comply with the fundamental requirements of the directives: 2014/30/EU on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast) (OJ 2014 L 96, p. 79) and 2014/53/EU 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 (OJ 2014 L 153, p.62).
[18] Making available on the market means any supply of radio equipment for distribution, consumption or use in the European Union market in the course of a commercial activity, whether in return for payment or free of charge.
19 According to UN Regulation No 10 on vehicles and harmonised standards under EU Directive 93/42/EEC (for medical devices)

test reports were drafted. 40 (26%) reports stated non-compliance of electrical and electronic devices and radio equipment with the essential requirements of electromagnetic compatibility and effective use of radio spectrum. **Such products** non-compliant with the harmonised EN standards **were prevented from entering the EU market.**

In 2017, RRT took part in the 9th EU market surveillance campaign[20] under Electromagnetic Compatibility Directive 2014/30/EU. During this campaign, the **electronic cigarettes were tested** in the accredited laboratory, and the compliance of the manufacturers of these products with the formal requirements of the electromagnetic compatibility was verified. 4 types of electronic cigarettes were found non-compliant with the administrative requirements.

RRT, to ensure the interests of the radio equipment users and taking into account the trends of the spread of harmful equipment designed or adjusted to purposefully emit radio interferences, **initiated the amendments** to the Law of Electronic Communications of the Republic of Lithuania and to the **Code of Administrative Offences** of the Republic of Lithuania **in 2017**. The legal act draft amendments[21] were **designed to restrict the use and possession of the jammers**. The amendments were drafted taking account of Recommendation ECC/REC(04)01 of the Electronic Communications Committee of the European Conference of Postal and Telecommunications Administrations "With regard to forbidding the placing on the market and use of jammers in the CEPT member countries".

The amendments to legal acts are significant as the jammers, when emitting radio interferences, cause worse performance of equipment and/or users operating via certain radio frequencies (channels), of radio equipment or radio systems, pose a threat to the functionality of radionavigation services or any other security services, aggravate, disturb or regularly interfere with the lawfully operating radio communication.

The clarified legal framework will ensure that lawfully operating equipment and/or devices, radiocommunication systems, other radio equipment, radionavigation services, etc. will be protected against unlawful and unreasonable mitigation of radiocommunications, and thus the national, public security will be ensured, as well as public order and properly operating radiocommunications.

20 EU market surveillance campaign under Electromagnetic Compatibility Directive 2014/30/EU.

21 In 2017, RRT initiated the draft law on the amendment of Articles 3, 9 and 45 of Law on Electronic Communications of the Republic of Lithuania No IX-2135 and the draft law on the amendment of Article 464 of the Code of Administrative Offences of the Republic of Lithuania.

6.9 Trust Service Providers and Supervision Thereof

Trust services mean the services of creation, verification and validation of electronic signatures, electronic seals, website authentication certificates and time stamps, long-term electronic signature and electronic seal protection and electronic registered delivery services as defined in 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 and repealing Directive 1999/93/EC (OJ 2014 L 257, p. 73) (hereinafter – the eIDAS Regulation") which amended the legal regulation of electronic signature.

4 – number of providers that were providing qualified trust services in Lithuania: Identity Documents Personalisation Centre under the Ministry of the Interior of the Republic of Lithuania, State Enterprise Centre of Registers, UAB Skaitmeninio Sertifikavimo Centras and UAB BalTstamp.

A new website **www.elektroninisparasas.lt** was developed**.**
In 2017, www.elektroninisparasas.lt was used by 4,356 users, by 29% more than in 2016.

By the resolution of the Government of the Republic of Lithuania[22], as of 1 July 2016 RRT was appointed the body responsible for monitoring trust services and the authority in charge of establishing, maintaining and publishing national trusted lists.

In 2017, RRT examined the reports on assessment of conformity to Regulation No 910/2014[2] of the European Parliament and of the Council (hereinafter – the eIDAS Regulation) and performance documents submitted by the trust service providers, approved the status of the Identity Documents Personalisation Centre under the Ministry of the Interior of the Republic of Lithuania (hereinafter – IDPC) and the qualified service of electronic signature certificates it provides, and granted the qualified status to the new services provided by the Public Enterprise Centre of Registers (hereinafter – CR) and UAB BalTstamp.

Having summarised the data of 2017 received from IDPC and CR and data possessed by RRT on the last year on valid qualified electronic signature certificates compiled by trust service providers (hereinafter – the certificates), it is clear that, compared to 2016, the total number of valid certificates issued in Lithuania grew by approx. 2% at the end of 2017 (at the end of 2016 – 924,735 valid certificates, at the end of 2017 – 944,127 valid certificates compiled by IDPC and CR)[4].

It must be also noted that in 2017 the most rapidly growing number was that of qualified electronic signature certificates issued together with SIM cards. In 2017, the number of such certificates went up by 31% (at the end of 2016 – 191,061, at the end of 2017 – 249,857). Therefore, an increasingly larger part of the Lithuanian population chooses electronic signature means which may be used on their mobile devices.

In 2017, RRT introduced the substantially updated website **www.elektroninisparasas.lt** which provides information on the electronic signature and trust services. The new RRT website helps the Lithuanian residents and trust service providers find information on the qualification of the trust service providers, find the news related to the electronic signature and trust services. The website also publishes the national trust list – list designed for automatic processing containing information on the Lithuanian qualified trust service providers and services they provide.

[22]Resolution No 144 of 18 February 2016 "On Appointing the Body Monitoring Trust Services and the Body Responsible for Establishing, Maintaining and Publishing National Trusted Lists".

The electronic signature distance learning system is also available on the RRT website www.elektroninisparasas.lt; it contains information on the electronic signature, stamp, the use thereof, creation and signing of electronic documents, tests of the knowledge gained.

In 2017, **www.elektroninisparasas.lt** was used by 4,356 users, i.e., by 29% more than in 2016 (3,364 users), of which 1,871 registered users.

In 132 cases, RRT provided consultations and methodological assistance to natural and legal persons regarding the creation of electronic time stamps, electronic signing services, etc.

7. PROMOTION OF INVESTMENTS AND DEVELOPMENT OF ADVANCED ICT TECHNOLOGY

- In 2017, RRT reached the agreements with the neighbouring EU countries regarding the freeing up of the 700 MHz radio frequency band.
- In 2017, RRT drafted the amendments to the National Radio Frequency Allocation Table and Plan for the Use of Radio Frequencies.
- The Rules for the Assignment and Use of Radio Frequencies (Channels) have been amended.

Investors, equipment manufacturers and mobile radiocommunication network developers mainly focus on the opportunities to "uptake" the radio frequency bands suitable for the next generation 4G and 5G radio communication. These opportunities are not only to be linked with the 700 MHz and 800 MHz radio frequency bands recently harmonised at the EU level, but also with other radio frequency bands conventionally used for the electronic communications systems which may be used when introducing 4G and 5G radiocommunication technologies due to the application of the principle of technology neutrality.

In 2017, the development of broadband wireless networks used to provide broadband wireless access services to the Lithuanian residents was mainly carried out by means of the LTE technology.

In 2017, the mobile operators (Telia Lietuva, AB, UAB Bitė Lietuva and UAB Tele2) successfully rearranged and changed radio channels in the base stations operating at radio frequencies (channels) from the 880-915 MHz and 925-960 MHz (the 900 MHz radio frequency band) and the 1710-1785 MHz and 1805-1880 MHz (the 1800 MHz radio frequency band) radio frequency bands. Such restructuring was necessary when starting to use radio frequencies (channels) received after winning the auction in 2016. These radio frequency bands will be used for not only GSM/DCS, but also LTE (4G) technology services as well.

Mobile operators using the 800 MHz and 2600MHz radio frequency bands for the development of the next generation LTE (4G) radiocommunication networks have been actively installing LTE technology-based radiocommunication networks and have been expanding the next generation broadband wireless communication services. It must be noted that AB Lietuvos Radijo ir Televizijos Centras has been also expanding LTE technology-based networks.

The national management of radio frequencies (channels) is inextricably linked with the global (worldwide, regional) management of radio frequencies. One of the most important tools of global regulation is the World Radiocommunication Conferences during which the international allocation of radio frequency bands is approved. It must be noted that the radio frequency bands allocated to the development of specific radiocommunication systems and compatibility of these systems with other radiocommunication systems operating in the same frequency bands will have a direct impact on the development of ICT both in Europe and in the world. Taking into account that the ITU Radiocommunication Regulation was laid out in the recast in 2016, RRT drafted the amendments to the National Radio Frequency Allocation Table and Plan for the Use of Radio Frequencies in 2017, therefore the allocation of radio frequencies used in the Republic of Lithuania became more harmonised with the allocation provided for in the Regulation.

In 2017, Decision (EU) 2017/899 of the European Parliament and of the Council on the use of the 470-790 MHz frequency band in the Union was approved under which the Member States are under obligation to the

use of the 694-790 MHz (hereinafter – 700 MHz) frequency band for terrestrial systems capable of providing wireless broadband electronic communications services. In 2017, while implementing the requirements of this decision and taking into account the recommendations of the Government of the Republic of Lithuania, RRT reached the agreement with the neighbouring EU countries upon the freeing up of the 700 MHz radio frequency band from the use for broadcasting television programmes; for more information see chapter “Digital Television and Radio”. However, the prospects of signing such agreements with the radiocommunication administrations of the Russian Federation and the Republic of Belarus remain unclear. It must be noted that the development of advanced ICT in the EU border countries is still linked with the plans of the use of radio frequencies of non-EU countries, and this is especially relevant when planning the use of the 700 MHz frequency band. In the case of a failure to agree on the terms and conditions on the common use of different radiocommunication systems with the radiocommunication administrations of the Russian Federation and Republic of Belarus, the border territories of the Republic of Lithuania might become buffer zones with very limited options to use the 700 MHz radio frequency band for the purpose provided for in the EU decisions.

To ensure the more efficient management and use of radio frequencies, the Rules for the Assignment and Use of Radio Frequencies (Channels) have been amended. The amendment to the rules restricted the opportunity of the radio frequency (channel) users to accumulate radio frequencies (channels) without an actual goal of using them but applying them as a means of a competitive advantage by ensuring that they are not assigned to the potential competitors. Moreover, the amendment to the Rules for the Assignment and Use of Radio Frequencies (Channels) will enable assigning more radio frequencies (channels) for experimental purposes and non-commercial use, thus creating more favourable conditions for radiocommunication technology and radio equipment tests.

7.1 Development of Mobile Radiocommunication Networks

In 2017, RRT issued licenses for the use of radio frequencies for a modern digital mobile radio network compliant with the DMR (Digital Mobile Radio) standard.

RRT and the representatives of the Ministry of Telecommunication of the Republic of Belarus agreed on the conditions for the use of the 900 MHz and 1800 MHz radio frequency bands. They enhance the development of broadband radio systems (UMTS and LTE) of mobile operators of both countries in the border regions.

GSM, UMTS and LTE further remain key technologies which are used to provide voice and data transmission mobile radiocommunication services to the Lithuanian residents. The number of LTE (4G) network base stations has been growing the most, as in the previous year.

In 2017, GSM (GSM 900 and GSM 1800), UMTS, LTE and WiMAX (mobile) network operators of public mobile radiocommunication systems registered 1,858 base stations. Having summed up the stations registered in 2017 and previously, the total number of base radio stations used in Lithuania equals 13,905 stations (Table 8). Compared to 2016, the number of UMTS base stations went up by 8.07%, and the number of LTE base stations increased by 37.83%.

Table 8. **Public mobile communications network base stations in 2012-2017**

	2012	2013	2014	2015	2016	2017
GSM	3170	3669	3890	4219	4394	**3812**
UMTS	1678	2136	3150	3718	3998	**4321**

LTE	133	155	1145	2300	4026	**5549**
WiMAX	532	552	600	627	627	**223**

In 2017, the steepest growth of LTE technology-based base radio stations was recorded in the 800 MHz, 1800 MHz, 2300 MHz and 2600 MHz radio frequency bands. RRT registered 441 LTE base radio station operating in the 2300-2600 MHz radio frequency band (TDD), 522 LTE base radio stations – in the 1800 MHz frequency band and 496 LTE base radio stations – in the 800 MHz frequency band.

In 2017, under the licenses issued by RRT, the radio frequencies (channels) from the 900 MHz and 1800 MHz radio frequency bands were changed on the networks of the Lithuanian mobile service providers UAB Bitė Lietuva, UAB Tele2 and Telia Lietuva, AB. The conditions for the use of radio frequencies (channels) were changed for 1830 UMTS, 3702 GSM and 1843 LTE base stations. The amendments were necessary as in 2016, three mobile service providers were granted the right to use the radio frequencies (channels) from the 900 MHz and 1800 MHz radio frequency bands between 1 November 2017 and 31 October 2032 during the auction organised by RRT. That re-allocation of frequencies among the operators has been carried out for the first time in Lithuania. This change is significant as the mobile service providers were assigned the full undivided radio frequency bands. Therefore, the operators are now able to use the assigned radio frequencies (channels) at their maximum, the probability of radio interferences will decrease, and capacity of mobile networks will go up.

RRT issued licenses for the use of radio frequencies for a modern digital mobile radio network compliant with the DMR (Digital Mobile Radio) standard. In 2017, 58 repeaters helping to ensure reliable digital radiocommunication in the entire territory of Lithuania were installed in this radio network. It has been the first digital radiocommunication network of this type (size-wise) in Lithuania; it is one of the top largest networks in Europe as well.

In 2017, RRT conducted the calculations of probable LTE (4G) coverage zones of UAB Bitė Lietuva, Telia Lietuva, AB and UAB Tele2. The coverage maps are published at http://epaslaugos.rrt.lt/apreptis/. The results reflect the likely signal levels at 1.5 m above the ground. The calculations have been made based on the data provided by operators and data of base radio stations recorded. The calculation results show that the radio networks of all three mobile operators were basically covering the territory of Lithuania equally well (Table 9).

Table 9. **Probable coverage of GSM, UMTS and LTE networks, % of the territory of the Republic of Lithuania**

	Probable coverage of GSM networks			Probable coverage of UMTS networks			Probable coverage of LTE networks		
	–95 dBm	**–85 dBm**	**–75 dBm**	**–105 dBm**	**–95 dBm**	**–75 dBm**	**–115 dBm**	**–105 dBm**	**–75 dBm**
UAB Bitė Lietuva	99.4	90.7	65.4	98.5	91.6	65.5	93.4	61.1	31.5
Telia Lietuva, AB	99.7	95.2	74.1	99.7	97.1	81	98.0	73.0	42.0
UAB Tele2	99.8	97.0	78.8	99.8	97.9	80.3	97.0	74.0	43.0

In 2017, the analysis of the conditions of the use of radio frequencies was carried out prior to granting the right to use 1,074 new wireless broadband access (WBA) stations and 586 modified WBA stations. This accounts for 5 times more than in 2016. The major part of such stations was represented by AB Lietuvos Radijo ir Televizijos Centras (Telecentras) LTE stations operating in the 2.3-2.4 GHz radio frequency band. This operator widely modified the WiMAX network in the 3.5 GHz frequency band; some 50% of WiMAX stations were excluded

from the register at the end of the year. It must be noted that Telecentras was upgrading its network in 2017 by replacing WiMAX stations with the more advanced LTE stations. These stations operate at a frequency lower than that of WiMAX stations; therefore, they have a larger coverage of internet services. The probable coverage zones of the stations operating in the 2.3-2.4 GHz radio frequency band were calculated. The calculations made by means of the updated information on built-up areas revealed that those networks were covering some 17.25% of the territory of Lithuania. The feasibility of compatibility of such stations with the systems operating on the adjacent radio frequency bands was assessed and station radiation measurements were carried out.

In 2017, RRT and the representatives of the Ministry of Telecommunication of the Republic of Belarus agreed on the conditions for the use of the 900 MHz and 1800 MHz radio frequency bands which improve the development of the mobile operators broadband radiocommunication system (UMTS and LTE) of both countries in the border regions. Sharing of priority GSM channels of the 900 MHz radio frequency band has been reviewed and amended taking into account the needs of the mobile operators' spectrum required for the broadband radiocommunication systems.

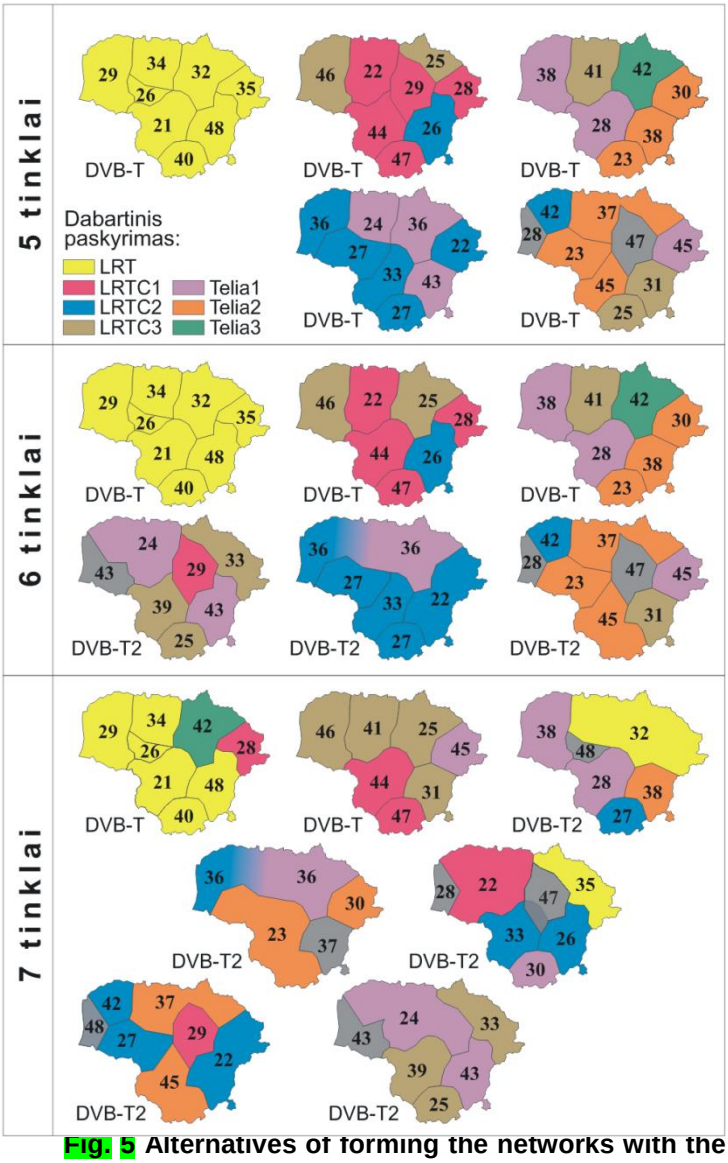


Fig. 5 Alternatives of forming the networks with the radio frequencies (channels) coordinated with the foreign countries

7.2 Digital Television and Radio

In 2017, the major focus in the regulation of the terrestrial television broadcasting sector was placed on the re-arrangement of the 470-694 MHz radio frequency band.

Lithuania and other neighbouring countries have to re-arrange the television broadcasting frequencies assigned under the Geneva Agreement of 2006 (GE06) in such a way that after re-arrangement the 700 MHz frequency band may be freed up from television broadcasting, and the loss of radio frequency resources for television programme broadcasting is compensated in the 470-694 MHz band in compliance with the principle of equal rights to the spectrum. On 17 May 2017, Decision (EU) 2017/899 of the European Parliament and of the Council on the use of the 470-790 MHz frequency band in the Union (hereinafter – the Decision) was adopted whose Article 1(2) put an obligation on Lithuania to, by 31 December 2017, conclude all the necessary cross-border frequency-coordination agreements within the Union.

In order to properly and timely fulfil the obligation imposed by the Decision, RRT participated in the meetings of the North-Eastern Digital Dividend Implementation Forum (NEDDIF) whose agendas were mainly comprised of the bilateral and multilateral sessions of negotiations among the members concerned: In 2017, the progress achieved during the NEDDIF meetings enabled signing the agreement with the Swedish communications administration in July 2017, and with Latvian and Polish communications administrations in

December 2017. Due to the uncertain coordination, the agreements signed with the administration of the Russian Federation included the clause enabling the replacement of certain frequencies with other alternative frequencies with respect to the completion of the negotiations with the administration of the Russian Federation. It must be noted that all agreements concluded by RRT provide for not only the frequency assignment zones, but also the parameters of the stations implementing such assignments. When freeing up the 700 MHz frequency band, this will allow RRT to expedite the performance of the procedures for amending the conditions for the radio frequency (channel) assignment, replacement or use without additional procedures for the radio frequency coordination. The conditions entrenched in the agreements enable Lithuania to flexibly choose the number of digital terrestrial television networks to be further developed (see Fig. 10) and technology used (DVB-T or DVB-T2) taking into account the situation on the market of broadcasting services.

During the negotiations with the Belarusian communications administration held in 2017, the final agreement on the number of planned networks and frequency assignment zones was reached, as well as the main technical parameters of the use of new frequencies were coordinated. The reason that precluded signing of the agreement with Belarus in 2017 is a failure to adopt the national plan for freeing up the 700 MHz frequency band in Belarus. The representatives from Belarus specified that this plan should be adopted in 2018; in which case, the results achieved in the negotiations in 2017 would be finalised by a bilateral agreement. It must be noted that RRT invited the communications administration of the Russian Federation to the negotiations as well, but it rejected the invitation by indicating that the questions at issue may be solved through correspondence. This clearly slowed down the rearrangement of the 470-694 MHz frequency band in the territories bordering the Kaliningrad region despite the effort put by RRT in promoting the process by means of letters and calls. **Contrary to the relations with the Belarusian communications administration, it is still difficult to forecast a breakthrough with respect to freeing up the 700 MHz band and rearrangement of the 470-694 MHz frequency band with the administration of the Russian Federation.** Irrespective of this, RRT will further actively pursue the results when implementing the Decision in 2018.

7.3 Fixed Radiocommunication

2,082 – coordinated radio frequencies for fixed service stations in neighbouring countries.

88 – number of non-coordinated foreign fixed service radio stations. They would have hindered the performance of our local radio stations.

Lines designated to establish a radio communication between fixed accurately set stations are called radio relay links (hereinafter – RRLs).

In the last three years, the number of RRL stations has changed insignificantly (see Fig. 27). Although the common development of mobile radiocommunication networks causes large needs for data transmission, the operators, however, tend to choose high-efficiency RRLs of new technologies which may be used to transmit larger amounts of data, whereas the number of RRLs remains the same.

Radio channels of a larger bandwidth are more frequently used as the market saturation with mobile devices having internet access options contributed to the growth of the demand for data transmission. Where RRL radio channel bandwidths used to be 7 MHz, 14 MHz or 28 MHz in the past years, recently used channel bandwidths are 28 MHz or 56 MHz, and the transmission capacity of such RRLs may go up to 360 Mbps.

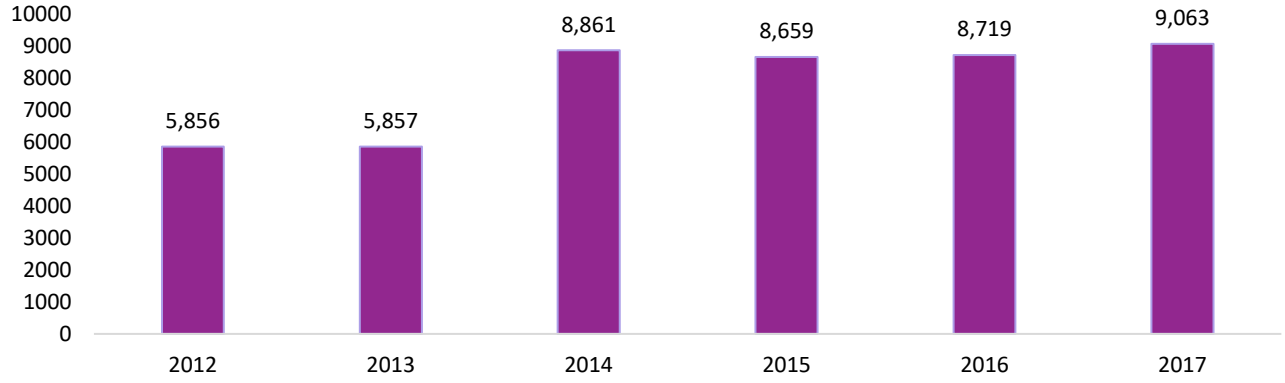


Fig. 27. **Change in the number of radio relay stations in 2012-2017**

It must be noted that operators have become more interested in the radiocommunication transmission systems whose frequency is over 40 GHz. The reason for that is that RRLs may be used in short distances, but the data transmission capacity is equivalent to that of the fibre-optic data transmission lines.

The electronic registration of RRL stations able to operate in the 64--64.5 and 65--65.5 GHz and 74.625--75.875 and 84.625-85.875 GHz radio frequency bands is available on RRT website – radio frequency users may start using such RRL more easily as they do not need to obtain an individual permit, the registration of such RRLs is enough. The number of RRL users is likely to increase due to such an attractive regulatory system and very low operational costs in the future.

To make sure that the users of the Lithuanian fixed station are protected against harmful interferences from other countries, all newly built fixed service radiocommunication stations are coordinated with the neighbouring countries and are notified to the International Telecommunication Union (ITU) Master International Frequency Register in accordance with the rules established by ITU.

Also, fixed service stations of the neighbouring countries were coordinated in 2017. In 2017, the requests from the administrations of the neighbouring countries were received for coordination of 2,170 radio stations, of which, having carried out electromagnetic compatibility assessments, 2,082 radio stations were coordinated. To protect the Lithuanian radio frequency users against potential interferences, 88 foreign fixed service radio stations were not coordinated as they would have probably hindered the smooth performance of the local radio stations.

7.4 Satellite Radiocommunication Networks

In 2017, RRT commenced the fourth international procedure for coordination of orbital resources of the Lithuanian satellite network.

In 2017, RRT commenced the fourth international procedure for coordination of orbital resources of the Lithuanian satellite network – a pre-information notice has been sent to the ITU. RRT and the orbital resource user must coordinate the terms and conditions for issue of the license of the satellite network space station and Earth station which will be used for the remote control of the space station and conditions for the use of the space station, as well as further actions so that the international protection of orbital resources allocated to the Lithuanian satellite is ensured.

The operators “Inmarsat” and “Echostar” selected for the provision of satellite mobile (MSS) services at the EU level in the 2 GHz band lifted off their satellites and, since the end 2017, have been providing the radio network for communications services to airplane passengers and aircraft crews by means of base radio stations

equipped on the ground. RRT completed the coordination of such stations with the telecommunication administrations of the Russian Federation and Republic of Belarus, issued a licence for the use of radio frequencies (channels) and established the conditions for the use of radio frequencies (channels).

RRT cooperates with the communications administrations of other countries to obtain the access to the markets of other countries and offer a wider range of services to the Lithuanian users. After the conditions had been harmonised, RRT signed the agreement with the administration of Cyprus regarding the mutual agreement of the countries to involve the territories in the service zones of newly coordinated satellite networks. The requests concerning the determination of servicing zones received from the United Arab Emirates, Papua New Guinea and Kazakhstan are investigated.

With the rapidly developing space technologies, the installation of satellite non-geostationary networks commenced, and the Earth stations installed on mobile platforms are used for connecting such networks. RRT and satellite operators discussed the potential conditions for the use of such Earth station in the GHz band in Lithuania. To set a simpler mode of the provision of satellite services via such networks, the coordination of the conditions with the neighbouring countries were commenced to avoid the additional coordination.

7.5 Radio Amateur Activities

In 2017, the Lithuanian Register of Radio Amateurs included 736 radio amateurs (Table 10).

In 2017, the qualification exams were passed, and licenses received by 18 new radio amateurs. 6 radio amateurs passed their exams and received Class A licenses for the activity of radio amateurs.

In 2017, 113 applications from radio amateurs were received, 116 licenses were issued: 88 licenses to engage in radio amateur activities, and 25 licenses for the use of radio call signs.

Table 10. **Number of radio amateurs in 2013-2016**

	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Number of radio amateurs	832	833	805	725	751	**736**

7.6 Radio Spectrum Monitoring

3,941 – radio measurements performed

28 – number of illegal radio frequency users.

In 2017, the total of 3,941 measurements of signal parameters and the strength of electromagnetic fields were carried out.

In 2017, 28 unlawfully used radio frequencies were identified (Fig. 28). In most cases, the non-registered radio relay stations of public mobile communications radio service providers were operating in the frequencies over 1 GHz.

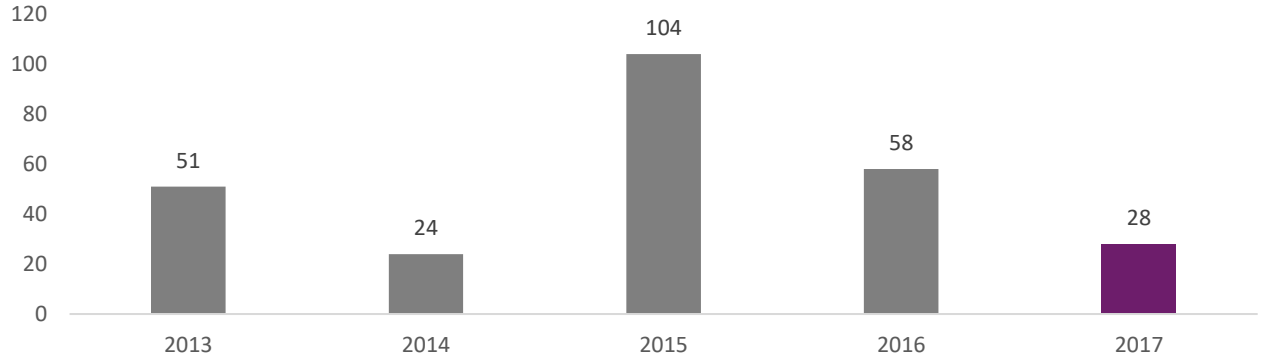


Fig. 28 **The statistics of the cases of unauthorized use of radio frequencies in 2013-2017, units**

In 2017, in Lithuania and foreign countries, i.e., measurements of the strength of electromagnetic fields created by base mobile communications stations owned by the operators of the Russian Federation and the Republic of Belarus were carried out.

Violations detected:

- 144 cases where Lithuanian service providers violated the terms and conditions for the use of radio frequencies (channels);
- 208 – where public mobile communications service providers of the neighbouring countries breached the international agreements on the use of radio frequencies.

All breaches were eliminated, the Lithuanian service providers were contacted, and the relevant foreign authorities were notified.

To carry out more accurate measurements of radio signals and spectrum, RRT acquired 2 sport utility vehicles with the radio monitoring equipment equipped in 2017.

7.7 Inspection of Radiocommunication Networks and Stations

In 2017, the total of 171 internal radiocommunication network inspections and 59 radio and television programme broadcasting station inspections were carried out[23]. It was found out that 22.2% of internal radiocommunication networks and 10.2% of broadcasting stations were not in line with the conditions for the use of frequencies. Figure 29 shows the number of facilities non-compliant with the conditions for the use of frequencies in comparison with all inspected facilities.

[23] 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.

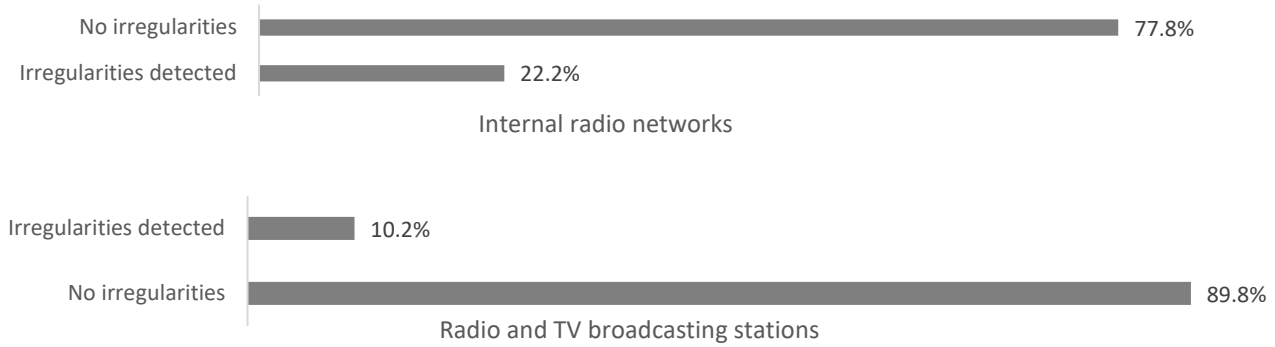


Fig. 29 **The results of inspections for compliance with the project and/or the conditions stated in the licence in 2017**

The most common violations are: too high effective radiated power (46%); non-registered stations (15%); prohibited location of installation (13%). There were other violations detected as well: prohibited radio frequencies were used, the antenna was improperly installed or antenna other than the allowable one was used, the parameters of the transmitter signal did not meet the set standards. All detected violations were eliminated. This enabled reducing the probability of potential radio interferences, and the frequency users could use the "clean" radio frequencies (channels).

7.8 Elimination of Radio Interference

362 – number of requests to eliminate radio interferences.

196 – number of investigations under received requests to eliminate the radio interferences for television (DVB-T).

In 2017, RRT received 362 requests to eliminate radio interferences from natural and legal entities.

The majority of received requests (see Fig. 30) related to failures caused to the reception of various ICT services, including reception of programmes broadcast by terrestrial television (DVB-T), public mobile communications, operation of public wireless communication access equipment and other ICT services.

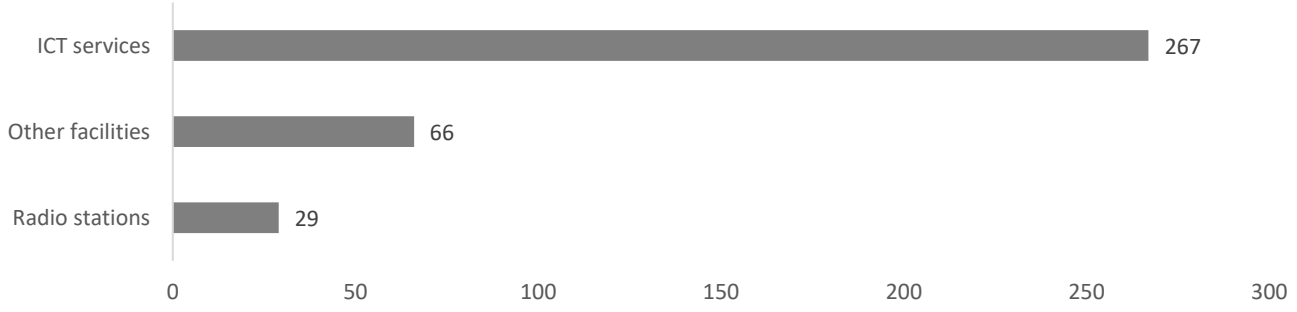


Fig. 30 **Breakdown of requests to eliminate radio interferences in 2017**

Other causes identified include the cases where the failure of the applicant's equipment was identified or wrong equipment was used (65.9%), faults of broadcasting networks (15.6%), short-term accidental disruptions (15.6%), and other causes (2.9%).

In 2017, 28 locations were identified where operation of weather radars was interfered by operating equipment. When weather radars started operating in the 5 GHz frequency band, RRT started focusing on protecting them against harmful radio interferences and on interference prevention. The radar operation frequencies are often used by wireless access and broadband data transmission system short range radiocommunication equipment, therefore operation of weather radars may be interfered. Radio interferences were eliminated in all cases.

7.9 Management of Other Resources

7.9.1 Management of Telephone Numbers

In 2017, RRT continued supervising the National Numbering Plan and assigned telephone numbers (see Table 11).

Table 11. **Statistics of telephone numbers assigned and rights to use a telephone number revoked in 2017.**

Designation of numbers	Numbers assigned	Right revoked (numbers refused)	Total number of numbers assigned
Short numbers 10XX	1	0	19
Short numbers 18XX	12	8	65
Short numbers 19XXX	1	2	43
Short numbers 116 XXX	0	0	3
Numbers of public fixed telecommunication services	12,216	4,505	1,024,684
Numbers of public mobile telecommunication services	271,427	20,326	7,359,842
Service numbers 7XX XXXXX, 8XXXXXXX and 9XXXXXXX	59,292	35,805	237,702

In 2017, RRT provided the public telephone service providers with an opportunity to use the number management self-service system. The service providers may review the assigned telephone numbers and review the telephone numbers available at the time and thus choose the required combinations of telephone numbers which may be entered when applying for the assignment of telephone numbers. That service provides the public telephone service users with an opportunity to choose the desired telecommunication numbering and review who is assigned other telephone numbers more easily.

7.9.2 Internet addresses

For eight years already, i.e., since the end of 2009, RRT has been authorised to issue permissions regarding the use of the state name of Lithuania before the top-level domain ".lt"[24].

In 2017, RRT issued 43 licences (see Fig. 31) granting applicants the right to use the name of Lithuania in the second level domain name before the top-level domain ".lt" and revoked 25 licenses of this type. The licenses are revoked at the applicants' request and in cases where it is found that the use of the assigned domain did not start 3 months after issue of the license.

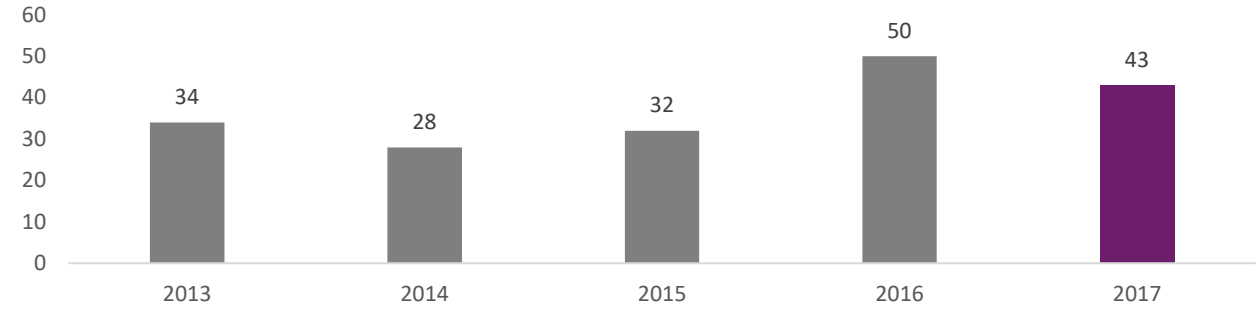


Fig. 31 **Statistics of the permissions to use the top-level domain ".lt"**

[24] 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

8. INTEGRATION INTO THE EU AND INTERNATIONAL REGULATORY SPACE AND EFFICIENT ACTIVITIES OF RRT

8.1 International Telecommunication Union (ITU)

In 2017, the Republic of Lithuania presented its candidacy to the ITU Council and the candidacy of Deputy Director of RRT dr. Mindaugas Žilinskas to the position of the Director of the ITU Radiocommunication Bureau.
The election results will be revealed during the ITU Plenipotentiary Conference which will take place in Dubai (UAE) from 28 October to 16 November 2018.

In 2017, the RRT representative was elected one of the vice-chairmen of the WTDC-17 Conference. His activity was related to the coordination of the conference and position of the European countries.

In 2014, Lithuania was elected to the ITU Council for a term of 2015-2018 during the ITU Plenipotentiary Conference. **In 2017, the Republic of Lithuania presented its candidacy to the ITU Council for a term of 2019-2022 and the candidacy of Deputy Director of RRT dr. Mindaugas Žilinskas to the to the position of the Director of the ITU Radiocommunication Bureau.**[25]. It must be noted that this has been the first time of Lithuania delegating a candidate to such a high-level post in the ITU hierarchical structure. Dr. Mindaugas Žilinskas has a 30-year experience of work in the area of radiocommunication regulation; during the period of 2006-2014 he was the member of the ITU Radio Regulators Board (RRB) for two terms and was dealing with the issues related to radio regulation, contributed to successful resolution of the radio interference issues among the ITU member states. In 2009 and 2014, Dr. Mindaugas Žilinskas was the Vice-Chairman of the RRB, and in 2010 he was the Chairman of the RRB.

In 2017, **the ITU highest-level events were organised in Vilnius**, they gathered the representatives of the European ministries and electronic communications regulators, ITU region observers from 25 countries. The Regional Development Forum (RDF), ITU Regional Preparatory Meeting (RPM) and the meeting of **European Conference of Postal and Telecommunications Administrations (**CEPT) Committee for ITU Policy (COM-ITU) took place in Lithuania; the latter two meetings were held for the preparation of the European region for the World Telecommunication Development Conference (WTDC-17) which took place in Buenos Aires in October 2017. The World Telecommunication Development Conference (WTDC-17) is held every 4 years and it is the main conference of ITU-D (development) sector which considers the issues related to the internet management, funding of regional projects, cyber security, aspects of cloud computing, processes of telecommunications development in developing countries, including consistent transition to IPv6, etc. Moreover, the RRT representative was elected one of the vice-chairmen during the WTDC-17 conference and his activity was related to the coordination of the position of the European countries and assurance of a smooth course of the conference (coordination of the positions among the ITU regions).

In 2017, the preparation for the most significant ITU Radio Sector international event to be held in 2019 – World Radiocommunications Conference (WRC-19) took place. The decisions adopted during WRC-19 will affect the trends of the further development of terrestrial and satellite radiocommunications systems.

[25] ITU websites publishes both candidacies https://www.itu.int/web/pp-18/en/page/104-elections.

One of the most significant issues dealing with mobile radiocommunication development is Item 1.13 of WRC-19 agenda "To consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 238 (WRC-15)". RRT took part in the activity of ITU Radiocommunications Sector Working Groups WP5D and TG 5/1 which are responsible for the aspects of the development of all modifications of IMT radiocommunications systems – IMT-2000, IMT-Advanced, IMT-2020, RRT also provided comments and recommendations.

The IMT radiocommunications system serves as a basis for a global platform for next generations of mobile communications and future services, therefore WP5D Group deals with the technical, operational and radio range management issues of terrestrial IMT system to satisfy the future needs of the IMT systems, and TG 5/1 needs to draft compatibility and common use studies for IMT systems in the 24.25-86 GHz radio frequency bands. The documents will be delivered during WRC-19, and the decisions adopted during the conference will have an effect on the global IMT development trends, including Lithuania.

8.2 Documents Considered in the EU Council Working Parties

In 2017, the RRT representatives provided information to the Telecommunications and Postal Services Attaché representing Lithuania in the EU Council Working Party on Telecommunications and Information Society whose goal is to help shape the position of Lithuania when considering the proposals regarding the **European Electronic Communications Code**[26] **(**hereinafter – the EECC) and **Body of Regulators for Electronic Communications**[27] **(BEREC):**

- concerning the changing of the EU radio frequency system;
- concerning access-related provisions;
- concerning the European Commission (EC) power balance and functionality of the institutional framework.

The comments and recommendations provided by RRT were designed to ensure that the rights of the Member States to manage the limited national resources (radio frequencies) are not mitigated, that the licenses to use radio frequencies, in the context of rapidly developing technologies, are issued for a period up to 15 years, and that the provisions on freeing up the 5G frequencies (3.6 and 26 GHz) by 2020 with reservations are coordinated with the Member States which are bordering the third non-EU countries. It must be noted that the radio frequency management is related to both the communications development in the territory of a country and to communications prices, speed of technology development, digital exclusion, etc. RRT provided its opinion on the necessity to provide for a minimum set of the national regulators' functions in the EECC and supported maintaining the existing balance between the EU and national powers. Moreover, RRT provided its opinion on new proposals of the European Parliament to include the provisions on mandatory reduction of international call prices and installation of public address system in the EECC.

After the Estonian presidency, the examination of the EECC was taken over by Bulgaria which will be presiding over the Council of the EU in the first half of 2018. The agreement on the provisions of the EECC is expected in the middle of 2018, the Member States should be given a sufficient time limit for the transposition.

[26] COM(2016)590
[27] COM(2016)591

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

In 2017, the RRT representatives participated in the activities of the Radio Spectrum Policy Group (RSPG) and Radio Spectrum Committee (RSCOM). Issues relating to harmonisation of radio communications in the EU Member States are discussed in this Committee and in the Group, documents are drafted and conclusions on relevant issues in connection with radio frequency management and use thereof are drawn.

In 2017, in the presence of the RRT representatives, the following RSPG conclusions were drawn:

1) concerning the Internet of Things (IoT), including M2M;

2) concerning intelligent transport systems;

3) concerning strategic goals in the World Radiocommunication Conference WRC-19;

4) concerning the proposal for the Directive of the European Parliament and of the Council in developing the European electronic communications system;

5) concerning the spectrum in the future and use of wireless video and audio PMSE equipment.

RSCOM drafted and, on 14 March 2017, approved the instruction for CEPT to establish the technical conditions of additional 1.5 GHz radio frequency bands for the provision of wireless broadband electronic communications. This instruction is designed to clarify the conditions under which not only the 1452-1492MHz frequency band (on which the decisions has already been made), but also the adjacent 1427-1452 MHz and 1492-1518 MHz frequency bands may be used.

On 18 October 2017, RSCOM approved the instruction for CEPT to analyse the feasibility of expanding the 5.9 GHz frequency band for the Intelligent transport Systems (ITS). The goal of this instruction is to expand the 5875-5905 MHz frequency band designated for ITS by 20 MHz, i.e., up to 5875-5925 MHz.

8.4 Body of European Regulators for Electronic Communications (BEREC)[28]

In 2017, BEREC, at the request of the European Commission, was drafting and submitting its opinions on the provisions of the EECC concerning the regulation of the undertakings having significant market power, oligopolies, market analyses, symmetrical access, EC powers, use of radio frequencies, general authorisations and BEREC framework. By providing such opinions, BEREC wants to submit the explanations of the technical and practical nature to the representatives of the EU institutions regarding the practical implementation of the EECC provisions and possible consequences without affecting the political processes during negotiations in the EU institutions. Such opinions of BEREC are drafted in the BEREC expert working groups which are also attended by RRT representatives, and the opinions are approved by the members of BEREC, heads of the national regulatory bodies with the majority of 2/3 votes.

The input of the RRT representative in drafting the BEREC guidelines on Regulation (ES) 2015/2120 on roaming application and network neutrality[29]. The national regulatory bodies follow the approved guidelines when carrying out their activities in these fields.

In the second half of 2017, the RRT representatives were providing EC and BEREC with information on the use and fees of international roaming services. This information is necessary to assess the proper implementation

[28] 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.

[29] Update of the BEREC Guidelines on the application of the Roaming Regulation, Implementation of Regulation 2015/2120 and Guidelines on net neutrality

of the provisions of Regulation (EU) 2015/2120 related to international roaming principle roam-like-at-home at the EU level.

8.5 European Regulators Group for Postal Services (ERGP)

In the first half of 2017, RRT vice-chaired the ERPG.

In 2017, RRT chaired the ERPG WG on end-to-end competition and access regulation. The active participation when drafting the report of this working group enabled gaining the knowledge which will be used when regulating the access to postal networks and related services.

In the first half of 2017, RRT and the representatives of the Bulgarian national communications regulatory authority (CRC) were holding the post of vice-chairmen of the ERPG. Moreover, the RRT representative chaired the ERGP WG on end-to-end competition and access regulation. This working group drafted a report on best practices and recommendations on the access to the universal postal service provider's postal network (issues of competition, prices and quality of services). The main focus of the working group was placed on analysing the intervention measures of regulation of access to the postal network in relation with the issues of prices, non-discrimination and quality of services. The recommendations and examples of best practices of the EU Member States concerning the regulation of access to the postal network were provided.

The ERGP WG on end-to-end competition and access regulation chaired by the RRT representative in 2018 as well is planning to draft a report on the application of the principles of transparency, non-discrimination and proportionality provided for the in the Postal Directive of the European Union to the regulation of access. The other ERGP working groups drafted important documents and reports analysing the EU postal market, its changes, trends and development opportunities over 2017:

1) ERGP Report on the Quality of Service, Consumer Protection and Complaint Handling – an Analysis of Trends;
2) ERPG report on common set of criteria to increase comparability of different NRA's studies on postal users' needs in the future;
3) ERGP Report on Core Indicators for Monitoring the European Postal Market;
4) ERP Report assessment of the possible changes of the USO scope in the light of market development and their impact on US sustainability.

The RRT representatives were also actively participating in the activity of the ERPG WG on e-commerce cross-border parcel delivery services and contributed to drafting the ERPG position on the implementation of the Regulation of the European Parliament on cross-border parcels.

8.6 European Conference of Postal and Telecommunications Administrations (CEPT)

The RRT representative chaired the CEPT com-ITU WTDC-17 working group.

In April 2016, the RRT representative was elected the *ad hoc* WTDC-17 working group chairman at the meeting of the CEPT Committee for ITU Policy (COM-ITU). The aim of chairing is to ensure the preparation of CEPT countries for the WTDC-17 conference. In 2016-2017, 4 meetings of the working group were organised, and

3 meetings were held by means of voice conference; during the meetings, the CEPT countries drafted 17 joint European proposals which were submitted and considered during the WTDC-17. It must be noted that during the World Telecommunication Development Conferences (WTDC), the attention is paid to the development of telecommunications and related elements of developing countries (in the fields of best practices, improvement of internet access, cyber security, consumer protection and access to individuals with special needs, etc.), but the provisions of the ITU documents are applied to all ITU members, therefore they may affect the telecommunication ecosystems of the developed countries (e.g. Elements of prevention of mobile device (telephone) thefts, narrowing the circle of entities having an effect on governance of the internet, aspects of cyber security, etc.) and affect the ITU members, therefore the European countries protect their positions accordingly by submitting their own or joint proposals of the European countries.

In 2017, RRT took part in the activity of Conference Preparatory Group (CPG) of the Electronic Communications Committee (ECC) for WRC-19 conference in 2018. This working group was drafting information and studies: conditions of deployment of next-generation radio communication systems, additional radio frequency identification, regulatory conditions for satellite radiocommunication networks, application of new technologies to ensure maritime and aviation safety, etc.

All said issues are urgent for Lithuania to promote the development of mobile broadband communications, whilst ensuring that new radio frequency bands provided for radiocommunication systems cause no limitations for radio communication 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.

In 2017, at the initiative of RRT jointly with Belarus, Estonia, Lichtenstein, Russian Federation, Slovenia and Switzerland, the CEPT Electronic Communications Committee Working Group was provided with a document proposing to assign the 5925-6425 MHz radio frequency band to the wireless local access WAS/RLAN systems. This radio frequency band is seldom used for the purpose established in the Radiocommunication Regulation in Lithuania and other countries that signed the document, therefore it could be used for the WAS/RLAN systems at a national level as there is a great shortage of radio frequencies (channels) in those systems. The ECC delegated the WGFM working group to draft the ECC report on feasibilities of the use of wireless local access WAS/RLAN systems in the 5925-6425 MHz radio frequency band and determine the criteria for protection of the satellite fixed service (FSS) and fixed service (FS) systems operating therein. Currently, the studies are being carried out and they will show whether and how this radio frequency band may be used for WAS/RLAN; the final decision will be made during WRC-19.

The issues related to the management of radio frequencies were discussed in the ECC's Working Group Frequency Management WGFM: trends of development of broadband mobile radiocommunication and other systems, needs of broadband public protection and disaster relief (BB-PPDR) services, use of short-range radiocommunication equipment. In 2017, this working group finalised the following draft documents: 1) draft amendment to ECC decision ECC/DEC/(06)10 regarding MSS, including CGC installation in the bands 1980-2010 MHz and 2170-2200 MHz, 2) draft amendment to ECC recommendation ECC/REC/(05)08 on planning and international coordination for the GSM 900, GSM 1800 and GSM-R, 3) draft amendment to ECC recommendation ECC/REC/(11)04 on international coordination on the MFCN 790-862 MHz band, and 4) draft amendment to ECC recommendation ECC/REC/(11)05 on international coordination in the MHCN 2500-2690 MHz band. The draft decisions and recommendations were approved at the ECC plenary meetings **and they will be taken into account when drafting or amending legal acts of the Republic of Lithuania regulating radiocommunication** as these documents will be useful in the cases of international coordination when setting forth regulatory requirements for new radiocommunication systems. **Lithuania will be able to use these ECC recommendations**

when resolving the disputed issues with the administrations of the neighbouring countries on the prospects of the use of the said radio frequency bands.

RRT contributed to the study drafted by the ECC WG SE7 working group which deals with the issue related to the use of the BB-PPDR systems in the 410-430 MHz frequency band. RRT officials, when participating in the activity of this group, conducted the compatibility studies (SEAMCAT calculations) with respect to BB-PPDR and RAS stations operating on the basis of LTE. The results showed that the interoperability between those two systems is feasible with protection zones and guard radio frequency bands. Where the LTE network surround the RAS station, the required protection zone is 241 km under recommendation ITU-R P.1546-5, and it is 362 km under recommendation ITU-R P.452-16, where the guard frequency band is absent. The required protection zone is up to 117 km under recommendation ITU-R P.1546-5, and it is 261 km under recommendation ITU-R P.452-16, where the guard frequency band is 2.5 MHz. The protection zones are shrinking, where the LTE network is not fully surrounding the RAS station (for example, in the event of coordination among the neighbouring countries). The required protection zone is 94 km under recommendation ITU-R P.1546-5, and it is 246 km under recommendation ITU-R P.452-16, where the guard frequency band is absent. The required protection zone is up to 18 km under recommendation ITU-R P.1546-5, and it is 127 km under recommendation ITU-R P.452-16, where the guard frequency band is 2.5 MHz. Having considered the suitability of models presented in ITU recommendations ITU-R P.1546-5 and ITU-R P.452-16, it was concluded that generally the results achieved when making calculations under ITU-R P.1546-5 model are appropriate to establish the protection of RAS stations, but to assess the protection zone of a specific RAS station where the terrain is known, the ITU-R P.452-16 model may be used.

8.7 Eastern Partnership Electronic Communications Regulators Network (EaPeReg)

RRT has been actively participating in the activity of the Eastern Partnership Electronic Communications Regulators Network (hereinafter – the EaPeReg network) uniting six Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) and over ten Member States of the EU for six years in a row, thus aiming at contributing to the implementation of the priorities of the Lithuanian foreign policy. This network has been established to bring the electronic communications regulatory system of the Eastern Partnership countries closer to the EU system, promote their cooperation and sharing experience and good practice with the EU Member States.

In 2017, the RRT representatives were actively involved in the activities of this network: they participated in the plenary meetings, shared their experience relating to network neutrality and broadband during the seminars, represented RRT in the working groups of Spectrum, Benchmarking and International Roaming.

In 2016, RRT and Ukrainian electronic communications regulatory body took the initiative in one of the priority activities of the EaPeReg network – reduction of international roaming tariffs in the Eastern Partnership countries; the work was continued in 2017 as well, in the International Roaming Working Group established specifically for that purpose. Since 2016 it has been presiding over by Ukraine, and the Lithuanian representative, RRT expert, holds the post of the Vice-Chairman. In 2017, the feasibility study of the international roaming regulation in the Eastern Partnership Countries was conducted and its primary results were presented. In 2017, one of the meetings of that working group was held in Vilnius; organisation of the meeting is planned in Vilnius in 2018 as well.

In 2017, the EaPeReg network was chaired by Moldova and vice-chaired by Romania. In 2018, the network will be chaired by Ukraine, and the Lithuanian representative, Director of RRT, was repeatedly elected

for the post of the Vice-Chairman. In 2018, two plenary meetings of the EaPeReg network are planned: one meeting will be held in Kiev (in spring) and one will be convened in Vilnius (in autumn). Alongside with the plenary meetings, the seminars for the heads on the subjects of broadband map development and independence of regulators will be organised which, including the reduction of international roaming tariffs, are among the priority areas of the activity of the EaPeReg network in 2018.

8.8 The International Association of Internet Hotlines INHOPE

the International Association of Internet Hotlines (INHOPE) unites 51 internet hotlines from 45 countries.

In 2017, the RRT representatives took part in the INHOPE General Assembly in Budapest where the prospects of the expansion of the INHOPE network, its management, further activities, and funding of the Fund and of the Association of INHOPE, INHOPE financial statement, amendments to the INHOPE Articles of Association were discussed, as well as closer cooperation with law enforcement institutions, cooperation with EUROPOL and INTERPOL, improvement of the new INHOPE Report Management System and the database ICCAM, and other relevant issues pertaining to the activities of internet hotlines. One of the presentations contained a detailed introduction of the EU General Data Protection Regulation which will come into force in May 2018 in the whole of the EU. The main focus was placed on the future changes as the majority of the internet hotlines are personal data controllers, therefore, this information is extremely relevant.

In 2017, in the Safer Internet Forum held in Brussels, the INHOPE organised the discussion for considering challenges which are encountered when fighting the child sexual abuse material (CSAM) on the internet. The further roles and actions of various European entities concerned were also discussed. The questions of what the Member States, law enforcement institutions and industries could or should do, how the problems may be solved by means of artificial intelligence were dealt with.

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

The RRT representative carried out the functions of a secretary at the Board of FESA.

The objective of FESA is to promote cooperation between trust service provider supervisory bodies, harmonise their activities and prepare common positions. When carrying out its activity, FESA cooperates with the European Commission (EC), European Network and Information Security Agency (ENISA), standardisation organisations (ETSI and CEN) and provides them with the proposals as to how ensure smooth implementation 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 and repealing Directive 1999/93/EC (hereinafter – the eIDAS Regulation).

In 2016, the RRT representative was elected a member of the Board of FESA (secretary) for a 2-year term and held office in 2017.

During the FESA meetings held in 2017, the following issues relevant to Lithuania were discussed: implementation of the eIDAS Regulation; incidents related to trust service providers and measures to mitigate the damage made by incidents; quality of reports on conformity assessment of trust service providers and potential actions to be taken to ensure the minimum level of quality of such reports in all countries (the European accreditation body was contacted for this purpose as well); drafting of associated standards; aspects of handling

trust lists; model of cooperation with the EC and ENISA for assurance of coordination of drafted documents and positions with the supervisory bodies. In 2017, the FESA proposals for the guidelines drafted by ENISA in connection with the trust services were provided.

8.10 Participation in ENISA Activities

Cyber security issues are coordinated by the European Network and Information Security Agency (ENISA) at the EU level and RRT is actively involved in its activities. In 2017, the RRT representatives represented Lithuania at the Board of ENISA and at the network of the National Liaison Officers which includes the representatives from all 28 Union countries, including the EC.

In 2017, ENISA was provided with the first report (by means of CIRAS-T tool) on security and integrity breaches (hereinafter – the incidents) which, under Article 19(2) of the eIDAS Regulation, were reported to RRT as the body responsible for monitoring trust services by trust service providers (TSP) in 2016: In 2016, 2 TSP reported the incidents related to hardware failures which resulted in the unavailability of services of both providers.

ENISA holds the meetings regarding the implementation of Article 19 of the eIDAS Regulation twice a year, and the RRT representative took part in both of them. During the meetings, the CIRAS-T tool improvement was discussed as well as the analysis of security incidents that occurred in 2016, ENISA's recommendations to TSP, vulnerability of INFINEON chips, process of product and service certification in the EU countries. During the meetings, the contacts with the experts who are communicated with to exchange experience related to the implementation of the eIDAS regulation were made.

8.11 Participation in the Twinning Project

In 2017, RRT commenced the implementation of the EU Twinning Project in Georgia.

At the end of 2017, RRT together with the junior partners to the project – the Federal Ministry for Economic Affairs and Energy and the Office of Electronic Communications of the Republic of Poland – started the implementation of Twinning Project in Georgia No GE/15/ENI/TE/01/16 (GE/27) "Supporting the Georgian National Communications Commission (GNCC) in developing of its electronic communications regulatory framework and operational capacities in line with EU regulatory framework". RRT Director Feliksas Dobrovolskis has been appointed the leader of the project, Giedrius Pūras, the RRT Deputy Director has become the Advisor Resident to the EU Twinning Project in Georgia.

The competent team of some 50 experts from Lithuania, Germany and Poland, during the project that will take 18 months, will help the Georgian Electronic Communications Regulatory Authority to improve the Georgian electronic communications regulatory framework for it to be in line with the EU law, will strengthen the Georgian electronic communications regulator's capacities in the fields of fixed and mobile broadband development, market analyses, radio frequency auctions, internet management, assurance of network and information security. The project is funded by the EU funds.

8.12 RRT management

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, approved the RRT structure, articles of association of structural divisions, lists of positions and job descriptions, employs and dismisses RRT civil servants and employees employed under employment agreements, 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 (the most relevant orders of 2017 related to the activity of RRT are provided in Annex 5), and ensures that laws and other legal acts are followed by RRT.

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.

In 2017, the Council convened 7 meetings during which draft orders of the Director of RRT were coordinated:

- On the Amendment of the Tariffs of the Fees for the Services Provided and Works Performed by the Communications Regulatory Authority of the Republic of Lithuania and of the Payment Procedure;
- On Setting the Tariff Coefficients for the Supervision of the Use of Radio Frequencies (Channels), including Radio Monitoring, and of Telephone Numbers.

The Council also discussed the amendments to the estimate of the RRT programme Communications Management and Control Programme for 2017, costs estimate of RRT Communications Management and Control Programme for 2017 (financed from the Council's over-performance and unused contributions from the previous year), costs estimate of RRT Communications Management and Control Programme for 2018, amendments to the regulations of the RRT structure and structural divisions, amendments to the RRT internal regulation.

In 2017, the Council discussed and approved the RRT draft strategic operational plan for 2018-2020.

Hearings of the RRT annual report of 2016 and the 2016 report on the implementation of the Law on Electronic Signature of the Republic of Lithuania were held.

8.13 In-service training for RRT employees

163 – number of RRT employees

63 women

100 men

In 2017, RRT employed 162 civil servants and employees under employment agreements and 1 official – the Director of RRT. 7 employees of RRT have the doctoral degree.

148 – number of RRT employees involved in training.

To improve the staff's skills related to the implementation of the strategic goals of the authority and to develop the specific RRT regulation knowledge of the employees, RRT conducted in-service training that was attended by 148 employees in 2017.

By counting the participation of unique employees (i.e., where one employee took part in three different training courses, three participants are counted) based on priority objectives of civil servants' training relevant to RRT:

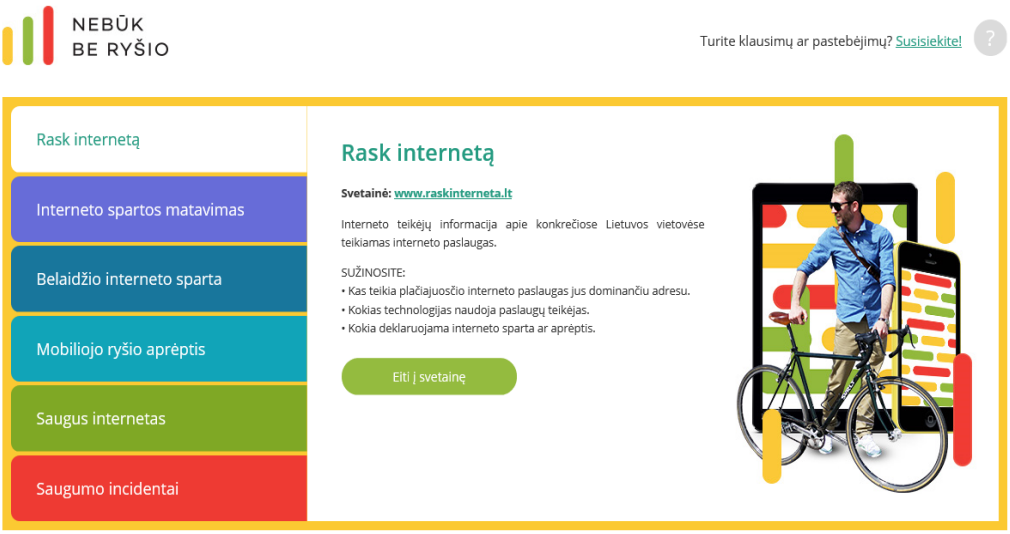
1) Expertise in the area of the ICT (information and communications technology) market regulation and surveillance was improved by 40 participants (training courses on telecommunications innovations were conducted "Electronic communications networks and their management", training course "Effect of the harmful internet content on human mental health and modern stress and emotion control techniques", participation in the training courses of ITU (International Telecommunication Union)); in the field of railway transport market regulation – 44 participants (training courses "Railway transport sector", "Facilities comprising the public railway infrastructure, service facilities and services provided therein");
2) 127 employees were improving general competences;
3) 15 employees improved their skills and abilities in the field of electronic information security (cyber security);
4) 72 participants were improving analytical skills;
5) 40 employees participated in the training for improving their qualification in the field of customer service, abilities and skills in focusing on a client;
6) The communication skills of 157 RRT employees were improved: knowledge of the EU working languages was enhanced, training "Improving emotional intelligence skills in the company" was conducted;
7) 3 employees deepened their knowledge in the field of professional ethics and corruption prevention;
8) 2 employees participated in the instructional program for civil servants;
9) 41 employees improved managerial, leadership and change management skills.

In 2017, under the RRT employee training programme "RRT employees to RRT employees", the employees participated in the introduction of the RRT strategic operational plan for 2017-2019, training courses "Cyber threats in digital space and how to recognise them", "Developments in the Law on Public Procurement and practical application", etc.

8.14 Consumer Information Measures

In 2017, RRT presented a new website **www.nebūkberyšio.lt.** It grants the Lithuanian electronic communications service users the convenient access to the information resources administered by RRT on various electronic communications services provided in Lithuania, quality, development and security thereof.

www.nebūkberyšio.lt helps the Lithuanian residents, existing and future users of various electronic communications services find information on the internet services at a location concerned, wireless internet speed, assess the mobile network coverage in Lithuania, measure the available internet speed, find out how to safely behave on the internet. RRT hopes that the tools developed and maintained by RRT available on the website will help the users to assess the quality of communications services offered in Lithuania, received useful information on the services and will serve as an aid in case of encountering threats on the internet and will teach how to avoid them.



www.elektroninisparasas.lt. To promote the use of electronic signature and provide methodological assistance, RRT updated the specialised website (in the Lithuanian and English languages) **www.elektroninisparasas.lt**. This website helps the trust service users and trust service providers to find information on the qualification of the trust service providers, find the news related to the electronic signature and trust services. The website also publishes the national trust list – list designed for automatic processing containing information on the Lithuanian qualified trust service providers and services they provide.

9. PERFORMANCE OF OBLIGATIONS IN THE FIELDS 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 2017-2019 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 1,159 thousand allocated from the state budget. The amount of EUR 967.3 thousand was used for the investment project (allocated from the state budget).

Under the contracts of agency, in 2017 the State Security Department of the Republic of Lithuania implemented the procedures for the procurement of special signal processing and decoding software and hardware. The acquired signal processing and decoding software and hardware was handed over to the State Security Department for operation in trust in accordance with the procedure laid down in legal acts.

10. OBJECTIVES AND TASKS OF THE RAILWAY TRANSPORT MARKET REGULATION FOR 2017

TIKSLAS		UŽDAVINYS
1	Sudaryti sąlygas veiksmingai konkurencijai geležinkelių transporto rinkoje	Užtikrinti, kad geležinkelių transporto rinkoje nebūtų konkurencijos iškraipymų ir ribojimų

11. PROMOTION OF EFFECTIVE COMPETITION ON THE RAILWAY TRANSPORT MARKET

11.1 Monitoring of competition on the railway transport market

In 2017, one undertaking, AB Lietuvos Geležinkeliai, was carrying out the activity on the railway transport market; it was the public railway infrastructure manager, railway undertaking (carrier) and railway service facility operator.

RRT, as the railway transport market regulator, believes that it is important to enable effective competition on the railway transport market and prevent the abuse of the market power held by the public railway infrastructure manager, railway undertakings (carriers), railway service facility operators on the railway transport market. It needs, however, the involvement of all railway transport market players.

RRT, having commenced the surveillance of the railway transport market, organised the meeting with the representative of the European Commission Directorate-General for Mobility and Transport (hereinafter – the EC representative) and railway transport market players. This has been the first meeting with the railway transport market players since 1 November 2016, when RRT was assigned the functions of the railway transport market regulator. During the meeting, the EC representative introduced the European railway transport market regulatory framework and expectations regarding the changes in the national railway market. RRT representatives presented the functions newly assigned to RRT and discussed the planned activities related to the railway market.

The good news is that an increasing involvement of railway market players in the regulation of the railway transport market was observed in 2017. This provided RRT with an opportunity to have better knowledge of the railway transport market, problems faced by the market players and start tackling those problems.

RRT, to find out the number of railway service facility operators acting in Lithuania and collect detailed statistical information on the market of railway service facility operators, initiated the survey of the railway transport market players in October 2017. Due to the number of railway market players involved, RRT is still analysing the final results of the survey. RRT expects to have the summarised results in the first half of 2018.

11.2 Supervision of the compliance with the requirements for the railway transport market players

When carrying out the surveillance of the railway transport market, RRT conducted the audit of AB Lietuvos Geležinkeliai as in whether it properly fulfilled the requirements for the accounting unbundling system and cost distribution. During the audit, the letters containing the request to submit the required information were sent to AB Lietuvos Geležinkeliai, the meeting with the management of AB Lietuvos Geležinkeliai with regard to the submission of information and further cooperation was held. The expected results of the audit of AB Lietuvos Geležinkeliai are to be achieved in 2018.

In 2017, at the request of the Lithuanian Private Railway Companies Association, RRT audited contribution rates of charges to be paid for the minimum access package for the services provided by the public infrastructure manager[30].

Result. RRT, having considered the calculation of the charge to be paid by the railway undertaking (carrier) for the minimum access package (projected in the document) under the data provided by the public railway infrastructure manager, determined that the approved **contribution rates** of the charge for the minimum access package **were calculated in compliance with all the requirements set**.

11.3 Examination of the applicants' complaints

1 – complaint withdrawn.

1 – the complaint was accepted (the examination moved to 2018)

APPLICANT - a railway undertaking (carrier), international group of railway undertakings (carriers), shipper (consignee), shipping agent which, wishing to provide the public services of transport of passengers by rail or having commercial interests, wishes to acquire public railway infrastructure capacities.

DISPUTES SETTLED BY RRT involve the procedure of examination of act and/or omission of the railway infrastructure manager, operators of railway service facilities, railway undertakings (carriers), institutions, authorities or organisations (the "entities"), including the decisions made by such entities within their competence with regard to the restriction of the conditions of the right to use the public railway infrastructure, railway service facilities and services provided therein to the railway undertakings (carriers), the content of the Public Railway Infrastructure Network Statement, allocation of the public railway infrastructure capacities, charges to be paid by the railway undertaking (carrier) for the minimum access package, as well as charges for the use of railway service facilities and services provided therein, and charges for auxiliary and ancillary services, and the procedure for the decision making.

In 2017, UAB Litrailas addressed RRT with regard to the actions taken and decisions made by the public railway infrastructure manager and railway undertaking (carrier).

The applicant requested to investigate the actions taken and decisions made by AB Lietuvos Geležinkeliai regarding the handover of platforms (railcars) to the third parties and take all measures feasible within its competence to remedy the situation by *inter alias* imposing an obligation on AB Lietuvos Geležinkeliai to reimburse the pecuniary damage made to the applicant.

Result. RRT withdrew the applicant's complaint on the grounds that in the context of the circumstances presented in the complaint, the disputes between the applicant and AB Lietuvos Geležinkeliai were subject to the performance of the contract of carriage. Article 67 of the Railway Transport Code of the Republic of Lithuania (hereinafter – the Code) establishes that the actions arising from the contract of carriage shall be brought before the court unless the parties agree otherwise. Taking this into account, RRT concluded that specific decision-making arrangements are established for settling this type of disputes (an option of making a claim to a railway undertaking (carrier)), and, if parties fail to reach an agreement, a consignor (consignee) are entitled to bring an action before the ordinary court following the procedure and conditions established by the Code of Civil Procedure of the Republic of Lithuania. RRT refused to investigate the applicant's compliant as according to the authorisations granted and functions assigned by Article 71(1) of the Code RRT has no competence to investigate the applicant's compliant in its entirety.

[30] approved by Order No VE-74 of the Head of the State Road Transport Inspectorate under the Ministry of Transport and Communications of 7 June 2017 "On the Amendment of Order No VE-195 of the Head of the State Road Transport Inspectorate under the Ministry of Transport and Communications of 12 December 2016 "On Setting the Contribution Rates of Charges for the Minimum Access Package"

In 2017, UAB Gargždų Geležinkelis addressed RRT with regard to the allocation of public railway infrastructure capacity for the validity period of the 2017-2018 working timetable for rail transport and related decisions.

The applicant requested RRT to change the decision made by the Lithuanian Transport Safety Administration by allocating public railway infrastructure capacity as requested in the applicant's application for allocation of public railway infrastructure capacity. Moreover, the applicant requested to revoke the decision made by the Lithuanian Transport Safety Administration with regard to the action brought by UAB Gargždų Geležinkelis which had arisen out of the coordination of applications for allocation of the same capacities under paragraph 30 of the Regulations for the Allocation of the Public Railway Infrastructure Capacity approved by Resolution No 611 of the Government of the Republic of Lithuania of 19 April 2004 "On the Approval of the Regulations for the Allocation of the Public Railway Infrastructure Capacity".

Result. RRT accepted the applicant's complaint. Pursuant to the provisions of Article 71(2) of the Code, in the absence of the complete material for the examination of the complaint, the examination was not finished in 2017 and it continued in 2018.

11.4 Independent Regulators' Group – Rail

In 2017, RRT became a member of the IRG-Rail.

In the area of the railway transport market regulation, the Independent Regulators' Group-Rail (hereinafter – the IRG-Rail) has been operating since 9 June 2011. The overall aim of the IRG-Rail is to facilitate the creation of a single, competitive, efficient and sustainable internal railways market in Europe. The IRG-Rail acts as a platform for cooperation, information exchange and sharing of best practice between national railway regulators in order to face current and future regulatory challenges in railways and to promote a consistent application of the European regulatory framework.

On 12 May 2017, RRT became a member of the IRG-Rail. At the end of 2017, the IRG-Rail united 31 national railway transport regulators from the whole of Europe.

The activity of the IRG-Rail is based on the cooperation and involvement in the tasks carried out by the working groups. The IRG-Rail has established 6 working groups: Market Monitoring Working Group, Access Working Group, Access to Service Facilities Working Group, Charges Working Group, Charges For Service Facilities Subgroup and Emerging Legislative Proposals Working Group. The representatives of RRT have become involved in the activity of all working groups of the IRG-Rail and have been taking an active part in the meetings of the working groups by submitting all relevant information on the Lithuanian railway transport market for the IRG-Rail documents to be drafted and by presenting the regulatory environment of the Lithuanian railway transport market to other regulatory bodies.

11.5 European Network of Rail Regulatory Bodies (ENRRB)

In 2017, RRT commenced active participation in the ENRRB activities.

The EC not only actively supports the cooperation between the railway transport market regulatory bodies, but it also promotes the cooperation with the EC, infrastructure managers and railway undertakings (carriers). The cooperation is promoted through workshops of all three associated parties and meetings over the issues relevant to the market and for sharing information. For this purpose, all railway transport market regulators participate and are active in the meetings of the network of the European Network of Rail Regulatory Bodies (ENRRB). The railway transport market regulators actively share information on the work done and on the decision making principles and practice. The special focus is drawn on such issues as the procedures undertaken in the country of the railway transport market regulator and challenges faced when transposing the EU legislation. Sharing information and cooperation between the railway transport market regulators is carried out in order to harmonise the decision making over the whole of the EU.

The EC convenes the ENRRB meetings on a regular basis (2-3 times a year), and the first ENRRB meeting was held in March 2013. This way the EC ensures the active cooperation between the railway transport market regulatory bodies. It must be noted that the EC may, taking account of the practice of the railway transport market regulators and issues raised, initiate and does initiate the EU legislation amendments which directly affect all railway transport market of the EU Member States and the bodies responsible for the market surveillance.

RRT is involved in the ENRRB activity and took part in two ENRRB meetings in 2017. During the meetings, the regulatory environment of the Lithuanian railway transport market was presented, as well as the specifics of the directly applicable EU legislation and different implementation practice in the Member States.

12. IMPLEMENTATION OF IMPACT EVALUATION FACTORS OF STRATEGIC OBJECTIVES IN 2017

Strategic Goal I – to enhance the effective competition in the fields of electronic communications and postal activities, ensure efficient use of electronic communications resources and protect the rights of ICT and postal service users, thus accelerating the development of digital society.

RRT shall implement the strategic goal by performing the continuous Communications Management and Control Programme (it was commenced in 2001 and continued till 2017).

Execution of the impact evaluation factors of Strategic Goal I in 2017

Code of the evaluated factor	Name and measurement unit of impact evaluation factor	Planned values for 2017	Actual values for 2017	Factor implementation percentage
E-01-01	1. Fourth generation 4G LTE wireless broadband access radio network coverage (part of the territory of Lithuania, %).	96.0	99.4	104
E-01-02	2. Share of active mobile communications end service users using the services of data transmission via LTE network (% of all active mobile communications end service users).	30	41	137
E-01-03	3. Share of households using internet access of 30 Mb/s speed and higher provided by means of fixed communications technologies (share of households, %).	45	45.9	102
E-01-04	4. Development of the market of postal services in terms of revenue (compared to previous years, %).	4.5	12.5	278
E-01-05	5. The decline in the number of the same IP addresses involved in malicious activities or having critical vulnerabilities detected on the networks of internet access service providers and information systems of electronic information hosting service providers (share of recurring IP addresses, % of the total number of the same IP addresses involved in malicious activities).	55	48	115
E-01-06	6. The growth of the number of qualified electronic signature certificates provided by trust service providers (%, compared to previous years).	5	2.1	42

Impact factor E-01-01 – Fourth generation 4G LTE wireless broadband access radio network coverage (part of the territory of Lithuania, %). Based on the data of 31 December 2017, part of the territory of the Republic of Lithuania covered by the overall coverage of RRT registered wireless broadband access mobile radiocommunication LTE stations represented 99.4%. The result was achieved by calculating LTE reference signal for RSRP -115 dBm level at the height of 1.5 m above the grounds using the International Telecommunication Union ITU-R P. 525 and Deygout 94 diffraction model. The factor was implemented by **104%**.

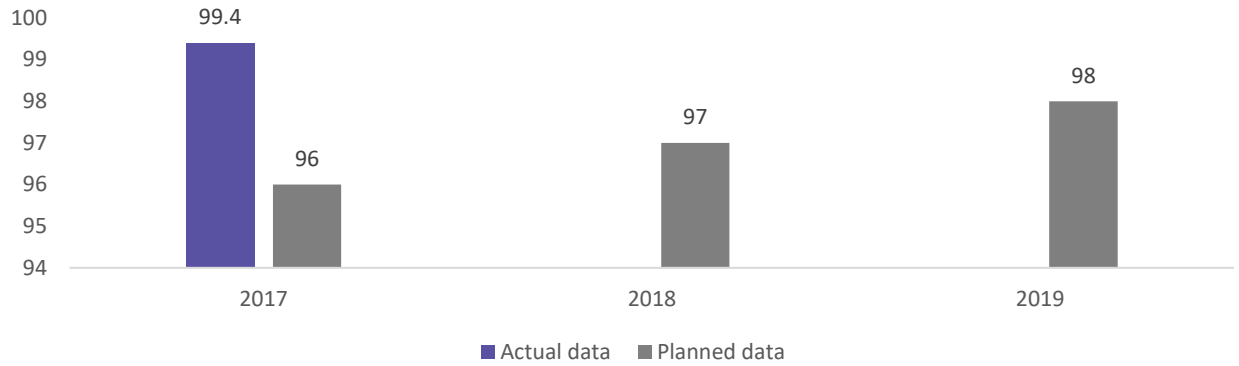


Fig. 1 **Fourth generation 4G LTE wireless broadband access radio network coverage (part of the territory of Lithuania, %).**

Impact factor E-01-02 – share of active mobile communications end service users using the services of data transmission via LTE network (% of all active mobile communications end service users). At the end of 2017, the share of active mobile communications end service users using high-speed data transmission mobile network services represented 41%, compared to 2016. The factor was implemented by **137%**.

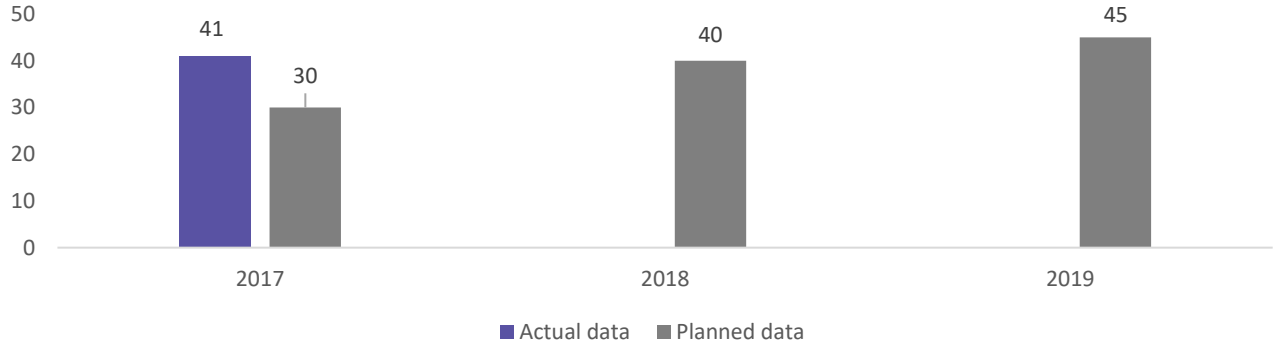
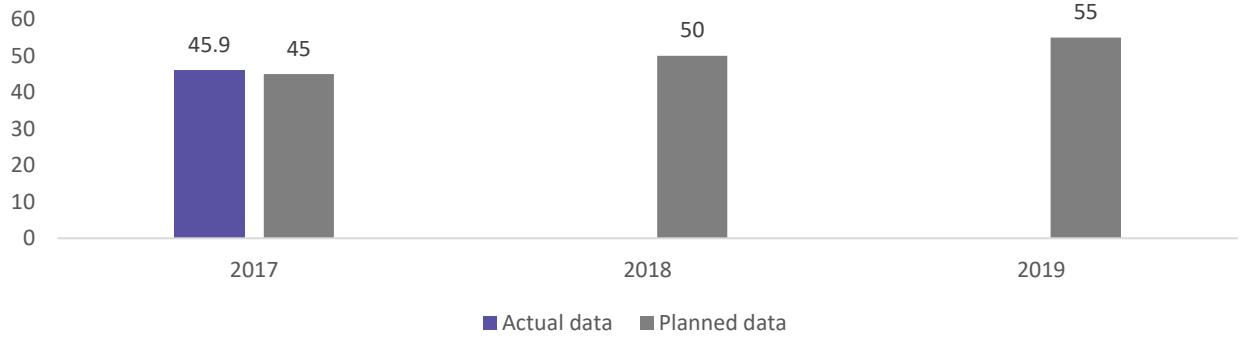


Fig. 2 **Share of active mobile communications end service users using the services of data transmission via LTE network (% of all active mobile communications end service users).**

Impact factor E-01-03 – share of households using internet access of 30 Mb/s speed and higher provided by means of fixed communications technologies (share of households, %). At the end of 2017, the share of households using internet access of 30 Mb/s speed and higher provided by means of fixed communications technologies constituted 45.9%. The factor was implemented by **102%**.



x

Fig. 3 **Share of households using internet access of 30 Mb/s speed and higher provided by means of fixed communications technologies (share of households, %).**

Impact factor E-01-04 – the growth of the postal service market in terms of revenue (%, compared to previous years). In 2017, the postal market increased by 12.5% (from EUR 130.7 million to EUR 147.1 million), compared to the same period in 2016. The growth of the revenue of the postal service market was mainly affected by the increased popularity of e-commerce. The factor was implemented by **278%**.

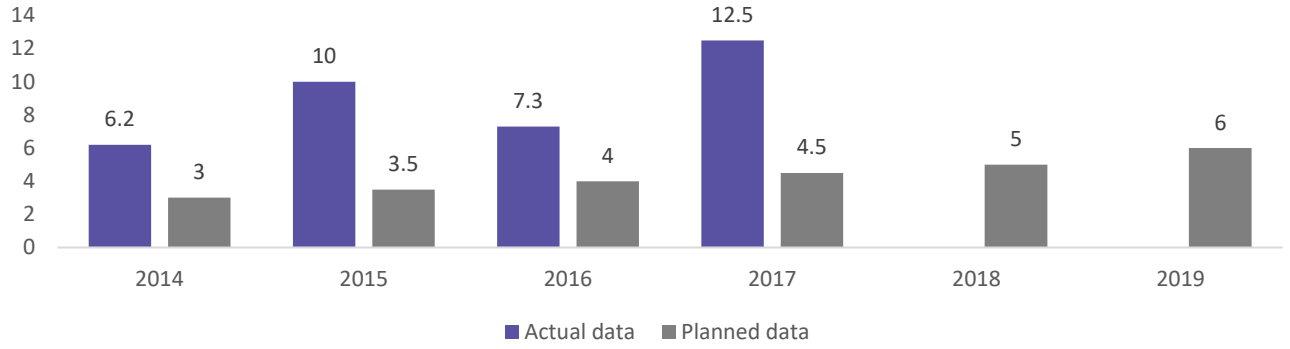


Fig. 4 **Development of the market of postal services in terms of revenue (%, compared to previous years)**

Impact factor E-01-05 – the decline in the number of the same IP addresses involved in malicious activities or having critical vulnerabilities detected on the networks of internet access service providers and information systems of electronic information hosting service providers (share of recurring IP addresses, % of the total number of IP addresses involved in malicious activities) According to the data of 2017 (within a month), the number of the same IP addresses involved in malicious activities detected on the networks of internet access service providers accounted for 48%. The factor was implemented by **115%**.

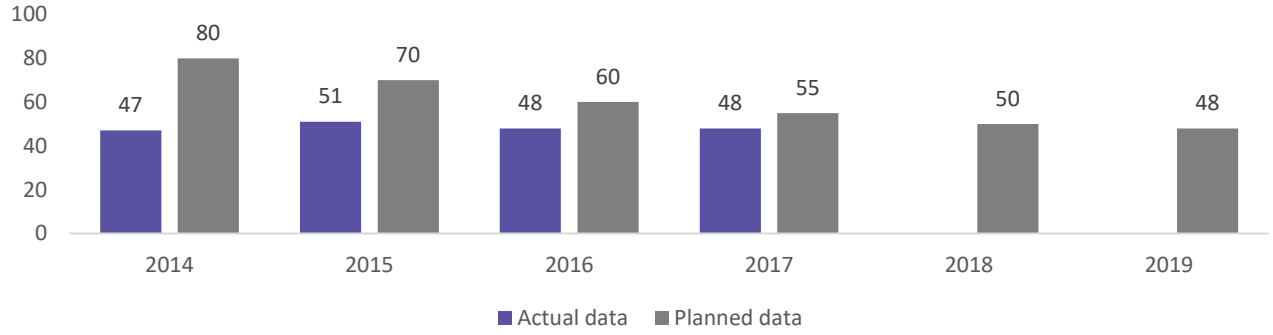


Fig. 5 **The decline in the number of the same IP addresses involved in malicious activities or having critical vulnerabilities detected on the networks of internet access service providers and information systems of electronic information hosting service providers (share of recurring IP addresses, % of the total number of the same IP addresses involved in malicious activities)**

Impact factor E-01-06 – the growth of number of qualified electronic signature certificates provided by trust service providers (%, compared to previous years). In 2017, the qualified certification services were provided by three service providers registered in Lithuania: UAB Skaitmeninio Sertifikavimo Centras, Public Enterprise Centre of Registers and Identity Documents Personalisation Centre under the Ministry of the Interior of the Republic of Lithuania (IDPC) (successor of the Residents' Register Service (RRS) responsible for the provision of the data of certificates (recorded onto personal identity cards and civil servant certificates) compiled by RRS by 31 December 2015 to electronic signature users. According to the data of such service providers, the number of qualified certificates in 2017, compared to 2016, grew by 2.1% (in 2016, 924,735 valid qualified certificates were compiled, and in 2017 – 944,127 valid qualified certificates). The factor was not implemented due to the lower number of IDPC/RRS qualified electronic signature certificates that were previously effective and newly issued personal identity cards that such certificates are recorded onto. The factor was implemented by **42%**.

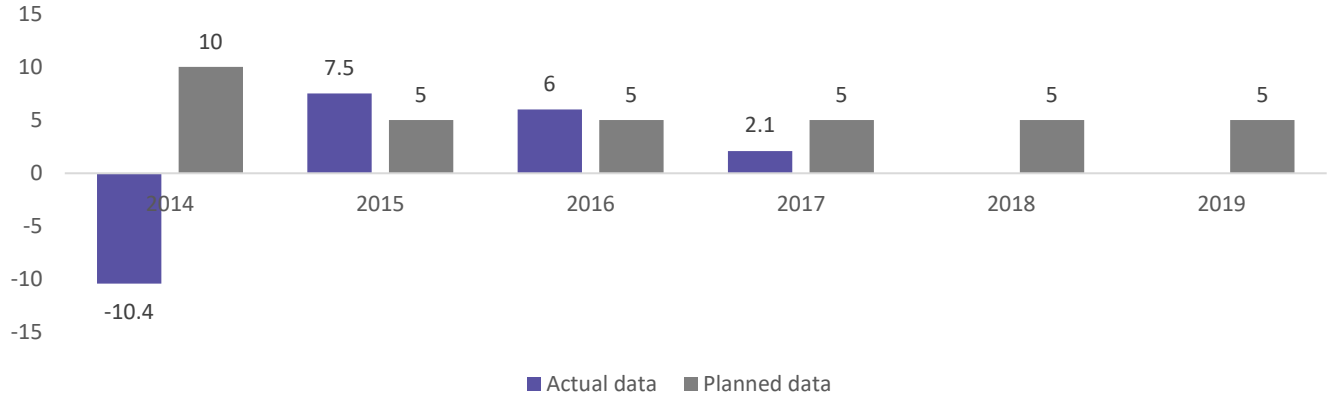


Fig. 6 **The growth of the number of qualified electronic signature certificates provided by trust service providers (%, compared to previous years).**

Strategic goal II – to aim for the conditions of effective competition on the railway transport service market and prevent the abuse of the market power held by the public railway infrastructure manager, railway undertakings (carriers), railway service facility operators on the railway transport service market.

RRT is implementing Strategic Goal II by executing the Railway Transport Market Regulation Programme that was commenced in 2017.

Execution of the impact evaluation factor of Strategic Goal II in 2017.				
Code of the evaluated factor	**Name and measurement unit of impact evaluation factor**	**Planned values for 2016**	**Actual values for 2016**	**Factor implementation percentage**
E-02-01	1. Development of the market of the railway transport market by volume of transported freight (%, compared to previous years).	0.25	10.47	4,188

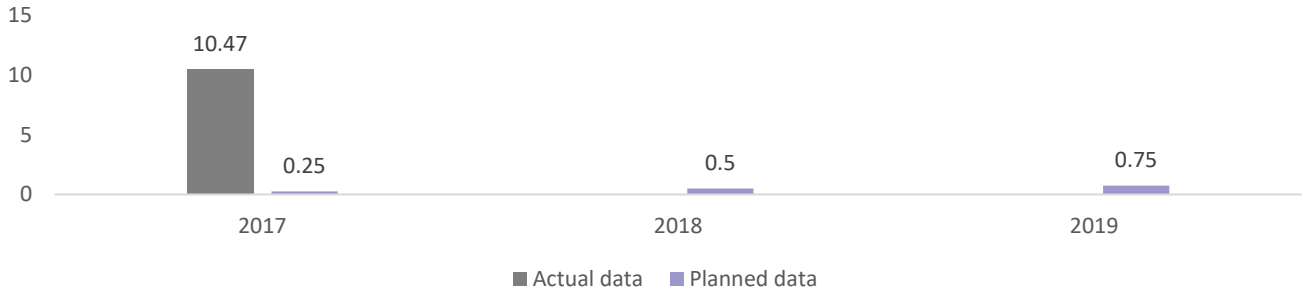


Fig. 7. **Development of the market of the railway transport market by volume of transported freight (%, compared to previous years).**

Impact factor E-02-01 – the growth of the railway transport market by volume of transported freight (%, compared to previous years). According to the actual data of 2017, the railway transport market grew by 10.47% in terms of volume of transported freight, compared to 2016 (in 2016, 47,650,617 tonnes of cargoes were carried by railway transport, in 2017 – 52,638,215 tonnes). Transit freight flows (where freight is transported by railway transport from other countries to Klaipėda Seaport for arrival/departure by vessels) represented 54% of all transported cargoes and increased by 18.7% (the total of 28.5 million tonnes), of which: transit flows through Klaipėda Seaport went up by 12.6% – the total of 16.8 million tonnes); in the direction of Kaliningrad region increased by 28.8% – 11.7 million tonnes. Export went up by 6% – oil export from AB Orlen Lietuva went up by 13 million tonnes, and import (for internal use) decreased by 8%. – 6.52 million tonnes (flows of oil were decreasing, flows of fertilisers, mineral

products, timber went up). Internal transport increased by 7.4% – 4.68 million tonnes (transport of aggregate, cement, construction materials). It must be noted that the railway transport market statistical data were not collected until 2017 when RRT was appointed the railway transport market regulator; therefore, RRT was not able to accurately forecast the value of this factor. The factor was implemented by **4,188%**.

13. ANNEX 1. Implementation of evaluation factors of the objectives and tasks of the Communications Management and Control Programme in 2017

Code of the evaluated factor	Names and measurement units of objectives, tasks, evaluation factors	Values of evaluation factors		
		Values for 2017 (approved)	Actual values for 2017	Factor implementation percentage
	Objective 1 – ensuring efficient and transparent competition on the electronic communications and postal service markets			
R-01-81-01-01	1. The share of the market of alternative public fixed communications networks and service providers (%, in terms of the number of end service users)	11.5	14.6	127
R-01-81-01-02	2. Market share of postal service providers (except for AB Lietuvos Paštas) (%, in terms of revenue)	62	64.3	104
R-01-81-01-03	3. The share of the market of alternative broadband internet access provided by means of fixed communications technologies, service providers (%, in terms of the number of end service users)	54.5	48.7	89
	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. The number of performed analyses of markets under Recommendation 2014/710/EU and of other markets subject to *ex ante* regulation	5	3	60
P-01-81-01-01-03	3. Share of the EU legislation transposed into domestic law and implemented within the deadlines set within the competence of the Authority (% of to be transposed and implemented)	98	100	102
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)	>17.5	32	182
P-01-81-01-01-05	5. The share of examined reports on violations of electronic communications infrastructure installation and use (% of the total number of received reports on violations)	100	100	100
P-01-81-01-01-06	6. The number of planned inspections of electronic communications service providers	25	20	80
P-01-81-01-01-07	7. The number of planned inspections performed on postal service providers, including their divisions	25	17	68
	Objective 2 – ensuring the protection of rights and legitimate interests of ICT and postal service users within the competence of the Authority			
R-01-81-02-01	1. Share of complaints from electronic communications service users (consumers) and postal service users regarding the quality of services (% of all received complaints)	19.5	15.8	81
R-01-81-02-02	2. The share of types of radio equipment complying with the administrative requirements of the Radio Equipment Regulations (% of the total number of types of inspected equipment)	68	70	103
R-01-81-02-03	3. The share of types of equipment complying with the administrative requirements of the EMC Regulation (% of the total number of types of inspected equipment)	70	90	129
R-01-81-02-04	4. 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 of elements	100	100	100
R-01-81-02-05	5. The growth of the number of users of the remote t0raining system for the use of electronic signatures (% compared to the previous year)	5	29	580

Code of the evaluated factor	Names and measurement units of objectives, tasks, evaluation factors	Values of evaluation factors		
		Values for 2017 (approved)	Actual values for 2017	Factor implementation percentage
	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	57	190
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 all 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	No requests received	-
	Task 2 of Objective 2 – supervision of the provision of the electronic communications and postal services, including universal services			
P-01-81-02-02-01	1. The share of the requests from electronic communications service users and postal service users, including consumers, examined within the competence of the Authority (% of all received requests)	100	100	100
P-01-81-02-02-02	2. The share of performed control measurements of technical parameters of electronic communications networks and lines (pcs.)	20	20	100
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 of the compliance of radio equipment existing on the Lithuanian market with the mandatory requirements of the Radio Equipment Regulation and with the electromagnetic compatibility requirements			
P-01-81-02-03-01	1. The number of inspected types of radio equipment for compliance with the administrative requirements of the Radio Equipment Regulation	70	90	129
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	40	133
P-01-81-02-03-03	3. The number of types of radio equipment taken from the market for laboratory testing in order to determine if they comply with the fundamental requirements of the Radio Equipment Regulation	25	20	80
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 fundamental requirements of the EMC Regulation	25	40	160
P-01-81-02-03-05	5. Share of conducted assessments of the compliance of radio equipment with the fundamental requirements of the Radio Equipment Regulations (effective use of radio spectrum and electromagnetic compatibility) and of issued test reports (% of all types of equipment submitted for testing)	100	100	100
P-01-81-02-03-06	6. Share of conducted assessments of the compliance of electric and electronic equipment with the EMC Regulation and of issued test reports (% of all types of equipment	100	100	100

Code of the evaluated factor	Names and measurement units of objectives, tasks, evaluation factors	Values of evaluation factors		
		Values for 2017 (approved)	Actual values for 2017	Factor implementation percentage
	submitted for testing)			
P-01-81-02-03-07	7. The number of investigated reports concerning the placing on the market of radiocommunication equipment of Class 2 (% of all received reports)	100	The activity was not carried out due to the entry into force of Radio Equipment Directive 2014/53/EU which replaced R&TTE Directive 1999/5/EC	-
	Task 4 of Objective 2 – supervision of trust service providers and provision of provided trust services			
P-01-81-02-04-01	1. The share of applications regarding activities of trust service providers investigated within the competence of the Authority (% of all received applications)	100	100	100
P-01-81-02-04-02	2. Share of provided methodological assistance to trust service providers (% of all received inquiries)	100	100	100
P-01-81-02-04-03	3. Share of provided consultations over trust services to the users (% of all 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 the territory of the Republic of Lithuania covered by wireless broadband access mobile radiocommunication networks (%)	97	99	102
R-01-81-03-02	2. Assigned radio frequency band width (MHz) harmonised at the EU level	915	932	102
R-01-81-03-03	3. Number of registered broadband access mobile radio stations (units)	7,000	10,042	143
	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	98.2	103
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	96	120
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	96.3	107
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
P-01-81-03-01-05	5. The number of inspections of radio and television broadcasting stations	33	35	106
P-01-81-03-01-06	6. The number of inspections of internal radiocommunication networks	141	164	116
P-01-81-03-01-07	7. Number of control measurements of radiation parameters of radiophony broadcasting stations	1,710	2,514	147
	Objective 4 – integration into the EU and international regulatory space and efficient activities of the Authority			
R-01-81-04-01	1. Compliance of the factor of the Authority's overall	<0.3	0.25	115

Code of the evaluated factor	Names and measurement units of objectives, tasks, evaluation factors	Values of evaluation factors		
		Values for 2017 (approved)	Actual values for 2017	Factor implementation percentage
	performance functions with the target established by the protocol of the Government of the Republic of Lithuania			
R-01-81-04-02	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	30	34	113
	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 for the committees and working groups of the EU Council and of the European Commission, for 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	85	243
	Task 2 of Objective 4 – efficient organization, publicity and control of activities of RTT			
P-01-81-04-02-01	1. The share of civil servants who participated in in-service training events in the accounting year (% of the total number of servants)	82	91	111
P-01-81-04-02-02	2. Number of incorporated advance personnel management instruments applied in the Authority (pcs.)	1	1	100
P-01-81-04-02-03	3. Accessibility of RRT information systems and their subsystems per year (% of all working time)	90	99	110
	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, %	100	100	100
	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

The reasons for failure to implement the factors:

The factor **R-01-81-01-03** was implemented by **89**%. The share of the market of alternative broadband internet access provided by means of fixed communications technology service providers (%, in terms of the number of end service users). The factor was not implemented due to the transition of one of the major providers of alternative services of broadband internet access at a fixed location – AB Lietuvos Radijo ir Televizijos Centras – from the fixed technology (WiMAX) to the mobile (LTE) one for the provision of such services. The transition of broadband internet access subscribers which were provided the services by means of wireless communication

technology WIMAX to LTE technology led to the lower number of subscribers that were using fixed communications technologies: in 2017, to dropped by 6.7% and stood at 799.9 thousand on 31 December 2017.

The factor **P-01-81-01-01-02** was implemented by **60**%. In 2017, three market analyses were completed: analysis of the market of services of providing broadcasting transmission means, market analysis on broadcasting services to provide content services to end users, and market analysis on call origination on the public telecommunications network provided at a fixed location. The deadlines of the two planned market analyses – the analysis of the market of consumers' access to public telecommunication network at a fixed location and the analysis of the market analysis on access granted to service recipients, except for customers, to public communications networks at a fixed location – were rescheduled to 2018 due to the continued amendment of the Rules on Universal Electronic Communications Services under which the obligation to provide universal services would be linked with the undertaking having significant market power on the said markets.

The factor **P-01-81-01-01-06** was implemented by **80**%. In 2017, the number of undertakings to be inspected under the schedule was reduced by implementing the provision entrenched in Law on Administrative Burden Reduction No XI-2386 of the Republic of Lithuania of 8 November 2012 – to reduce the administrative burden borne by the economic entities. The lower number of scheduled inspections was also a result of the decrease in the number of undertakings operating on the electronic communications market due to the merger of several companies.

The factor **P-01-81-01-01-07** was implemented by **68**%. In 2017, the number of undertakings to be inspected under the schedule was reduced by implementing the provision entrenched in Law on Administrative Burden Reduction No XI-2386 of the Republic of Lithuania of 8 November 2012 – to reduce the administrative burden borne by the economic entities.

The factor **R-01-81-02-01** was implemented by **81**%. The decrease in the number of complaints filed by electronic communications service users (consumers) and postal service users with respect to the service quality factor was caused by the entry into force of the provisions of Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union as amended by Regulation No 2015/2120 (hereinafter – the Regulation) on 15 June 2017. According to the provisions of that Regulation, the consumers had to be provided with an opportunity to use the telephone call, SMS and data transmission services for the prices applied on the local market in the whole of the EU. Due to the application of international roaming tariffs the service providers clarified the terms and conditions of the agreements, which significantly increased the number of complaints relating to the amended conditions of the agreements.

The factor P-01-81-02-03-03 was implemented by **80**%. Due to participation in unscheduled ADCO RED *Radio Equipment Administrative Co-Operation Group)* radio equipment market surveillance campaigns which required the examination of voluminous technical documentation of the equipment and uploading the data on the Information and Communication System on Market Surveillance (*ICSMS*), the number of samples for laboratory tests was reduced.

14. ANNEX 2. Implementation of evaluation factors of the objectives and tasks of the Railway Transport Market Regulation Programme in 2017

Code of the evaluated factor	Names and measurement units of evaluation factors, objectives and tasks	Values of evaluation factors		
		Value for 2017 (approved)	Actual value for 2017	Factor implementation percentage
	Task 1 – aim for the conditions of effective competition on the railway transport market			
R-02-82-01-01	1. Part of applicants' complaints regarding an act and/or omission of the public railway infrastructure manager, railway service facility operators, railway undertakings (carriers), institutions, authorities or organisations examined by the Authority, within its competence, within the set time limits (% of all received complaints)	30	0	0
	Task 1 of Objective 1 – carry out monitoring of the competition on the railway transport market			
P-02-82-01-01-01	1. Number of railway transport market monitoring reports drafted and submitted to the EC within the set time limits (per year)	1	1	100

The factor **R-02-82-01-01 was not implemented** for objective reasons: On 6 November 2017, the Authority received a complaint from UAB Gargždų Geležinkelis "Regarding the allocation of public railway infrastructure capacity for the validity period of the 2017-2018 working timetable for rail transport and related decisions". On 14 November 2017, the letters to the Lithuanian Transport Safety Administration and AB Lietuvos Geležinkeliai were sent with respect to the submission of written explanations. Taking account of the procedure for the examination of complaints and time limits referred to in legal acts and in the absence of the response to the Authority by AB Lietuvos Geležinkeliai within a set time limit, the complaint was not examined in 2017. The examination of the complaint and adoption of the decision are planned in Quarter I of 2018.

15. ANNEX 3. RRT FINANCIAL STATEMENT OF 2017

The revenue received by RRT in 2017 for the services provided and activities completed according to the Communications Management and Control Programme

Item No.	RRT revenue groups	Revenue in 2017	
		EUR	%
1.	Supervision of observance of the conditions for engaging in electronic communications activities	23,388.43	0.33
2.	Supervision of observance of the conditions for engaging in provision of postal services	17,885.27	0.25
3.	Revenue from tenders and auctions for granting the right to use radio frequencies (channels) and telephone numbers	0	0
4.	Setting conditions for the use of radio frequencies (channels) and radio stations and the conditions for engaging in radio amateur activities	114,920.74	1.63
5.	Supervision of the use of radio frequencies (channels), including radio monitoring	6,166,786.64	87.55
6.	Supervision of the use of telephone numbers.	672,048.43	9.54
7.	Tests of radiocommunication equipment and telecommunications terminal equipment, tests of electromagnetic compatibility of devices and equipment	48,380.30	0.69
8.	Other	357.46	0.01
9.	**TOTAL (1+2+3+4+5+6+7+8)**	**7,043,767.27**	**100**

In 2017, RRT carried out two programmes:

1) **Communications Management and Control Programme, code 01.81;**
2) **Railway Transport Market Regulation Programme, code 02.82.**

The revenue received for the services provided and activities carried out by RRT as well as contributions paid by railway undertakings (carriers) are transferred to the state budget and they are returned later to cover the operating costs.

To fund those programmes under the Law on the Approval of Financial Indicators of the State Budget and Municipal Budgets for 2017 of the Republic of Lithuania, the amount of EUR 7,999,000 of the general appropriations was allocated, of which EUR 3,147,000 – for salaries, EUR 2,405,000 – for property acquisition (of which EUR 1,159,000 of the state budget funds 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).

In 2017, the plan of RRT revenue contributions from those two programmes was EUR 6,840,000. Information on every programme carried out by RRT is provided below:

1) To fund the **Communications Management and Control Programme the amount of EUR 7,900,000 was allocated**, of which EUR 3,100,000 – for salaries, EUR 2,400,000 – for property asset acquisition (of which EUR 1,159,000 of the state budget funds for the procurement of equipment as specified in Article 77(1) and/or Article 77(4) of the Law on Electronic Communications of the Republic of Lithuania).

In 2017, the plan of revenue contributions from the Communications Management and Control Programme was EUR 6,741,000.

According to the Law on the Budget Structure of the Republic of Lithuania, Resolution No 543 of the Government of the Republic of Lithuania of 14 May 2001 “On the Approval of the Procedure for Structuring and Executing the State Budget of the Republic of Lithuania and of Municipal Budgets”, the amount of EUR 953,000

of over-performance and unused contributions to the state budget was carried over to 2017 and it was used to finance the Communications Management and Control Programme carried out by RRT by exceeding common appropriations approved by the Parliament of the Republic of Lithuania. Based on the estimate approved on 23 August 2017, the total amount of EUR 9,413,000 (7,900,000 +1,513,000) to be allocated to the Communications Management and Control Programme carried out by RRT was planned – this is a sum including offsets of over-performance and unused contributions from the previous year.

RRT, in accordance with the provisions of the Law on Electronic Communications, must assess the conformity and validity of the costs and collected fees. RRT, having taken account of the revenue received in 2016 and unused funds and seeking to balance the revenue and expenses of 2017, by Order No 1V-619 of the Director of RRT of 22 June 2017 established the recalculation rate 0.8 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 July 2017 to 30 November 2017. The application of the tariff recalculation rate allows a flexible balance between 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

In 2017, **the total amount of revenue contributions transferred by RRT to the state budget under the Communications Management and Control Programme was EUR 7,117,299.96.**

Use of funds for the Communications Management and Control Programme carried out by RRT in 2017

Item No.	Type of expenditure	Communications Management and Control Programme
		Pay-box expenses 2017 (EUR)
1.	**Total expenses**	**5,137,469.1**
	of which:	
1.1.	Remuneration	2,953,047.76
1.2.	Social insurance contributions	912,253.80
1.3.	Expenses for goods and services	1,253,829.06
1.4.	Social allowances (benefits)	17,860.0
1.5.	Other expenses (for current purposes)	478.48.
2.	**Tangible and intangible asset expenses**	**2,872,226.54**
	of which:	
2.1	Procurement of fixed assets	2,872,226.54
3.	**TOTAL (1+2)**	**8,009,695.64***

Note: *Of which EUR 967,336.09 of the state budget funds were used 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.

2) The amount of EUR 99,000 is planned to fund the **Railway Transport Market Regulation Programme in 2017**, of which EUR 47,000 for salaries and the amount of EUR 5,000 for property acquisition were approved.

In 2017, the plan of revenue contributions under the Railway Transport Market Regulation Programme is EUR 99,000, but after AB Lietuvos Geležinkeliai had specified actual scope of work in the railway network of the

Republic in Lithuania in gross tonne-kilometres, the revenue contribution amounts payable in 2017 were recalculated and, in 2017, that payable amount constituted EUR 96.9 thousand.

The Law on the Amendment of the Railway Transport Code provided for that in Quarter I of 2017, i.e., until the mechanism of funding the Authority from the contributions paid by the railway undertakings (carriers) starts working, new functions assigned to the Authority will be funded from the state budget (the planned need for the state budget funds to carry out the railway transport market regulator's function was EUR 33 thousand in Quarter I of 2017), but those funds were not provided for in the Law on the Approval of Financial Indicators of the State Budget and Municipal Budgets for 2017 of the Republic of Lithuania, and financing of the Railway Transport Market Regulation Programme from the contributions paid by the railway undertakings (carriers) is planned as of Quarter II of 2017.

In 2017, **the total amount of revenue contributions transferred by RRT to the state budget under the Railway Transport Market Regulation Programme was EUR 129,144.84.** The better implementation of the plan of revenue contributions of 2017 was caused by the fact that AB Lietuvos Geležinkeliai transferred the contribution payable to RRT for Quarter IV of 2017 (EUR 32 2866.21) by 31 January 2018 in December 2017.

Use of funds for the Railway Transport Market Regulation Programme carried out by RRT in 2017

Item No.	**Type of expenditure**	**For the railway transport market regulation**
		Pay-box expenses 2017 (EUR)
1.	**Total expenses**	**24,624.46**
	of which:	
1.1.	Remuneration	11,884.56
1.2.	Social insurance contributions	3,583.78
1.3.	Expenses for goods and services	9,156.12
1.4.	Social allowances (benefits)	0.0.
1.5.	Other expenses (for current purposes)	0.0.
2.	**Tangible and intangible asset expenses**	**4,999.43**
	Of which:	
2.1	Procurement of fixed assets	4,999.43
3.	**TOTAL (1+2)**	**29,623.89****

Note: **RRT was assigned to carry out the functions of a regulator of the rail transport market as of 1 November 2016 by the Law on the Amendment of the Railway Transport Code. RRT, having considered the specifics of new functions and a likely scope of work, determined the need for 4 additional job descriptions to carry out such functions, but the decisions regarding the appointment of human resources to carry out the functions newly assigned by RRT were not adopted in 2017. In the absence of required additional job descriptions, RRT did not use part of the funds when performing its functions, to the extent practicable, by means internal resources.

16. ANNEX 4. 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 assignment (lease)	Selection of a public telecommunication service provider
1; 2 / 1 / n.	The market of access granted to customers and service recipients, except for customers, to public telecommunication networks at a fixed location	Telia Lietuva, AB		X	X	X	X	X	X
9 / 3 / 1	The market of call termination on individual public telecommunication networks at a fixed location	Telia Lietuva, AB	X	X	X	X			
		AB Lietuvos Geležinkeliai, AB Lietuvos Radijo ir Televizijos Centras, UAB CSC Telecom, UAB Linkotelus, UAB Mediafon ,UAB Nacionalinis Telekomunikacijų Tinklas, UAB Telekomunikacijų grupė, UAB Ecofon	X			X			
11 / 4 / 3a	The market of wholesale local access at a fixed location	Telia Lietuva, AB	X	X	X	X	X		
12 / 5 / 3b	The market of wholesale central access at a fixed location for the mass-market products	Telia Lietuva, AB	X	X	X	X	X		
13 / 6 / 4	The market of wholesale high-quality access at a fixed location	Telia Lietuva, AB	X	X	X	X	X		
16 / 7 / 2	The market of voice call termination on individual public mobile telephone networks	Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2	X	X	X	X			
		UAB CSC Telecom, UAB Linkotelus, UAB Ecofon, UAB Mediafon	X			X			

18 / n. / n.	The market of broadcasting transmission services to deliver broadcast content to end users	Telia Lietuva, AB, AB Lietuvos Radijo ir Televizijos Centras	X	X	X	X	X		
n. / n. / n.	The market of services of providing broadcasting transmission means	AB Lietuvos Radijo ir Televizijos Centras	X	X	X	X	X		

17. ANNEX 5. Orders of the Director of RRT adopted in 2017

1. Order No 1V-19 of the Director of RRT of 10 January 2017 “On the Amendment of Order No 1V-978 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 14 October 2011 “On the Approval of the Rules on Installation, Marking, Maintenance and Use of Electronic Communications Infrastructure”;

2. Order No 1V-22 of the Director of RRT of 10 January 2017 “On the Amendment of Order No 1V-1188 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 15 December 2010 “On the Approval of the List of Legal Acts Regulating the Activity of the Communications Regulatory Authority of the Republic of Lithuania and Establishing the Requirements for the Areas of Supervision Performed by the Communications Regulatory Authority of the Republic of Lithuania”;

3. Order No 1V-101 of the Director of RRT of 27 January 2017 “On the Amendment of Order No 1V-1053 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 5 October 2006 “On the Approval of the Rules on the Protection of Radio Monitoring Stations against Strong Electromagnetic Fields Caused by Radio Transmitters Operating in the Environment Thereof”;

4. Order No 1V-102 of the Director of RRT of 27 January 2017 “On the Amendment of Order No 1V-126 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 5 February 2008 “On the Approval of the Rules on Measurements of the Radio Frequency Deviations of the Radiation of the Frequency Modulation Radio Broadcasting Stations in Radio Monitoring Stations”;

5. Order No 1V-109 of the Director of RRT of 30 January 2017 “On Repealing Order No 1V-645 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 10 December 2004 “On the Approval of the Rules on the Provision of Leased Line Services”;

6. Order No 1V-448 of the Director of RRT of 28 April 2017 “On the Amendment of Order No 1V-148 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 11 February 2005 “On the Approval of the Internal Regulation of the Communications Regulatory Authority of the Republic of Lithuania”;

7. Order No 1V-468 of the Director of RRT of 11 May 2017 “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) which May Be Used without an Individual Permit”;

8. Order No 1V-480 of the Director of RRT of 16 May 2017 “On the Amendment of Order No 1V-367 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 7 April 2011 “On the Approval of the Tariffs of the Fees for the Services Provided and Works Performed by the Communications Regulatory Authority of the Republic of Lithuania and of the Payment Procedure”;

9. Order No 1V-613 of the Director of RRT of 21 June 2017 “On the Amendment of Order No 1V-1005 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 26 September 2016 “On the Approval of the Settings of the Electronic Service Information System of the Communications Regulatory Authority of the Republic of Lithuania”;

10. Order No 1V-619 of the Director of RRT of 22 June 2017 “On Setting the Tariff Coefficients for the Supervision of the Use of Radio Frequencies (Channels), including Radio Monitoring, and of Telephone Numbers”;

11. Order No 1V-749 of the Director of RRT of 28 July 2017 “On the Amendment of Order No 1V-854 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 6 October 2005 “On the Approval of the Rules for the Assignment and Use of Radio Frequencies (Channels)”;

12. Order No 1V-802 of the Director of RRT of 21 August 2017 “On the Amendment of Order No 1V-625 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 1 July 2005 “On the Approval of the Rules for Accounting for Costs of the Universal Postal Service Provider”;

13. Order No 1V-803 of the Director of RRT of 21 August 2017 “On the Amendment of Order No 1V-608 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 15 April 2013 “On the Approval of the Rules for the Calculation of Losses of the Universal Postal Service”;

14. Order No 1V-810 of the Director of RRT of 22 August 2017 “On the Amendment of Order No 1V-1144 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 26 October 2016 “On the Approval of the Specification of the Procedure for Cooperation of Institutions in the Area of Rail Transport”;

15. Order No 1V-819 of the Director of RRT of 25 August 2017 “On the Amendment of Order No 1V-910 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 1 September 2016 “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”;

16. Order No 1V-934 of the Director of RRT of 11 September 2017 “On the Amendment of Order No 1V-293 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 16 September 2004 “On the Approval of the Rules on Imposing Economic Sanctions”;

17. Order No 1V-935 of the Director of RRT of 11 September 2017 “On the Amendment of Order No 1V-1017 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 21 October 2011 “On the Approval of the Rules for the Settlement of Disputes between the Undertakings and Disputes between the Postal Service Providers”;

18. Order No 1V-981 of the Director of RRT of 27 September 2017 and Decision No KS-85 of the Radio and Television Commission of Lithuania of 27 September 2017 “On the Amendment of Order No 1V-125 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 15 October 2003 “On the Approval of the Plan of Radio Frequency Allocation for Radio and Television Programme Broadcasting and Transmission” and of Decision No 89 of the Radio and Television Commission of Lithuania of 15 October 2003 “On the Approval of the Plan of Radio Frequency Allocation for Radio and Television Programme Broadcasting and Transmission”;

19. Order No 1V-993 of the Director of RRT of 29 September 2017 “On the Amendment of Order No 1V-332 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 28 February 2013 “On the Approval of the Rules on the Provision of Postal Service and Repealing Some Orders of the Director of the Communications Regulatory Authority of the Republic of Lithuania”;

20. Order No 1V-1007 of the Director of RRT of 03 October 2017 “On the Amendment of Order No 1V-148 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 11 February 2005 “On the Approval of the Internal Regulation of the Communications Regulatory Authority of the Republic of Lithuania”;

21. Order No 1V-1056 of the Director of RRT of 19 October 2017 “On the Amendment of Order No 1V-828 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 8 July 2015 “On the Approval of Some of the Forms of the Orders of the Director of the Communications Regulatory Authority of the Republic of Lithuania”;

22. Order No 1V-1290 of the Director of RRT of 22 December 2017 “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) which May Be Used without an Individual Permit”;

23. Order No 1V-1291 of the Director of RRT of 22 December 2017 “On the Approval of the Documents Implementing the Security Policy of the Electronic Service Information System of the Communications Regulatory Authority of the Republic of Lithuania”.