

LITHUANIAN COMMUNICATIONS SECTOR 2016

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COMMUNICATIONS
REGULATORY
AUTHORITY OF
THE REPUBLIC OF
LITHUANIA

TABLE OF CONTENTS

FOREWORD OF THE MINISTER OF TRANSPORT AND COMMUNICATIONS OF THE REPUBLIC OF LITHUANIA	3
FOREWORD OF THE DIRECTOR OF THE COMMUNICATIONS REGULATORY AUTHORITY OF THE REPUBLIC OF LITHUANIA	5
OVERVIEW OF THE COMMUNICATIONS SECTOR	8
MARKET OF ELECTRONIC COMMUNICATIONS SERVICES	10
1. General Overview of the Electronic Communications Market	10
2. Telephony Services	14
2.1. Public Mobile Telephony Voice Services	14
2.2. Public Fixed Telephony Voice Services	22
2.3. Networks Interconnection Services	28
2.4. SMS and MMS	39
3. Data Transmission	42
3.1. General Overview of the Market of Data Transmission Services	42
3.2. Retail Internet Access Services	45
3.3. Services of Leased Lines	55
3.4. Other Data Transmission Services	58
4. Television and Radio	61
4.1. General Overview of the Market of Television and Radio Services	61
4.2. Retail Television Services	63
4.3. Wholesale Television and Radio Broadcasting Services	66
5. Access to Physical Infrastructure	68
POSTAL SERVICE MARKET	71
1. General Overview of the Postal Service Market	71
2. Items of Correspondence	73
3. Postal Parcels	75
4. Universal Postal Service	77
Annex 1	79
Annex 2	84
Annex 3	86
Annex 4	87
Annex 5	89

**FOREWORD OF THE MINISTER OF TRANSPORT AND COMMUNICATIONS OF THE
REPUBLIC OF LITHUANIA**

Information and communication technologies have become an important part of our everyday life. We use them in different areas of both personal and social life, and as a consequence, without them we no longer comprehend the modern day work, learning, communication and information dissemination.

Assessing the achievements of 2016 we can be very proud of ourselves and pleased that according to the *OpenSignal* based in London, 4G Internet connection in Lithuania is ranked as one of the best in the world. The 4G Internet connection covers 84.73% of our country's territory, and this is the best result in the entire Europe so far.



The evaluation of the digital economy and society index (DESI) in the field of infrastructure connectivity is also something that we could be proud of in 2016 – Lithuania is ranked 8th in the European Union (EU) under this index component. Despite the fact that the technical access to broadband is guaranteed to 98% of Lithuanian households, and this is also one of the best indicators in the EU, only 71% of all households who have this opportunity are subscribed to broadband Internet access. Therefore, it is important to fully employ the well-developed digital infrastructure of the country by raising the quality of life for Lithuanian people, improving and ensuring the efficiency of public sector institutions, developing new business products and services and elaborate the development of research and its practical application.

Lithuanians, like before, use the Internet for various purposes. Among EU Members States we still are at the leading position in accordance with rates of news reading by using Internet. We are also actively involved in electronic banking and video calling. The rates of usage of commerce e-bills and e-commerce are way above the EU average. The number of citizens using e-government services also remains above the EU average, although there are still a number of challenges facing open-source data.

With the ever-thriving e-commerce market, the demands of the postal market and customer expectations are changing rapidly. It obliges to develop and look for a variety of new ways to make postal services simple, reliable and affordable. In 2016 e-delivery service, which acts as an alternative to official registered mail and enables residents and businesses to send and receive documents from public authorities electronically, was introduced to the public. This is one example of how advanced postal solutions may enable faster and more efficient delivery of services.

With respect to all our achievements and taking into account that the whole world is moving forward we can not stop at this moment. In order to keep up, we must remain dynamic and ambitious. Together with other EU Member States, we will participate in the review of the European regulatory framework for electronic communications in order to ensure effective competition in electronic communications markets, effective consumer protection, universal access to advanced electronic

communications services, thereby contributing to the prosperity of the European digital single market. We will seek a common EU target – to achieve "gigabit connectivity" by 2025, which means that all major Lithuanian social and economic progress engines should be able to get Internet access with speed of at least 1 gigabit per second (1 Gbps). By taking into account that we are currently at the verge of a breakthrough as far as the 5G communication technology goes, we will contribute to the most efficient deployment of this technology in our country – we hope that Europe will be among the leaders in the world, and Lithuania, among the leading countries in the EU, in terms of progress of the development of this technology.

Minister of Transport and
Communications



Rokas Masiulis

**FOREWORD OF THE DIRECTOR OF THE COMMUNICATIONS REGULATORY AUTHORITY
OF THE REPUBLIC OF LITHUANIA**

The year of 2016 was important not only to the communications sector but also to the Communications Regulatory Authority of the Republic of Lithuania (RRT). This year we celebrated our 15th anniversary of our work and challenges that we had overcome. We are glad that during this period we have learned new things, did a lot of significant work and achieved positive results. We are smoothly integrating into the single European Union (EU) internal market by ensuring effective competition in the markets of electronic communications and postal services.

Most of all we are pleased with the ongoing growth of the communications sector. For the second year in a row, we are witnessing the recovery of the electronic communications market after the long-term effects of the economic crisis. In 2016 the revenue from the provision of electronic communications services increased by 5%, while investments in the electronic communications infrastructure jumped by 23.2%.

The positive changes were mostly influenced by the steadily rising demand for high quality services. Every year consumers are increasingly focusing on Internet access services based on LTE technology. During the last year the number of such subscribers grew twice and reached 1.2 million. According to the data of *OpenSignal* published in November 2016, Lithuania ranked 3rd in the world by the availability of LTE. In 2016 alone the number of base stations of 4G network increased by 62.6%. The availability of advanced high-speed mobile services for the residents of Lithuania will continue to be ensured as a result of the RRT's auctioning of the right to use radio frequency bands from 900 MHz and 1800 MHz duplex radio frequency bands since mobile operators have been granted the right to continue to use these bandwidths for LTE or 4G network development.

Maintaining high quality standards and encouraging further development of the communications sector is not easy, therefore the European Commission discusses important strategic issues on an annual basis and focuses on the development of the digital economy. Providing internet access services to every citizen is one of the key priorities of the European Commission. RRT actively participates in EU level task forces to address challenges in various regulatory areas such as net neutrality, international roaming, regulation of new digital services, etc.

It is not only important to strengthen the EU's internal market but also to expand the geographical boundaries of cooperation. One of the priority areas for RRT remains the European Eastern Partnership. We want to fully contribute to the integration of these countries into EU processes, and we are actively seeking ways and means to ensure affordability of services such as international roaming for both ordinary citizens and businesses in developing countries. The most in this area has been achieved with Georgia – in 2016 a



cooperation memorandum on wholesale roaming tariffs was signed, according to which wholesale roaming tariffs should match the tariffs applied by the EU by 2023.

The annual growth of the postal services market reveals the necessity, popularity and, of course, certain problems associated with these services. E-trading goes hand in hand with the globalization process on the global market, and it is essential to strengthen the supervision of the postal market and ensure that end-users have access to high-quality services provided in highly competitive market.

15 years of experience of RRT in the markets for electronic communications and postal services makes a strong point that we have come a long way, experienced many challenges and achieved results that we can be proud of; nevertheless, the extent of challenges and the pace of resolving them are growing. Lithuania, albeit a small country, does not fall behind the biggest EU countries and is improving the provision of high-quality services and adopting innovative solutions in the communications sector. We are glad to be a part of these processes.

Director of the Communications
Regulatory Authority






Feliksas Dobrovolskis



Name of the country	Lithuania
Capital	Vilnius
Area, km ²	65,200
Population	2,849,317
Number of households	1,272,017
Country phone code	+370
Internet domain	.lt

N.B.!

- The icons provided in the tables (  ) illustrate the trends prevailing between 2011 and 2016 (decreasing, increasing, fluctuating).
- The figures provided on the left of the charts (e.g., +3.2 %; -4.5 %) show the changes of respective indicators in 2016 (positive, negative) compared to 2015.
- The report “Lithuanian Communications Sector 2016” has been drafted using the information on electronic communications and postal activities provided by electronic communications networks and service providers, as well as postal service providers. The report also contains the information received from the Radio and Television Commission of Lithuania and from the European Commission.
- The lists of electronic communications service providers and postal service providers are presented in Annexes 1 and 2.
- The data submitted by the electronic communications networks and service providers and postal service providers may be updated after the publication of the relevant annual report; therefore, the data of earlier periods provided in the reports of different years may differ.
- The data provided in the tables and figures of the report are rounded up to decimal places; therefore, the total sum of the market share does not always equal 100%.
- The revenue received by the service providers indicated in the report or indicators that use revenue values for the calculation are VAT excluded.
- The number of residents and households of a respective year used to calculate the penetration is provided in Annex 3 to the Report.
- The methodologies for the calculation of certain indicators are provided in Annex 4.

OVERVIEW OF THE COMMUNICATIONS SECTOR

 Communications service providers	206
 Major service provider	"Teo LT", AB
 Communications sector revenue, EUR million	786.9

In 2016, the Lithuanian Communications Sector consisted of two service markets: the electronic communications market and postal service market. With a view to both of these markets, at the end of 2016, there were 206 undertakings having informed the Communications Regulatory Authority ("RRT") about the activities carried out in the communications sector, i.e. by 8 undertakings more than in 2015. Despite the fact that in 2016, compared to 2015, the number of undertakings operating in the communications sector increased, the dynamics of the undertakings engaged in communications activities between 2011 and 2016 shows that the number of service providers has been decreasing (see Table 1). This is mainly affected by the consolidation of the companies. In the electronic communications sector UAB "Cgates" acquired 6 service providers: UAB "Kapsulė", UAB "Remo televizija", UAB "Telekomunikacinių paslaugų grupė", UAB "Elekta", UAB "Kateka" and UAB "Teletinklas". Also, UAB "CSC Telecom" acquired UAB "Telekomunikacijų grupė", and UAB "Televizijos komunikacijos" acquired UAB "Taurų dvaras". It should be noted that in 2016 only 52 undertakings were actually operating in postal services market.

Table 1. Number of undertakings operating in the communications sector by markets in 2011–2016, in units

		2011	2012	2013	2014	2015	2016
Electronic communications market	↓	150	142	144	144	132	139
Postal service market	↓	74	73	76	69	66	67
All providers	↓	224	215	220	213	198	206

Source: RRT

The revenue of the communications sector kept growing in 2016 (see Fig. 1). The growth was still low, but it was 1.1 pp bigger than in 2015. It must be noted that the revenue of both markets went up as well. The revenue of the postal service market has been growing since 2011 already, but its growth failed to leverage the decrease of the revenue of the electronic communications service market till the beginning of 2015, as the share of the postal service market constituted a significantly smaller share in the total revenue of the communications sector between 2011 and 2016: in 2016, it stood at 16.6% (in 2011 – 10.2%).

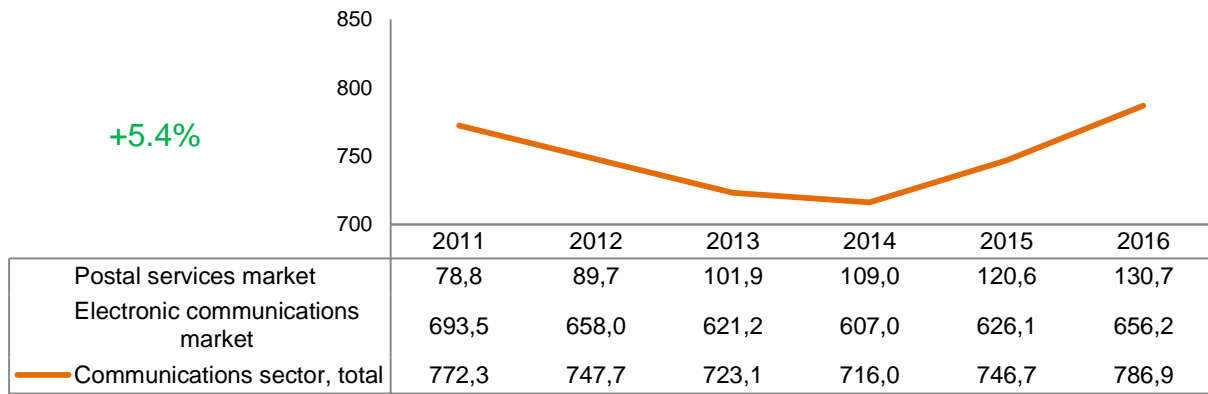


Fig. 1. Revenue of the communications sector in 2011–2016, in EUR million

Source: RRT

During the period between 2011 and 2016, both the structure of the communications sector by revenue and the structure of the communications sector service providers by activities shows that the electronic communications service providers prevail in the sector (see Table 1 and Fig. 2). In 2016, the highest revenue was generated by “Teo LT”, AB (21.9%) out of 206 undertakings operating in the communications sector, although its market share shrank by 0.4 pp in 2016. AB “Lietuvos paštas” remained the largest postal service market provider in 2016 and it generated 6.2% of all sectoral revenue in 2016.

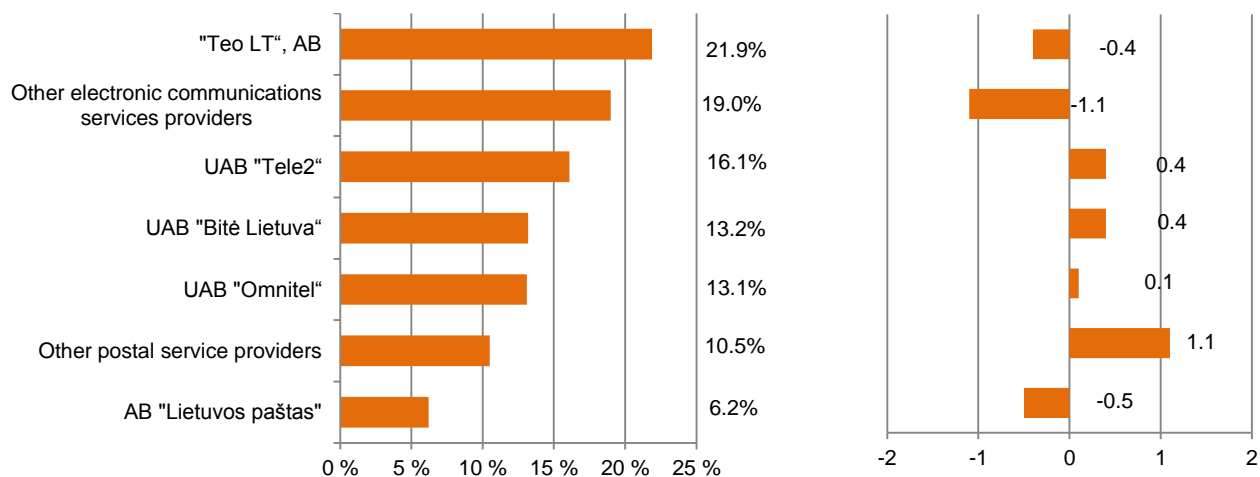


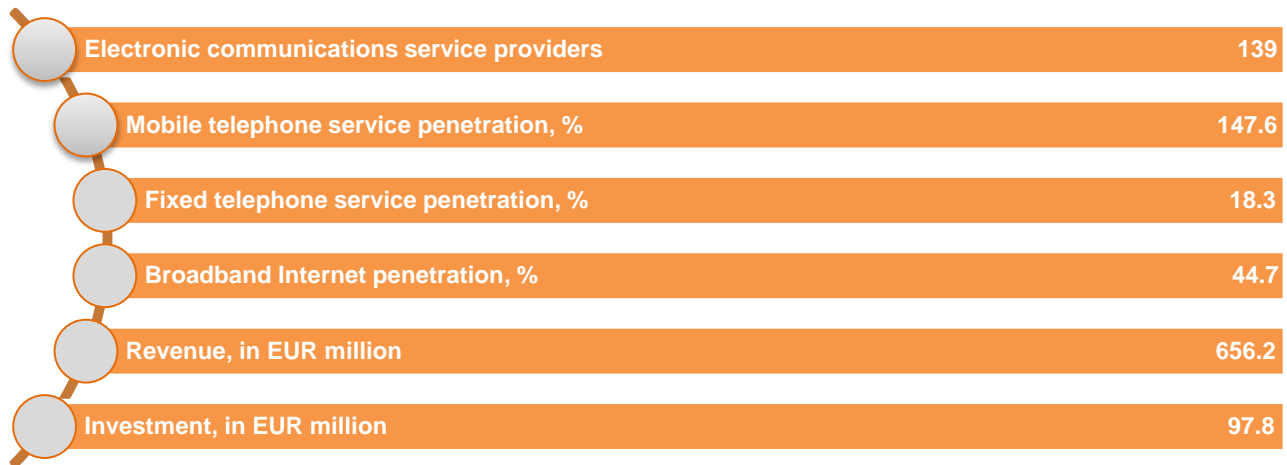
Fig. 2. Market shares of the communications sector service providers by revenue, %, and annual changes of the market shares, pp, 2016

Source: RRT

In 2016, the competitive services were offered to yet increasing circle of the service users in many service segments by ensuring the high quality of provided services. This resulted in the growth of the annual revenue of the communications sector by 5.4%. A more active process of consolidation of both major and minor service providers shows the interest of the undertakings to increase the efficiency of their activities in the sector whose results will be experienced by users in the future.

MARKET OF ELECTRONIC COMMUNICATIONS SERVICES

1. General Overview of the Electronic Communications Market



The market of electronic communications services consists of 6 service groups:

- public mobile telephony services (retail voice services, SMS and MMS);
- public fixed telephony services (retail voice services);
- data transmission services (retail Internet access services, retail and wholesale services of leased lines, other data transmission services);
- television and radio services (retail pay-TV services, wholesale television and radio broadcasting transmission services);
- networks interconnection services (wholesale public mobile and fixed communications networks interconnection services (call origination, transit and termination), wholesale roaming services, where subscribers of foreign operators use roaming services when being in the Republic of Lithuania, etc.);
- access to physical infrastructure services (wholesale access to dark fibre, full unbundled and shared access to the local metallic twisted pair loop services)¹.

Service Providers. The number of undertakings engaged in the electronic communications activities increased by 7 undertakings in 2016 and stood at 139 undertakings. The largest share was that of Internet access service providers as in the previous year (see Table 2).

Table 2. **Number of electronic communications service providers in 2011–2016, in units**

		2011	2012	2013	2014	2015	2016
Public mobile telephone services	↑	14	13	14	14	14	16
Public fixed telephone services	↓	52	48	45	43	40	42
Internet access	↔	103	100	104	107	100	103
Television (pay)	↓	50	45	46	45	41	42
All services	↓	150	142	144	144	132	139

Source: RRT

¹ In 2016, the services of access to communications cable duct system and access to television and radio broadcasting means were provided in Lithuania as well; however, the information on the provision of such services in 2016 is not available to RRT; therefore, the information on the access to physical infrastructure services contained in this report does not cover the said services.

Service Recipients. With a view to the changes in the number of electronic communications service users, the following trends remained in 2016: the number of fixed and mobile telephony service subscribers went down and the number of Internet access and (pay) TV subscribers went up (see Table 3). The penetration indicators changed respectively (see Table 4).

Table 3. **Number of electronic communications service users by electronic communications services in 2011–2016, in thousands**

	2011	2012	2013	2014	2015	2016
Public mobile telephony services	↓ 4,938.0	4,997.3	4,494.1	4,264.6	4,184.1	4,204.7
Public fixed telephony services	↓ 711.9	675.4	624.8	585.5	560.8	529.9
Internet access	↑ 989.2	1,054.4	1,060.3	1,110.5	1,187.1	1,274.8
Television (pay)	↑ 664.1	723.6	729.9	723.0	722.3	707.4

Source: RRT

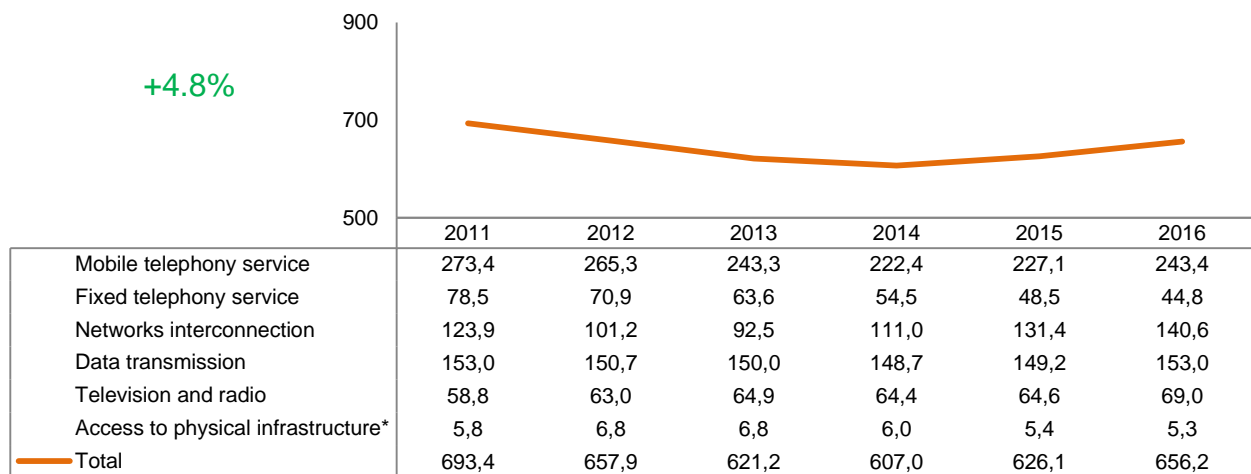
Table 4. **Penetration of electronic communications services in 2011–2016, %**

Per 100 residents:	2011	2012	2013	2014	2015	2016
Public mobile telephony services	↓ 164.4	168.2	152.7	146.0	146.6	147.6
Public fixed telephony services*	↓ 23.2	22.2	20.9	19.7	19.4	18.3
Internet access	↑ 32.9	35.5	36.0	38.0	41.1	44.7
Television (pay)	↑ 22.1	24.3	24.8	24.7	25.3	24.8
Per 100 households:						
Public fixed telephony services*	↓ 55.1	53.3	47.0	44.2	43.4	41.0
Internet access by means of fixed communications technologies	↑ 58.0	62.4	58.4	61.8	64.6	67.4
Television (pay)	↑ 52.6	58.4	55.8	55.7	56.7	55.6

* The penetration of public fixed telephone lines is calculated

Source: RRT

Revenue. In 2016, the revenue of the electronic communications market kept growing (4.8%) and amounted to EUR 656.2 million (see Fig. 3). The highest revenue was generated by providers of public mobile telephone services (37.1%), data transmission (23.3%) and networks interconnection (21.4%) services in 2016.



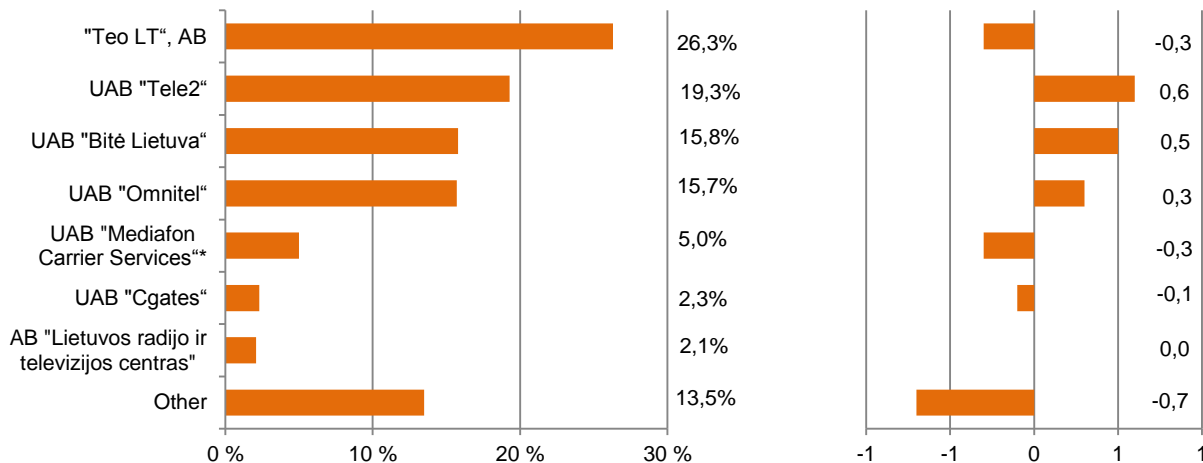
* Includes the revenue received only from the access to dark fibre services.

Fig. 3. **Structure of electronic communications market revenue by service groups in 2011–2016, in EUR million**

Source: RRT

With a view to the changes in the revenue received from individual service groups, it must be noted that the largest growth was observed in the revenue from public mobile telephony services – 7.2% or EUR 16.3 million. The largest decrease was observed in the revenue from public fixed telephony services – 7.6% or EUR 3.7 million. The continuous decrease of such revenue was caused by the shrinking demand for fixed telephony services due to the increasing attractiveness of public mobile telephony services.

In 2016, the largest portion of the electronic communications market revenue was generated by “Teo LT”, AB (26.3%), but, compared to 2015, it shrank by 0.3 pp (see Fig. 4). It must be noted that in 2016 only public mobile telephony services providers (UAB “Tele2”, UAB “Bitė Lietuva” ir UAB “Omnitel”) increased their market shares – accordingly by 0.6, 0.5 and 0.3 pp.



* As of 1 October 2015 UAB Mediafon assigned a part of provided electronic communications services to its subsidiary UAB Mediafon Carrier Services; however, the chart illustrates the total revenue of UAB Mediafon and UAB Mediafon Carrier Services.

Fig. 4. **Structure of the electronic communications market revenue by service providers, %, and annual changes of the market shares, pp, 2016**

Source: RRT

ARPU. Average revenue per user (“ARPU”) for individual retail electronic communications services groups was changing inconsistently in 2016 (see Table 5). Internet access providers received the largest share of revenue from one service user (the same as in previous periods) – EUR 8.6, the smallest portion of revenue was received by public mobile telephony service providers (EUR 4.8).

Table 5. **Average revenue per user per month (ARPU) by electronic communications services, in EUR per month, 2011–2016**

	2011	2012	2013	2014	2015	2016
Public mobile telephony services	4.5	4.3	4.4	4.3	4.5	4.8
Public fixed telephony services	8.9	8.6	8.3	7.6	7.2	7.0
Internet access	9.0	8.6	8.6	8.3	8.2	8.6
Television (pay)	6.2	6.3	6.9	7.0	7.0	7.6

Source: RRT

Investments. In 2016, the service providers invested EUR 97.8 million in the electronic communications infrastructure and, compared to 2015, it was more by 24% (see Fig. 5). Investments were made mostly in broadband networks: mobile communications 4G networks (Long Term Evolution, LTE) and optical fibre communication line networks. While overviewing the opportunities of the development of the electronic communications market, it is necessary to take account of the share of investment in the total revenue of this market. In 2016, compared to 2015, it increased by 2.3 pp and stood at 14.9%.

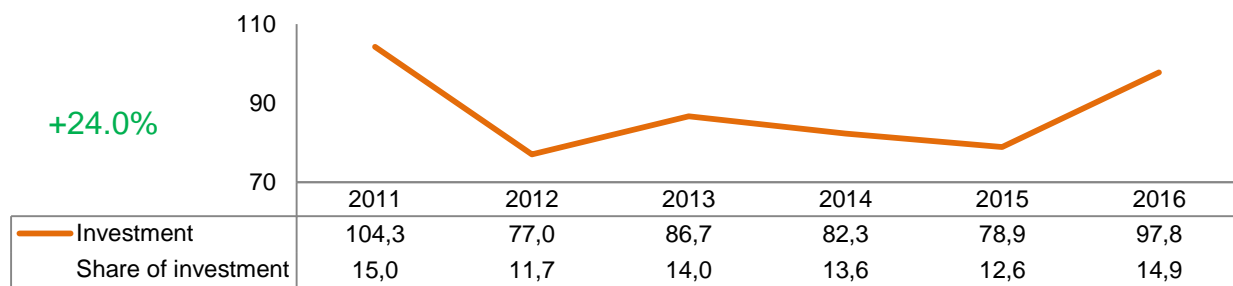


Fig. 5. Investments in the electronic communications infrastructure, in EUR million, and share of investments in the total revenue of the electronic communications market, %, 2011–2016

Source: RRT

In 2016 the infrastructure based competition on the Lithuanian electronic communications service market provided the Lithuanian residents with the exceptional conditions to use high-quality services whose prices are one of the lowest in the European Union and ensured active investments of the market players in both the services provided and the infrastructure of electronic communications.

2. Telephony Services

2.1. Public Mobile Telephony Voice Services



Service providers	16
Service users, in million	4.2
Call duration, in billion minutes	8.6
Revenue, in EUR million	135.8
ARPU, in EUR per month	2.7

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- In this chapter of the report other public mobile telephony voice service providers shall be all public mobile telephony voice service providers, except for UAB “Bitė Lietuva”, UAB “Omnitel” and UAB “Tele2” (“other providers”).

Public mobile telephony voice services consist of local², international³ and roaming⁴ calls via public mobile communications networks, where Lithuanian users of public mobile telephony services use roaming services in foreign countries (“roaming calls”).

Service Providers. At the end of 2016, public mobile telephony voice services were provided by 16 undertakings: 8 operators were engaged in the provision of public mobile telephony communication services and were concluding contracts with service recipients and 8 undertakings were reselling services provided by other public mobile telephony communication service providers.

Service Recipients. At the end of 2016, public mobile telephony voice services were provided to 4.2 million service users⁵ (see Table 3), i.e. by 0.5% more than at the end of 2015. The penetration of public mobile telephony service users went up by 1 pp in 2016 and at the end of 2016 there were 147.6 active SIM (Subscriber Identification Module) cards per 100 residents (see Table 4).

In 2016, the major share (63.6%) consisted of service users who paid for the services under invoices (“post-paid”) rather than in advance (“pre-paid”) (see Table 6). With a view to the period between 2011 and 2016, the continuous trend subject to the growth of the number of post-paid public mobile telephone service users came about. In 2016, the number of such service users increased by 5% or 127.4 thousand units and totalled 2,675.2 thousand. Accordingly, the use of pre-paid SIM cards was going down on the market. These trends could have been encouraged by attractive so-called “flat rate” service plans applied by the service providers, where a certain duration of local calls (or unlimited calls to all networks of Lithuania) and a certain amount of additional services (SMS data transmission services) are offered for a regular charge.

² Local calls shall mean the calls originated and terminated in Lithuanian public mobile and fixed communications operator networks.

³ International calls shall mean the calls originated in Lithuanian public mobile and fixed communications operator networks and terminated in foreign operator networks.

⁴ Roaming calls shall mean the calls originated by service users of Lithuanian public mobile communications network operators in foreign countries.

⁵ The number of service users indicated in this part of the report corresponds to the number of active subscribers, and the latter corresponds to the number of active SIM cards. An active subscriber shall mean a subscriber who in the last 3 months has initiated a telecommunications event (originated a call, sent a short text message or used another service).

Table 6. **Structure of the number of public mobile telephony service users by service providers and method of payment, in thousands, 2011–2016**

		2011	2012	2013	2014	2015	2016
UAB “Bitė Lietuva”		1,066.8	1,033.1	1,023.2	1,007.7	1,041.7	1,055.5
Pre-paid		521.8	465.3	422.6	399.9	386.6	357.2
Post-paid		545.0	567.8	600.6	607.8	655.1	698.3
UAB “Omnitel”		1,918.5	1,948.7	1,512.5	1,334.6	1,278.8	1,256.8
Pre-paid		1,045.9	1,058.8	633.7	439.3	351.3	305.8
Post-paid		872.6	889.9	878.8	895.3	927.5	951.0
UAB “Tele2”		1,842.3	1,916.5	1,871.4	1,843.1	1,782.9	1,803.2
Pre-paid		1,175.9	1,165.7	1,027.3	963.4	897.1	865.2
Post-paid		666.4	750.8	844.1	879.7	885.8	938.0
Other providers		110.4	99.0	87.0	79.2	80.7	89.2
Pre-paid		21.9	21.3	13.0	1.3	1.3	1.3
Post-paid		88.5	77.7	74.0	77.9	79.3	87.9
All providers		4,938.0	4,997.3	4,494.1	4,264.6	4,184.1	4,204.7
Pre-paid		2,765.5	2,711.1	2,096.6	1,803.9	1,636.3	1,529.5
Post-paid		2,172.5	2,286.2	2,397.5	2,460.7	2,547.8	2,675.2

Source: RRT

With a view to the breakdown of the number of public mobile telephony service users by providers, only the number of service users of UAB “Omnitel” decreased in 2016 (see Table 6). The number of public mobile telephony service users of UAB “Tele2”, UAB “Bitė Lietuva” and other providers went up in 2016, compared to 2015. UAB “Tele2”, by the number of service users, held the largest share of the market (42.9%) in 2016, the same as in 2015.

Number Portability Service. In 2016, this service was used by 109.5 thousand service users, which constituted 2.6% of all public mobile telephony service users. In 2016, this service was used by 20.4 thousand service users more compared to 2015 (see Table 7). The increase in the demand for the telephone number portability services displays the competition in the public mobile telephony services market.

Table 7. **Number portability flows by service providers, in units, in 2016**

	To	From	Balance
UAB “Tele2”	43,674	32,884	10,790
UAB “Omnitel”	28,128	33,762	–5,634
UAB “Bitė Lietuva”	27,941	34,910	–6,969
Other	9,767	7,954	1,813

Source: RRT

The major part of service users that used the number portability service came to UAB “Tele2” network (39.9%), and UAB “Bitė Lietuva” network was left by most subscribers (31.9%) (see Table 7).

Call Duration. The duration of calls originated by Lithuanian public mobile telephony service users increased by 2.3% in 2016, compared to 2015, or by 194.8 million minutes and totalled 8,653.6 million minutes (see Fig. 6). In 2016, the Lithuanian public mobile telephony voice service users originated 99% of the calls by duration in Lithuania. Rest of the calls were originated in foreign countries, where the Lithuanian public mobile telephone service users used roaming services when being abroad.

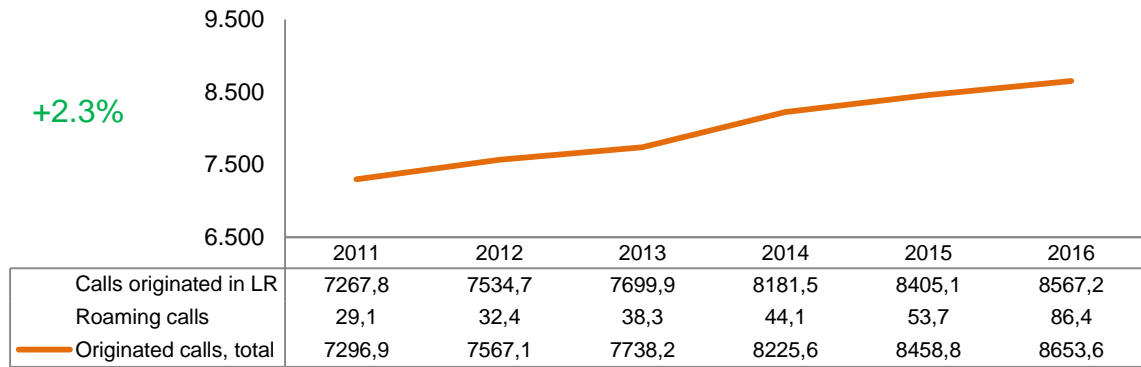


Fig. 6. Duration of calls originated by Lithuanian public mobile telephony voice service users, in million minutes, 2011–2016

Source: RRT

With a view to the breakdown of the duration of calls originated by the Lithuanian public mobile telephone service users by providers, the longest duration (47.7%) was that of the calls originated by UAB “Tele2” service users in 2016 (see Table 8).

Table 8. Duration of calls originated by Lithuanian public mobile telephony voice service users by service providers, in million minutes, 2011–2016

		2011	2012	2013	2014	2015	2016
UAB “Bitė Lietuva”	↑	1,642.9	1,720.3	1,761.7	1,930.7	1,947.3	1,972.3
UAB “Omnitel”	↔	2,289.2	2,202.8	2,148.8	2,157.6	2,240.8	2,318.5
UAB “Tele2”	↑	3,142.5	3,393.1	3,571.8	3,877.9	4,045.3	4,127.9
Other providers	↑	193.2	218.5	217.6	215.3	225.3	234.9

Source: RRT

When assessing the call structure, the call destinations must be taken into account as well. The following destinations of the calls originated in the Lithuanian public mobile communications networks are singled out, where the calls are terminated: in own network, in other public mobile communications networks, in public fixed communications networks and in foreign operators’ networks. The major share (56.8%) of all public mobile telephone calls were terminated in the own network in 2016 (see Table 9). In 2016, the duration of the public mobile telephone calls which were terminated in other public mobile and fixed communications networks increased by 7.5% and 13.1%, accordingly.

Table 9. **Structure of the duration of calls originated in individual Lithuanian public mobile communications networks by call destination, in million minutes, 2011–2016**

UAB “Bitė Lietuva“	2011	2012	2013	2014	2015	2016
Terminated in own network	1,078.3	1,086.5	1,059.9	1,035.4	989.2	945.5
Terminated in other public mobile communications networks	502.5	560.5	618.8	812.9	861.1	915.4
Terminated in public fixed communications networks	33.5	42.6	53.2	64.0	69.1	75.3
Terminated in foreign operators' networks	28.7	30.8	29.8	18.4	13.2	11.7
UAB “Omnitel“						
Terminated in own network	1,583.8	1,439.1	1,333.0	1,214.3	1,162.6	1,145.6
Terminated in other public mobile communications networks	633.3	689.8	740.9	862.0	965.8	1,034.4
Terminated in public fixed communications networks	50.4	52.6	54.7	62.5	70.6	79.1
Terminated in foreign operators' networks	21.7	21.4	20.2	18.8	18.7	17.2
UAB “Tele2“						
Terminated in own network	2,547.4	2,688.7	2,755.1	2,821.5	2,743.9	2,698.0
Terminated in other public mobile communications networks	521.8	635.0	735.6	948.7	1,147.8	1,251.7
Terminated in public fixed communications networks	48.1	53.3	63.6	89.0	122.1	141.9
Terminated in foreign operators' networks	25.1	16.1	17.5	18.7	18.3	18.5
Other providers						
Terminated in own network	73.7	79.0	78.7	73.6	73.6	77.7
Terminated in other public mobile communications networks	110.6	129.9	129.3	132.4	139.9	145.3
Terminated in public fixed communications networks	5.8	6.3	6.3	6.7	7.2	8.0
Terminated in foreign operators' networks	3.1	3.3	3.3	2.6	2.0	1.9
All providers						
Terminated in own network	5,283.1	5,293.2	5,226.7	5,144.7	4,969.3	4,866.7
Terminated in other public mobile communications networks	1,768.2	2,015.2	2,224.5	2,755.9	3,114.6	3,346.8
Terminated in public fixed communications networks	137.8	154.8	177.9	222.3	269.0	304.3
Terminated in foreign operators' networks	78.6	71.6	70.8	58.6	52.2	49.4

Source: RRT

Taking account of the call destinations, it must be noted that the largest call flow was generated inside the network of three major operators. In 2016, the same as in 2015, the longest calls were made between UAB “Tele2” service users (see Table 9) – these calls accounted for 65.6% of the total duration of calls originated in UAB “Tele2” network. However, the service users of other providers were mainly calling to other public mobile communications networks. This situation most likely occurred because the calls were usually terminated in the networks of major operators due to the low number of service users of other operators.

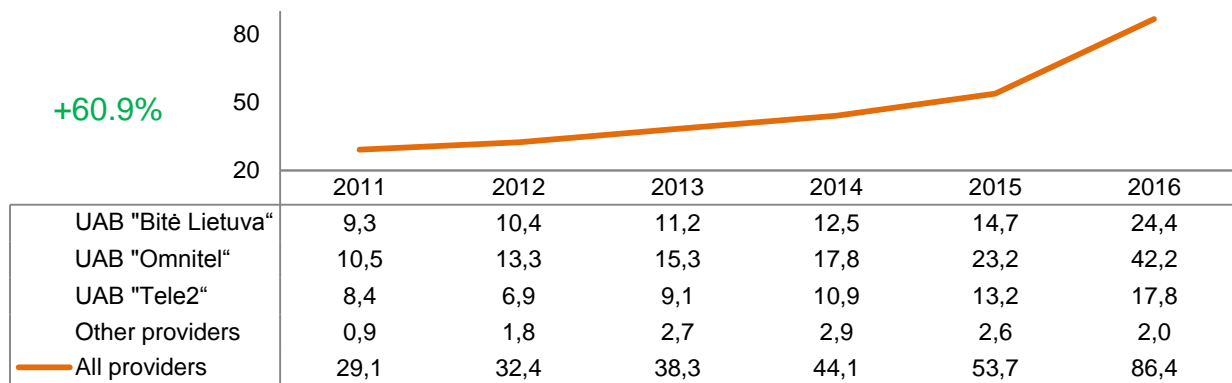
When analysing the call structure by the method of settlement, most calls in Lithuania were originated by service users (legal and natural entities) which paid for the services under invoices (post-paid) in 2016, i.e. 73.6% of the total duration of originated calls (see Table 10). The duration of such calls grew by 3.6% in 2016, compared to 2015. The average monthly call duration per post-paid service user was 196.3 minutes in 2016 (natural entity – 214.9 min., legal entity – 161.6 min.), and the duration per pre-paid service user (without differentiation between natural and legal entities) was 123.4 minutes.

Table 10. **Structure of the duration of calls of various destinations originated in Lithuanian public mobile communications networks by method of settlement and type of service users, in million minutes, 2015–2016**

	2015			2016		
	Pre-paid	Post-paid		Pre-paid	Post-paid	
		Natural	Legal		Natural	Legal
Terminated in own network	1,739.9	2,302.4	926.9	1,592.8	2,353.3	920.6
Terminated in other public mobile communications networks	516.9	1,834.4	763.3	598.1	1,964.9	783.8
Terminated in public fixed communications networks	56.9	147.3	64.9	67.2	165.8	71.3
Terminated in foreign operators' networks	6.1	14.7	31.4	5.9	13.5	29.9
Total originated	2,319.8	4,298.8	1,786.5	2,264.0	4,497.5	1,805.6

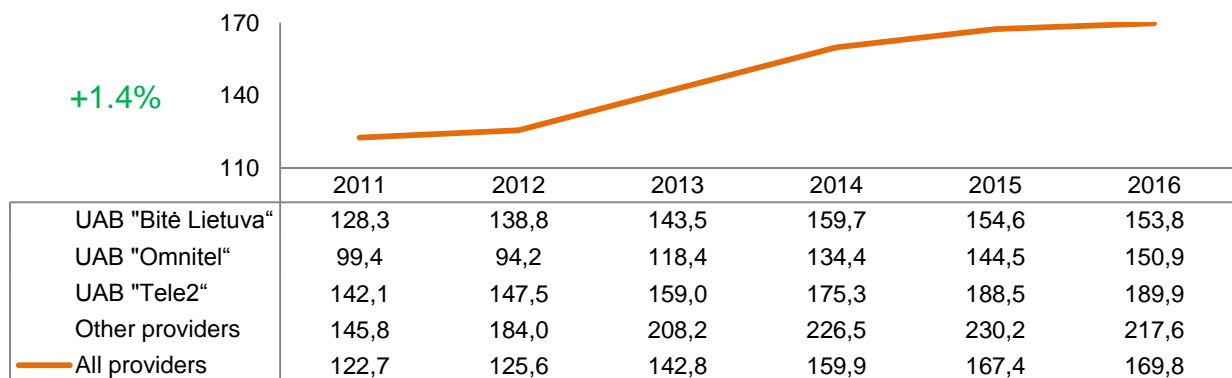
Source: RRT

In 2016, UAB “Omnitel” remained the leader of roaming services, where service users of Lithuanian public mobile telephony service providers is calling while being abroad (see Fig. 7): in 2016, the service users of this operator originated 48.8% of all roaming calls in terms of the call duration. The duration of roaming calls originated by UAB “Omnitel” service users went up by 81.9% or by 19 million minutes in 2016.

Fig. 7. **Duration of calls originated by Lithuanian public mobile telephony service users using roaming services by service providers, in million minutes, 2011–2016**

Source: RRT

With a view to the calls originated in Lithuanian public mobile communications networks, without differentiating call destinations, the average monthly call duration per service user was 169.8 minutes in 2016 (almost 3 hours), i.e. by 2.4 minutes longer than in 2015 (see Fig. 8). In 2016, the longest average call duration (217.6 minutes or almost 4 hours) was that of a service user of other service providers whose monthly call duration decreased by 5.5% over the year or 12.6 minutes.

Fig. 8. **Average monthly duration of calls originated by a single Lithuanian public mobile telephony voice service user by service providers, in minutes, 2011–2016**

Source: RRT

Revenue. In 2016, the revenue received from public mobile telephony voice services accounted for one of the largest portions of the revenue of the electronic communications service market (20.7%). In 2013, the leap in revenue (see Fig. 9) was caused by re-allocation of the revenue for public mobile communications services that took place due to the RRT's detailed methodology for revenue re-allocation for services. The trend of decreasing revenue has been further observed since 2013. In 2016, the revenue from public mobile telephony voice services went down by 6.0% or EUR 8.6 million.

In 2016, the largest market share (38.9%) by revenue from public mobile telephony voice services was held by UAB "Tele2", the same as in 2015.

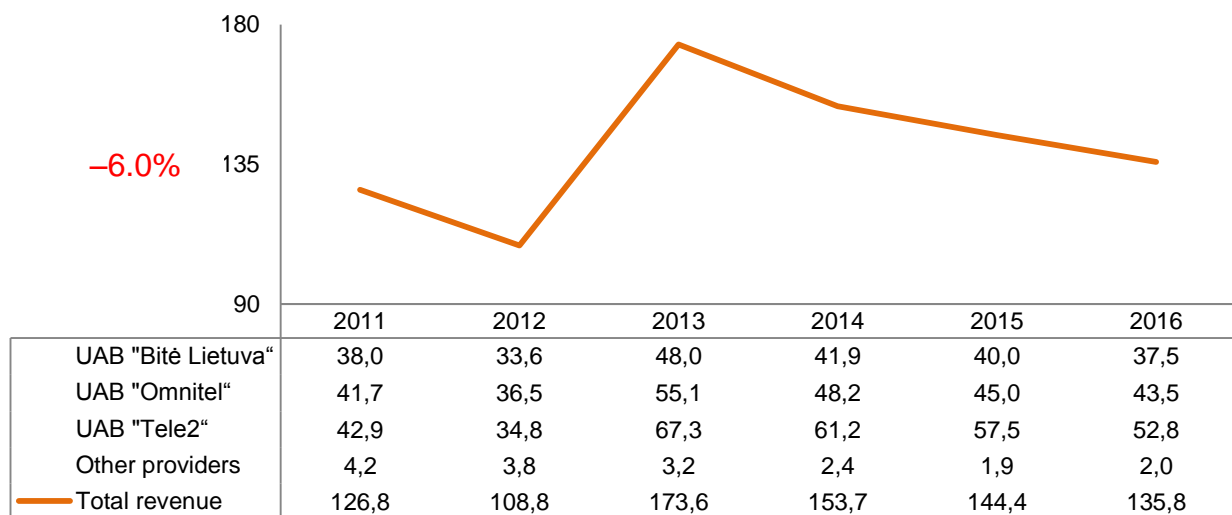


Fig. 9. **Structure of revenue from public mobile telephony voice services by service providers, in EUR million, 2011–2016**

Source: RRT

Since one operator does not single out the revenue from local and international calls, the structure of the revenue received by public mobile telephony voice service providers by call destinations is very difficult to assess. However, with a view to the roaming call segment, it must be noted that the major portion of the revenue (25.4%) from roaming calls was generated by other providers in 2016, the smallest portion was that of UAB "Tele2" (see Table 11).

Table 11. **Structure of revenue received by public mobile telephony voice service providers by call destinations, %, 2016**

	Local calls	International calls	Roaming calls
UBA "Bitė Lietuva"	67.2	17.4	15.4
UAB "Omnitel"	69.5	16.6	13.9
UAB "Tele2"	89.4		10.6
Other providers	41.3	23.3	25.4

* UAB "Tele2" does not single out the revenue from local and international calls

Source: RRT

ARPU. The average monthly revenue per subscriber (ARPU) from public mobile telephony voice services constituted EUR 3.2 in 2013 (see Table 12). In 2013, the ARPU leap was caused by re-allocation of the revenue for mobile communications services that took place due to the RRT's detailed methodology for revenue re-allocation for services. However, the trend of decreasing ARPU that has been observed since 2013 is to be related to the effective competition on the market. The latter results in the price drop and the service users gain the opportunity to use high-quality public mobile telephony voice services. It must be

noted that service providers earn almost 2.3 times more from post-paid service users rather than from pre-paid ones. In spite of this, the growth of the number of post-paid public mobile telephony service users was recorded in 2016 (5.0%). This shows that in 2016, the difference between the service users' expenditure when paying under invoices or in advance most likely did not seem significant, and the choice was determined by "flat rate" service plans offered by service providers which corresponded to the service users' needs, because they were attractive as they helped forecast the expenses.

ARPU from public mobile telephony voice services went slightly down (EUR 0.2) and stood at EUR 2.7 per month in 2016. It comprised 56.3% of ARPU from all public mobile telephony services.

Table 12. **ARPU from public mobile telephony voice services by method of settlement, in EUR per month, 2011–2016**

		2011	2012	2013	2014	2015	2016
ARPU from public mobile telephony voice services	↑	2.1	1.8	3.2	3.0	2.9	2.7
From <i>post-paid</i>	↔	3.3	2.6	4.7	4.1	3.7	3.4
From <i>pre-paid</i>	↑	1.3	1.2	1.5	1.5	1.6	1.5
ARPU from all public mobile telephony services	↑	4.5	4.4	4.4	4.3	4.5	4.8

Source: RRT

The comparison of ARPU received by major operators from public mobile telephony voice services shows that in 2016, the lowest ARPU was that of UAB "Tele2" (EUR 2.4), the highest ARPU was generated by UAB "Bitė Lietuva" (EUR 3.0) (see Table 13).

Table 13. **ARPU from public mobile telephony voice services by providers, in EUR per month, 2011–2016**

		2011	2012	2013	2014	2015	2016
UAB "Bitė Lietuva"	↔	3.0	2.7	3.9	3.5	3.2	3.0
UAB "Omnitel"	↑	1.8	1.6	2.9	3.0	2.9	2.9
UAB "Tele2"	↑	1.9	1.5	3.0	2.8	2.7	2.4
Other providers	↓	3.2	3.2	3.1	2.5	2.0	1.9

Source: RRT

Prices. In Lithuania, the so-called "flat rate" service plans are prevailing, where a certain duration of local calls (or unlimited calls to all networks of Lithuania) and a certain amount of additional services (SMS data transmission services) are offered for a certain regular charge. Where different mobile telephone service "flat rate" service plans are offered on the market, it is difficult to exclude the price of public mobile telephone voice services from the total price offered in the plan. However, having calculated the average prices of voice services (the ratio between revenue from such services and duration of respective calls subject to received revenue), the slight trend of the price decrease characteristic to all operators has been observed since 2014. The only exception in this trend – the calculated average price per other providers' call minute that, compared to 2015, increased by 0.1 euro cent in 2016 and stood at 0.9 euro cent per minute. The average prices of the same services provided by UAB "Bitė Lietuva", UAB "Omnitel" and UAB Tele2 in 2016 decreased the same pace – by 0.1 euro cent per minute (see Table 14).

Table 14. **Calculated average public mobile telephony voice service prices by service providers, in euro cents per minute, 2011–2016**

	2011	2012	2013	2014	2015	2016
UAB "Bitė Lietuva"	2.3	1.9	2.7	2.2	2.0	1.9
UAB "Omnitel"	1.8	1.6	2.5	2.2	2.0	1.9
UAB "Tele2"	1.4	1.0	1.9	1.6	1.4	1.3
Other providers	2.2	1.7	1.4	1.1	0.8	0.9
All providers	1.7	1.4	2.2	1.8	1.7	1.6

Source: RRT

In 2016, the prices applied by roaming voice service providers were going down as well. In 2016, the roaming prices stood at 6.05 euro cent per minute (incl. VAT). On 25 November 2015 Regulation (EU) 2015/2120 of the European Parliament and of the Council on roaming on public mobile communications networks within the European Union that entrenched the reduction of roaming prices in the European Union⁶ as of 30 April 2016 was adopted. Moreover, as of 15 June 2017 the roaming prices paid by consumers will have to be the same as in their own country. Taking account of such amendments, the roaming prices are likely to further decrease in the future and this will enhance the growth of the demand for roaming calls.

Quality. In order to inform on the quality of electronic communications services RRT carries out the evaluation tests of the public mobile telephone service quality indicators⁷ in relation to UAB "Bitė Lietuva", UAB "Omnitel" and UAB "Tele2" public mobile communications networks operating in Lithuania. The following criteria are taken into account when carrying out the tests: share of unsuccessful calls of voicetelephony, call setup time, voice transmission quality⁸ and share of uninterrupted calls. When analysing the voice transmission quality indicator MOS-LQO by different service providers, it is observed that it is high and differs insignificantly (see Table 15). It must be noted that the higher the score, the higher the quality of the service.

Table 15. **Average MOS-LQO value of transmission quality of mobile telephony voice services by service providers, in scores, 2011–2016**

	2011	2012	2013	2014	2015	2016
UAB "Bitė Lietuva"	3.25	3.24	3.16	3.25	3.25	3.52
UAB "Omnitel"	3.42	3.47	3.44	3.60	3.57	3.51
UAB "Tele2"	3.21	3.22	3.16	3.32	3.32	3.33

Source: RRT

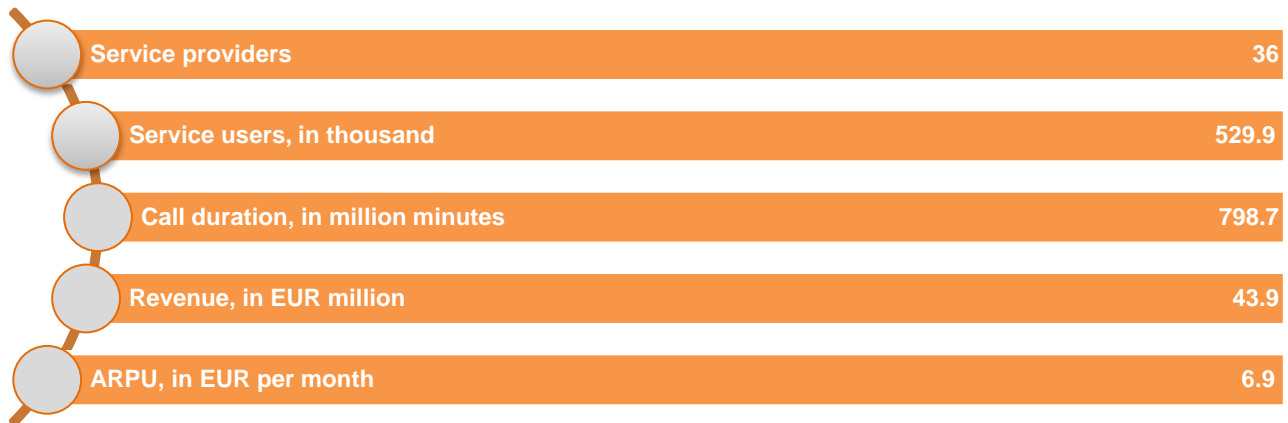
Effective competition on the market of public mobile telephony voice services encouraged the service providers to offer attractive service plans which provided the service users with the opportunity to use high-quality services almost without limits and pay a little less for such services than last year. The "flat rate" service plans offered by service providers allowed the service users to receive various public mobile telephone services for a fixed price, to pay a single invoice and forecast their expenses in terms of such services. "Flat rate" service plans and functionality of smart terminal equipment promoted the convergence processes of public mobile telephone services.

⁶ <http://www.rtt.lt/lt/vartotojai/telefono-rysys/tarptautinis-tarptinklinis-rysys.html>

⁷ For more information, see RRT website at: <http://www.rtt.lt/lt/apzvalgos-ir-ataskaitos/viesuju-judriojo-telefono-rj7y.html>

⁸ Voice transmission quality is a figure which shows the quality of a voice transmitted over the network during a successful call expressed in MOS-LQO scores (5 is the maximum score). MOS-LQO assessment is carried out by means of specific software installed in RRT measurement equipment. The higher the MOS-LQO score, the better the assessment of the voice transmission quality.

2.2. Public Fixed Telephony Voice Services



N.B.!

- In this chapter of the report other public fixed telephony voice service providers shall be all public fixed telephony voice service providers, except for “Teo LT”, AB (“other providers”).

Public fixed telephony voice services consist of local and international calls via public fixed communications networks.

Service Providers. At the end of 2016, the public fixed telephony voice services were provided by 36 undertakings, i.e. by 2 undertakings more than at the end of 2015. As many as 33 (at the end of 2015 – 31) undertakings indicated that they provided public fixed telephony services by means of technology of Internet Protocol.

Service Recipients. The total number of public fixed telephony service users decreased by 5.5% or 30.9 thousand in 2016 and at the end of 2016, it stood at 529.9 thousand service users (see Table 16). The service users received public fixed telephony voice services via public fixed telephone lines by means of PSTN (Public Switched Telephone Network), ISDN (Integrated Services Digital Network) and VoIP (Voice Over IP) technologies. The number of service users does not correspond to the number of lines as public fixed telephony voice services may be provided to several service users via a single line provided by means of different technologies. In 2016, compared to 2015, the number of used public fixed telephone lines decreased by 5.7% or by 31.5 thousand lines and the total number equalled 521.9 thousand lines. Due to the shrinking number of lines, the penetration of communications lines via which the public fixed telephony services were provided decreased as well. At the end of 2016, as many as 18.3 lines per 100 residents were available.

Table 16. Number of public fixed telephony service users and of used lines, in thousands, and penetration (per 100 residents and 100 households), %, 2011–2016



	2011	2012	2013	2014	2015	2016
Number of lines, in thousand units	695.8	659.8	614.5	574.5	553.4	521.9
Line penetration (per 100 residents), %	23.2	22.2	20.9	19.7	19.4	18.3
Line penetration (per 100 households), %	55.1	53.3	47.0	44.2	43.4	41.0
Number of service users, in thousand units	711.9	675.4	624.8	585.5	560.8	529.9
Natural entities	520.5	482.1	449.8	416.3	396.8	374.7
Legal entities	191.4	193.3	175.0	169.2	164.0	155.2
Service users' penetration (per 100 residents), %	23.7	22.7	21.2	20.0	19.7	18.6
Service users' penetration (per 100 households), %	56.4	54.5	47.8	45.1	44.0	41.7

Source: RRT

The greatest share of the number of public fixed telephony service users (70.7%) was represented by natural entities in 2016 (see Table 16). In 2016, compared to 2015, the number of natural entities using public fixed telephony services dropped by 5.6% or by 22.1 thousand. The number of legal entities has been decreasing as well: in 2016, their number shrank by 5.4% or by 8.8 thousand.

The number of users of public fixed telephony services provided by “Teo LT”, AB went down by 6.9% or by 34.5 thousand in 2016, compared to 2015 (see Table 17). The number of users of services provided by other providers increased by 6.0% or by 3.7 thousand in 2016. In 2016, the largest undertakings out of other providers (by the number of service users at the end of 2016) were the following undertakings: UAB “CSC Telecom”, UAB “Baltnetos komunikacijos” and UAB “Cgates” – their total market share constituted 7.5%.

Table 17. **Number of public fixed telephony service users by service providers, in thousands, and by types of service users, %, 2011–2016**

	2011	2012	2013	2014	2015	2016
“Teo LT”, AB	 646.2	604.2	564.1	524.7	499.3	464.8
<i>Natural entities</i>	78.3	77.5	77.1	76.3	75.9	76.0
<i>Legal entities</i>	21.7	22.5	22.9	23.7	24.1	24.0
Other providers	 65.7	71.2	60.7	60.8	61.4	65.1
<i>Natural entities</i>	22.0	19.5	24.4	26.2	28.6	32.6
<i>Legal entities</i>	78.0	80.5	75.6	73.8	71.4	67.4

Source: RRT

The decreasing overall number of service users resulted in the changes in the market structure by type of service users (see Table 17). The number of natural entities using public fixed telephony services provided by “Teo LT”, AB dropped by 6.8% and stood at 353.4 thousand in 2016. For this reason, the market share held by “Teo LT”, AB in the segment of services provided to natural entities decreased by 1.3 pp and stood at 94.3% of the overall market. The number of natural entities using public fixed telephony services provided by other providers grew by 20.5% and stood at 21.2 thousand service users in 2016, compared to 2015.

The number of legal entities using public fixed telephony services provided by “Teo LT”, AB dropped by 7.2% (8.7 thousand) and increased by 0.2% (0.1 thousand), respectively, in 2016. “Teo LT”, AB whose public fixed telephony services were used by 111.6 thousand legal entities at the end of 2016 held 71.8% of the market of public fixed telephony services provided to legal entities.

Number Portability Service. In 2016, this service was used 12.9 thousand times, i.e. twice more than in 2015 (see Table 18). A major share (66.2%) of telephone numbers were ported to another network from “Teo LT”, AB network – this accounted for 8.5 thousand telephone numbers. As many as 2.5 thousand telephone numbers were ported from the networks of other providers to “Teo LT”, AB network.

Table 18. Number portability flows by service providers, in units, in 2016

	To	From	Balance
UAB "Nacionalinis telekomunikacijų tinklas"	2,891	509	2,382
UAB "Mediafon Carrier Services"	2,332	186	2,146
UAB "CSC Telecom"	3,993	2,536	1,457
AB "Lietuvos radijo ir televizijos centras"	410	64	346
UAB "Ecofon"	303	5	298
UAB "Teledema SIP"	3	1	2
AB "Lietuvos geležinkeliai"	0	1	-1
"Voxbone SA"	0	9	-9
UAB "Telekomunikacijų grupė"	502	585	-83
UAB "Mediafon"	10	469	-459
"Teo Lt", AB	2,470	8,549	-6,079

Source: RRT

Call Duration. The size of the market of public fixed telephony voice services, in terms of the duration of originated calls, was gradually decreasing. In 2016, the duration of calls originated by public fixed telephony voice service users dropped by 8.1%, and since 2011 it had decreased by 43.9% (see Fig. 10). The market of public fixed telephony voice services, in terms of the duration of calls originated in the networks of different providers, maintained the same positions in 2016 as in the previous year: the major market share (89.5%) was held by "Teo LT", AB; however, its market share had shrunk by 5.1 pp since 2011.

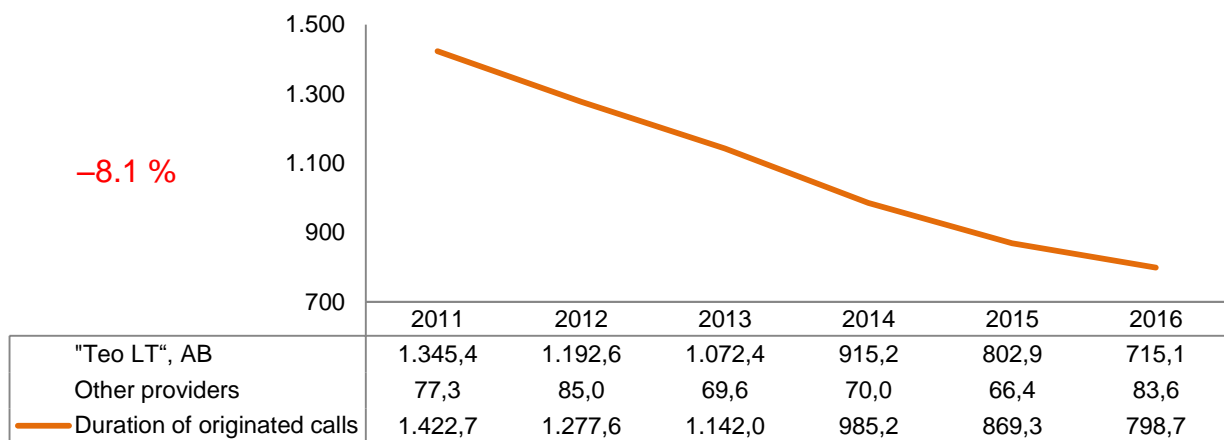


Fig. 10. Duration of calls originated by public fixed telephony voice service users by service providers, in million minutes, 2011–2016

Source: RRT

The dynamics of the duration of calls originated by the users of services provided by "Teo LT", AB by call destinations during the period between 2011 and 2016 shows that the trend of the indicator changes by call destinations remains stable: the users of services provided by "Teo LT", AB make fewer calls in own network and tend to make more calls to other public fixed and mobile communications networks (see Table 19). In 2016, the duration of calls in own "Teo LT", AB network went down by 16.0% or 94.7 million minutes.

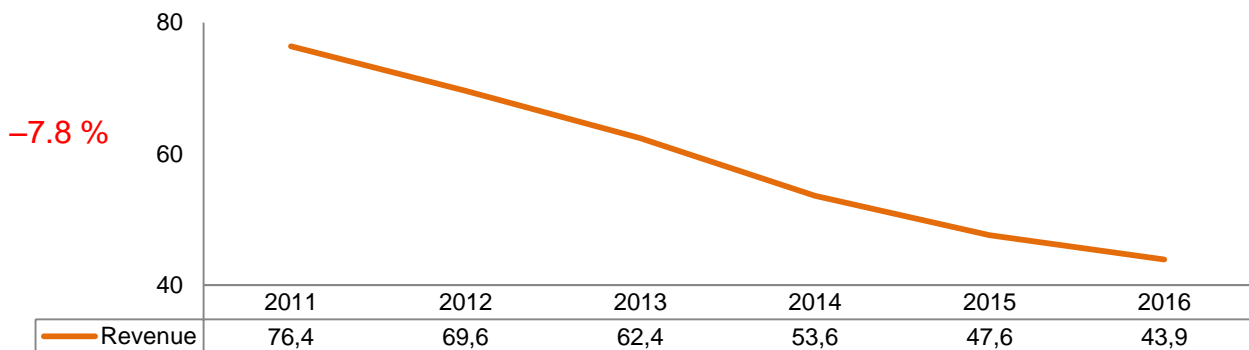
Table 19. **Structure of the duration of calls originated in individual public fixed communications networks by call destination, in million minutes, 2011–2016**

"Teo LT", AB	2011	2012	2013	2014	2015	2016
Terminated in own network	↓ 1,238.5	1,078.7	914.1	726.2	591.8	497.1
Terminated in other public fixed communications networks	↑ 14.4	17.8	19.6	21.0	22.5	23.3
Terminated in public mobile communications networks	↑ 60.4	67.1	111.2	144.1	167.3	175.8
Terminated in foreign operators' networks	↓ 32.1	29.0	27.5	23.9	21.3	18.9
Other providers						
Terminated in own network	↑ 14.2	12.6	13.1	12.8	13.7	16.9
Terminated in other public fixed communications networks	↔ 23.5	29.9	22.4	23.8	22.5	24.5
Terminated in public mobile communications networks	↑ 15.6	18.6	21.2	20.5	20.5	21.4
Terminated in foreign operators' networks	↓ 24.0	23.9	12.9	12.9	9.7	20.9

Source: RRT

The duration of calls originated by other providers' service users and terminated in own network constituted one of the smallest shares (in 2016 – 20.2%). It should be noted that call flows originated by other providers' service users in 2016, compared to 2015, intensified to all destinations. The biggest increase in 2016 was recorded in the duration of calls originated by other providers' service users and terminated in foreign operator's networks: by 115.5% or 11.2 million minutes (see Table 19).

Revenue. In 2016, the revenue from public fixed telephony voice services went down by 7.8% or EUR 3.7 million (see Fig. 11).

Fig. 11. **Revenue from public fixed telephony voice services, in EUR million, 2011–2016**



Source: RRT

With a view to the structure of the revenue from public fixed telephony voice services by providers, the decreasing trend of the revenue received by all service providers from public fixed telephony voice services has been observed since 2011. In 2016, compared to 2015, the revenue received by "Teo LT", AB from the provision of public fixed telephony voice services dropped by 8.9% or EUR 4.0 million. "Teo LT", AB, having received the revenue of EUR 40.9 million, held 93.0% of the overall market of public fixed telephony voice services in 2016. The revenue of other providers received from public fixed telephony services went up by 14.8% in 2016, compared to 2015, and amounted to EUR 3.1 million.

ARPU. The average revenue from public fixed telephony voice services per subscriber per month (ARPU) dropped by 1.4% and accounted for EUR 7.0 in 2016, compared to 2015 (see Table 20). In 2016, ARPU decreased only in the segment of natural entities while ARPU in the segment of legal entities increased for the first time during the period between 2011 and 2016. During the period between 2011 and

2016, ARPU from the services provided to legal entities dropped sharper (22.7%) compared to natural entities (21.3%). This may be associated with more favourable conditions in the segment of legal entities than in the segment of natural entities in terms of competition.

Table 20. **ARPU from public fixed telephony voice services by service providers and type of service users, in EUR per month, 2011–2016**

ARPU by users 	2011	2012	2013	2014	2015	2016
ARPU from public fixed telephone voice services*	8.9	8.6	8.3	7.6	7.1	7.0
<i>Natural entities</i>	7.5	7.4	7.1	6.5	6.0	5.8
<i>Legal entities</i>	12.8	11.6	11.5	10.4	9.7	9.9
ARPU by providers 						
<i>“Teo LT”, AB</i>	9.3	9.1	8.8	8.1	7.5	7.3
<i>Other providers</i>	5.3	4.5	4.0	3.7	3.6	4.5







* Including the revenue from loops.

Source: RRT

In 2016, ARPU from public fixed telephony voice services exceeded ARPU from public mobile telephony voice services by 2.6 times (in 2015 – 2.5 times). As ARPU does indirectly reflect average monthly expenses of a single service user as well, besides the differences in functionality of fixed and mobile telephony voice services, the difference of ARPU in terms of such services also contributes to higher attractiveness of public mobile telephony voice services to service users and this may be defined as one of the reasons for the market of public fixed telephony voice services to have been rapidly shrinking.

Prices. In 2016, the calculated average prices of different public fixed telephony voice service providers (ratio between revenue from such services and duration of calls that revenue was generated from) per minute of a local call differed insignificantly (see Table 21). In 2016, compared to 2015, the calculated average price per minute of a call originated in the network of “Teo LT”, AB increased by 0.1 euro cent or by 4.3%, while the calculated average prices of the said services provided by other providers decreased by 0.3 euro cent or by 15.0%.

Table 21. **Calculated average public fixed telephony voice service prices by service providers, in euro cents per minute, 2011–2016**

Local call		2011	2012	2013	2014	2015	2016
<i>“Teo LT”, AB</i>		1.5	1.8	2.0	2.2	2.3	2.4
<i>Other providers</i>		3.0	2.1	2.1	2.0	2.0	1.7
<i>All providers</i>		1.5	1.9	2.0	2.2	2.3	2.4
International call							
<i>“Teo LT”, AB</i>		13.4	13.8	12.7	12.1	11.8	12.4
<i>Other providers</i>		7.0	5.8	8.0	7.1	8.3	5.8
<i>All providers</i>		10.7	10.1	11.2	10.4	10.7	8.9

Source: RRT

When analysing the calculated average prices per local call minute by service providers, the lowest calculated average prices were those of other providers (5.8 euro cent) in 2016 as in the previous year. The prices of respective services provided by “Teo LT”, AB increased by 0.6 euro cent or by 5.1% (see Table 21).

In 2016, the market of public fixed telephony voice services was further shrinking in terms of both the number of service users and call duration, and revenue. The service users continue to replace public fixed telephony voice services with public mobile telephony voice and other, including Over-the-Top (OTT) services.

2.3. Networks Interconnection Services

2.3.1. General Overview of the Market of Networks Interconnection Services



Networks interconnection services are wholesale services necessary to enable the provision of retail public telephony services. Networks interconnection services include the following services provided to other service providers: call origination, call transit and call termination provided in public fixed and/or mobile communications networks, also roaming services provided to foreign public mobile telephony service providers so that their service users are able to use public mobile telephony services while being in Lithuania.

The revenue from the networks interconnection activities that had been decreasing till 2013 started to grow in 2014. In 2016, compared to 2015, it increased by 7.0% and equalled EUR 140.6 million (see Fig. 12). It should be noted that the revenue growth in 2016 started decreasing and, compared to 2015, was 11.4 pp smaller. Despite that, the higher revenue received from networks interconnection services constituted a larger share in the structure of the total revenue of the electronic communications service market – 21.4%, i.e. by 0.4 pp more than in 2015.

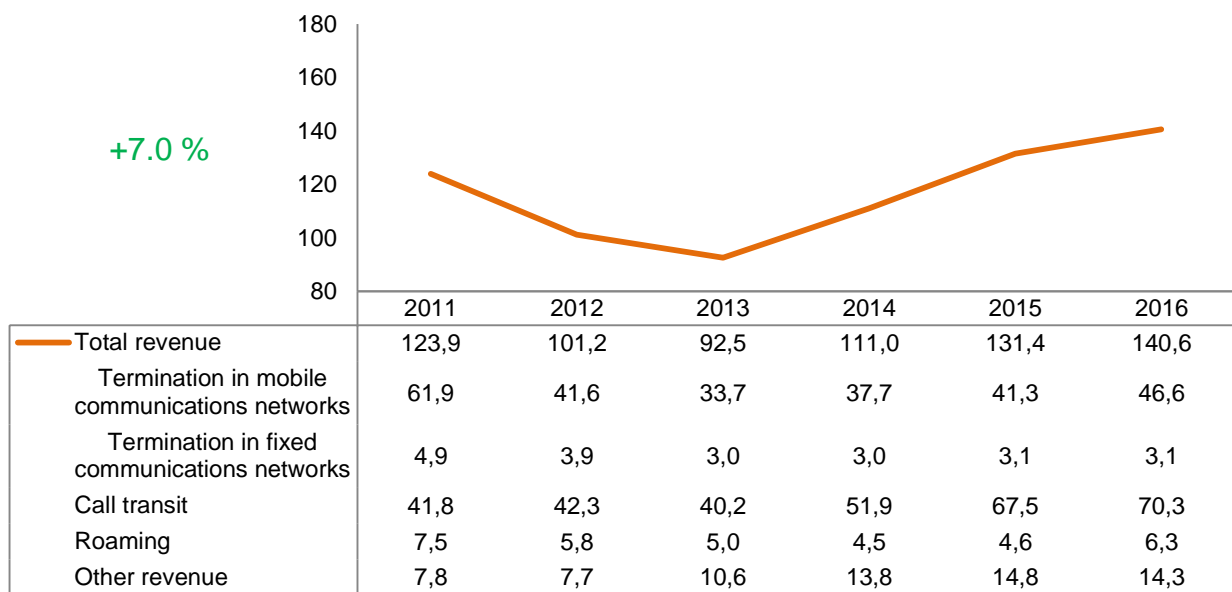


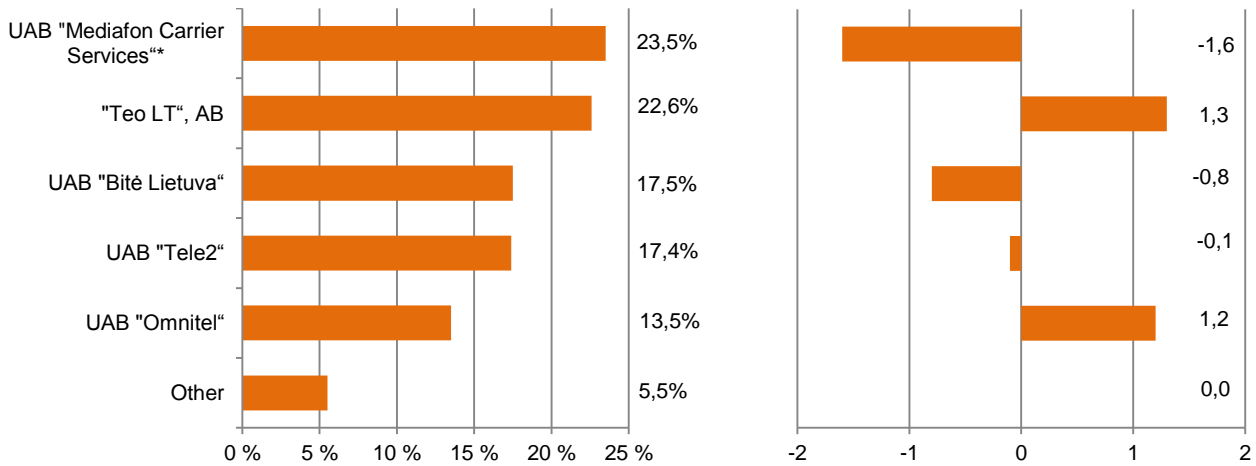
Fig. 12. **Structure of revenue received from networks interconnection services by service groups in 2011–2016, in EUR million**

Source: RRT

The revenue from call transit services has accounted for the major portion of the revenue from networks interconnection services since 2012. In 2016, the revenue growth was much more reasonable (4.1%) than in 2015 and its portion in the total revenue from networks interconnection services decreased by

1.4 pp. Despite that, the revenue from call transit services still accounted for 50.0% of the total revenue of networks interconnection services.

In 2016, UAB "Mediafon" generated the largest portion of revenue (23.5%) from networks interconnection activities (as of 1 October 2015 UAB "Mediafon" assigned the activity of the provision of networks interconnection services to its subsidiary UAB "Mediafon Carrier Services") (see Fig. 13). The revenue received by this undertaking from networks interconnection activities decreased 1.6 times in 2016.



* As of 1 October 2015 UAB "Mediafon" assigned networks interconnection services to its subsidiary UAB "Mediafon Carrier Services".

Fig. 13. **Structure of the networks interconnection services market in terms of revenue by service providers, %, and annual changes of the market shares, pp, 2016**

Source: RRT

Networks interconnection services ensure the opportunity for all service users to connect to and communicate with voice service users in all networks. The revenue received from networks interconnection services increased by 7.0% and accounted for 21.4% of the total revenue of the electronic communications market in 2016.

2.3.2. Call Transit Services



N.B.!

- The call transit services discussed in this section include pure transit only, i.e. where the calls are not originated or terminated in the network where a transit service is provided.

The call transit service is significant to public telephony service providers for the purpose of making a more effective use of available network and financial resources and have alternative ways of sending calls. Call transit services make it possible to transfer calls inside the country, send calls originated inside the country to foreign countries, as well as to transfer calls from abroad to a specific public communications network in Lithuania. Calls which are neither originated nor terminated in Lithuania may be also forwarded by transit.

Service Providers. At the end of 2016, call transit services were provided by 12 undertakings⁹ – by 2 more than at the end of 2015.

Call Duration. With a view to the duration of calls forwarded by transit, the following services may be singled out: call transit services, where calls are forwarded to public communications networks of Lithuanian operators; call transit services, where calls are forwarded to public communications networks of foreign operators.

In contrast to 2015, the duration of calls forwarded by transit to public communications networks of foreign operators went down (3.0%) in 2016 while the duration of calls forwarded by transit to public communications networks of Lithuanian operators went up (35.8%). Despite that, the largest share (78.1%) of calls forwarded by transit in 2016 was still forwarded to public communications networks of foreign operators (see Figure 14).

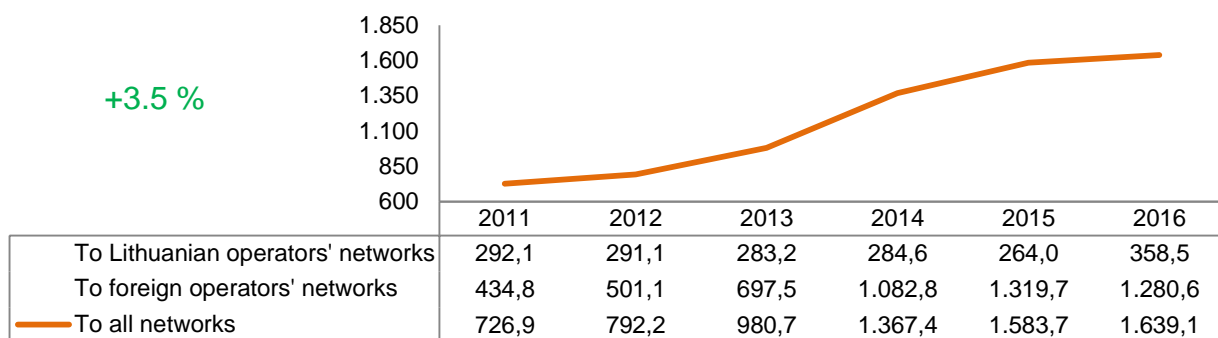
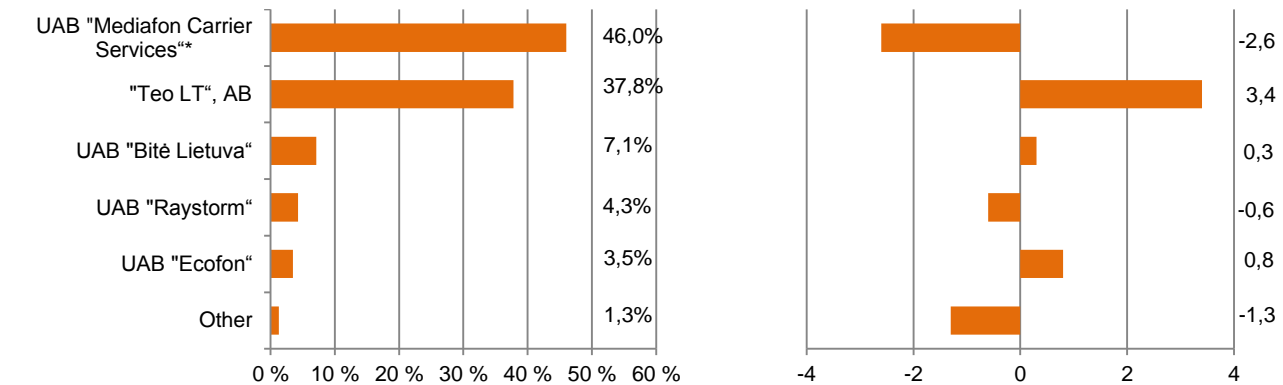


Fig. 14. Duration of calls forwarded by transit to public communications networks of Lithuanian and foreign operators, in million minutes, 2011–2016

Source: RRT

⁹ "Teo LT", AB, UAB "Bitė Lietuva", UAB "CSC Telecom", UAB "Ecofon", UAB "Linkotelus", UAB "Mediafon Carrier Services", UAB "Nacionalinis telekomunikacijų tinklas", UAB "Peoplefone", UAB "Raystorm", UAB "TCG Telecom", UAB "Teleksas", SA "Voxbone"

The largest share of the market of call transit by duration of forwarded calls (46.0%) was held by UAB "Mediafon Carrier Services" in 2016, despite the fact that its share decreased by 2.6 pp over the year (see Fig. 15).



* As of 1 October 2015 UAB "Mediafon" assigned networks interconnection services to its subsidiary UAB "Mediafon Carrier Services".

Fig. 15. Structure of the market of call transit services by duration of forwarded calls, %, and annual changes of the market shares, pp, 2016

Source: RRT

Revenue. The revenue received from call transit services stood at EUR 70.3 million in 2016 and, compared to 2015, it grew by 4.2% (see Fig. 16). The growth of call transit services was influenced by the longer duration of calls forwarded by transit in 2016 (3.5%) (see Fig. 14).

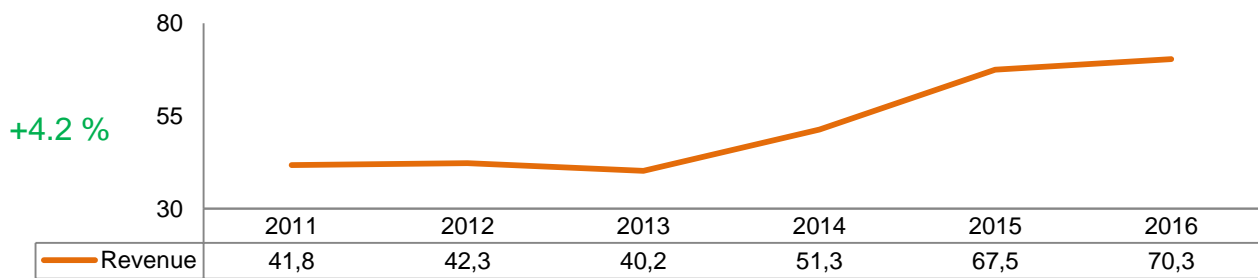
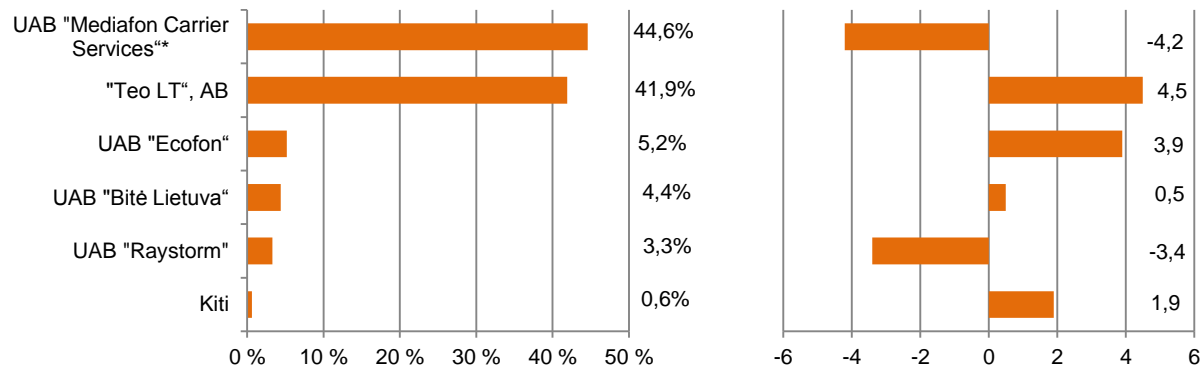


Fig. 16. Revenue from call transit services, in EUR million, 2011–2016

Source: RRT

With a view to the market of call transit services by revenue, the major portion (44.6%) of the revenue was generated by UAB "Mediafon Carrier Services" in 2016 (see Fig. 17). Over the year its market share decreased by 4.2 pp and was only 2.7 pp larger than the market share of its closest opponent "Teo LT", AB.



* As of 1 October 2015 UAB "Mediafon" assigned networks interconnection services to its subsidiary UAB "Mediafon Carrier Services".

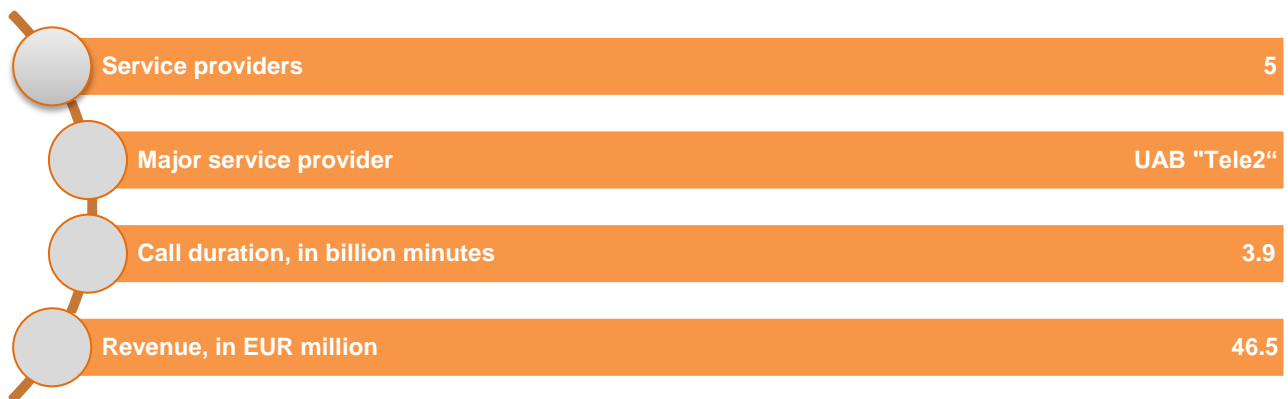
Fig. 17. Structure of the market of call transit services by revenue, %, and annual changes of the market shares, pp, 2015

Source: RRT

In 2016, the market of call transit services grew by 4.2% in terms of revenue. The growth was influenced by the increased flow (35.8%) of calls forwarded to public communications networks of Lithuanian operators. The largest share of the call transit service market (46.0%) by call duration was held by UAB "Mediafon Carrier Services" in 2016 however its share shrank by 2.6 pp over the year.

2.3.3. Call Termination Services

2.3.3.1. Call Termination in Public Mobile Communications Networks



N.B.!

- The services of call termination in public mobile communications networks discussed in this section include the termination of calls originated only in other networks, whereas calls which were originated and terminated in the same network are not assessed.
- In this section of the report other service providers of call termination in public mobile communications network shall be all service providers of call termination in public mobile communications network, except for UAB "Bitė Lietuva", UAB "Omnitel" and UAB "Tele2" ("other providers").

The services of call termination in public mobile communications services consist of calls originated in Lithuanian and foreign operators' networks and terminated in public mobile communications networks of Lithuanian operators.

Service Providers. In 2016, the services of call termination in public mobile communications networks were provided by 5 operators¹⁰.

Call Duration. In 2016, the overall duration of calls terminated in public mobile communications networks was 3,890.4 million minutes, i.e. by 8.0% more than in 2015. It must be noted that the trend of increasing duration of terminated calls is observed only in public mobile communications networks of the three biggest operators. While the duration of terminated calls in public mobile communications networks of other operators more than tripled in 2015, in 2016 it decreased by 24.5%. In 2016, the largest share of calls terminated in public mobile communications networks (84.4%) by call duration was originated in public mobile communications networks. In 2016, most calls were terminated in UAB "Tele2" network (see Table 22) and this accounted for 41.0% of all calls terminated in public mobile communications networks.

¹⁰ UAB "Omnitel", UAB "Bitė Lietuva", UAB "Tele2", UAB "CSC Telecom", UAB "Mediafon Carrier Services"

Table 22. Duration of calls terminated in public mobile communications networks by service providers, in million minutes, and call origination network, %, 2011–2016

UAB "Bitė Lietuva"	2011	2012	2013	2014	2015	2016
Originated in public mobile communications networks	88.2	89.6	88.7	88.6	88.9	87.5
Originated in public fixed communications networks	5.6	6.7	8.3	8.8	7.7	8.5
Originated in foreign operators' networks	6.2	3.7	2.8	2.6	3.4	4.0
Total originated	↑ 567.8	626.4	703.1	880.2	979.8	1,041.3
UAB "Omnitel"						
Originated in public mobile communications networks	85.1	84.9	82.6	83.8	84.0	84.0
Originated in public fixed communications networks	4.4	4.1	5.0	4.7	4.8	4.8
Originated in foreign operators' networks	10.5	11.0	12.4	11.5	11.2	11.2
Total originated	↑ 651.6	742.0	830.1	1,012.6	1,129.8	1,226.0
UAB "Tele2"						
Originated in public mobile communications networks	88.3	87.2	86.5	80.7	83.7	82.5
Originated in public fixed communications networks	2.7	2.7	4.7	6.6	5.3	5.4
Originated in foreign operators' networks	9.0	10.1	8.8	12.7	11.0	12.1
Total originated	↑ 742.8	872.9	1,000.7	1,280.7	1,455.1	1,594.8
Other providers						
Originated in public mobile communications networks	95.7	95.9	96.3	92.8	93.0	92.8
Originated in public fixed communications networks	2.5	3.0	1.9	4.8	5.0	5.5
Originated in foreign operators' networks	1.8	1.1	1.8	2.4	2.0	1.7
Total originated	↑ 1.5	10.3	4.8	11.0	37.5	28.3
Originated of all providers	↑ 1,963.7	2,251.6	2,538.7	3,184.5	3,602.1	3,890.4

Source: RRT

Revenue. The revenue received from call termination in public mobile communications networks has maintained an increasing trend since 2013. In 2016, the revenue went up by 12.6% and stood at EUR 46.5 million (see Fig. 18). The major portion of the revenue (38.5%) was generated by UAB "Tele2" whose revenue from call termination grew by 15.5% over the year in 2016.

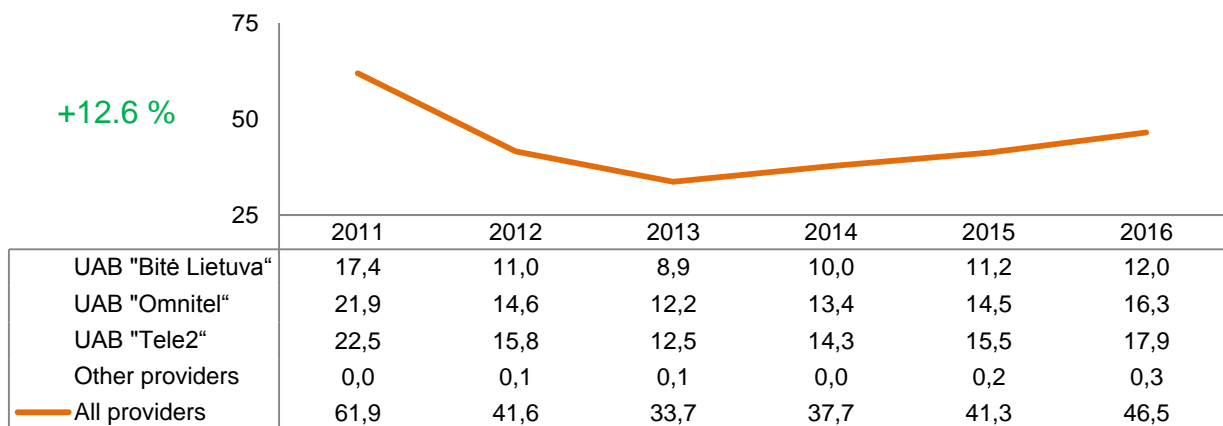


Fig. 18. Revenue from call termination in public mobile communications networks by service providers, in EUR million, 2011–2016

Source: RRT

Prices. Due to the RRT's regulation, the price of call termination in public mobile communications networks decreased in 2016. As of 1 April 2016 the price of call termination in public mobile communications networks, where calls are originated in the Member States of the European Economic Area¹¹, cannot exceed 0.94 euro cents per minute (VAT excl.).

¹¹ Norway, Island and Liechtenstein are not the Member States of the European Union; however, the said three countries and the Member States of the European Union constitute the European Economic Area.

2.3.3.2. Call Termination in Public Fixed Communications Networks

**N.B.!**

- In this section of the report other service providers of call termination in public fixed communications network shall be all service providers of call termination in public fixed communications network, except for "Teo LT", AB ("other providers").

The services of call termination in public fixed communications services cover calls originated in Lithuanian and foreign operators' networks and terminated in public fixed communications networks of Lithuanian operators.

Service Providers. In 2016, the services of call termination in public fixed communications networks were provided by 8 operators¹².

Call Duration. In 2016, the largest share of calls terminated in public fixed communications networks (69.9%) by call duration was originated in public mobile communications networks (see Table 23). The duration of such calls went up by 11.7% or by 31.4 million minutes in 2015.

Table 23. **Structure of the duration of calls terminated in individual public fixed communications networks by call origination network, in million minutes, 2011–2016**

"Teo LT", AB		2011	2012	2013	2014	2015	2016
Originated in public mobile communications networks	↑	128.3	139.6	161.3	212.9	235.6	252.9
Originated in public fixed communications networks	↓	68.8	72.7	81.5	55.9	43.6	52.4
Originated in foreign operators' networks	↓	96.2	89.2	72.6	54.6	81.3	40.1
Total originated	↑	293.3	301.5	315.4	323.4	360.5	345.4
Other providers							
Originated in public mobile communications networks	↑	8.4	15.3	18.7	25.9	31.8	45.9
Originated in public fixed communications networks	↑	26.0	26.8	23.5	24.9	26.0	31.9
Originated in foreign operators' networks	↓	6.1	7.8	4.8	4.9	5.6	4.3
Total originated	↑	40.5	49.9	47.0	55.7	63.4	82.1
Duration of terminated calls	↑	333.8	351.4	362.4	379.1	423.9	427.6

Šaltinis: RRT

With a view to the structure of the market of call termination in public fixed communications networks by service providers, most calls (80.8%) were terminated in "Teo LT", AB public fixed

¹² "Teo LT", AB, AB "Lietuvos geležinkeliai", AB "Lietuvos radijo ir televizijos centras", UAB "CSC Telecom", UAB "Ecofon", UAB "Mediafon Carrier Services", UAB "Nacionalinis telekomunikacijų tinklas", UAB "Telekomunikacijų grupė"

communications network in 2016 (see Table 23). The largest share (73.2%) of calls terminated in “Teo LT”, AB network was comprised of the calls originated in public mobile communications networks. It should be noted that the duration of calls terminated in the networks of other providers, unlike in the case of “Teo LT”, AB, increased (by 29.5% or 7.7 million minutes) in 2016. The overall duration of calls terminated in the networks of other providers stood at 82.1 million minutes in 2016 (see Table 23). The largest share (55.9%) of calls terminated in the networks of other providers was comprised of the calls originated in public mobile communications networks.

Revenue. The revenue gained from call termination in public fixed telephone networks slightly decreased in 2016 (1.8%) (see Fig. 19). The largest portion of the revenue from call termination in public fixed communications networks was generated by “Teo LT”, AB (72.0%).

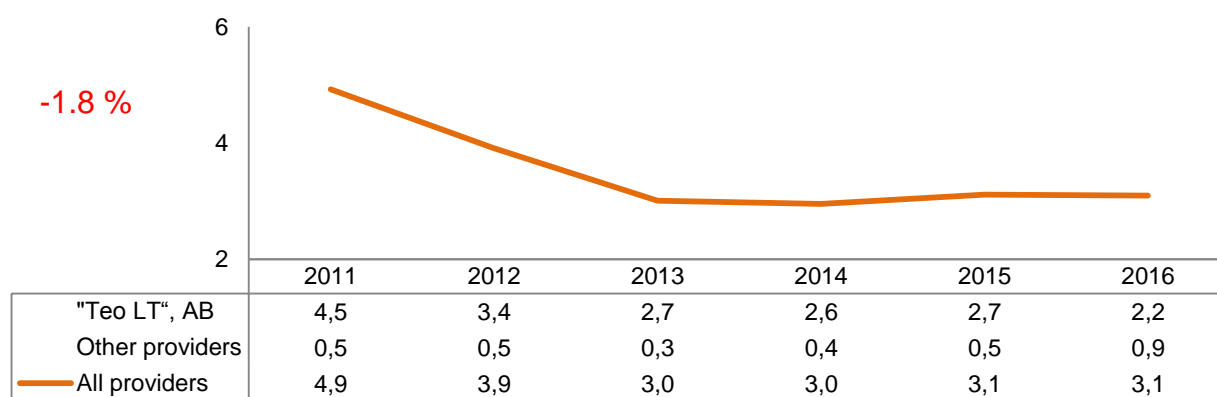


Fig. 19. Revenue from call termination in public fixed communications networks by service providers, in EUR million, 2011–2016


Source: RRT

Prices. In 2016, the price of call termination in public fixed communications networks decreased due to the RRT's regulation. After carrying out the market analysis RRT determined that as of 01 January 2016 the price of call termination in public fixed communications networks, where calls are originated in the Member States of the European Economic Area¹³, cannot exceed 0.13 euro cents per minute (VAT excl.).

In 2016, the market of call termination services grew by 6.8% in terms of revenue. The growth was naturally enhanced by increasing flow of retail public mobile telephone calls (2.3%). With a view to the structure of the market of call termination services by termination destination, it must be noted that 84.4% (by call duration) of the market was represented by calls terminated in public mobile communications networks.

¹³ Norway, Island and Liechtenstein are not the Member States of the European Union; however, the said three countries and the Member States of the European Union constitute the European Economic Area.

2.3.4. Call Origination Service



Service provider	"Teo LT", AB
Service users	2
Call duration, in million minutes	2.3
Revenue, in EUR thousand	2.2

N.B.!

- The call origination service was provided only in public fixed communications networks in 2016. The wholesale call origination service provided to other service providers (in the event of call origination service – to service users) consists of call transmission from the network termination point (terminal equipment in a fixed location used by the end service user¹⁴) to the network telephone station nearest to the end service user.

Service Providers. The call origination service in own network was provided by a single undertaking in 2016 – “Teo LT”, AB.

Service Recipients. Call origination services are received by public telephone service providers whose retail fixed telephone voice services may be received by end service users by an individual choice or preselection. At the end of 2016, there were 2 call origination service users, i.e. by 7 users less than at the end of 2015.

Call Duration. In 2016, the duration of calls originated by end service users which used individual choice or preselection of a public telephone service provider stood at 2.3 million minutes and increased by 43.8% over the year. 2.6% of all these calls, by duration, were originated by preselection.

Revenue. In 2016, the revenue received from call origination decreased by 75.6% and equalled EUR 2.2 thousand.

Due to high diversity of electronic communications services which stand as an alternative to calls in a public fixed communications network, the market of call origination service continued to maintain pessimistic tendencies in 2016. Despite the fact that the market of call origination services grew by 43.8% in terms of call duration in 2016, the absolute growth only accounted for 700.0 thousand minutes. What is more, in 2016 the market of call origination services shrank by 75.6% in terms of revenue.

¹⁴ An end service user is a service user which does not provide public communications networks or public electronic communications services.

2.4. SMS and MMS



N.B.!

- In this chapter of the report other public mobile telephone voice service providers shall be all public mobile telephone voice service providers, except for UAB “Bitė Lietuva”, UAB “Omnitel” and UAB “Tele2” (“other providers”).

Despite the decrease in demand for Short Message Service (“SMS”) it remained one of the most popular means of communication in 2016. This alternative of information exchange, the same as a call, has the feedback option; however. Multimedia Messaging Service (“MMS”) is a short text message with more options allowing sending a video message which may be supplemented by audio features and text. Despite greater possibilities of MMS, the popularity of this service, although growing, is still lower than that of SMS.

Number of SMS and MMS. Since 2011, the number of SMS has been going down (see Table 24). In 2016, the decrease accounted for 17.2%. A single public mobile telephone service user sent 104 SMS per month on an average in 2016 (by 22 SMS less than in 2015). A service user sent 3.4 SMS per day on an average in 2016.

Table 24. **Number of sent SMS, in million units, and MMS, in thousand units, and market shares of service providers, %, 2011–2016**

	2011	2012	2013.	2014	2015	2016
Number of sent SMS, in million units	7,914.7	7,591.3	7,068.3	7,107.9	6,350.2	5,259.3
<i>UAB „Bitė Lietuva“</i>	32.3	32.1	31.4	28.5	25.1	22.9
<i>UAB “Omnitel”</i>	26.7	26.2	25.9	22.8	22.5	21.5
<i>UAB “Tele2”</i>	40.7	41.3	42.2	48.0	51.3	53.9
<i>Other providers</i>	0.3	0.4	0.5	0.7	1.1	1.7
Number of sent MMS, in thousand units	5,801.8	5,868.4	6,229.6	6,785.3	8,071.5	9,430.7
<i>UAB „Bitė Lietuva“</i>	15.9	17.1	17.7	19.8	16.5	15.5
<i>UAB “Omnitel”</i>	28.8	27.9	27.9	28.4	30.3	30.9
<i>UAB “Tele2”</i>	54.0	53.2	52.3	47.7	47.4	46.3
<i>Other providers</i>	1.3	1.8	2.1	4.1	5.8	7.4

Source: RRT

The popularity of MMS sent in public mobile communications networks reached its peak in 2016 in Lithuania: during the period in question almost 9.4 million MMS were sent (see Table 24). In 2016, the number of sent MMS was higher by 16.8% than in 2015. Despite the growing number of sent MMS, the

number of MMS per subscriber is low – a single public mobile telephone service user sent 2.2 MMS on an average in 2016.

While analysing the structure of SMS and MMS services by the number of sent messages and their breakdown by service providers, it is obvious that service users of UAB “Tele2” have been sending the largest number of SMS and MMS for six consecutive years (see Table 24).

Revenue. In 2016, the revenue received from sent SMS decreased by 1.3% and equalled EUR 23.6 million (see Table 25). Compared to all revenue from public mobile telephony services, the revenue from SMS accounted for 9.7% of the total revenue from public mobile telephony services¹⁵. In 2013, the leap of revenue from SMS was caused by re-allocation of the revenue for mobile communications services that took place due to RRT's detailed methodology for revenue re-allocation for services.

Table 25. **Revenue from SMS, in EUR million, and from MMS, EUR thousand, and their structure by service providers, %, 2011–2016**

	2011	2012	2013	2014	2015	2016
Revenue from SMS, in EUR million	22.9	19.6	28.6	26.0	23.9	23.6
UAB “Bitė Lietuva”	27.3	28.6	23.2	23.7	22.4	21.3
UAB “Omnitel”	25.9	19.8	27.8	23.3	16.8	15.5
UAB “Tele2”	44.3	48.2	47.2	51.4	59.0	60.3
Other providers	2.5	3.4	1.8	1.6	1.8	2.9
Revenue from MMS, in EUR thousand	411.1	441.9	532.0	576.4	672.1	770.4
UAB “Bitė Lietuva”	50.0	49.5	42.3	41.9	40.2	36.5
UAB “Omnitel”	11.1	7.9	14.0	14.3	14.3	14.5
UAB “Tele2”	34.8	38.8	41.4	42.7	44.7	48.4
Other providers	4.1	3.8	2.3	1.1	0.8	0.6

Source: RRT

Prices. The calculated average price of SMS services (ratio between revenue from such services and number of sent SMS) stood at 0.45 euro cent in 2016, i.e. by 0.07 euro cent more than in 2015. The calculated average SMS prices of UAB “Bitė Lietuva”, UAB “Omnitel” and UAB “Tele2” differed in 2016: the difference between the highest and lowest calculated average SMS prices on the market amounted to 0.18 euro cent. Service users of UAB “Tele2” had to pay the highest price for sending SMS, i.e. 0.50 euro cent, and service users of UAB “Omnitel” had to pay the lowest price for sending SMS (0.32 euro cent). In 2016, the average revenue received by other providers per sent SMS stood at 0.78 euro cent.

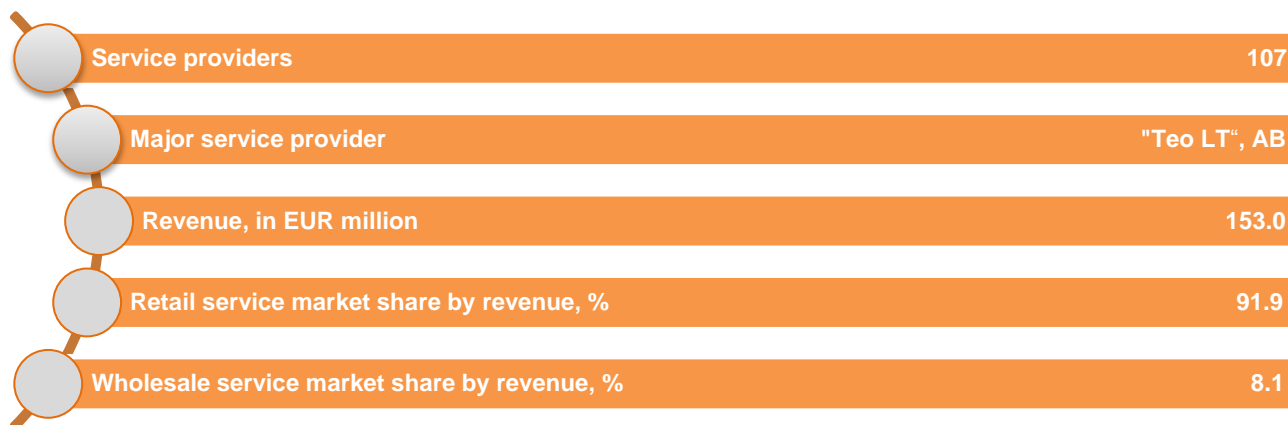
The average calculated price of sending MMS (ratio between services and number of sent MMS) was 8.2 euro cent in 2016. The largest difference between the highest and lowest calculated average MMS price applied by the major mobile communications operators stood at 15.4 euro cent. UAB “Bitė Lietuva” service users had to pay the highest price for sending an MMS, i.e. 19.2 euro cent; the lowest price was paid by UAB “Omnitel” service users – 3.8 euro cent. UAB “Tele2” service users had to pay 8.5 euro cent for sending MMS in 2016. The calculated average price of other providers per sent MMS equalled 0.7 euro cent.

¹⁵ All revenue from public mobile telephone services consists of revenue received from calls, SMS, MMS, provision of data transmission services, except for revenue gained from the provision of Internet access services, where subscribers connect to the Internet via their computers based on fixed payment plans for the settlement for Internet access services, and other revenue.

Even the decrease of relative SMS and MMS prices did not encourage sending more messages of these types. The comparison of the calculated average SMS and MMS prices of 2016 shows that the MMS price exceeded the price of SMS by almost 18 times. This may explain the significantly lower popularity of MMS in comparison with SMS. Service users were most likely replacing such services with other alternatives to electronic communications services, such as less expensive voice services, e-mails, Over-the-Top (OTT) services, such as “Skype”, “Viber”, “Facebook”, etc. whose attractiveness and popularity were promoted by a greater use of smart terminal equipment.

3. Data Transmission

3.1. General Overview of the Market of Data Transmission Services



N.B.!

- In this section of the report other data transmission service providers shall be all data transmission service providers, except for UAB "Bitė Lietuva", UAB "Cgates", AB "Lietuvos Radijo ir Televizijos Centras", UAB "Omnitel", UAB "Satgate" and "Teo LT", AB ("other providers").

In 2016, data transmission services provided in Lithuania may be divided into retail Internet access services, leased line services (retail leased line services and wholesale leased line services) and other data transmission services (other retail data transmission services, other wholesale data transmission services and wholesale Internet access services¹⁶).

Service Providers. The market of data transmission services is quite stable with a view to the number of providers. At the end of 2016, the data transmission services were provided by 107 undertakings, i.e. by 4 undertakings more than at the end of 2015. Data transmission service providers represented 77.0% of all 139 undertakings engaged in electronic communications activities. The majority of data transmission service providers were providing retail Internet access services in 2016 as in the previous periods – their number stood at 100 (in 2015 – 99).

Revenue. In 2016, the revenue gained from data transmission services amounted to EUR 153 million, i.e. by 2.5% more than in 2015 (see Fig. 20). The activity of the provision of data transmission services remains one of the most important components of the electronic communications sector generating almost one fourth (23.3%) of the total revenue of the electronic communications market. It must be noted that the increase of revenues has been recorded since 2015.

¹⁶ Such services include wholesale central access to mass market products in a fixed location, services of direct and/or shared connection to the Internet and Internet transit services.

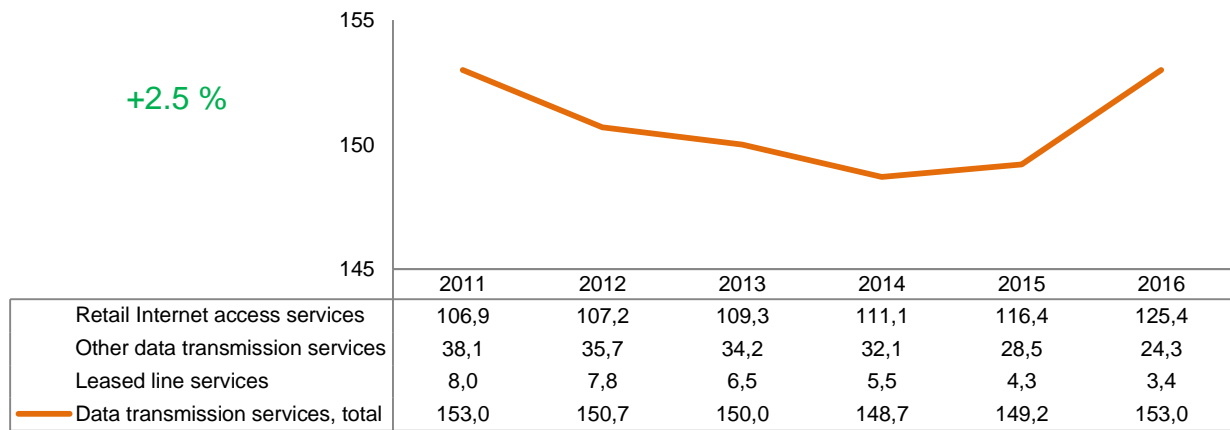


Fig. 20. **Structure of revenue received from data transmission services by service groups in 2011–2016, in EUR million**

Source: RRT

Throughout the entire period between 2011 and 2016, the largest portion of the revenue (81.9%) was comprised of the revenue from retail Internet access services (see Fig. 21). In 2016, compared to 2015, a portion of the revenue from retail Internet access services grew by 3.9 pp in the total revenue of data transmission services. This was mainly influenced by a large and continuously growing demand for retail Internet access services, which allowed generating higher revenue compared to the provision of other services on the market of data transmission services.

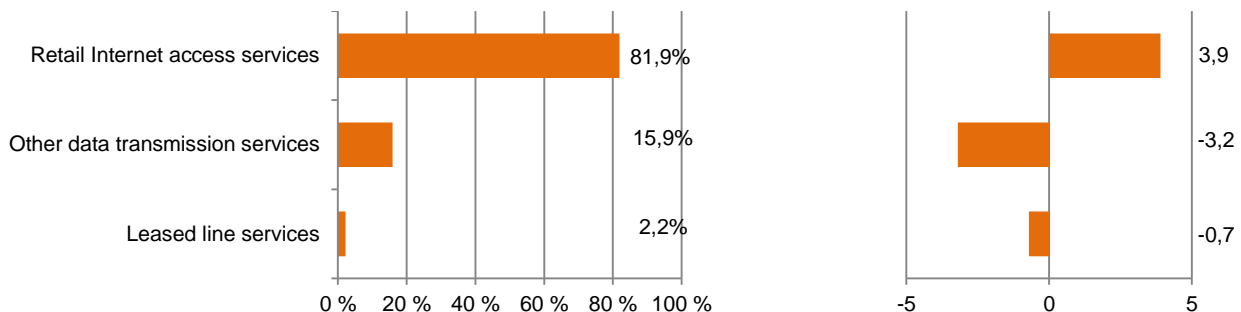


Fig. 21. **Structure of revenue from data transmission services by service groups, %, and annual changes of the revenue structure, pp, 2016**

Source: RRT

The structure of the market of data transmission services by revenue generated by individual undertakings shows that “Teo LT”, AB earned the largest portion of revenue in 2016 as in 2015 and previous periods on the market of data transmission services (see Fig. 22). The market share of UAB “Bitė Lietuva” grew the most (1.7 pp), while the portion of the revenue of UAB “Satgate” decreased the most.

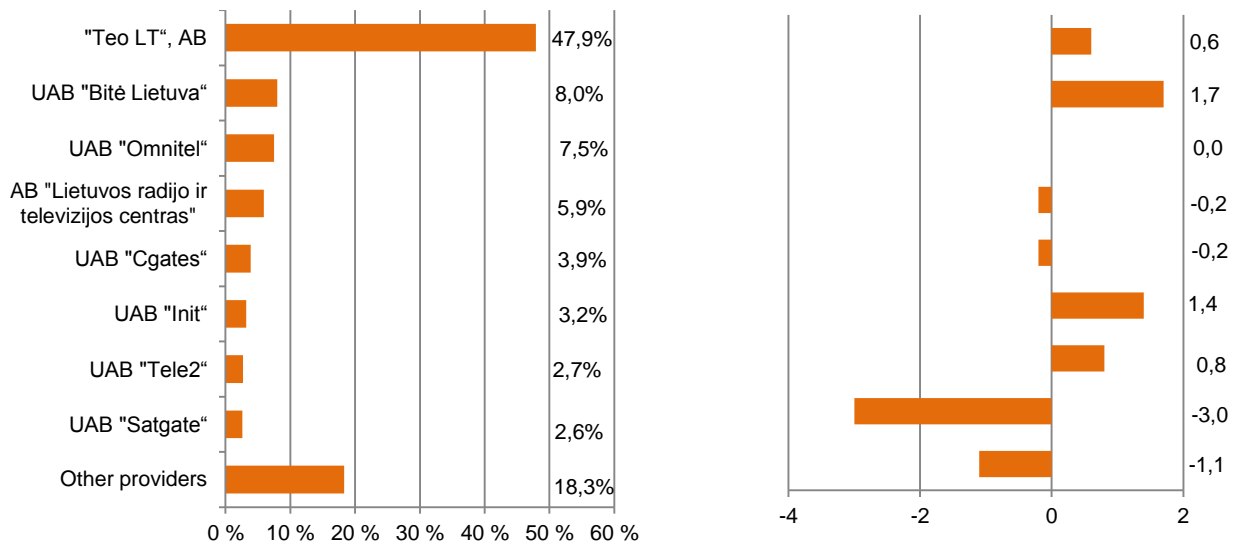


Fig. 22. **Structure of revenue from data transmission services by service providers, %, and annual changes of the market shares, pp, 2016**

Source: RRT

The market of data transmission services has been growing since 2014 in terms of revenue. In 2016, the market expanded by 2.5%. This growth was caused by the increase of revenue from retail Internet access services, as the revenue from retail Internet access services accounted for 81.9% of the total revenue from data transmission services. "Teo LT", AB remains the largest market player in terms of data transmission services which generated 47.9% of the total revenue of the market of data transmission services in 2016.

3.2. Retail Internet Access Services



N.B.!

- In this section of the report other retail Internet access service providers shall be all retail Internet access service providers, except for “Teo LT”, AB in Figure 28, UAB “Bitė Lietuva”, UAB “Omnitel”, UAB “Tele2” in Table 28 and Figure 31, and AB “Lietuvos Radijo ir Televizijos Centras”, “Teo LT”, AB, UAB “Balticum TV”, UAB “Bitė Lietuva”, UAB “Cgates”, UAB “Omnitel” in Figure 33 (“other providers”).

Methods of the Service Provision. In 2016, the retail Internet access services were provided by means of fixed communications or mobile communications technologies in Lithuania.

In 2016, retail Internet access services were provided by means of fixed communications technologies using 5 methods in Lithuania:

- metallic twisted pair loops using xDSL technology (xDSL loops);
- wireless communication lines using WiMAX (Worldwide Interoperability Microwave Access), Wi-Fi (Wireless Fidelity) and other wireless communication technologies (“wireless communication lines”);
- coaxial cable lines (“CTV networks”);
- optical fibre lines using FTTB (Fibre to the Building) and FTTH (Fibre to the Home) technologies (“FTTH lines and FTTB lines”, together to be referred to as FTTx lines);
- shielded twisted pair (STP) and/or unshielded twisted pair (UTP) loops in the case of LAN networks (Local Area Network) (“LAN lines”).

The retail Internet access services are provided by means of the following mobile communications technologies: GPRS, EDGE, UMTS, UMTS HSDPA, UMTS HSUPA, LTE¹⁷ and faster technologies. Retail Internet access services may be provided by other means as well, for instance: leased lines, power transmission lines, public satellite communication network and other means. In 2016, only leased lines out of the afore-mentioned methods were used.

Service Providers. The Lithuanian market of retail Internet access services was characteristic of the high number of service providers in 2016 as in the previous periods. At the end of 2016, the Internet access services were provided by 100 undertakings, i.e. by 1 undertaking more than in 2015, where there were 99 of them.

Service Recipients. The number and penetration of the retail Internet access service users was further increasing in 2016 as in the previous periods (see Fig. 23). The growth of the number of service users

¹⁷ GPRS (General Packet Radio Service), EDGE (Enhanced Data Rates for GSM Evolution), UMTS (Universal Mobile Telecommunications System), UMTS HSDPA (Universal Mobile Telecommunications System High-Speed Download Packet Access), UMTS HSUPA (Universal Mobile Telecommunications System High-Speed Uplink Packet Access), LTE (Long-Term Evolution).

in 2016 had been the highest since 2011. In 2016, it accounted for 7.4%, i.e. by 0.5 pp more than in 2015, where it equalled 6.9%. The absolute growth of the number of service users in 2016 constituted 87.7 thousand. The penetration of these services (number of service users per 100 residents), the same as the number of retail Internet access service users, continued to grow in 2016. At the end of 2016, 44.7% of the residents of the Republic of Lithuania were the Internet access service users, where 5 years ago this indicator was lower by 11.8 pp and stood at 32.9%.

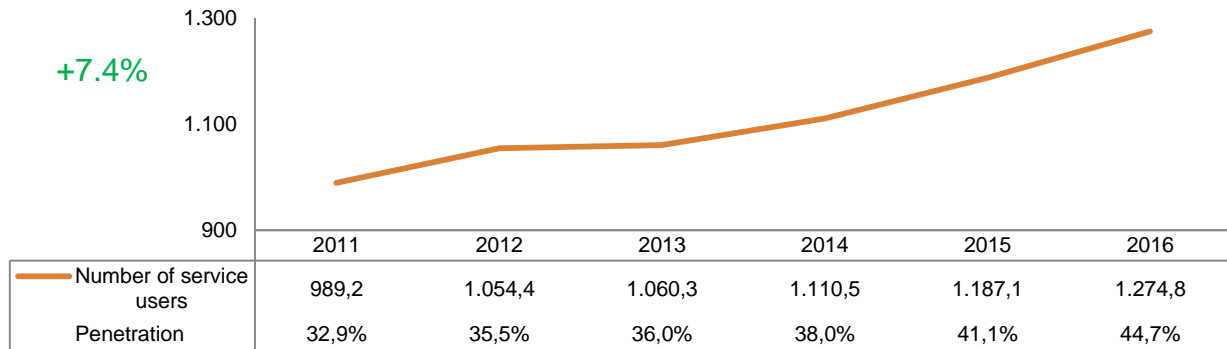


Fig. 23. The number of retail Internet access service users, in thousands, and penetration (number of service users per 100 residents), %, 2011–2016

Source: RRT

According to the data of the European Commission, in 2016 the use of retail Internet access services¹⁸ in Lithuanian households grew by 4.4 pp, compared to 2015, i.e. from 67.3% to 71.7%¹⁹ (see Fig. 24). The overall average of the use of the Internet by the EU Member States grew by 2.7 pp and stood at 82.6% in 2016, compared to 2015, which is by 10.9 pp more than in Lithuania. In spite of the annually increasing penetration of retail Internet access services, Lithuania continues to hold lower positions in the European Union in terms of the use of such services in households. The Lithuania's indicator is the lowest compared to the neighbouring countries of the European Union – Estonia, Poland and Latvia, where this indicator, respectively, totalled 86.2%, 80.4% and 77.3%. The most widespread use of retail Internet access services is in Luxembourg, and the least widespread – in Bulgaria. In these countries, the share of households using the Internet accounted for 97.0% and 63.5%, respectively, in 2016.

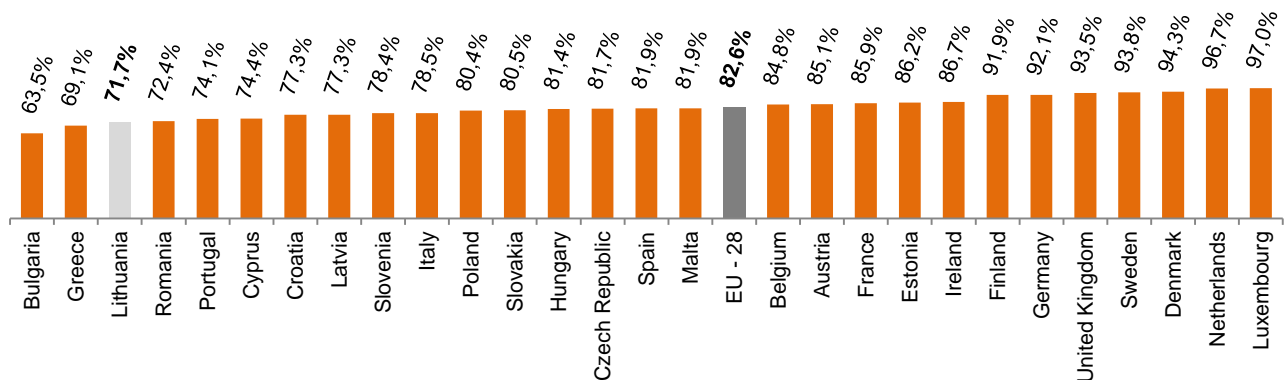


Fig. 24. Share of households using Internet access service in the EU Member States, %, 2016

Source: European Commission²⁰

According to the data of the Statistics Department²¹, in 2016 the absence of the need to use the Internet was indicated as the main reason for failing to use retail Internet access services at home in

¹⁸ Including retail Internet access services provided via xDSL loops, wireless communication lines, CTV networks, FTTx lines, LAN lines and mobile communications technologies.

¹⁹ Calculated based on Eurostat "Community Survey on ICT Usage in Households and by Individuals".

²⁰ <http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-countries>

Lithuania. This was indicated by more than half (59.8%) of households without access to the Internet at home. Other reasons which were rarer indicated were the absence of required skills (43.7%), expensive equipment (28.0%), high service tariffs (27.4%) or an opportunity to use the Internet elsewhere (8.0%). The absence of supply in a place of residence was the least frequent reason for not using the Internet at home. In other words, the main obstacle for the growth of the Internet penetration in Lithuania is insufficient demand for this service.

The structure of the market of retail Internet access services by fixed and mobile communications technologies used by service users maintained the similar proportions in 2016 as in the previous periods (see Table 26) – the most popular were FTTx lines – 42.8%. It should be noted that at the end of 2016, 55.6% (303.2 thousand) of all users of retail Internet access services provided via FTTx lines used the Internet access services provided via FTTB lines, and 44.4% (242.2 thousand) – FTTH lines; in 2011, these indicators were 64.6% and 35.4%, respectively. During the period between 2011 and 2016 the number of users of retail Internet access services provided via both FTTB and FTTH lines was growing. However, the number of users of retail Internet access services provided via FTTH lines was increasing more rapidly than the number of users of retail Internet access services provided via FTTB lines. Therefore, the gap between the number of users of retail Internet access services provided via FTTB and FTTH lines is decreasing.

According to the data of the European Commission, in 2016 the coverage of FTTP network (that include both FTTH and FTTB lines) in European countries was different (see Fig. 25). The highest coverage of FTTP network was in Portugal (86.1%), lowest – in Greece (0.4%). In 2016 Lithuania in terms of this indicator ranked third (81.4%) in Europe. Latvia (85.2%) was the only country among Lithuania's closest neighbours that had a better FTTP coverage, while the coverage of FTTP network in Estonia and Poland was respectively 45.8% and 16.5%.

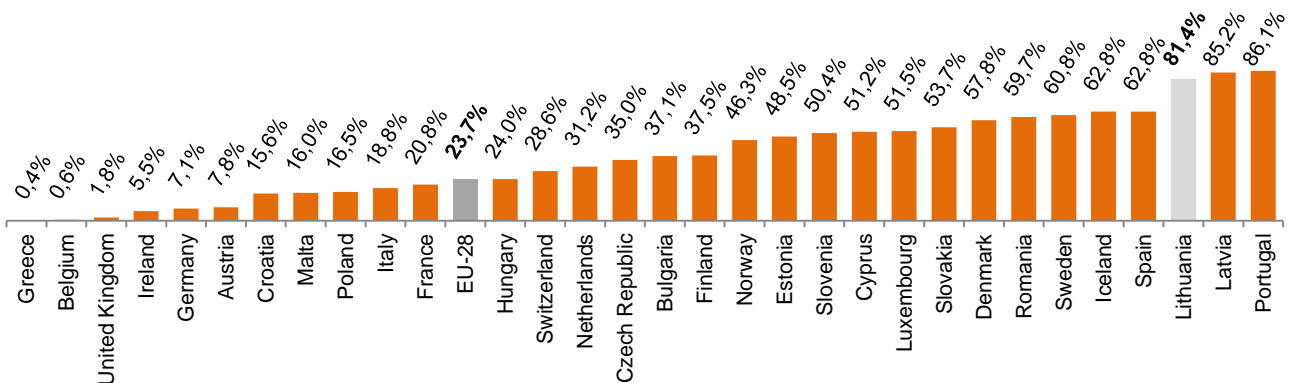







Fig 25. Coverage of the FTTP network in Europe, %, 2016

Source: European Commission

It should be noted that the number of users of retail Internet access services using mobile communications technologies increases every year – in 2016 they amounted to 32.7% of all the Internet access services users. In 2016 the number of users of retail Internet access services provided using mobile communications technologies increased by 63.2 thousand or 17.9%. Such rapid growth was mainly influenced by the development of 4G networks, which led to a more active use of Internet access services on mobile devices.

²¹ Information Technologies in Lithuania 2016: <https://ivpk.lrv.lt/uploads/ivpk/documents/files/document.pdf>

Table 26. **Structure of service users by used fixed and mobile communications technologies to receive retail Internet access services, %, 2011–2016**

		2011	2012	2013	2014	2015	2016
FTTx		36.4	38.2	41.3	43.0	43.6	42.8
Mobile communications		26.0	26.7	27.9	27.8	29.8	32.7
xDSL		20.0	17.4	16.6	15.3	13.9	12.3
Wireless communication lines		10.8	12.2	9.2	9.5	9.2	9.0
CTV network		4.6	4.0	3.6	3.3	2.7	2.3
LAN		2.1	1.4	1.3	1.0	0.8	0.8
Leased line		0.1	0.1	0.1	0.1	0.0	0.0

Source: RRT

The popularity of retail Internet access services provided by different means varies. Two groups of factors determining the choice are to be singled out: differences between functionality and features of technologies and impact of competition factors on the market of retail Internet access services.

Several trends determined by the differences between technologies are to be mentioned. Retail Internet access services provided via public mobile communications networks and wireless communication lines are more popular in the populated areas where the opportunities to use fixed communications technologies are not available. The development of 4G (by means of LTE and faster technologies) and wireless communication networks ensures a speed rate which is close to that provided by fixed communications technologies.

As for competitive factors affecting the popularity of retail Internet access services, the attractive Internet access service plans offered by mobile communications service providers or “flat-rate” service plans, where a certain amount of services (frequently, together with other services provided via the public mobile communications network) is offered for an attractive fixed price, are worth mentioning. In the events where service users may choose technology or a method of the service provision, they tend to use Internet access services provided via FTTx lines as the prices of such services are lower than the prices of services provided via xDSL line (see Fig. 34). Moreover, the popularity of retail Internet access services provided via FTTx lines is increasing due to their high speed rate.

Retail Internet access services provided by means of fixed communications technologies. In 2016, retail Internet access services were provided by 100 undertakings, of which 95 undertakings were providing such services by means of fixed communications technologies: xDSL lines, FTTx lines, wireless communication lines, CTV networks, LAN lines and leased lines. In 2016, the number of users of retail Internet access services provided by means of fixed communications technologies grew by 24.5 thousand or by 2.9% (see Fig. 26). It must be noted that this is the slower growth than in the previous periods. The penetration of retail Internet access services provided by means of fixed communications technologies (number of service users per 100 residents) (30.1%) went up by 1.3 pp in 2016, i.e. less than in the previous year.

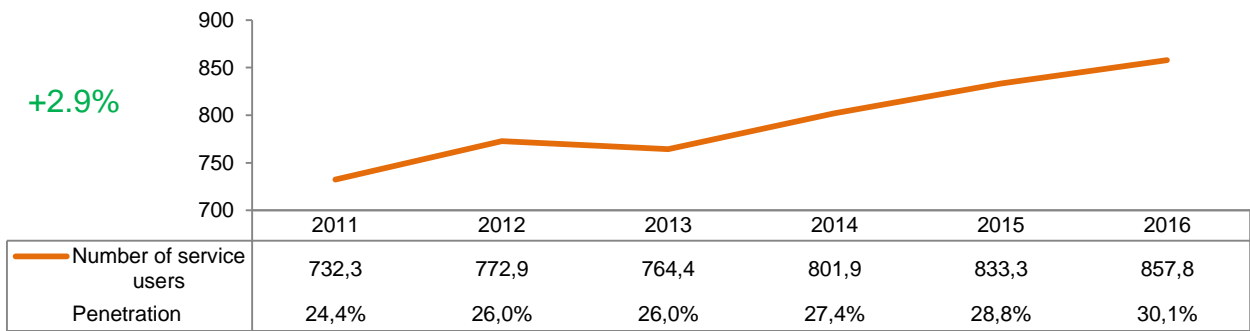


Fig. 26. The number of users of retail Internet access services provided by means of fixed communications technologies, in thousands, and penetration (number of service users per 100 residents), %, 2011–2016

Source: RRT

According to the data of the European Commission, the penetration of retail Internet access services provided by means of fixed communications technologies stood at 29.3% in the middle of 2016 in Lithuania²² (see Fig. 27). The average penetration of the Member States of the European Union amounted to 32.7% in the middle of 2016. According to the data of the European Commission, Lithuania is ranked 9th in terms of the penetration of Internet access services provided by means of fixed communications technologies. Estonia where the penetration of the said services stood at 30.7% in the middle of 2016 is still ahead of Lithuania. The highest penetration of Internet access services provided by means of fixed communications technologies in the European Union was recorded in the Netherlands (43.8%) and Denmark (43.1%).

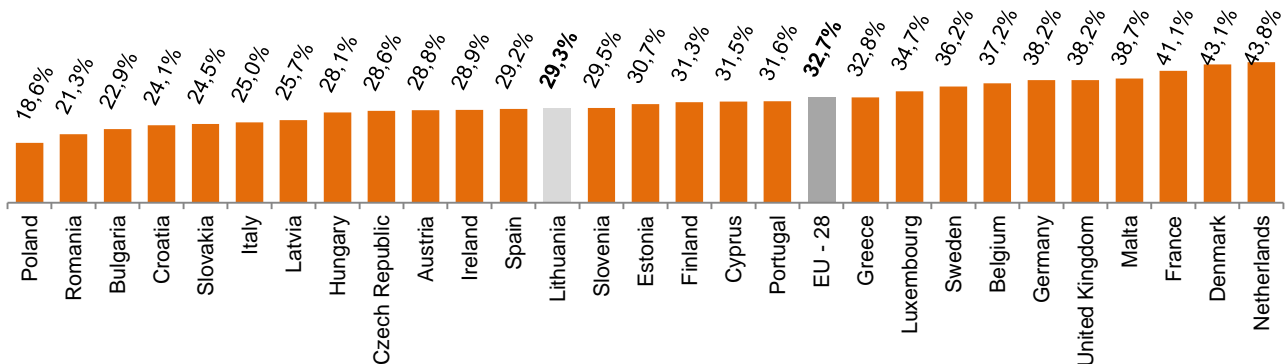


Fig. 27. The number of users of retail Internet access services provided by means of fixed communications technologies per 100 residents, in the EU Member States, %, June 2016

Source: European Commission²³

In 2016, retail Internet access services by means of fixed communications technologies were provided by 95 undertakings in Lithuania. As many as 46.9% of all users of retail Internet access services provided by means of fixed communications technologies were choosing the services provided by “Teo LT”, AB (see Fig. 28). Over the year, the market share of this operator grew by 0.2 pp.

²² The penetration of Lithuanian retail Internet access services provided by means of fixed communications technologies in Figure 27 differs from that in Figure 26 because of the different calculation methodology applied by the European Commission.

²³ <http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-countries>

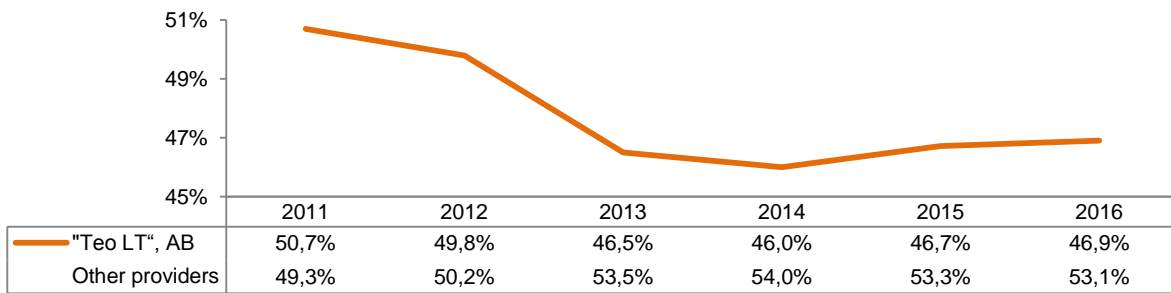


Fig. 28. **Structure of the market of retail Internet access services provided by "Teo LT", AB and other providers by means of fixed communications technologies by service providers, %, 2011–2016**

Source: RRT

With a view to the breakdown of the number of users of retail Internet access services provided by "Teo LT", AB and other providers in terms of fixed communications technologies by means whereof they are provided with retail Internet access services, it is obvious that the trend in 2016 remains the same as in the previous year – "Teo LT", AB was dominating in the provision of retail Internet access services via xDSL lines. In 2015 and 2016, 99.2% of all such service users were using the services provided by "Teo LT", AB. In 2016, other providers were prevailing in the provision of retail Internet access services via wireless communication lines (99.9%), CTV networks (100%), LAN lines (100%) and leased lines (98.9%). In 2016, the same as in the previous periods, more service users (54.8%) inclined to prefer retail Internet access services provided by other providers via FTTx lines to "Teo LT", AB (45.2%).

The popularity of retail Internet access services provided via xDSL lines was further decreasing in 2016 as in the previous periods. In 2016, compared to 2015, the number of such service users went down by 7.9 thousand and totalled 157.3 thousand users at the end of the year. In 2016, the similar trends in the provision of retail Internet access services via CTV networks were observed. The number of users of retail Internet access services provided via CTV networks dropped by 2.1 thousand in 2016 and at the end of the year the number stood at 29.9 thousand. The decrease of the number of such service users is the outcome of continuous investments in FTTx line networks, where service users, who used to receive retail Internet access service via CTV networks, switched to the services provided via FTTx lines without changing the service provider.

Speed Rate. Internet access speed rate is annually increasing (see Table 27). This is driven by several reasons, i.e. service users' needs growing in terms of speed rate and development of technologies used to provide retail Internet access services in Lithuania. In 2016, only a bit more than one fifth (21.2%) of all users of Internet access services provided by means of fixed communications technologies, or less by 2.6 pp than in 2015 and even by 27.1 pp less than in 2011, used Internet access of a speed lower than 10 Mb/s. The most popular Internet access speed rate preferred by users of retail Internet access services provided by fixed communications technologies remained 30-100 Mb/s in 2016, as in 2015. In 2016, this speed rate was selected by slightly less service users than in 2015. This may be explained by the fact that the number of users of retail Internet access services provided by means of fixed communications technologies who preferred even higher speed rate (100 Mb/s and more) significantly increased in 2016. In 2016, compared to 2015, the share of service users that chose the speed rate over 100 Mb/s grew by 9.1 pp and stood at 26.8%.

According to the data by “Rotten WiFi”²⁴, in November 2016 Lithuania was in the first place in the world by the speed of public Wifi – 16.6 Mbps. Singapore was in the second place with 15.1 Mbps and, compared to the USA, Lithuania’s result was almost twice as good (8.7 Mbps).

Table 27. **Structure of users of retail Internet access services provided by means of fixed communications technologies by speed rate, %, 2011–2016**

		2011	2012	2013	2014	2015	2016
Up to 2 Mb/s	↓	10.8	8.5	4.8	3.2	2.1	1.4
From 2 Mb/s to 10 Mb/s	↓	37.5	34.4	24.7	24.4	21.7	19.8
From 10 Mb/s to 30 Mb/s	↓	11.7	10.4	19.0	15.6	16.1	15.9
From 30 Mb/s to 100 Mb/s	↔	30.6	36.6	41.0	44.6	42.4	36.0
More than 100 Mb/s	↑	9.4	10.1	10.5	12.2	17.7	26.8

Source: RRT

Retail Internet access services provided by means of mobile communications technologies.

In 2016, retail Internet access services provided by means of mobile communications technologies were provided by the same undertakings as in 2015, i.e. 6 operators²⁵. In 2016, as in the previous periods, the demand for retail Internet access services provided by means of mobile communications technologies was further increasing. In 2016, the growth of the number of such service users has been at its peak over the last four years. It stood at 17.9% (or 63.2 thousand) and it was by 3.3 pp higher than in 2015. At the end of 2016, as many as 417.1 thousand service users were using retail Internet access services provided by means of mobile communications technologies (see Fig. 29).

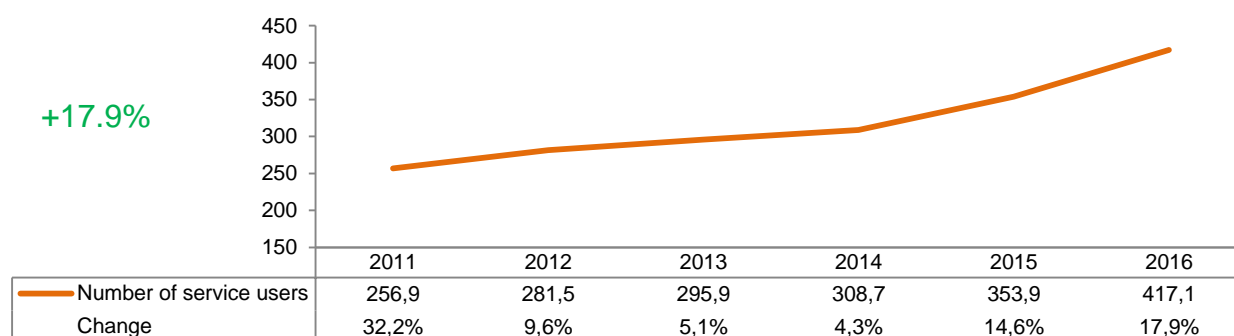


Fig. 29. **The number of users of retail Internet access services provided by means of mobile communications technologies, in thousands, and annual change, %, 2011–2016**

Source: RRT

According to the data of the European Commission, in 2016 Lithuania with 99.4% of LTE coverage was 10th by the coverage of LTE network in Europe. It was 3.4 pp bigger, compared to the average LTE coverage in European Union. LTE coverage in Lithuania was also bigger than our neighbours’ – Estonia (98.8%), Poland (97.6%) and Latvia (93.0%). The biggest LTE coverage was in the Northern European countries (100.0%).

²⁴ <http://blog.rottenwifi.com/top-20-countries-fastest-public-wifi-2016-infographic/>

²⁵ UAB “Omnitel”, UAB “Bitė Lietuva”, UAB “Tele2”, UAB “Eurocom”, UAB “Teledema” ir AS “Viasat”

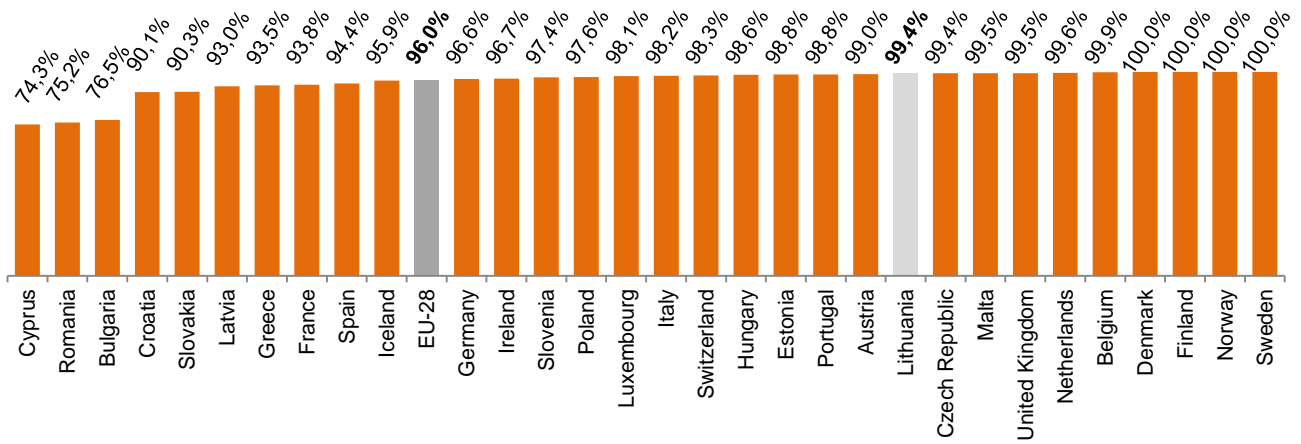


Fig. 30. LTE coverage in European countries, %, 2016

Source: European Commission

In 2016, as in the previous periods, three major market players were dominating in the market of retail Internet access services provided by means of mobile communications technologies in Lithuania – UAB “Omnitel”, UAB “Bitė Lietuva” and UAB “Tele2” (see Table 28).

Table 28. Structure of users of retail Internet access services provided by means of mobile communications technologies by service providers, %, 2011–2016

		2011	2012	2013	2014	2015	2016
UAB “Bitė Lietuva”	↑	37.9	33.5	33.1	33.8	39.1	41.6
UAB “Omnitel”	↓	56.3	59.1	57.8	56.5	52.4	46.5
UAB “Tele2”	↑	5.4	7.0	8.8	9.5	8.3	11.5
Other providers	↔	0.4	0.4	0.3	0.2	0.2	0.4

Source: RRT

In 2016, compared to 2015, the number of service users who used package data transmission services provided via public mobile communications network²⁶ went up by 8.2% or by 183.2 thousand and stood at 2.4 million. With a view to the structure of the market of package data transmission services provided by service providers via public mobile communications network in terms of the number of service users, the major share (40.5%) of service users using such services in 2016, as in 2015, was that of UAB “Tele2” (see Fig. 31). Compared to 2015, the market share of UAB “Tele2” by service providers grew by 0.5 pp.

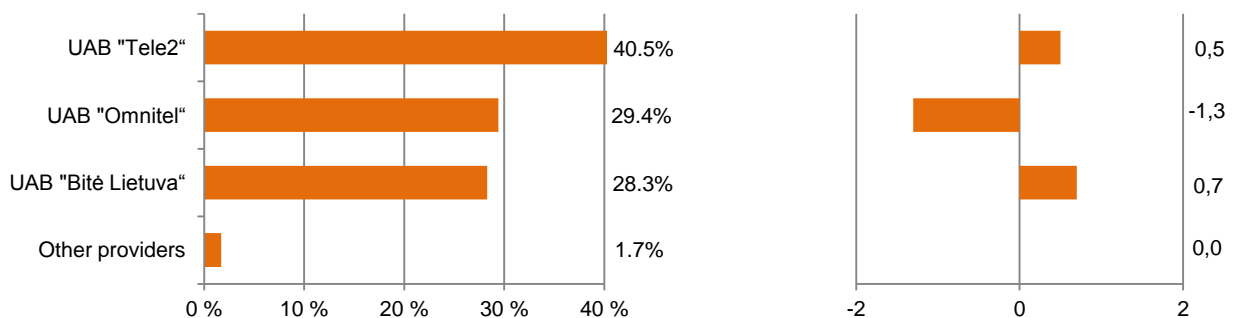


Fig. 31. Structure of the number of users of retail Internet access services provided by means of mobile communications technologies who used package data transmission services in terms of service providers, %, and annual changes of the market shares, pp, 2016

Source: RRT

²⁶ GPRS and/or EDGE technologies, and/or UMTS, UMTS HSDPA, LTE

Revenue. In 2016, as in the previous periods, the service providers' revenue generated from the provision of retail Internet access services was growing. In 2016, the revenue of all undertakings gained from retail Internet access services totalled EUR 125.4 million, i.e. by 7.7% or EUR 9.0 million more than in 2015 (see Fig. 32). In 2016, the increasing revenue from retail Internet access services also raised the market share of these services by 0.5 pp, which stood at 18.6% in 2015, with a view to the total revenue of the electronic communications market.

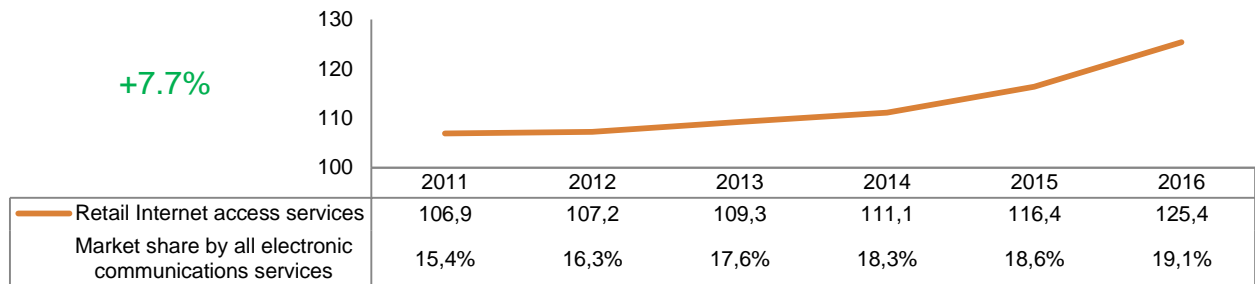


Fig. 32. **Revenue from retail Internet access services, in EUR million, and its share in the electronic communications market, %, 2011–2016**

Source: RRT

In 2016, as in 2015, there were no significant changes in the structure of the market of retail Internet access services in terms of revenue generated by individual undertakings: "Teo LT", AB maintained the leader's position by holding 44.8% of the market (see Fig. 33). However, the market share held by "Teo LT", AB shrank the most by 1.1 pp. The second largest operator in this market segment was UAB "Omnitel" that held 9.1% of the market in 2016, however, its market share also shrank (0.4 pp). The market share of UAB "Bitė Lietuva" increased the most – by 1.9 pp. It should be noted that there were a few changes in the composition of the retail Internet access service providers whose market share exceeded 3.0% remained the same – UAB "Init" and UAB "Tele2" appeared, while UAB "Balticum TV" is gone.

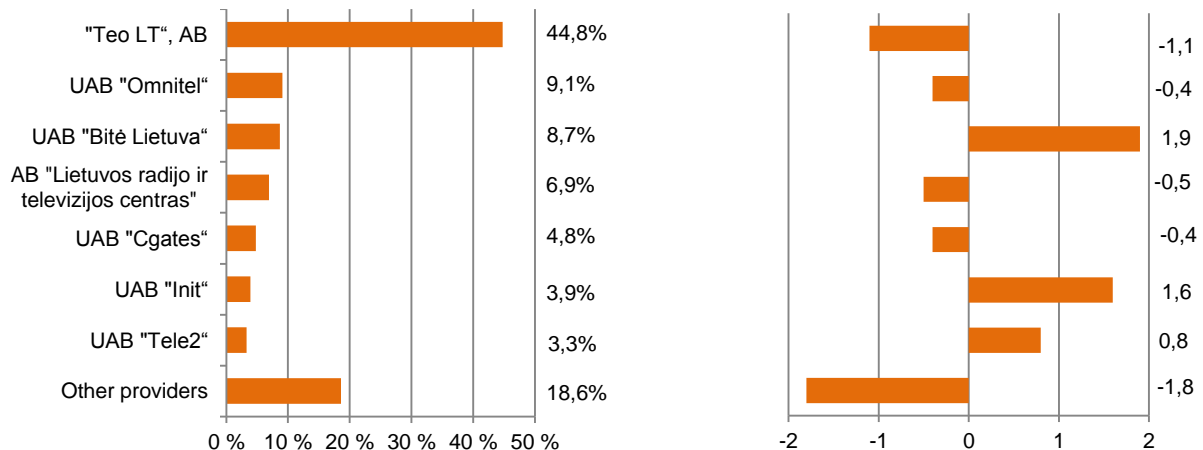
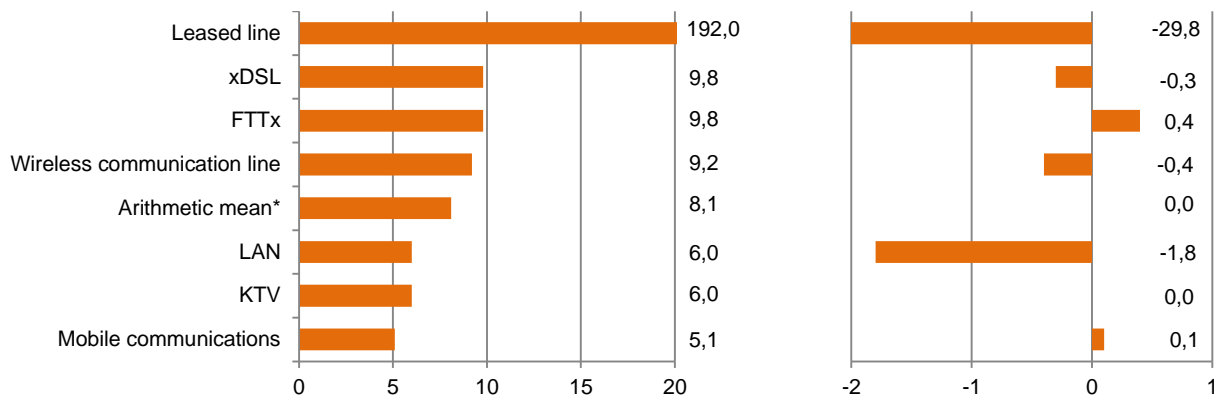


Fig. 33. **Structure of revenue from retail Internet access services by service providers, %, and annual changes of the market shares, pp, 2016**

Source: RRT

ARPU. The average monthly revenue per retail Internet access service user (ARPU) accounted for EUR 8.1 in 2016 and it was the same as in 2015 (see Fig. 34). As in the previous periods, the highest ARPU was generated from service users who connected to the Internet via leased lines. In 2016, compared to 2015, ARPU of this service went down by 13.4% or by EUR 29.8 per month. The lowest revenue (EUR 5.1) in 2016 was received from retail Internet access services provided by means of mobile communications technologies. ARPU of the most popular retail Internet access services provided via FTTx lines increased

insignificantly in 2016 (EUR 0.4) – to EUR 9.8 per month. ARPU of retail Internet access services provided via xDSL lines and FTTx lines were the same.



* Calculated including all technologies, except for leased lines.

Fig. 34. ARPU for retail Internet access services by used technologies, in EUR per month, and ARPU annual changes, in EUR per month, 2016

Source: RRT

Base Stations. For several consecutive years operators of mobile communications networks have been investing in the development of their networks, which in the future will ensure better geographical accessibility and quality of services. The scale of investment is also well illustrated by the growth in the number of new base stations. In 2016, the growth of base mobile communications stations stood at 18,5% and at the end of the year there were 12,1 thousand base stations (see Fig. 35). In 2016, as in 2015, the most rapid development was that of LTE technology-based base stations. At the end of 2016, the number of such stations totalled 3.7 thousand or 62.6% more than during the respective period in 2015.

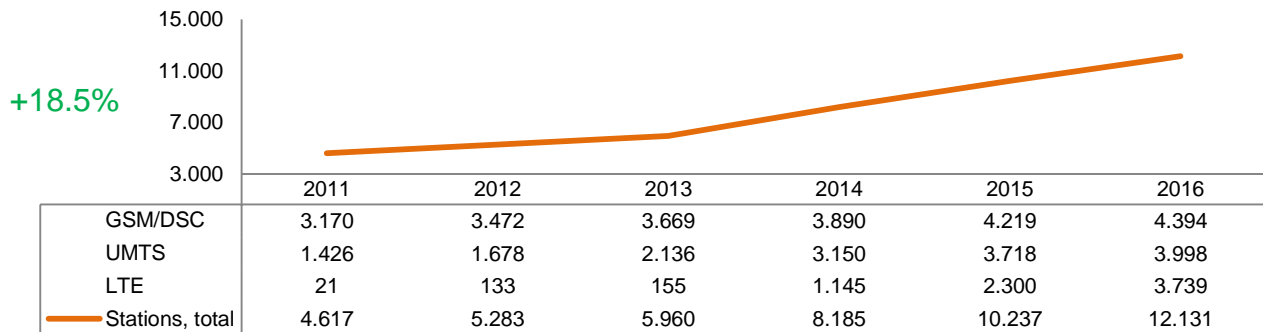


Fig. 35. Number of mobile communications base stations in 2011–2016, in units.

Source: RRT

In 2016, the service providers' revenue generated from the provision of retail Internet access services continued to grow (7.7%). In 2016, FTTx lines remained the most popular technology used to provide Internet access services. In 2016 as many as 42.8% of all Internet access service users were choosing this method of receiving the service.

3.3. Services of Leased Lines



N.B.!

- In this section of the report other leased line service providers shall be all leased line service providers, except for UAB “Bitė Lietuva”, UAB “Duomenų Logistikos Centras” and “Teo LT”, AB (“other providers”).

Leased line services include both retail and wholesale leased line services.

Service Providers. At the end of 2016, as in 2015, wholesale and/or retail leased line services were provided by 8 undertakings, of which the major providers were “Teo LT”, AB, UAB “Duomenų Logistikos Centras” and UAB “Bitė Lietuva”.

Service Recipients. Leased line services are used by both the providers of electronic communications networks and/or services and end service users. The latter usually use them to ensure high-quality communication for the purpose of transmitting data between two geographically distant points. Electronic communications network and/or service providers use leased lines for geographical expansion of their electronic communications networks, which enables the service providers to offer their retail electronic communications services to a larger circle of service users. The trends over the past years show that the popularity of leased line services has decreased due to development of new technologies, changing needs of service users and development of broadband communication, and such services are replaced with other data transmission services.

Number of assigned leased lines. At the end of 2016, as many as 1,012 leased lines were assigned: 521 retail lines and 491 wholesale leased lines. Of 1,012 leased lines, 653 leased lines were digital and 359 leased lines were analogue ones. In 2016, as in the previous year, the demand for leased lines was further decreasing. Compared to the end of 2015, the number of assigned leased lines dropped by 7.0% in 2016. In 2016, “Teo LT”, AB was leading on the market of leased lines both by revenue and number of assigned leased lines. In 2016, this undertaking assigned 65.9% of all leased lines or 667 leased lines – compared to 2015, where the total of 718 were assigned, which is by 7.1% less – and earned 62.1% of the total revenue of the market of leased lines.

At the end of 2016, as in the previous periods, the major share of assigned leased lines was represented by retail leased lines – 51.5%. Nevertheless, the gap between wholesale and retail leased line services was slightly greater in 2015. At the end of 2015, retail leased lines constituted a share larger by 1.6 pp – 53.1%.

In 2016, as in 2015, the number of both digital and analogue leased lines was going down – by 3.8% and 12.2%, respectively. A more significant decrease in the number of analogue leased lines in 2016 was caused by the fact that their share on the market of leased lines had shrunk, and at the end of 2016, it stood at 35.5%; the share of digital leased lines accordingly increased up to 64.5% (see Fig. 36).

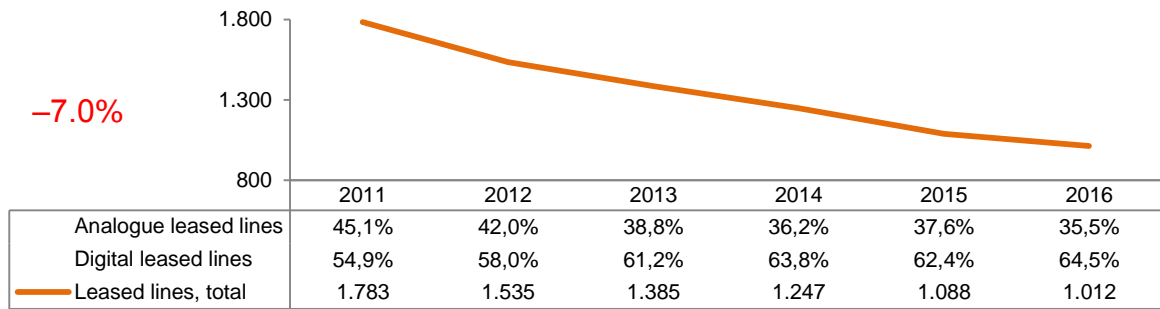


Fig. 36. The number of assigned leased lines, in units, and their structure by service groups, %, 2011–2016

Source: RRT

The number of digital leased lines used to transmit data at the speed rate higher than 2 Mb/s went up by 74.0% in 2016 (see Fig. 37). In 2016, as many as 362 lines were assigned, i.e. by 154 units more than in 2015. It was mainly caused by UAB “Dicto Citius” that increased the number of digital leased lines used to transmit data at the speed rate higher than 2 Mb/s from 20 to 177 units.

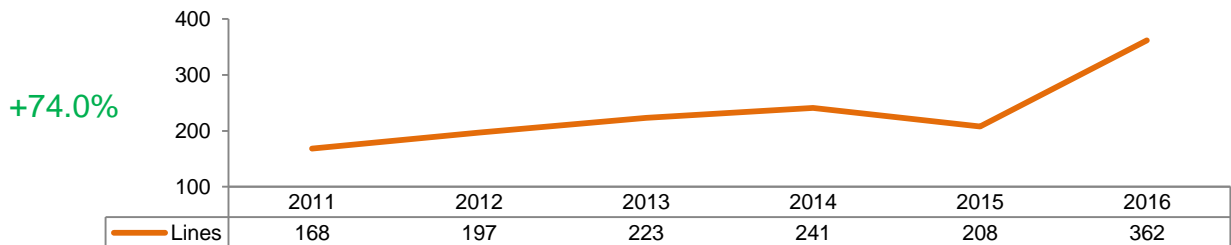


Fig. 37. The number of leased lines of speed rate higher than 2 Mb/s, in units, 2011–2016

Source: RRT

Revenue. In 2016, the revenue amounting to EUR 3.4 million was received from leased line services (see Fig. 38). Compared to the revenue in 2015, it decreased by EUR 0.9 million. Accordingly, their share on the market of data transmission services continued to go down as well and it stood at 2.2% in 2016. The decrease of the revenue from leased line services in 2016 was similar to the one in 2015: in 2016, the revenue from such services dropped by 20.9%, and in 2015, revenue falling accounted for 21.8%. With a view to the structure of revenue, the amount of EUR 1.81 million was received from retail leased line services in 2016 (in 2015 – EUR 2.54 million), and EUR 1.61 million (in 2015 – EUR 1.72 million) – from wholesale leased line services.

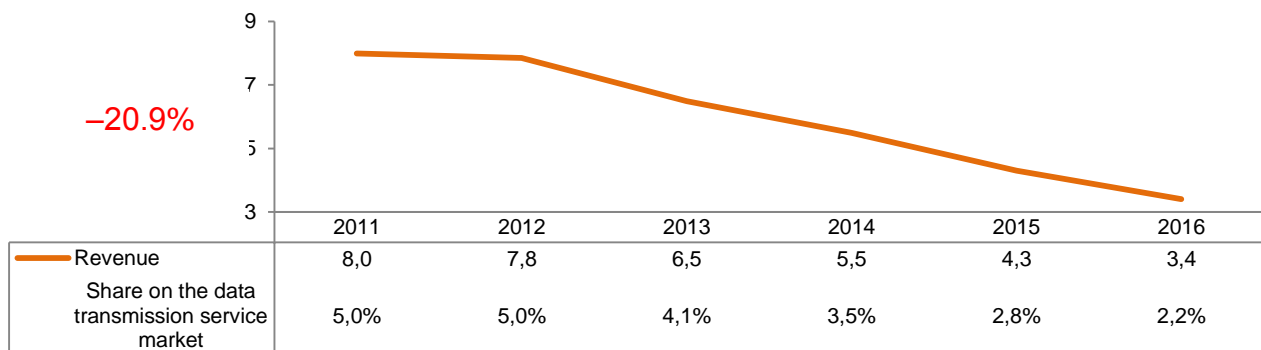






Fig. 38. Revenue from leased line services, in EUR million, and its share in the data transmission service market, %, 2011–2016

Source: RRT

Every single year during the period between 2011 and 2016, the major share of the market of leased lines was held by “Teo LT”, AB in terms of the number of assigned leased lines. The same trend remained in terms of held market shares and revenue (see Table 29). It must be noted that the market share

held by “Teo LT”, AB had been gradually shrinking until 2016 when it increased by 7.2 pp and was equal to 62.1%. The market share of UAB “Bitė Lietuva” was increasing every year.

Table 29. **Structure of revenue received from leased line services by service providers in 2011–2016, %**

		2011	2012	2013	2014	2015	2016
UAB “Bitė Lietuva”		7.4	9.2	9.3	9.8	9.4	10.5
UAB “Duomenų logistikos centras”		17.7	16.3	26.3	27.2	30.9	21.5
“Teo LT”, AB		64.2	62.2	60.6	58.2	54.9	62.1
Other providers		10.7	12.3	3.8	4.8	4.8	5.9

Source: RRT

In 2016, the market of leased lines shrank by 20.9% in terms of the revenue. The decrease of the revenue received from leased line services was mainly caused by lower demand for these services. In 2016 the number of digital leased lines used to transmit data at the speed rate higher than 2 Mb/s increased by 74.0%. It was mainly because UAB “Dicto Citius” changed its leased lines to digital leased lines used to transmit data at the speed rate higher than 2 Mb/s. Due to growing needs of service users and development of broadband communication based on advanced technologies, however, the demand for leased line services is decreasing and leased lines are replaced with retail Internet access and other data transmission services.

3.4. Other Data Transmission Services



N.B.!

- In 2016, the following wholesale Internet access services were provided: services of wholesale central access to xDSL line and FTTx line for mass market products in a fixed location, direct and/or indirect shared connection to the Internet and Internet transit services. Information possessed by RRT includes the information only on the service of wholesale central access to xDSL line for mass market products in a fixed location, therefore this report contains only information on this particular service.
- In this section of the report other providers shall be all other data transmission service providers, except for Public Enterprise "Plačijauostis internetas", UAB "Satgate" and "Teo LT", AB ("other providers").

Other data transmission services are usually the services provided by the Internet Protocol technologies which ensure data transmission between the geographically distant points, connection of geographically distant points, data flow transmission and other features of data transmission. The examples of such services are Virtual Private Network services, Frame Relay services, Ethernet services, data traffic transmitted over the Multiprotocol Label Switching (MPLS) technology, and wholesale Internet access services.

Service Providers. Other data transmission services, including wholesale Internet access services, were provided by 1 undertaking less in 2016 than in 2015, i.e. the services were provided by 21 operators, of which 8 operators were providing wholesale Internet access services at the end of 2016 (at the end of 2015 – 9).

Service Recipients. During the period between 2011 and 2016, the number of other data transmission service (except for wholesale Internet access services) users was at its peak in 2014. In 2016, the number of such service users went up by 1.2% to 17.2 thousand service users (see Fig. 39).

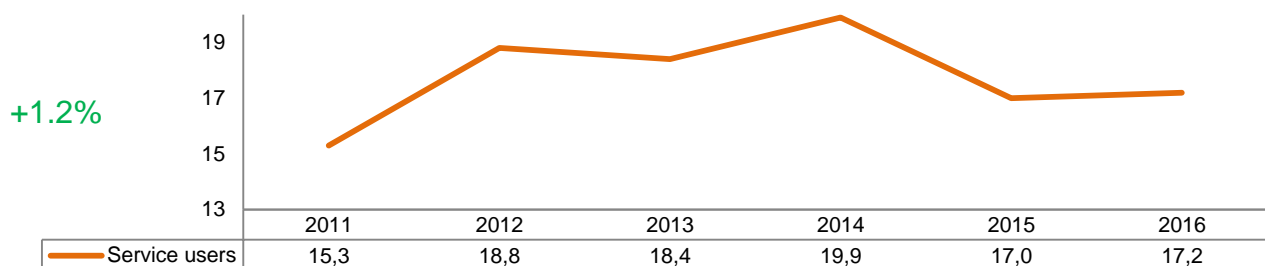


Fig. 39. Number of other data transmission service (except for wholesale Internet access services) users, in thousands, 2011–2016

Source: RRT

The major share of other data transmission service (except for wholesale Internet access services) users were using the services provided by "Teo LT", AB. At the end of 2016, "Teo LT", AB was providing

other data transmission services (except for wholesale Internet access services) to 64.4% of such service users which is 0.9 pp less than during the respective period in 2015.

Wholesale Internet Access Service. At the end of 2016, the wholesale Internet access service, i.e. the service of wholesale central access to xDSL line for mass market products in a fixed location, by 1 undertaking – “Teo LT”, AB. In 2016, this service was purchased by 5 operators who, at the end of year, were assigned 1,725 wholesale xDSL lines by “Teo LT”, AB (see Fig. 40). Regardless of the fact that in 2016 the number of assigned lines was higher by 7.1% but taking account of the decrease of the demand for retail Internet access services provided via xDSL lines and the growth of retail Internet access services provided via FTTx lines, mobile and wireless communications technologies, the demand for the service of wholesale central access to xDSL line for mass market products in a fixed location will likely go down.

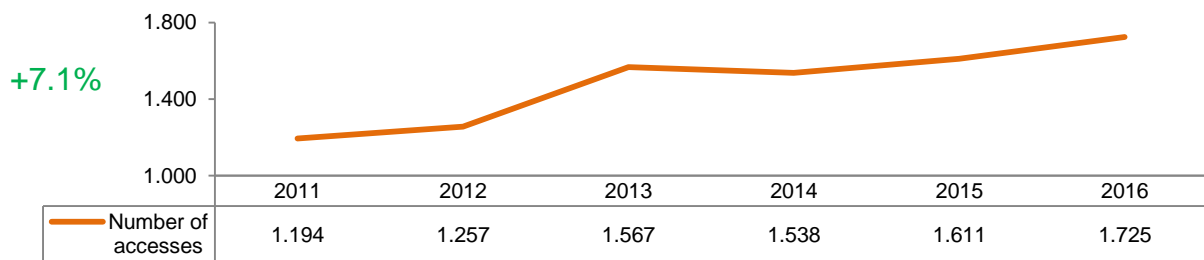


Fig. 40. The number of granted accesses to wholesale xDSL lines, in units, 2011–2016

Source: RRT

Revenue. The revenue from the provision of other data transmission services continued to decrease in 2016. It amounted to EUR 24.3 million or by 14.7% less than in 2015 (see Fig. 41). With a view to the total revenue of the electronic communications market, the revenue generated by other data transmission services accounted for 3.7% in 2016 – this is by 0.9 pp less than in 2015.

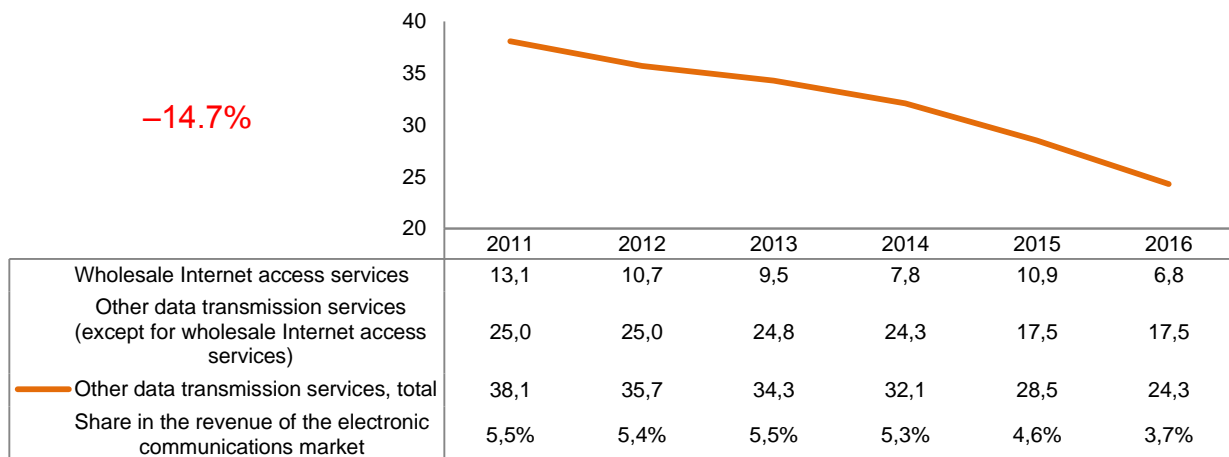


Fig. 41. Revenue from other data transmission services, in EUR million, and its share by the total revenue of the electronic communications market, %, 2011–2016

Source: RRT

In 2016, as in the previous year, the major portion of the revenue in the provision of other data transmission services was received from other data transmission services (except for wholesale Internet access services), i.e. 72.0% or EUR 17.5 million (see Fig. 41). Compared to the revenue in 2015, it did not change. In 2016, the revenue from wholesale Internet access services decreased rapidly and was equal to EUR 6.8 million.

In 2016, “Teo LT”, AB not only remained the leader on the market of other data transmission services, in terms of the revenue, but it also increased its market share by 10 pp (see Fig. 42). The revenue

of the second market player – UAB “Satgate” – decreased by 53.0% in 2016 and its market share shrank by 13.2 pp.

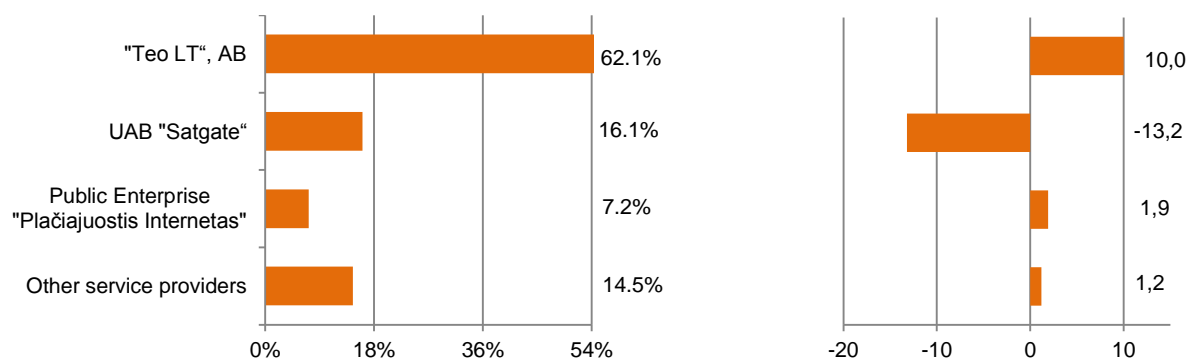


Fig. 42. **Structure of revenue from other data transmission services by service providers, %, and annual changes of the market shares, pp, 2016**

Source: RRT

In 2016, the market of other data transmission services, in terms of the revenue, that constituted 15.9% of the overall data transmission market, shrank by 14.7%. Although the demand for wholesale Internet access services has been stable since 2013, taking account of the decrease of the demand for retail Internet access services provided via xDSL lines and the growth of retail Internet access services provided via FTTx lines, mobile and wireless communications technologies, the demand for wholesale Internet access services will likely go down.

4. Television and Radio

4.1. General Overview of the Market of Television and Radio Services



N.B.!

- In this section of the report other television and radio service providers shall be all television and radio service providers, except for UAB "Balticum TV", UAB "Cgates", UAB "Init", AB "Lietuvos radijo ir televizijos centras", "Splus", UAB, "Teo LT", AB and AS "Viasat" ("other providers").

The market of television and radio services covers retail free television and radio services, retail pay-TV services and wholesale television and radio broadcasting services which are required to provide retail radio and television services.

Service Providers. At the end of 2016, television and radio activities, insofar it relates to the electronic communications activities, were carried out by 1 undertaking less than at the end of 2015, i.e. 44 undertakings (see Table 30).

Table 30. **Number of television and radio service providers by services provided, in units, 2011–2016**

		2011	2012	2013	2014	2015	2016
Radio and television broadcasting	↔	4	5	4	6	4	4
Pay-TV services	↓	50	45	46	45	41	42
Total	↓	50	46	46	46	45	44

Source: RRT

In 2016, retail television services were provided by 42 service providers. There were quite fewer wholesale radio and television broadcasting service providers: at the end of 2016, television broadcasting services were provided by 4 undertakings. AB "Šiaulių apskrities televizija" and UAB "Balticum TV" were providing both retail television services and wholesale radio and television broadcasting services. Radio broadcasting services, as in the previous periods, were provided by only one undertaking – AB "Lietuvos radijo ir televizijos centras". In the segment of pay-TV services the decrease of the number of such service providers is caused by currently more active consolidation processes of service providers.

Revenue. The growth of the revenue from retail and wholesale television and radio services received till 2013 is to be associated with the shut-down of analogue television broadcasting on 29 October 2012. After the shut-down that took place at the end of 2012, the revenue from television and radio services during the period between 2013 and 2015 remained stable. In 2016, they increased significantly and stood at EUR 69.0 million (see Fig. 43). Compared to 2015, it went up by 6.8% or by EUR 4.4 million. This increase was mainly influenced by higher revenue from wholesale television broadcasting service.

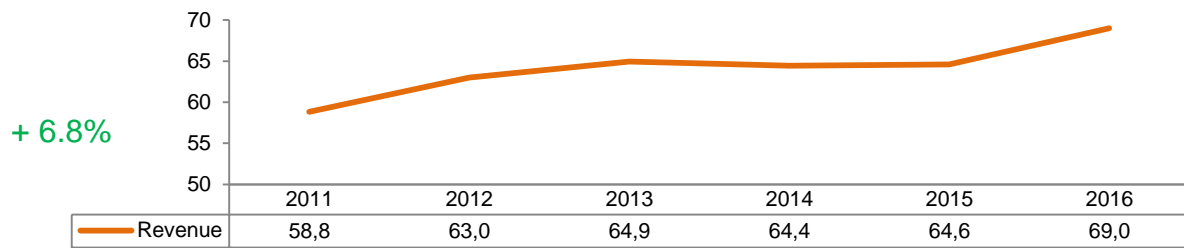


Fig. 43. Revenue from television and radio services, in EUR million, 2011–2016

Source: RRT

In 2016, as in the previous periods, the largest portion of the revenue was earned from retail television services. The revenue generated from this activity stood at EUR 64.4 million or 93.3% (the same as in 2015) of the total revenue from the provision of television and radio services. In 2016, the revenue from wholesale television and radio broadcasting services amounted to EUR 4.7 million or 6.8% of the total revenue from television and radio services: 5.1% (in 2015 – 5.2%) of the revenue was received from television broadcasting services, and 1.7% (in 2015 – 1.5%) – from radio broadcasting services.

With a view to the structure of the market of television and radio services by revenue of service providers in 2016, the same 7 undertakings remained the major service providers that together held 92.5% of the market, i.e. by 0.3 pp less than in 2015 (see Fig. 44). “Teo LT, AB, which held 35.4% of the market by revenue in 2016, was the one to have strengthened its market share the most. Over the year, the market share of this undertaking grew by 3.5 pp. The market share by revenue of 4 other undertakings shrank in 2016: market share of AS “Viasat” – 16.4% (in 2015 – 18.6%), UAB “Cgates” – 13.3% (in 2015 – 13.5%), UAB “Init” – 9.2% (in 2015 – 10.1%), UAB “Balticum TV” – 7.9% (in 2015 – 8.4%). The market share of UAB “Splus” stayed the same and stood at 3.8%.

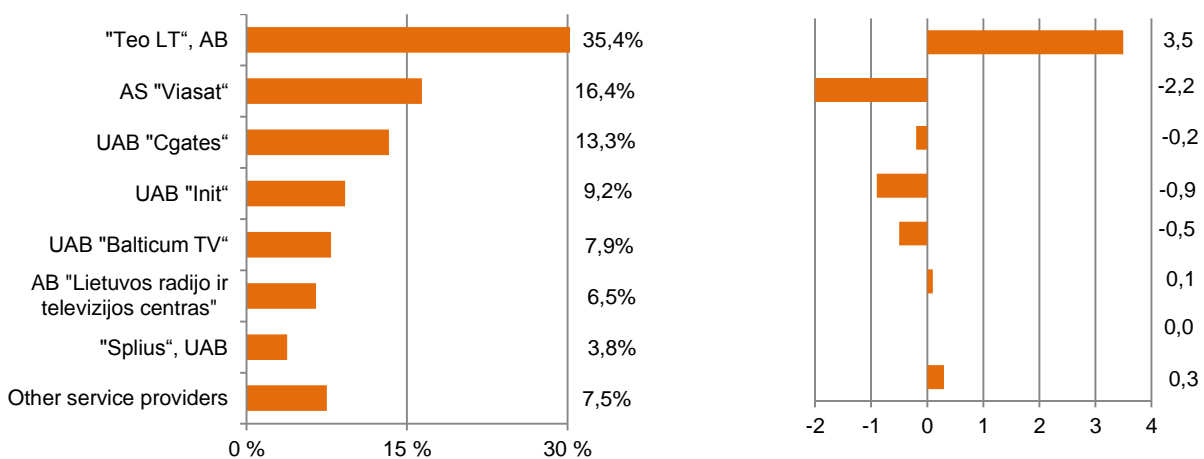


Fig. 44. Structure of revenue from television and radio services by service providers, %, and annual changes of the market shares, pp, 2016

Source: RRT

The growth of the revenue from television and radio services received till 2013 is to be related to the shut-down of analogue television broadcasting on 29 October 2012. After the shut-down that took place in 2012, the revenue from television and radio services during the period between 2013 and 2015 remained stable. In 2016, the revenue from television and radio services increased by 6.8%. In the segment of pay-TV services the decrease of the number of such service providers is caused by currently more active consolidation processes of service providers. “Teo LT”, AB, which held 35.4% of the market by the revenue in 2016, was the one to have strengthened its market share the most.

4.2. Retail Television Services



N.B.!

- In this section of the report other retail television service providers shall be all retail television service providers, except for UAB “Balticum TV”, UAB “Cgates”, UAB “Init”, “Splius”, UAB, “Teo LT”, AB and AS “Viasat” (“other providers”).

Methods of the Service Provision. In 2016, pay-TV services were provided by employing 5 different methods in Lithuania:

- via cable television networks (“CTV”);
- via Internet Protocol technologies (“IPTV”);
- via satellite networks (“satellite TV”);
- via terrestrial television networks (“DVB-T”);
- via microwave multi-channel distribution system networks (“MMDS”).

Service Providers. In 2016, compared to 2015, the number of pay-TV service users changed insignificantly. The changes are further recorded only in CTV and IPTV segments (see Table 31). The number of undertakings providing CTV services dropped from 32 to 30 service providers in 2016. Since 2011 the number of undertakings providing IPTV services more than doubled. During the period between 2013 and 2016 the number of undertakings providing IPTV services stabilized and was equal to 15–16 service providers. In 2015, as in the previous periods, MMDS and DVB-T services were provided by 2 undertakings (each), and satellite TV services were provided by 1 undertaking – AS “Viasat”.

Table 31. **Structure of pay-TV service providers by service provision methods, in units, between 2011 and the end of 2016**

		2011	2012	2013	2014	2015	2016
CTV	↓	44	41	37	35	32	30
MMDS	↓	3	2	2	2	2	2
DVB-T	↔	2	2	2	2	2	2
Satellite TV	↔	1	1	1	1	1	1
IPTV	↑	7	9	15	16	15	16

Source: RRT

Service Recipients. The growth of the number of television service users till 2013 is to be related to the shut-down of analogue television broadcasting on 29 October 2012. During the period between 2013 and 2015 this number was stabilized. At the end of 2016 there were 707.4 thousand service users or by 2.1% less than in 2015 (see Fig. 45). The largest share (53.3%) of television service users still prefer CTV services, but their number is dropping. In 2016, compared to 2015, the share of CTV service subscribers

decreased by 1.8 pp. In 2016 IPTV and satellite television services were used by 29.1% and 10.4% of all pay-TV service users, respectively. The MMDS service further remains the least popular service whose users accounted for mere 1.5%.

With a view to the structure of the market of pay-TV services by subscribers, in 2016 the number of pay-TV subscribers was decreasing in all categories, except for IPTV. The number of IPTV service users grew by 14.6% in 2016 (in 2015 – 23.4%). The growth of the demand for IPTV services may be associated with the fact that the functionality of such services corresponds to the needs of today's users. The number of satellite television service users decreased the most – it went down by 12.0% and totalled 73.6 thousand users at the end of the year.

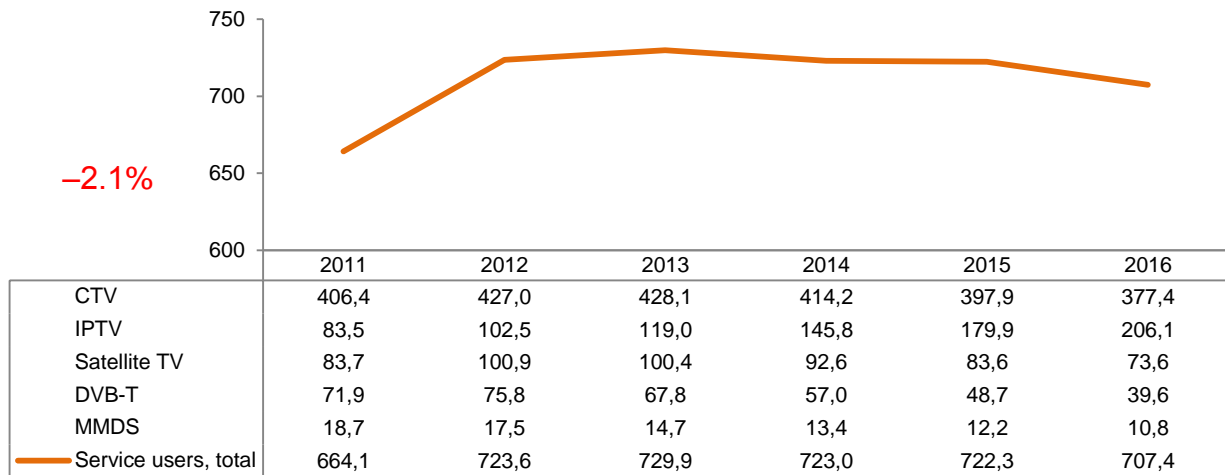


Fig. 45. **Number and structure of pay-TV service users by service provision methods in 2011–2016, in thousands**
Source: RRT

Revenue. The similar trends of the structure of the market of pay-TV services, in terms of revenue or number of service users, have been observed. In 2016, the largest portion (42.0%) of the revenue from pay-TV services was from CTV services whose revenue, compared to 2015, went up by 2.6% (see Fig. 46). In 2016, the stability of the revenue from pay-TV services resulted from the growth of the revenue from IPTV services. Over the year the revenue earned from these services amounted to EUR 20.6 million or by 28.8% more than in 2015. The revenue from IPTV grew due to the increased demand for these services caused by higher functionality of television services provided this way vis-à-vis other methods of the provision of television services.

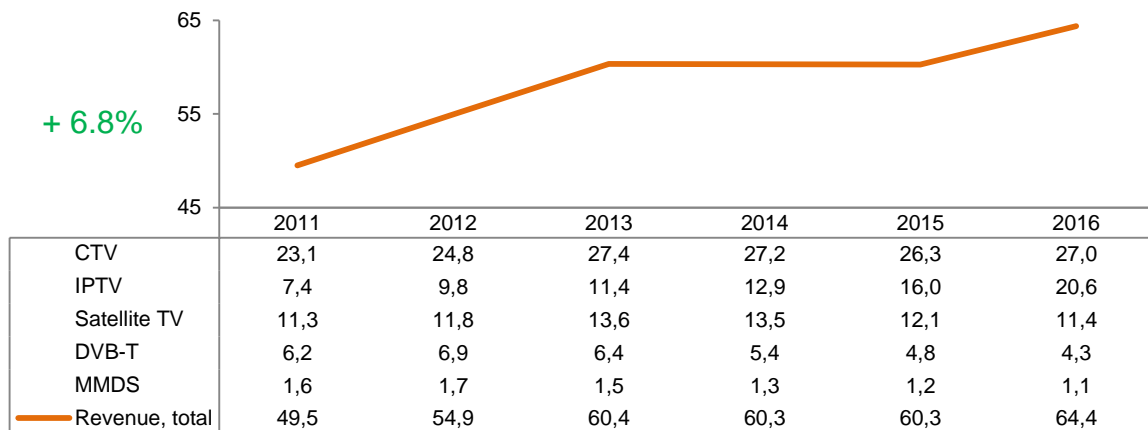


Fig. 46. **Structure of revenue received from pay-TV services by service provision methods in 2011–2016, in EUR million**
Source: RRT

In 2016, compared to 2015, the structure of the market of pay-TV services by revenue of service providers remained stable – 6 major pay-TV service providers maintained the same positions, but the market shares changed (see Fig. 47). The leader of the market of pay-TV services – “Teo LT”, AB – strengthened its position on the market in 2016 and over the year it expanded its market share by 3.8 pp up to 37.9%. This was mainly impacted by the increasing demand for IPTV services provided by “Teo LT”, AB. The market share of other undertakings shrank or stayed the same.

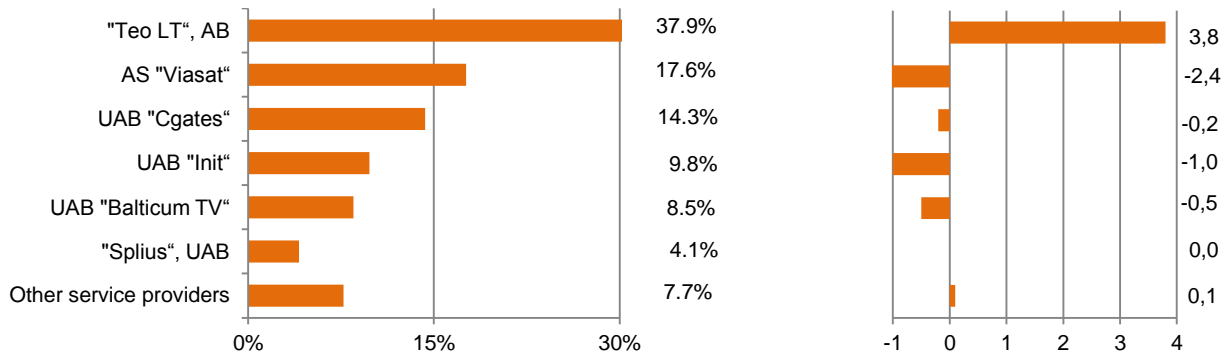


Fig. 47. Structure of revenue from pay-TV services by service providers, %, and annual changes of the market shares, pp, 2016

Source: RRT

ARPU. The monthly revenue per pay-TV service user (ARPU) accounted for EUR 7.58 in 2016 and it was by EUR 0.62 more than in 2015 (see Fig. 48). With a view to ARPU received from pay-TV services provided by different means, the largest change in ARPU (growth by EUR 0.93) was recorded in the provision of IPTV service in 2016, compared to 2015. In 2016, as in the previous periods, the highest ARPU was earned by the satellite television service provider, and the lowest ARPU was generated by CTV service providers. In 2016 ARPU of all pay-TV services provided by different means increased.

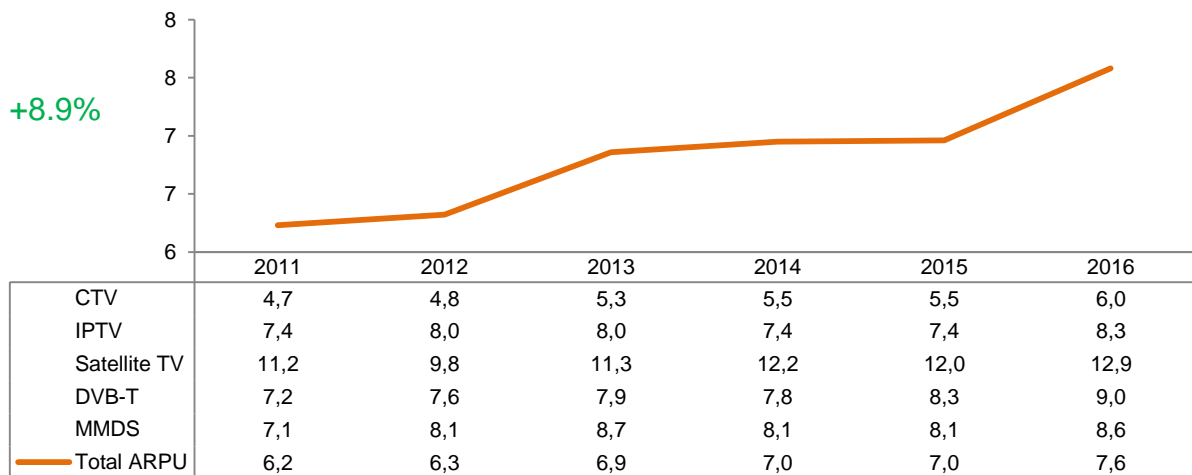


Fig. 48. ARPU from pay-TV services by service provision methods in 2011–2016, in EUR per month.

Source: RRT

Despite the fact that in 2016 the number of pay-TV services subscribers decreased, the the revenue from pay-TV services increased by 6.8. Ever since 2011 a significant increase in both subscribers and revenue has been recorded by IPTV services. In 2016 the share of the market of pay-TV services held by “Teo LT”, AB increased. What is more, in 2016 ARPU of all pay-TV services provided by different means increased and the overall increase of ARPU from pay-TV services was the highest during the whole period of 2011 and 2016.

4.3. Wholesale Television and Radio Broadcasting Services



Service Providers. In 2016, wholesale television broadcasting services were provided by 4 undertakings: 1 undertaking – AB “Lietuvos radijo ir televizijos centras” – via national networks; 2 undertakings – UAB “Balticum TV” and UAB “Šiaulių apskrities televizija” – via regional networks. Also, one undertaking registered in Lithuania – UAB “Satgate” – was providing television broadcasting services outside Lithuania. Wholesale radio broadcasting services, as in the previous periods, were provided by only one undertaking – AB “Lietuvos radijo ir televizijos centras”.

Revenue. In 2016, compared to 2015, the revenue from the provision of television and radio broadcasting services grew by 7.4% and stood at EUR 4.66 million (see Fig. 49). The growth of the revenue resulted from the revenue received from television and radio broadcasting services. The largest portion of the revenue from television and radio broadcasting services in 2016, as in the previous periods, was generated by AB “Lietuvos radijo ir televizijos centras”. In 2016, this undertaking generated 96.0% (the same as in 2015) of the total revenue from television and radio broadcasting services.

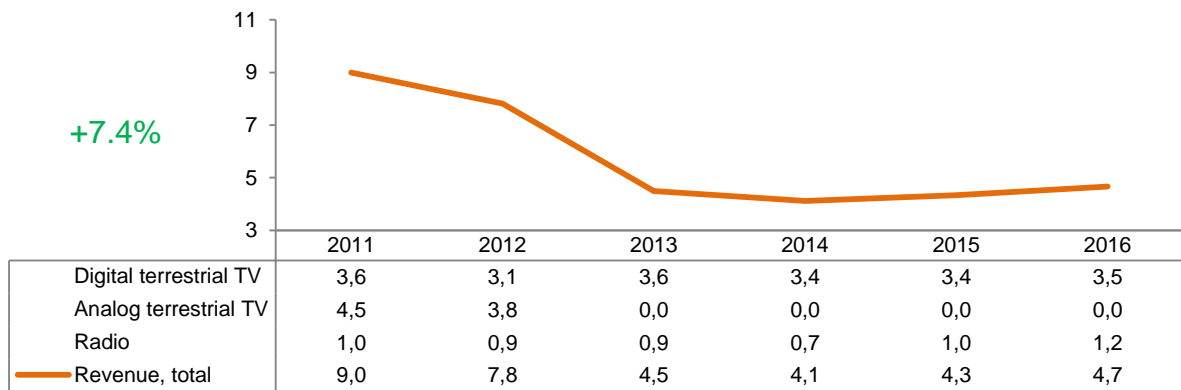


Fig. 49. **Revenue from television and radio broadcasting services by service groups, in EUR million, 2011–2016**
Source: RRT

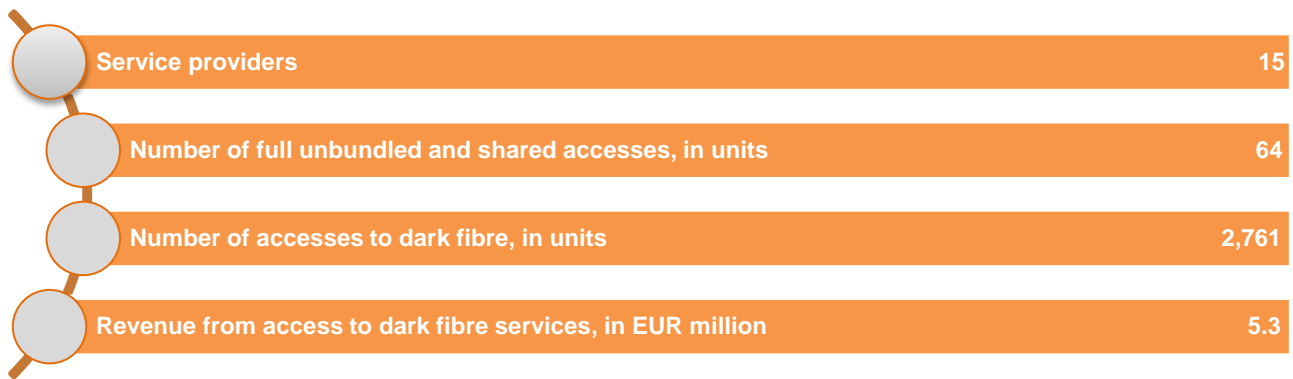
The revenue from radio broadcasting services that had been decreasing since 2011 grew by 20.8% or by EUR 0.2 million up to EUR 1.16 million in 2016. Due to this growth the revenue from radio broadcasting services in 2016 was the biggest during the entire period between 2011 and 2016.

Stations. At the end of 2016, as many as 106 digital terrestrial television stations were operating in Lithuania. There were 93 digital terrestrial television stations which constituted 4 national coverage digital terrestrial television networks (2 networks were provided by AB “Lietuvos radijo ir televizijos centras”, the other two – by “Teo LT”, AB). There were also 13 digital terrestrial television stations which operated in individual geographical regions. In 2016, LRT created a new digital terrestrial television network which is used for the broadcasting of 3 television programmes by LRT (“LRT Kultūra”, “LRT Televizija” and “LRT Televizija HD”). In 2016 “Teo LT”, AB was granted the right to rebroadcast 24 television programmes through

its digital terrestrial television networks. This undertaking discontinued using the television broadcasting services provided by AB “Lietuvos radijo ir televizijos centras” and started only using its own network for the broadcasting of television programmes.

In 2016, the revenue from wholesale television and radio broadcasting services grew by 7.4% and accounted for 6.8% of the total revenue of the television and radio market. In 2016, AB “Lietuvos radijo ir televizijos centras” generated 96.0% of the total revenue from television and radio broadcasting services. Structural changes in digital terrestrial television networks occurred in 2016.

5. Access to Physical Infrastructure



N.B.!

- The information possessed by RRT includes only access to dark fibre and full unbundled and shared access to the local metallic twisted pair loop services, therefore the information contained in this section will reflect the provision of the said services.
- In this section of the report other access to physical infrastructure service providers shall be all access to physical infrastructure service providers, except for UAB “Skaidula” and “Teo LT”, AB in Figure 51 and UAB “Duomenų Logistikos Centras”, Public Enterprise “Plačiajuostis Internetas”, UAB “Skaidula” and “Teo LT, AB” in Figure 53 (“other providers”).

In 2016, the following 5 wholesale access to physical infrastructure services were provided in Lithuania:

- access to dark fibre (“Dark Fibre”) service;
- service of full unbundled and shared access to the local metallic twisted pair loop;
- service of access to communications cable duct system;
- service of access to television and radio broadcasting means;
- services of access to other physical infrastructure.

Providers. At the end of 2016, wholesale access to physical infrastructure services were provided by 1 undertaking more than in 2015, i.e. 15 undertakings. In 2016, as in the previous year, full unbundled and shared access to the local metallic twisted pair loop services were provided by only one undertaking – “Teo LT”, AB. Only two undertakings, i.e. VĮ “Infostruktūra” and UAB “Baltnetos Komunikacijos”, were buying these services from “Teo LT”, AB, as in the previous periods. As many as 15 undertakings were engaged in the provision of access to dark fibre services, i.e. by 1 undertaking more than in 2015.

Number of Granted Accesses. During the period between 2011 and 2016, the demand for full unbundled and shared access to the local metallic twisted pair loop services was gradually decreasing (see Fig. 50). At the end of 2016, the total number of granted accesses to the local metallic twisted pair loop stood at 64 units or by 62.6% less than in 2015.

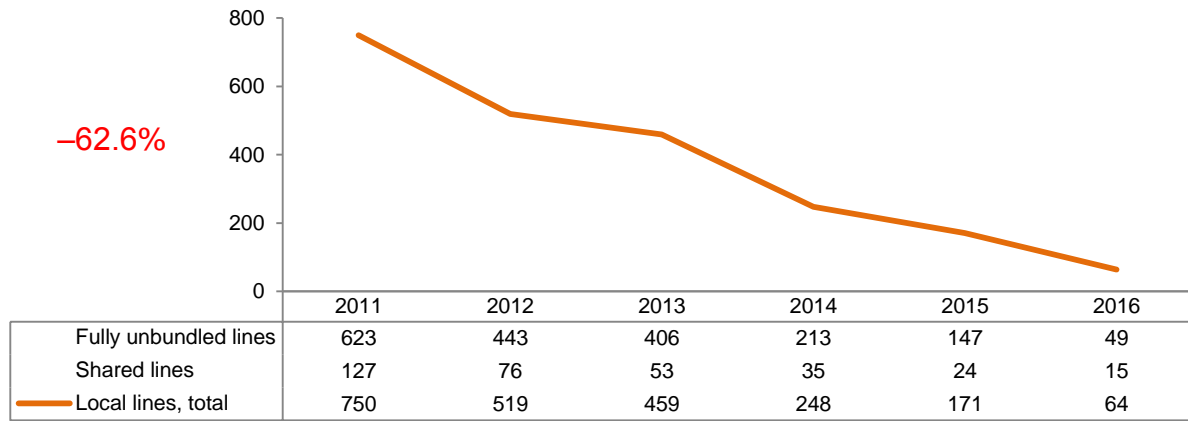


Fig. 50. Number of granted accesses to full unbundled and shared local metallic twisted pair loop, in units, 2011–2016

Source: RRT

At the end of 2016, the service providers had provided 2,761 dark fibres (see Fig. 51). Compared to the situation at the end of 2015, this is by 9.9% or by 305 fibres less. The revenue from this activity also decreased in 2016 (see Fig. 52). In 2016, for the first time UAB “Skaidula” was leading on the market of the access to dark fibre services by the number of granted accesses. It must be noted that the market share held by this undertaking has been gradually growing for annually. In 2016, compared to 2015, its market share increased by 3.8 pp. The decline in the demand for access to dark fibre services was probably caused by the fact that service users were replacing these services with other vertically related services.

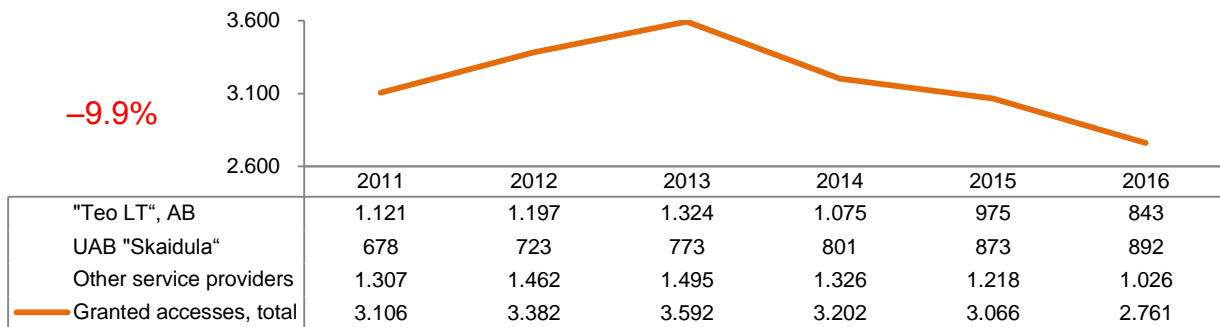


Fig. 51. The number of granted accesses to dark fibre, in units, 2011–2016

Source: RRT

Revenue. In 2016, the access to dark fibre service providers earned the revenue amounting to EUR 5.3 million (see Fig. 52). The revenue from the provision of these services dropped for the third consecutive year in 2016. Compared to the revenue in 2015, it decreased by 1.9% or by EUR 0.1 million.

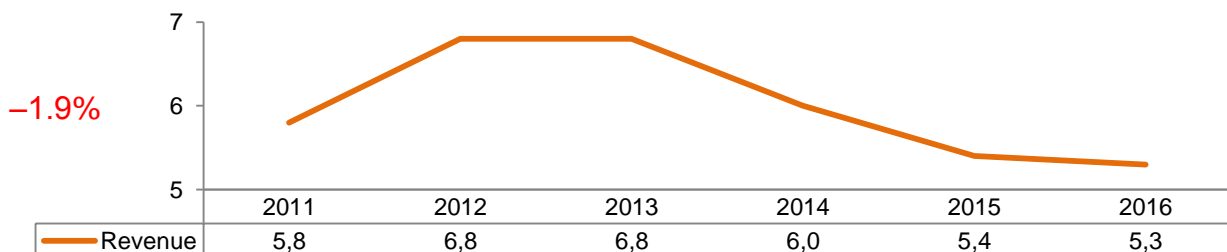


Fig. 52. Revenue from access to dark fibre services, in EUR million, 2011–2016

Source: RRT

Despite the fact that in 2016 the market share of UAB “Skaidula” increased by 1.5%, while the market share of “Teo LT”, AB increased by 1.8%, second year in a row UAB “Skaidula” was leading on the market of the access to dark fibre services by revenue earned (see Fig. 53).

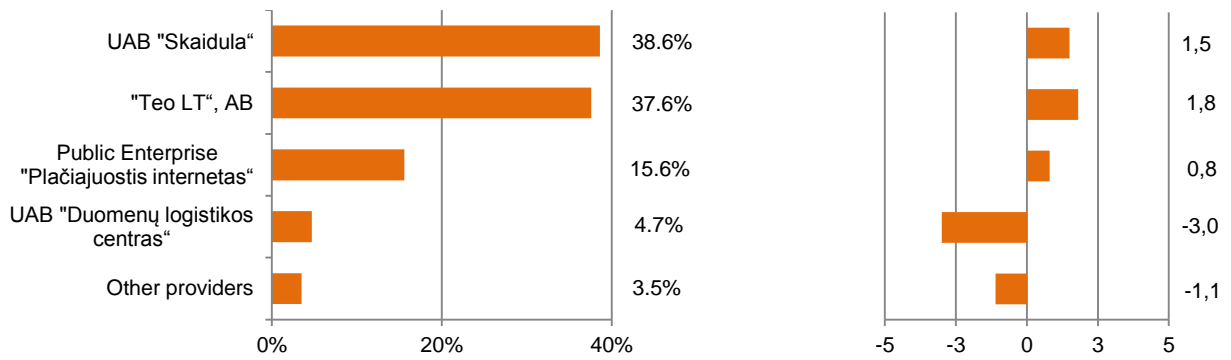


Fig. 53. Structure of revenue from access to dark fibre services by service providers, %, and annual changes of the market shares, pp, 2016

Source: RRT

At the end of 2016, the total number of granted accesses to the local metallic twisted pair loop stood at 64 units or by 62.6% less than in 2015. At the end of 2016, the service providers had provided 2,761 dark fibres. In 2016, the access to dark fibre service providers earned by 1.9% less revenue from the access to physical infrastructure services, compared to 2015.

POSTAL SERVICE MARKET

1. General Overview of the Postal Service Market



 Service providers	67
 Major service provider	AB "Lietuvos paštas"
 Revenue, in EUR million	130.9

The growth of the postal service market has been observed for six years already. During this period, the market has grown by 66.1% and in 2016, it represented 16.6% of the total revenue of the Lithuanian communications sector. The annually increasing volumes of e-commerce and scale of emigration result in the growing trend of the parcel flow. Thus, due to the relevance of the postal service the continuous provision of the universal postal service to all residents of Lithuania will be further ensured²⁷ under uniform conditions.

The postal service consists of the following three main activities: sending of items of correspondence²⁸ (letters and small packages), sending postal parcels (articles and merchandise up to 50 kg), other postal and related services (advertising information, newspapers, magazines, other periodicals, etc.). Moreover, the postal service may be divided into universal postal service and non-universal postal service.

Service Providers. At the end of 2016, there were 67 registered undertakings having indicated to intend to carry out the postal service activity in Lithuania, i.e. by 1 postal service provider more than at the end of 2015 (see Table 32). In 2016, the provision of postal services was launched by 9 undertakings, and 8 undertakings terminated this activity. However, there were only 55 out of 67 undertakings that were actually engaged in the provision of postal service at the end of 2016, i.e. by 8 undertakings more than in 2015.

Table 32. Number of postal service providers in 2011–2016, in units

	2011	2012	2013	2014	2015	2016
Number of actual postal service providers	 55	54	59	56	47	55
Total number of postal service providers	 74	73	76	69	66	67

Source: RRT

Revenue. In 2016, all postal service providers earned the revenue amounting to EUR 130.9 million, which was by 8.6% or by EUR 10.3 million more than in 2015 (see Table 33). The following categories of the postal service are singled out: items of correspondence, postal parcels and other services related to the postal service. In 2016, the postal service market maintained the same proportions of the structure that had formed since 2012, where the largest portion of the revenue (55.2%) was comprised of

²⁷ Universal postal service shall mean a postal service of the quality established by legal acts that is to be provided to all users willing to be provided with such a service throughout the Republic of Lithuania for an affordable fee. In the territory of the Republic of Lithuania the provision of this universal postal service shall be ensured: 1) the clearance, sorting, transport and delivery of postal items of up to 2 kilograms; 2) the clearance, sorting, transport and delivery of postal parcels up to 10 kg; 3) the clearance, sorting, transport and delivery of registered and insured postal items; 4) the delivery of postal parcels of up to 20 kilograms received from other Member States of the European Union.

²⁸ An item of correspondence is a postal item to be dispatched and delivered, which contains a notice inscribed on any physical material, including small packages, and has the address of the addressee indicated thereon (books, catalogues, newspapers and other periodicals are not considered items of correspondence).

the revenue from postal parcels, although till 2012, the largest share of the market had been represented by the revenue from items of correspondence.

Table 33. **Structure of revenue of the postal service by types of postal items and services, in EUR million, 2011–2016**

	2011	2012	2013	2014	2015	2016
By types of postal items:						
<i>items of correspondence</i>	38.5	41.3	41.7	45.4	49.0	49.5
<i>postal parcels</i>	36.4	44.3	50.4	53.8	59.7	72.3
<i>other</i>	3.9	4.2	9.9	9.8	11.9	9.1
By types of the service:						
<i>universal</i>	26.2	28.3	15.4	16.8	21.1	21.5
<i>non-universal</i>	52.6	61.4	86.5	92.2	99.5	109.4
Total revenue	78.8	89.7	101.9	109.0	120.6	130.9

Source: RRT

The largest portion (83.6%) of the revenue from postal services is further represented by the revenue from the provision of the non-universal postal service (see Table 33). The amendments of the Postal Law laying down that bulky postal items and parcels, as well as value-added services shall no longer be attributed to the universal postal service resulted in the drop of the revenue from the universal postal service in 2013. The revenue growth trend from the universal postal service has been further observed since 2013. In 2016, the revenue went up by 1.9%.

The largest market share (37.1%), in terms of revenue, was held by AB "Lietuvos paštas" in 2016 (see Fig. 54). Over the year, its market share shrank by 4.7 pp. The second largest undertaking in terms of the share of the postal service market was UAB "DPD Lietuva" holding 18.2% of the market, and UAB "Venipak LT" with the market share of 9.2% was ranked the third.

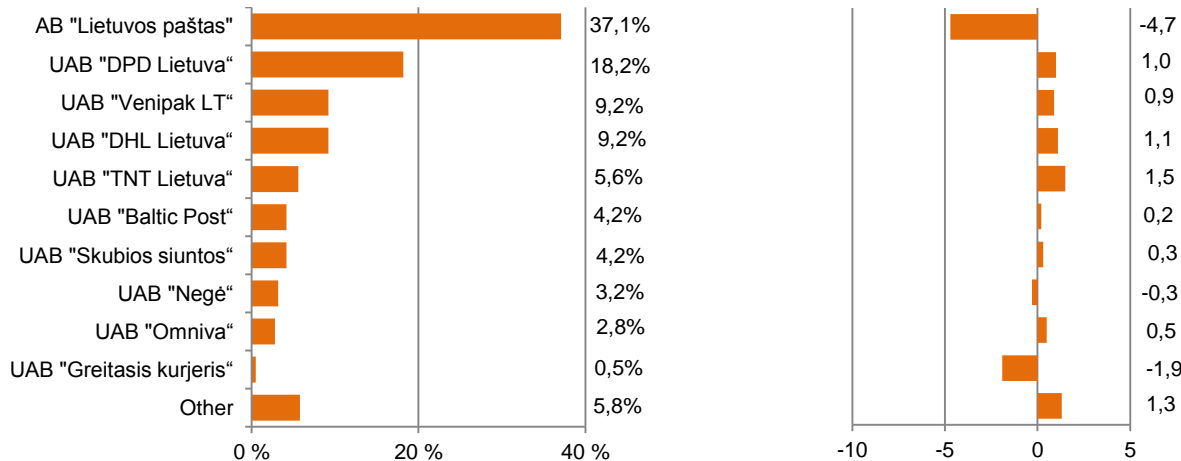


Fig. 54. **Structure of revenue of the postal service market by service providers, %, and annual changes of the market shares, pp, 2016**

Source: RRT

The postal service market that grew by 66.1% over six years, in terms of revenue, shows that Lithuanian citizens are willingly sending and receiving various parcels. This is enhanced by the advanced electronic communications means which contribute to online shopping which is becoming part of a daily life of the population.

2. Items of Correspondence



Service Providers. In 2016, items of correspondence were provided by 39 undertakings, i.e. by 3 undertakings more than in 2015.

Number of items. In 2016, as many as 55.5 million items of correspondence were sent. In 2016, compared to 2015, the decrease of 25.3% in the volume of items of correspondence was recorded (see Table 34). In 2016, the major share (69.0%) of these items was comprised of other items of correspondence. The amendments of the Postal Law laying down that bulky postal items and parcels, as well as value-added services shall no longer be attributed to the universal postal service resulted in the drop of the volume of universal items of correspondence that has been observed since 2013. In 2016, the increase in the volume of items of correspondence on the universal service market (2.3%) and the decrease of the non-universal services (33.4%) was observed.

Table 34. **Volumes of items of correspondence, in million units, 2011–2016**

		2011	2012	2013	2014	2015	2016
Universal correspondence	items of	↑ 48.1	49.2	17.2	17.5	16.8	17.2
Non-universal correspondence	items of	↓ 26.2	25.0	51.9	54.1	57.5	38.3
All items		↓ 74.3	74.2	69.1	71.6	74.3	55.5

Source: RRT

The major volume (85.2%) of all items of correspondence was sent and received through AB “Lietuvos paštas”. This is by 8.8 pp more than in 2015. The total of 2.3% of items of correspondence were sent and received through UAB “Apskonta”, which is by 0.4 pp more than in the previous years. In 2016, as many as 2.1% of all items of correspondence were sent and received through UAB “Bijusta”, 1.9% – through UAB “Litpost” and 1.8% – through UAB “Greitasis kurjeris”. The total of 6.7% of all items of correspondence were sent and received through other undertakings (27 providers).

Revenue. In 2016, the revenue received from items of correspondence increased by 0.8% and equalled EUR 49.5 million (see Table 35). In 2016, the largest portion of the revenue (62.6%) was received from the provision of non-universal items of correspondence. The revenue from the provision of these services decreased by 3.7% over the year. The revenue from universal items of correspondence increased by 10.1%.

Table 35. **Revenue from items of correspondence, in EUR million, 2011–2016**

		2011	2012	2013	2014	2015	2016
For universal correspondence	items of	↑ 24.0	25.7	13.7	15.1	16.8	18.5
For non-universal correspondence	items of	↓ 14.5	15.6	28.0	30.3	32.2	31.0
For all items		↑ 38.5	41.3	41.7	45.4	49.1	49.5

Source: RRT

The amendments of the Postal Law laying down that bulky postal items and parcels, as well as value-added services shall no longer be attributed to the universal postal service resulted in the drop of the revenue from universal items of correspondence in 2013. Therefore the revenue from the provision of universal items of correspondence in 2016 accounted for 37.4% of the total revenue received from items of correspondence, where in 2012, the portion of such revenue stood at 62.2%.

Items of correspondence further remain a significant share of the postal service market. The number of items went down by 25.3% over the year, and the generated revenue grew by 0.8%. These changes are mainly associated with the fact that heavier and more expensive items of correspondence are being sent.

3. Postal Parcels

Service providers	34
Number of items, in million units	11.97
Revenue, in EUR million	72.4

Service Providers. In 2016, the postal parcel services were provided by 34 undertakings, i.e. by 8 undertakings more than in 2015.

Number of parcels. The continuously growing number of postal parcels had an impact on the increase of the revenue from postal parcels in 2011–2016. In 2016, as many as 11.97 million units of postal parcels were handed over, i.e. by 25.3% more than in 2015. In 2016, 11.79 million units of non-universal postal parcels were sent and received, i.e. by 26.0% more than in 2015, and the number of universal postal parcels stood at 0.18 million units, i.e. by 5.3% less than in the previous year (see Fig. 55).

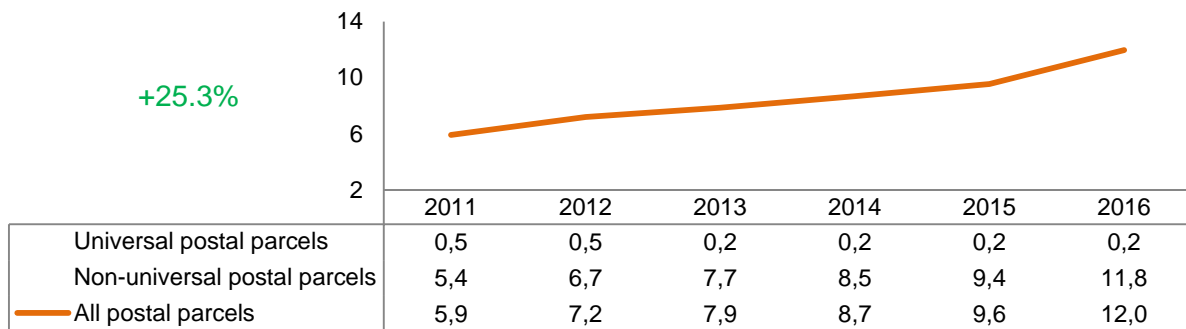


Fig. 55. Volumes of universal and non-universal postal parcels, in million units, 2011–2016

Source: RRT

The major share of the postal parcel market, by number of parcels, was held by UAB “DPD Lietuva” – 34.6% (by 3.2 pp less than in 2015), UAB “Venipak LT” – 21.8% (by 0.4 pp less than in 2015), UAB “Baltic Post” – 16.5% (by 1.1 pp less than in 2015), UAB “Omniva” – 9.2% (by 0.7 pp more than in 2015), AB “Lietuvos pastas” – 3.3% (by 0.7 pp less than in 2015), UAB “Skubios siuntos” – 4.6% (by 0.1 pp less than in 2015). The remaining 22 undertakings jointly held 9.9% of the market.

Revenue. Between 2011 and 2016, the revenue from postal parcels nearly doubled (increased by 98.9%). In 2016, the revenue amounting to EUR 72.4 million was received from postal parcel services, which was by 12.7 million or by 21.3% more than in 2015 (see Fig. 56). Such a growth is directly related to the increase of e-commerce volumes, which results in a greater demand for the postal parcel service.

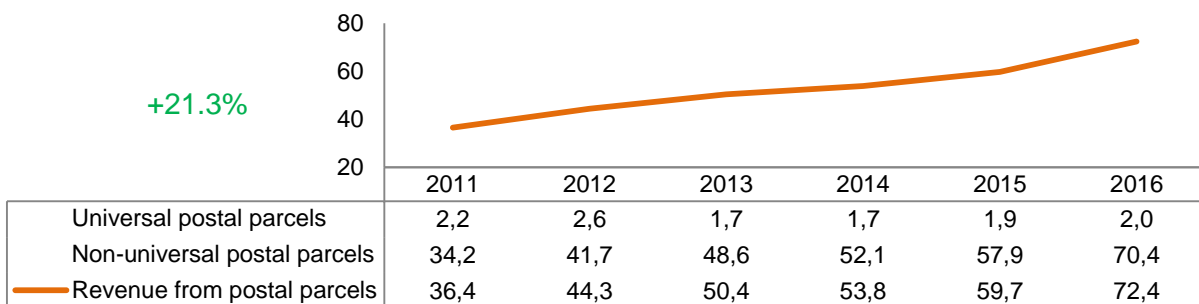


Fig. 56. Revenue from postal parcel services, in EUR million, 2011–2016

Source: RRT

The revenue from non-universal postal parcels grew by 21.6% in 2016, compared to 2015. The revenue from the provision of universal postal parcels increased by 4.8% or EUR 0.09 million (see Fig. 56). In 2016, 97.2% of the revenue was received from non-universal postal parcels, and 2.8% – from universal postal parcels.

Postal parcels hold the major share (55.4%) of the postal service market in terms of the revenue. During the period between 2011 and 2016 both the revenue and number of parcels nearly doubled.

4. Universal Postal Service

 Service provider	AB "Lietuvos paštas"
 Access points, in units	755
 Number of items, in million units	17.15
 Revenue, in EUR million	20.4

Service Provision. In 2016, there were 756 points of access to universal postal services in Lithuania, i.e. by 37 points of access less than in 2015 (see Table 36). In 2016, there were 0.26 points of access to universal postal services per 1,000 residents of Lithuania (or one point of access per 3,769 residents). The number of both mobile and stationary points of access to universal postal service was decreasing. 83.0% of all access points were stationary, and 17.0% – mobile ones. In 2015, there was one working place of a postal agent²⁹, but in 2016 this service was no longer present.

Table 36. Number of points of access to universal postal services, in units, 2011–2016

	2011	2012	2013	2014	2015	2016
Mobile access points	↓ 138	133	134	132	133	128
Stationary access points	↓ 715	703	695	679	659	627
Postal agent	↓				1	
All points of access	↓ 853	836	829	811	793	755

Source: RRT

In 2016, there were 1,670 post boxes for outgoing mail in Lithuania, i.e. by 17 boxes or by 1.0% less than in 2015 (see Table 37). During the period between 2011 and 2016, the number of post boxed for outgoing mail was annually decreasing.

Table 37. Number of post boxes for outgoing mail, in units, 2011–2016

	2011	2012	2013	2014	2015	2016
Post boxes for outgoing mail	↓ 2,254	2,122	2,058	1,838	1,687	1,670

Source: RRT

Volume of Service. In 2016, the volume amounting to 17.15 million units of the universal postal service was sent and received, which was by 0.9% more than in 2015 (see Table 38).

Table 38. Volume of provided universal postal service, in million units, and its structure, %, 2011–2016

	2011	2012	2013	2014	2015	2016
Items of correspondence = or < 2 kg, %	81.6	80.1	74.14	70.56	69.07	66.93
Registered items, %	17.3	19.0	24.6	28.3	29.79	32.00
Postal parcels < 10 kg, %	1.1	0.9	1.2	1.06	1.06	1.01
Postal parcels from the EU < 20 kg, %	0.01	0.01	0.02	0.02	0.02	0.01
Insured items, %	0.02	0.02	0.04	0.04	0.05	0.05
Total	↔ 48.7	49.7	17.4	17.7	17.0	17.15


Source: RRT

²⁹ A postal agent is an entity acting on behalf of a postal service provider when concluding contracts on the provision of postal service; however, it is not an employee of a postal service provider (a postal service provider and an agent sign the agency agreement).

With a view to the structure of the universal postal service market in terms of the volume of services, in 2016, the major share (66.93%) was represented by items of correspondence of up to 2 kg; however, this market share shrank by almost 2.14 pp over the year.

Revenue. The revenue received from the provision of the postal service stood at EUR 20.4 million in 2016 and, compared to 2015, it grew by 9.1%. It must be noted that the revenue growth was enhanced by the increase of the number of registered items (see Table 39).

Table 39. **Revenue from the universal postal service, in EUR million, and structure of revenue, %, 2011–2016**

	2011	2012	2013	2014	2015	2016
For items of correspondence = or < 2 kg, %	48.6	46.3	40.6	38.5	37.7	35.9
For registered items, %	42.5	44.0	47.6	50.7	51.7	54.0
For postal parcels < 10 kg, %	8.5	9.2	11.1	10.2	10.0	9.5
For postal parcels from the EU < 20 kg, %	0.1	0.1	0.1	0.1	0.1	0.1
For insured items, %	0.3	0.4	0.7	0.5	0.5	0.5
For all services	 26.2	28.3	15.4	16.8	18.7	20.4

Source: RRT

The largest portion of the revenue (54.0%) was generated from the provision of registered items. 35.9% of the revenue was generated from items of correspondence up to or equal to 2 kg (see Table 39).

Prices. The maximum tariffs of the universal postal service which may be set by AB “Lietuvos paštas” are provided in Annex 5 to the report.

The universal postal service in Lithuania is provided by AB “Lietuvos paštas”. This service is of a relevance to the residents of remote areas who are provided with an opportunity to send and receive various postal parcels or items of correspondence. Thus, the universal postal service plays a significant social role.

Annex 1

Electronic Communications Service Providers in 2016

Item No	Service providers	Telephone service		Networks interconnection		Data transmission			Radio and television		Wholesale access
		Mobile telephone service	Fixed telephone service	Call termination	Call transit	Retail Internet access	Leased lines	Other data transmission services	Pay-TV	Posting services	
1.	"Splus", UAB		•			•			•		•
2.	"Teo LT", AB		•	•	•	•	•	•	•		•
3.	A. Judickas' individual enterprise		•			•					
4.	AB "Lietuvos geležinkeliai"		•	•			•				
5.	AB "Lietuvos radijo ir televizijos centras"		•	•		•		•	•	•	
6.	AB "Ogmios centras"		•			•					
7.	UAB "Šiaulių apskrities televizija"									•	
8.	AS "Viasat"					•			•		
9.	Aurimas Zaicas' company					•					
10.	D. Kamarauskas' company "Davgita"					•					
11.	"DIDWW Ireland Ltd"		•								
12.	G. Pečiulis' company					•					
13.	H. Abramavičius' company					•					
14.	"Hibernia Media (UK) Limited"						•				
15.	Individual enterprise "IT Kubas"					•					
16.	Individual enterprise "Satinet"					•					
17.	Individual enterprise "INLO"					•					
18.	"REVAI VARA" OÜ	•									
19.	V. Ivančikas' individual enterprise "Žaibas"					•			•		
20.	J. Jasiulionis' individual enterprise								•		
21.	J. Varnas' Vilniaus Radijo Studija								•		
22.	KTU Department of Information Technology					•					
23.	L. Bulovas' firm "Elektromedija"					•					
24.	SIA "Lattelecom" filialas					•		•			
25.	UAB "Acta iuventus"					•					
26.	UAB "Agon Networks"		•								

Item No	Service providers	Telephone service		Networks interconnection		Data transmission			Radio and television		Wholesale access
		Mobile telephone service	Fixed telephone service	Call termination	Call transit	Retail Internet access	Leased lines	Other data transmission services	Pay-TV	Posting services	
27.	UAB "AirnetTV"					•			•		•
28.	UAB "Alantos kompiuterių servisas"					•					
29.	UAB "Alpha komunikacijos"					•					
30.	UAB "Alterkomas"	•									
31.	UAB "Auridija"					•					
32.	UAB "Autožvilgsnis"	•									
33.	UAB "AVVA"					•			•		
34.	UAB "Balticum TV"		•			•		•	•	•	•
35.	UAB "Baltnetos komunikacijos"		•			•					
36.	UAB "Bitė Lietuva"	•		•	•	•	•	•			
37.	UAB "Bitosis"					•			•		
38.	UAB "Cgates"		•			•			•		
39.	UAB "Consilium Optimum"					•		•	•		
40.	UAB "CSC Telecom"	•	•	•	•	•		•			
41.	UAB "Data Business"					•			•		
42.	UAB "Dekbera"							•			
43.	UAB "Dicto Citius"						•				
44.	UAB "Dinetas"					•					
45.	UAB "DKD"					•					
46.	UAB "Duomenų ekspresas"					•					
47.	UAB "Duomenų greitis"					•			•		•
48.	UAB "Duomenų logistikos centras"					•	•	•			•
49.	UAB "Dzūkijos internetas"					•					
50.	UAB "Ecofon"		•	•	•				•		•
51.	UAB "Ekstra"					•	•	•			•
52.	UAB "Elekta"					•			•		•
53.	UAB "Elmeta"					•					
54.	UAB "Eltida"					•					
55.	UAB "Etanetas"					•			•		

Item No	Service providers	Telephone service		Networks interconnection		Data transmission			Radio and television		Wholesale access
		Mobile telephone service	Fixed telephone service	Call termination	Call transit	Retail Internet access	Leased lines	Other data transmission services	Pay-TV	Posting services	
56.	UAB "Eteris"					•			•		
57.	UAB "Eurocom"	•				•					
58.	UAB "Eurofonas"		•								
59.	UAB "Funaris"								•		
60.	UAB "Gisnetas"					•					
61.	UAB "Ignalinos televizija"					•			•		
62.	UAB "Iloras"					•			•		
63.	UAB "Informacijos labirintas"					•					
64.	UAB "Infoseka"					•					
65.	UAB "Init"		•			•			•		•
66.	UAB "Kalbu LT"		•								
67.	UAB "Kalvanet"					•					
68.	UAB "Kateka"					•			•		
69.	UAB "Kauno interneto sistemos"					•					
70.	UAB "Kava"					•					
71.	UAB "Kavamedia"		•			•			•		•
72.	UAB "Kednetas"					•					
73.	UAB "KLI LT"		•			•			•		
74.	UAB "Kodas"					•					
75.	UAB "Krėna"					•					
76.	UAB "Kvartalo tinklas"					•					
77.	UAB "Lansneta"					•			•		
78.	UAB "Lema"					•					
79.	UAB "Linaspas"					•					
80.	UAB "Linkotelus"*		•		•						
81.	UAB "Linx telecommunications"					•		•			
82.	UAB "LT telekomunikacijos"		•								
83.	UAB "M projektai"					•					
84.	UAB "Magnetukas"					•					

Item No	Service providers	Telephone service		Networks interconnection		Data transmission			Radio and television		Wholesale access
		Mobile telephone service	Fixed telephone service	Call termination	Call transit	Retail Internet access	Leased lines	Other data transmission services	Pay-TV	Posting services	
85.	UAB "Mano kamanė"								•		
86.	UAB "Marsatas"		•			•			•		
87.	UAB "Mavy studija"	•									
88.	UAB "Mediafon Carrier Services"	•	•	•	•						
89.	UAB "Mediafon"	•									
90.	UAB "Medium Group"	•	•								
91.	UAB "Metamedia" ir ko	•									
92.	UAB "Miesto tinklas"					•					
93.	UAB "Molėtų radijas ir televizija"		•			•			•		
94.	UAB "N plius"					•					
95.	UAB "Nacionalinis telekomunikacijų tinklas"		•	•	•	•		•			
96.	UAB "Neltė"							•			
97.	UAB "Netsis"					•					
98.	UAB "NNT"					•					
99.	UAB "Omnitel"	•		•		•		•			
100.	UAB "Pakeleivis"					•					
101.	UAB "Parabolė"					•			•		
102.	UAB "Patrimpas"								•		
103.	UAB "Penkių kontinentų komunikacijų centras"		•			•		•	•		•
104.	UAB "Peoplefone"		•		•						
105.	UAB "Progmera"					•					
106.	UAB "Proitas"		•								
107.	UAB "Radijo elektroninės sistemos"		•			•			•		
108.	UAB "Raystorm"		•		•						
109.	UAB "Ramnet"					•					
110.	UAB "Remo televizija"					•		•	•		
111.	UAB "Roventa"		•			•			•		
112.	UAB "Satgate"							•		•	
113.	UAB "SauleNet"					•					

Item No	Service providers	Telephone service		Networks interconnection		Data transmission			Radio and television		Wholesale access
		Mobile telephone service	Fixed telephone service	Call termination	Call transit	Retail Internet access	Leased lines	Other data transmission services	Pay-TV	Posting services	
114.	UAB "Skaidula"										•
115.	UAB "Skylink LT"		•								
116.	UAB "Socius"					•		•	•		
117.	UAB "Sugardas"					•		•	•		•
118.	UAB "Šilutės internetas"					•					
119.	UAB "TCG Telecom"		•		•						
120.	UAB "Tele2"	•		•		•					
121.	UAB "Teledema SIP"		•								
122.	UAB "Teledema"	•				•					
123.	UAB "Telekomunikacijų grupė"		•	•							
124.	UAB "Telekomunikaciniai projektai"		•			•					
125.	UAB "Teleksas"		•		•						
126.	UAB "Telemeta"	•									
127.	UAB "Teletinklas"		•			•					
128.	UAB "Televizijos komunikacijos"		•			•			•		
129.	UAB "Transteleservis"	•	•			•			•		
130.	UAB "Verslo tiltas"					•		•			
131.	UAB "Viltuva"					•			•		
132.	UAB "Vinetika"					•					
133.	UAB "Zirzilė"		•			•			•		
134.	Public Enterprise "Comtel"					•					
135.	Public Enterprise "Ozo tinklas"					•					
136.	Public Enterprise "Plačiajuostis internetas"							•			•
137.	VĮ "Infostruktūra"					•	•				
138.	V. Ričkauskas' dompany					•					
139.	SA "Voxbone"		•		•						
	Total	16	42	11	12	100	8	21	41	4	15

* UAB "Linkotelus" and UAB "Raystorm" provided one electronic communications service – call transit service which is also attributed to fixed telephone services.

Postal Service Providers in 2016

Item No	Service Providers	Items of correspondence	Postal parcels	Other
1.	A. Safošinas' individual enterprise		•	
2.	AB "Lietuvos pastas"	•	•	•
3.	"Federal Express Corporation" affiliate	•	•	
4.	Individual enterprise „Britlita“		•	
5.	Individual enterprise K. Matulevičius' firm "Ryto žvaigždė"	•		
6.	Lithuanian and Canadian UAB "Kali"		•	
7.	MB "Express Delivery"		•	
8.	UAB "Apskonta"	•		
9.	UAB "Autopašto terminalas"	•	•	
10.	UAB "Baltic krantas"		•	
11.	UAB "Baltic Post"		•	•
12.	UAB "Bijusta"	•	•	•
13.	UAB "Brevitra"	•		
14.	UAB "DHL Lietuva"	•	•	
15.	UAB "DPD Lietuva"	•	•	
16.	UAB "Drusvilma"	•		
17.	UAB "EU Broker"	•		
18.	UAB "Finansinės strategijos"	•		
19.	UAB "GerViva"		•	
20.	UAB "Greitasis paštas"	•		
21.	UAB "HRES"	•		
22.	UAB "Invicte"		•	
23.	UAB "Itella Logistic"		•	
24.	UAB "Jūros paštas"	•	•	•
25.	UAB "Kaišiadorių butų ūkis"	•		
26.	UAB "Kastinida"		•	
27.	UAB "Kodas"	•		
28.	UAB "Litera"	•		
29.	UAB "Litgina"	•	•	
30.	UAB "Litpost"	•		
31.	UAB "Megatomas"	•		
32.	UAB "Nėgė"		•	
33.	UAB "Omniva"		•	
34.	UAB "Paslauga tau"	•		
35.	UAB "Pašto paslaugos"	•		
36.	UAB "Prima line"		•	
37.	UAB "Ritspeda"	•		
38.	UAB "Rusko"	•	•	
39.	UAB "Salmera"	•		
40.	UAB "Salmona"	•	•	
41.	UAB "Samus"	•	•	
42.	UAB "Skubios siuntos"	•	•	
43.	UAB "Spaudos kelias"	•	•	•
44.	UAB "Šiaulių naujienos"	•		
45.	UAB "TNT"	•	•	
46.	UAB "Toras LT"		•	
47.	UAB "Utenos diena"	•		
48.	UAB "Velo kurjeris"		•	

Item No	Service Providers	Items of correspondence	Postal parcels	Other
49.	UAB "Verslo spaudos centras"	•	•	
50.	UAB "Venipak LT"		•	
51.	UAB "VIM Agentūra"	•	•	
52.	UAB "Zenesa"	•		
53.	UAB "Žemaitijos pastas"	•		
54.	Public enterprise "Kultūros vizija"	•		
55.	Public enterprise "Šiauliai plius"	•		•
	Total	39	34	6
	Activity not carried out by:			
1.	MB "Express Delivery"			
2.	MB "Nortlita"			
3.	UAB "Araneum"			
4.	UAB "Avaneta"			
5.	UAB "Baltijos skonis"			
6.	UAB "Bilfora"			
7.	UAB "Observis"			
8.	UAB "Prekių ir paslaugų grupė"			
9.	UAB "Rubo"			
10.	UAB "Tikroji turto kaina"			
11.	UAB "Turbosraigė"			
12.	UAB "VAV investicijos"			

Number of residents and households in Lithuania on 1 January, 2011-2017

	2011	2012	2013	2014	2015	2016	2017
Number of residents	3 052 588	3 003 641	2 971 905	2 943 472	2 921 262	2 888 582	2 849 317
Number of households	1 282 600	1 262 034	1 238 294	1 308 210	1 298 339	1 289 546	1 272 017

Source: Statistics Department of Lithuania

Methodologies for the Calculation of Certain Indicators

Table 4:

- Penetration of electronic communications services per 100 residents is calculated by dividing the number of service users (at the end of the year) by the number of residents (at the end of the year) and dividing by 100.
- Penetration of electronic communications services per 100 households is calculated by dividing the number of service users (at the end of the year) by the number of households (at the end of the year) and dividing by 100.

Tables 5, 12, 13, 20, Fig. 34 and 48:

Average revenue per subscriber per month (ARPU) shall be calculated as follows:

- *of public fixed telephone services*: the total annual revenue from retail public fixed telephone service (including the revenue from the provision of retail IP telephony services) is divided by the number of fixed telephone service users (at the end of the year) and divided by 12;
- *of Internet access*: the total annual revenue from retail Internet access services is divided by the number of Internet access service users (at the end of the year) and divided by 12;
- *of television*: the total annual revenue from retail pay-TV services is divided by the number of TV service users (at the end of the year) and divided by 12;
- *of public mobile telephone services*: the total annual revenue from the provision of retail public communications networks and/or public mobile telephone service (including the revenue from calls made by subscribers using roaming services) is divided by the number of mobile telephone service users (at the end of the year) and divided by 12.

Fig. 8: monthly average duration of calls originated by a single public mobile telephone service user in Lithuania is calculated by dividing the annual duration of calls originated in public mobile communications networks in Lithuania by the number of mobile telephone service users (at the end of the year) and dividing by 12.

Table 14: the calculated average prices of public mobile telephone voice services are calculated by dividing annual revenue for retail mobile telephone voice services (including revenue for calls from subscribers using roaming services) by duration of calls originated in public mobile communications networks (including the duration of calls made by subscribers using roaming services).

Table 21:

- The calculated average local call prices were calculated by dividing annual revenue for retail fixed telephone local call (terminated in own, Lithuanian public fixed and mobile communications networks) services by duration of local calls originated in public fixed communications networks (terminated in own, Lithuanian public fixed and mobile communications networks).
- The calculated average international call prices are calculated by dividing annual retail revenue for international fixed telephone calls by duration of international calls originated in public fixed communications networks.

SMS and MMS prices (section 2.4 of the report):

- The calculated average SMS sending price is calculated by dividing annual revenue for SMS by the annual number of sent SMS.
- The calculated average MMS sending price is calculated by dividing annual revenue for MMS by the annual number of sent MMS.

Maximum Tariffs of the Universal Postal Service³⁰

I. Maximum Tariffs of the Universal Postal Service in Lithuania

Item of correspondence¹ up to 500 grams

Item No	Universal postal service	Postage tariff per one postal item, in EUR (exclusive of VAT)	
		non-priority postal items	priority postal items
1.	Up to 20 grams	0.39	0.45
2.	> 20 grams, up to 50 grams	0.42	0.48
3.	> 50 grams, up to 100 grams	0.45	0.52
4.	> 100 grams, up to 500 grams	0.62	0.72

Bulky item of correspondence² up to 2 kilograms

Item No	Universal postal service	Postage tariff per one postal item, in EUR (exclusive of VAT)	
		non-priority postal items	priority postal items
1.	Up to 100 grams	0.68	0.78
2.	> 100 grams, up to 500 grams	0.94	1.09
3.	> 500 grams, up to 1,000 grams	1.16	1.33
4.	> 1,000 grams, up to 2,000 grams	1.56	1.80

Postal parcel^{3, 4, 5} up to 10 kilograms (including a registration service)

Item No	Universal postal service	Postage tariff per one postal item, in EUR (exclusive of VAT)
1.	Per each postal parcel	2.40
2.	Per each full or partial kilogram	0.14

Registration and/or insurance of items of correspondence¹, bulky items of correspondence² or postal parcels^{3, 4}

Item No	Universal postal service	Postage tariff per one postal item, in EUR (VAT excl.)
1.	Registration of items of correspondence or bulky items of correspondence	0.58
2.	Registration and insurance of items of correspondence or bulky items of correspondence	3.48
3.	Insurance of postal parcels	3.48

³⁰ Approved by Order No 1V-1025 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 29 July 2014 *On the Approval of Maximum Tariffs of the Universal Postal Service*

II. Maximum Tariffs of Cross-Border Universal Postal Service

Item of correspondence¹ up to 500 grams

Item No	Universal postal service	Postage tariff per one postal item, in EUR (exclusive of VAT)			
		non-priority parcels		priority parcels	
		to the European Union Member States	to other states	to the European Union Member States	to other states
1.	Up to 20 grams	0.75	0.71	0.81.	0.84.
2.	> 20 grams, up to 50 grams	0.84	0.75	1.00	0.97
3.	> 50 grams, up to 100 grams	1.13	0.84	1.29	1.27
4.	> 100 grams, up to 500 grams	1.98	2.09	2.37	3.40

Bulky items of correspondence² up to 2 kilograms

Item No	Universal postal service	Postage tariff per one postal item, in EUR (VAT excl.)			
		non-priority parcels		priority parcels	
		to the European Union Member States	to other states	to the European Union Member States	to other states
1.	Up to 100 grams	1.42	1.26	1.85	1.67
2.	> 100 grams, up to 500 grams	2.52	3.13	2.93	3.91
3.	> 500 grams, up to 1,000 grams	4.63	6.95	5.21	7.82
4.	> 1,000 grams, up to 2,000 grams	6.95	10.43	7.53	11.58

Postal parcel^{3, 4, 5} up to 10 kilograms (including a registration service)

Item No	Universal postal service	Postage tariff per one postal item, in EUR (exclusive of VAT)	
		to the European Union Member States	to other states
	Cross-border postal parcel tariffs apply to postage of postal parcels. The share of processing postal parcels in Lithuania:		
1.	Per each postal parcel	5.07	5.07
2.	Per each full or partial kilogram	0.14	0.14

Registration and/or insurance of items of correspondence^{1, 6}, bulky items of correspondence^{2, 6} or postal parcels^{3, 4}

Item No	Universal postal service	Postage tariff per one postal item, in EUR (VAT excl.)
1.	Registration of priority items of correspondence or priority bulky items of correspondence	20.3
2.	Registration and insurance of priority items of correspondence or priority bulky items of correspondence	3.48
3.	Insurance of postal parcels	3.48

Notes:

1. Largest possible dimensions of an item of correspondence shall be as follows: length – 381 mm, width – 305 mm, height – 20 mm.
2. Largest possible dimensions of a bulky item of correspondence shall be the following: any dimension shall not exceed 600 mm, while the sum of the length, width and height shall be no greater than 900 mm; any dimension of a cylinder item shall be no greater than 900 mm, while the sum of length and double diameter shall not exceed 1,040 mm.
3. Largest dimensions of a postal parcel shall be as follows: any dimension shall be no greater than 1.05 m, while the sum of the length and the largest dimension measured in any other direction than the length shall be no greater than 2 m.
4. Largest dimensions of a postal parcel marked “Encombrant” (“Bulky”) shall be as follows: any dimension shall be no greater than 1.50 m, while the sum of the length and the largest dimension measured in any other direction than the length shall be no greater than 3 m.
5. A postal parcel marked “Encombrant” (“Bulky”) shall be subject to additional postage tariffs of 50% as indicated in Table 3 or Table 7.
6. Only priority items of correspondence or priority bulky items of correspondence may be registered or registered and insured.
7. Items of correspondence marked as “Cécogrammes”, items of correspondence addressed to prisoners of war marked as “Service des prisonniers de guerre” and to interned civilians marked as “Service des internés civils” or sent by these persons shall be sent free of charge.