

**LITHUANIAN COMMUNICATIONS SECTOR
2020**

23/12/2021 No ND-10
Vilnius

COMMUNICATIONS
REGULATORY
AUTHORITY OF THE
REPUBLIC OF
LITHUANIA

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

The Lithuanian Communications Sector is one of the most dynamic segments of our economy. This sector is also the basis of the entire digital economy. Last year which was marked by the pandemic and lockdown showed how vital the opportunity to use the high-quality communications services was. At the time where most employees switched to working from home, where remote learning took place simultaneously, the number of voice and video calls as well as the scope of internet access services increased even more. Well-developed electronic communications networks and digital tools in Lithuania allowed for operating, working and learning in a remote manner.

In Lithuania, as many as 61% of households are provided with high-speed (100 Mbps and higher speed) fixed broadband communication and our country exceeds the European Union (EU) average by approx. 17% (EU average – 44%) but the need for higher data transmission speed necessary to ensure smooth remote work and learning still remains high. The first steps towards this direction have already been taken – the detailed analysis of Lithuanian broadband communications network infrastructure and use thereof was conducted, and paths for improvement of digital connectivity were defined as well as measures which will be launched next year.

The guidelines for the fifth-generation mobile communications (5G) development in Lithuania for 2020-2025 were approved by the Ministry of Transport and Communications of the Republic of Lithuania. Their goal is to ensure the gradual and controlled 5G communications development and create a legal and investment climate that promotes 5G development in Lithuania. Besides guidelines for 5G development, it is also important to implement additional measures that would enhance practical application of next generation communications systems in various sectors of the State, deploy and test innovations based on 5G communications (autonomous transport, unmanned aircrafts, virtual reality, Internet of Things, etc.). Accelerated deployment of communications innovations will ensure high added value data-based jobs in Lithuania.

One more significant challenge for the communications sector is to promote the deployment and use of innovative mobile communication technological solutions – integrated subscriber identification modules eSIM and remote communications service activation – in Lithuania. Lithuania has an exceptional opportunity to become one of the first countries in the world which have controlled these processes and thus enhanced the emergence of fully-fledged services based on this functionality. This will be achieved through initiated necessary amendments to the Law on Electronic Communications, and the study 'Model for promotion of the use of integrated subscriber's identification modules (eSIM) in Lithuania' which is under development.

In the context of threats and restrictions caused by the pandemic, electronic communications and technologies became irreplaceable both for keeping in touch with the relatives and colleagues and for providing the essential goods. In these complicated times, the postal service market operators play the exceptional role.



Synergy of electronic communications and postal services and their accessibility will remain important for the Lithuanian business development, especially when creating opportunities for small and medium-sized enterprises in terms of selling their goods and services both in Lithuania and the rest of the world. This is especially important when enhancing regional development, improving the employment of people living in remote areas and promoting faster recovery.

Lithuania has set ambitious goals and is moving forward by deploying advanced technological solutions. I believe that our innovative solutions will set an example for other EU countries as well.

Minister of Transport and Communications

Marius Skuodis

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

In 2020, the pandemic affected all areas of our lives. We were forced to quickly adjust to a new reality and continue crucial activities trying to minimise the effect of the pandemic as much as possible. Many areas of the Lithuanian economic sector experienced negative outcomes of *Covid-19* outbreak. In this situation, the communications sector played a significant and exceptional role, the communications were called 'heroes of quarantine' and earned this name not for nothing. Lithuanian undertakings and residents needed quickly to switch to remote working or learning, discover entertainment and communication through means of communications. This led to more intensive use of internet and telephony services in 2020, whereas the demand for postal services, such as a crucial element of e-commerce, increased because of the record parcel flows. It therefore comes with no surprise that the consistent growth of sectoral revenue, which started in 2015, continued in 2020 as well: the annual increase of the postal service market revenue rose by 11.3%, whereas that of electronic communications market – by 2.5%.



For many years in a row, a trend of the replacement of so-called traditional services with alternatives provided online has been observed in the electronic communications service segment. In 2020, the *Covid-19* pandemic accelerated the growth of online services even more because many activities moved to internet. An especially steep increase was observed in the area of internet access services provided by means of mobile communications technologies – in this respect we do not lack behind the European leaders. We have observed the annual growth of the number of active SIM cards used to provide internet access services. The number of such SIM cards went up by 9.0% and totalled 3,236.4 thousand at the end of 2020. The fact that Lithuanian users were especially active online is confirmed by the monthly volume of data sent and received per user: it increased by 45.6% in 2020 (compared to 2019) and stood at 19.9 GB.

The year of 2020 witnessed not only the longer duration of mobile telephone calls but also consistently decreasing duration of fixed telephone calls since 2015 (16.6% and 3.2%, respectively).

In 2020, there were also events which were not related to the *Covid-19* pandemic but which would affect the development of the Lithuanian communications sector. On 10 November 2020, Telia Lietuva, AB switched on next generation 5G mobile communication stations for testing purposes. This is an ideal opportunity for both operators and regulators to obtain the necessary information on 5G operation and prepare for 5G frequency auction in Lithuania.

At the end of the year, AB Lietuvos Radijo ir Televizijos Centras announced that it was withdrawing from the retail telecommunications market after it had transferred internet, data transmission and IPTV business developed under the trademark 'Mezon'.

The postal service has recently been subject to significant transformations which are mainly caused by the development of new technologies, i.e. the increasing use of electronic means and automation of processes. The pandemic that came upon us in 2020 became of major challenge for the Lithuanian postal sector, but it also provided some space for growth. Due to physical restrictions trade moved online, which led

to higher scales of the parcel delivery service. The data possessed by RRT shows that in 2020, compared to 2019, the number of postal parcels went up by 55.2%, whereas it had grown by 3.4 times since 2015.

As paper documents were being replaced by emails and e-invoices, the number of items of correspondence was going down: in 2020, it shrank by 18.3%. The volume of the universal postal service is also decreasing: in 2020, the number of items sent and received was lower by 24.1%.

In 2020, we observed the shrinking trend of traditional postal service access points, such as stationary postal service access points, post boxes, rented post boxes, and expanding trend of modern postal service access points. For example, the number of self-service parcel terminals grew by 52.0% – to 836 units over the year. The investments made by the postal service providers demonstrate that the provision of the service will be changing. In 2020, the investments mainly targeted the development and modernisation of the postal network, especially of self-service terminals, as well as the innovative solutions of logistics software.

To summarise 2020, we are delighted that the Lithuanian communications sector has proven to be sufficiently mature and resilient in critical situations as we managed to ensure essential services and continuity of our activities for Lithuanian residents and businesses. The sector participants managed to adjust to a new reality on the markets – this is shown by sectoral results.

Director of the Communications
Regulatory Authority

Feliksas Dobrovolskis



Country	Lithuania
Capital	Vilnius
Area, km ²	65,200
Population	2,795,175
Number of households	1,350,326
Country code	+370
Internet domain	.lt

NB!

- The figures provided on the left-side of the charts (e.g. +3.2%; -4.5%) show the changes of respective indicators in 2020 (positive, negative), compared to 2019.
- The report 'Lithuanian Communications Sector 2020' 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 from the European Commission and other publicly available reliable sources.
- The lists of electronic communications service providers and postal service providers are provided in Annexes 1 and 2.
- The data submitted by the providers of electronic communications networks and services and postal service providers may be also 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	178
Major service provider	Telia Lietuva, AB
Wholesale revenue of the communications sector, EUR million	141.4
Retail revenue of the communications sector, EUR million	794.5
Total revenue of the communications sector, EUR million	935.9

NB!

- In this section of the report, other communications service providers shall be all communications service providers, except for UAB Bitė Lietuva, UAB DHL Lietuva, UAB DPD Lietuva, AB Lietuvos Paštas, UAB Cgates, UAB Tele2, Telia Lietuva, AB, and UAB Venipak Lietuva (hereinafter in this section – the ‘other providers’).

The Lithuanian Communications Sector consists of two service markets: the electronic communications market and postal service market. In the context of both of these markets, it is evident that at the end of 2020 there were 178 undertakings which were engaged in electronic communications activities and were providing the postal service, which is by 9 undertakings more than in 2019 (see Table 1).

Table 1. Number of undertakings engaged in electronic communications activities or providing the postal service by markets, in units, 2015-2020

	2015	2016	2017	2018	2019	2020
Electronic communications market	132	139	127	116	121	127
Postal service market	47	55	46	45	48	51
All providers	179	194	173	161	169	178

The revenue of the communications sector was growing throughout the entire period of 2015-2020 in question (see Fig. 1). In 2020, it stood at EUR 935.9 million and was by 4.3% or EUR 38.9 million higher than in 2019. Due to the *Covid-19* outbreak some service sectors shrank considerably in 2020, and the change in GDP in Lithuania accounted for -1.3%. In 2020, the revenue of the communications sector grew faster than GDP. The *Covid-19* pandemic changed our daily lives very quickly in terms of learning, work, shopping, communication with relatives and friends, and environment. These changes affected the Lithuanian communications sector as well; in 2020, the revenue of both markets slightly grew: postal service market – by 11.3% or EUR 20.7 million, electronic communications market – by 2.5% or EUR 18.2 million. It must be also noted that the share of the postal service market represented a much lower but annually growing share throughout the entire period of 2015-2020 in terms of the total revenue of the communications sector: in 2020, it stood at 21.8% (in 2019 – 20.4%).

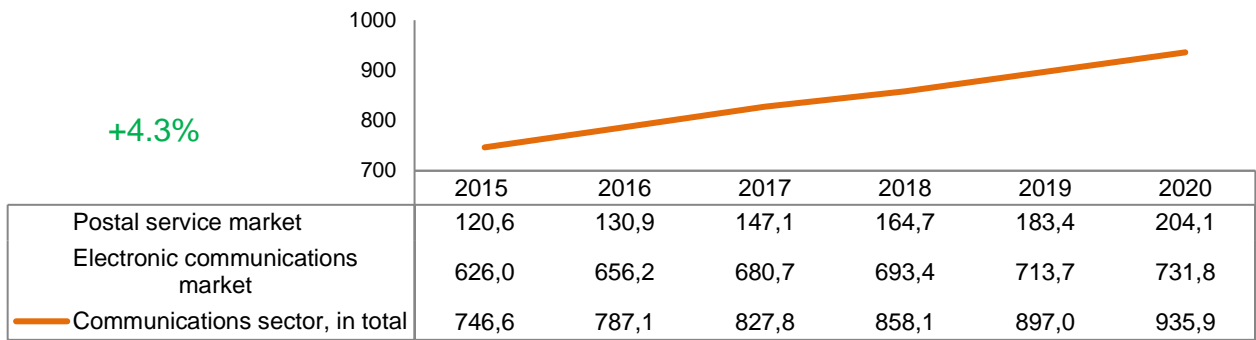


Fig. 1. Revenue of the communications sector, EUR million, 2015-2020

Source: RRT.

During the period of 2015-2020, the structure of the communications sector by revenue and by lines of business shows that the electronic communications service providers were prevailing in the sector (see Table 1 and Fig. 2). In 2020, the major part of revenue was generated by Telia Lietuva, AB (30.2%) providing electronic communications services out of 178 undertakings operating in the communications sector, although its market share shrank by 0.6 percentage points during 2020. Other two providers which received the largest amount of revenue from the provision of communications services were UAB Tele2 and UAB Bitė Lietuva, which respectively held the market shares of 19.4% and 14.9%. The revenue of AB Lietuvos Paštas – the largest postal service provider – constituted 8.2% of all sectoral revenue in 2020. It is likely that even more postal service providers may be included in the list of the major service providers of the entire communications sector in light of rapidly growing revenue of the postal service market.

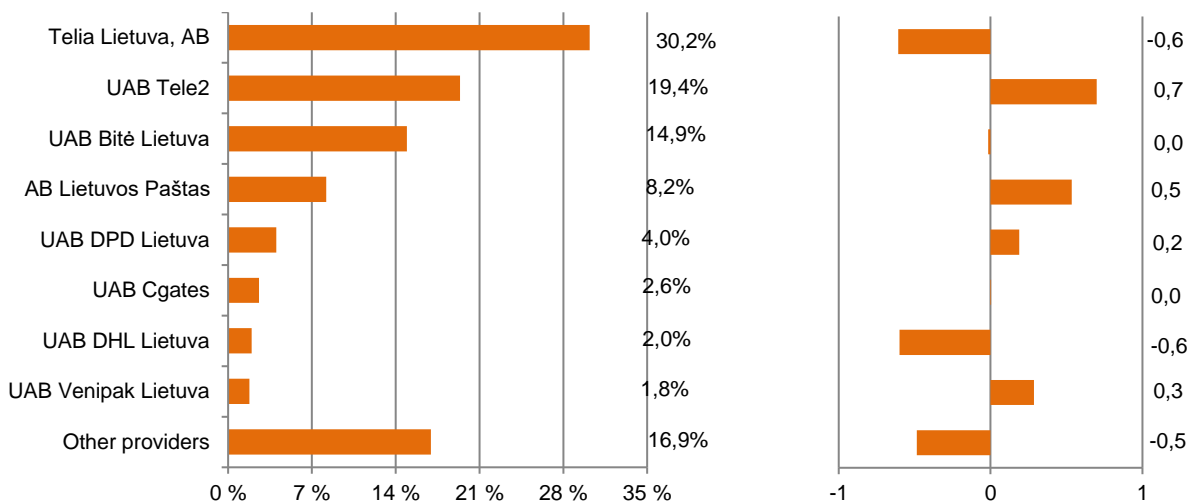


Fig. 2. Market shares held by communications sector service providers by revenue, %, and annual changes of the market shares, pp, 2020

Source: RRT.

The number of service providers was increasing in 2020. In 2020, the *Covid-19* pandemic, which affected our daily lives, had an impact on the communications sector as well: it led to the growth of the demand not only for internet access services, but also for volumes of postal parcels; competitive services were offered to an increasingly larger circle of service users by ensuring the high quality of services provided. This resulted in the growth of the annual revenue of the communications sector by 4.3% – both the postal service market and electronic communications market were expanding. This increase lets us expect the positive future trends.

MARKET OF ELECTRONIC COMMUNICATIONS SERVICES

1. General Overview of the Electronic Communications Market

Electronic communications service providers	127
Wholesale revenue, EUR million	140.3
Retail revenue, EUR million	591.6
Total revenue, EUR million	731.8
Investment, EUR million	81.7

NB!

- In this section of the report, other electronic communications service providers shall be all electronic communications service providers, except for UAB Bitė Lietuva, UAB Cgates, AB Lietuvos Radijo ir Televizijos Centras, UAB Tele2 and Telia Lietuva, AB (hereinafter in this section – the ‘other providers’).

The market of electronic communications services may be divided into 4 service groups:

- telephone services;
- data transmission services;
- television and radio services;
- services of access to physical infrastructure.

Service Providers. The number of undertakings engaged in electronic communications activities increased by 6 undertakings in 2020 and stood at 127. The largest number was that of data transmission service providers as in the previous year (see Table 2). At the end of 2020, AB Lietuvos Radijo ir Televizijos Centras completed the transaction under which it transferred to UAB Bitė Lietuva internet, data transmission and IPTV business developed under the trademark ‘Mezon’. After the sale of services ‘Mezon’ AB Lietuvos Radijo ir Televizijos Centras announced that it was withdrawing from the retail telecommunications market.

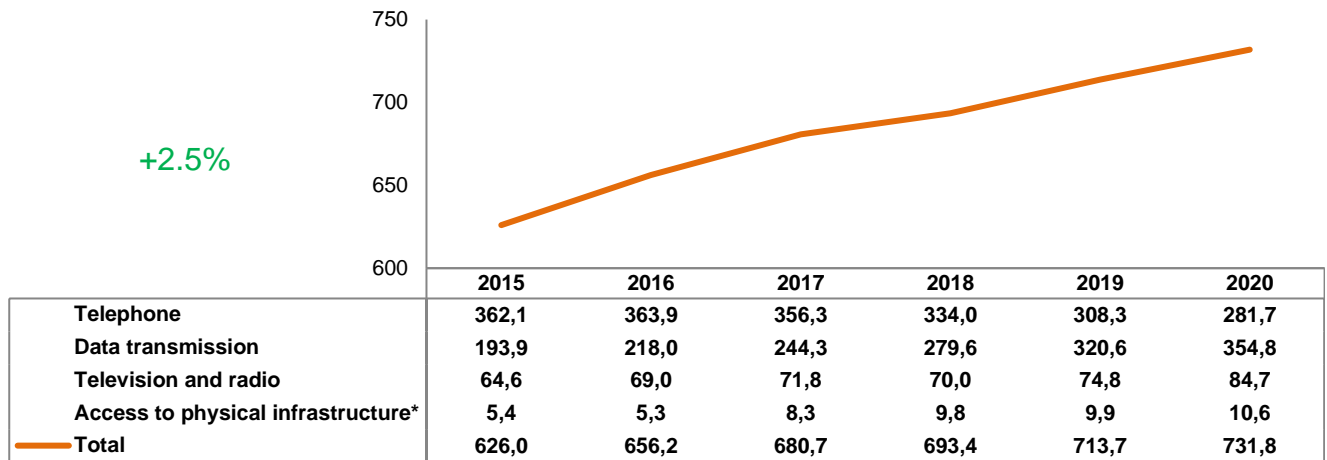
Table 2. **Number of electronic communications service providers that were providing the services, in units, 2015-2020**

	2015	2016	2017	2018	2019	2020
Telephone services	49	53	49	46	51	55
Data transmission services	103	106	93	87	87	89
Television and radio services	43	42	40	41	40	43
Services of access to physical infrastructure	14	15	15	16	15	16
All services	135	140	127	116	121	127

Source: RRT.

Revenue. The revenue of the electronic communications market has continued to grow in 2020 (see Fig. 3). Compared to 2019, the revenue increased by 2.5% in 2020 or EUR 18.2 million and amounted to EUR 731.8 million. In 2020, the major part of the electronic communications sector revenue (48.5%) was the revenue from the provision of data transmission services, while the revenue from the provision of telephony

services comprised 38.5% (in 2019, 44.9% and 43.2%, respectively). In 2020, the revenue from television and radio services comprised 11.6%, whereas the revenue from the provision of access to physical infrastructure stood at 1.5%. In 2020, compared to 2019, the revenue from the provision of television and radio services grew by EUR 10.0 million or 13.3%.



* Till 2017, it includes the revenue received only from the access to the dark fibre service.

Fig. 3 Structure of electronic communications market revenue by service groups, EUR million, 2015-2020

Source: RRT.

In 2020, Telia Lietuva, AB remained a leader of the electronic communications market in terms of revenue, although its market share slightly shrank (by 0.1 percentage point) and represented 38.6% of all revenue of the electronic communications market (see Fig. 4). When assessing the shares of the market held by all persons which provided electronic communications services in terms of percentage points, it is clear that the share held by UAB Tele2 grew the most in 2020 – by 1.3 percentage points.

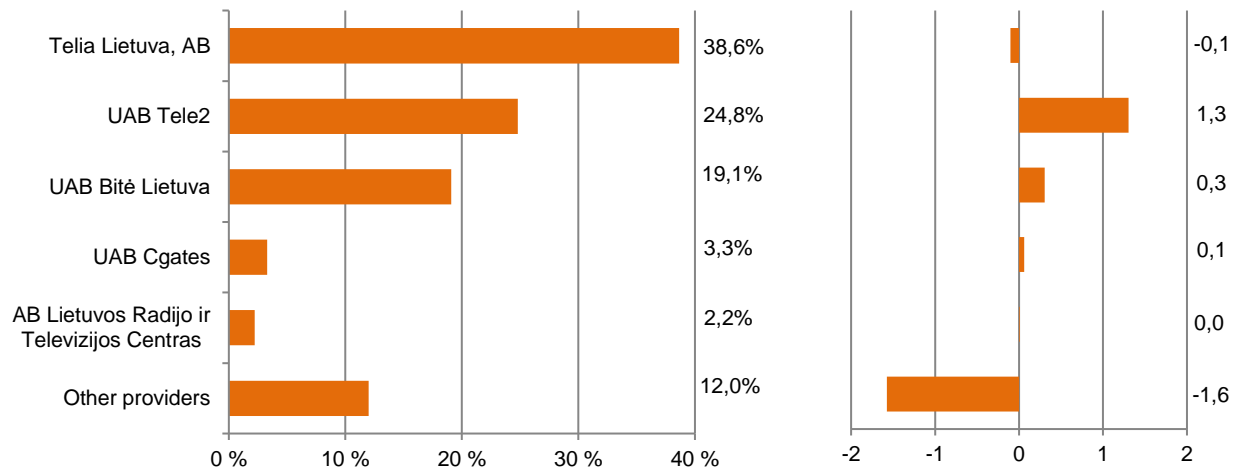


Fig. 4 Structure of the electronic communications market revenue by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

Investments. In 2020, compared to 2019, investments in the electronic communications infrastructure increased by EUR 7.8 million and stood at EUR 81.7 million (see Fig. 5). As was the case in the previous periods, the investments were mostly made in broadband networks: mobile communications 4G networks (Long Term Evolution, LTE) and optical fibre communication line networks. While considering the opportunities of the development of the electronic communications market, it is necessary to assess the ratio

between investments and total revenue of this market. In 2020, the ratio between investments in the electronic communications infrastructure and the total revenue of this market accounted to 11.2%.

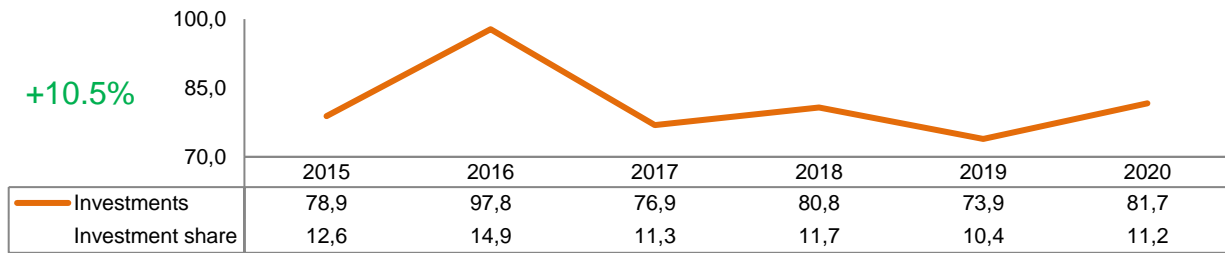
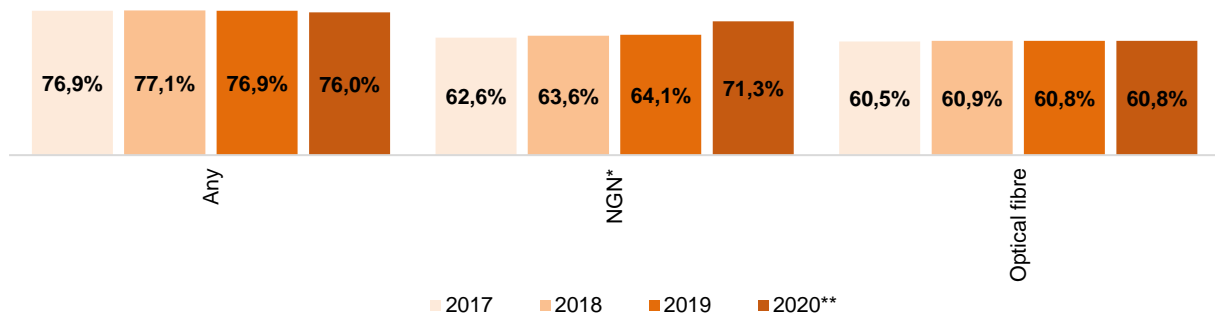


Fig. 5 Investments in the electronic communications infrastructure, in EUR million, and ratio between investments in the electronic communications infrastructure and total revenue of the electronic communications market, %, 2015-2020

Source: RRT.

Development of public fixed communications networks. In 2017-2020, the public fixed communications networks reached 76.0% of all residential premises by means of any lines (copper lines or optical fibre, or coaxial cable lines) in Lithuania (see Fig. 6). In 2020, compared to 2019, the coverage of public fixed communications networks slightly decreased, mainly due to the fact that it failed to catch up with the growing number of residential premises in terms of the scope, also due to the decrease of coverage by copper lines without VDSL technology from 66.2% in 2019 to 41.1% in 2020. It must be noted that operators invest strongly in the next-generation network (NGN) development. In 2020, compared to 2019, the development of the next-generation network (NGN) went up by 7.2 percentage points – 71.3% of all residential premises were accessed by this network in 2020. This rapid growth of NGN was mainly caused by the development of copper lines with VDSL technology (in 2019, they were used to access 3.8%, in 2020 – 27.1% of all residential premises). In 2020, as was the case in 2019, optical fibre lines accessed 60.8% of all residential premises.



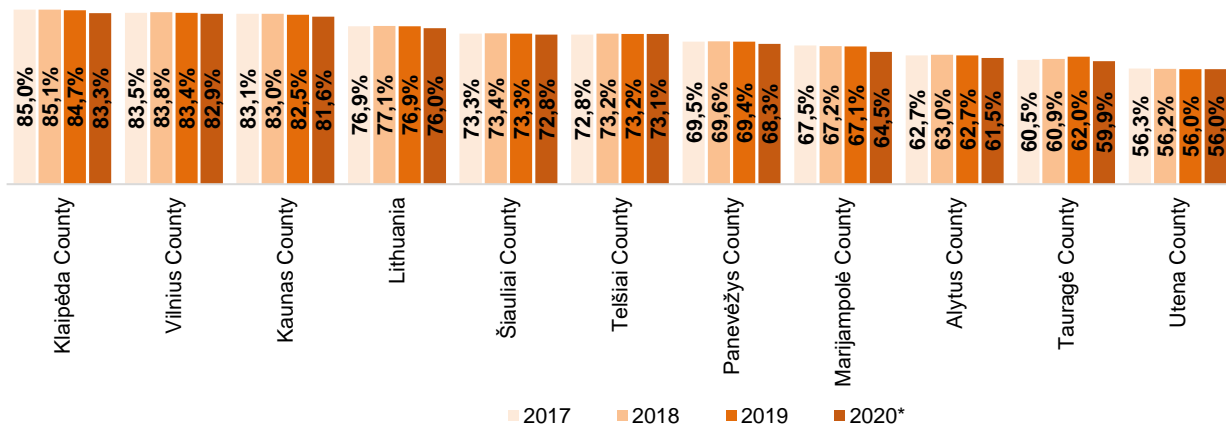
* NGN – the next-generation network covering the optical fibre line, copper line with VDSL technology and coaxial cable line with *Docsis 3.x* technology.

** Preliminary data which may be clarified in the future.

Fig. 6 Development of fixed communications networks in Lithuania by communications lines, %, 2017-2020

Source: RRT.

In terms of the coverage of residential premises it is evident that in 2017-2020, public fixed communications networks were best developed in Klaipėda County (83.3%), Vilnius County (82.9%) and Kaunas County (81.6%) (see Fig. 7). In these 3 counties, the development of public fixed communications networks exceeded the overall coverage of the whole of Lithuania by public fixed communications networks. The least development of public fixed communications networks was observed in the counties of Alytus, Tauragė and Utena.

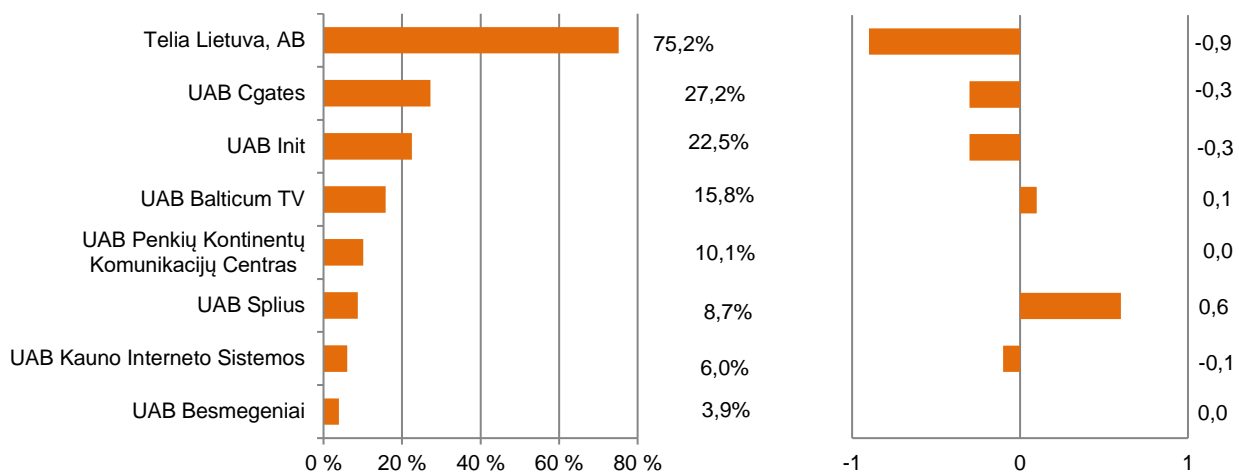


* Preliminary data which may be clarified in the future.

Fig. 7 Development of fixed communications networks in Lithuania by counties and in the entire territory of Lithuania, %, 2017-2020

Source: RRT.

In 2017-2020, the public fixed communications networks were best developed by Telia Lietuva, AB in Lithuania – its public fixed communications network covered over 75% of all residential premises (see Fig. 8). The second operator whose fixed communications network was best developed in Lithuania was UAB Cgates whose fixed communications network covered approx. 27% of all residential premises. In 2020, compared to 2019, the public fixed communications network of UAB Splius was subject to the largest growth (by 0.6 percentage points).



* Preliminary data which may be clarified in the future.

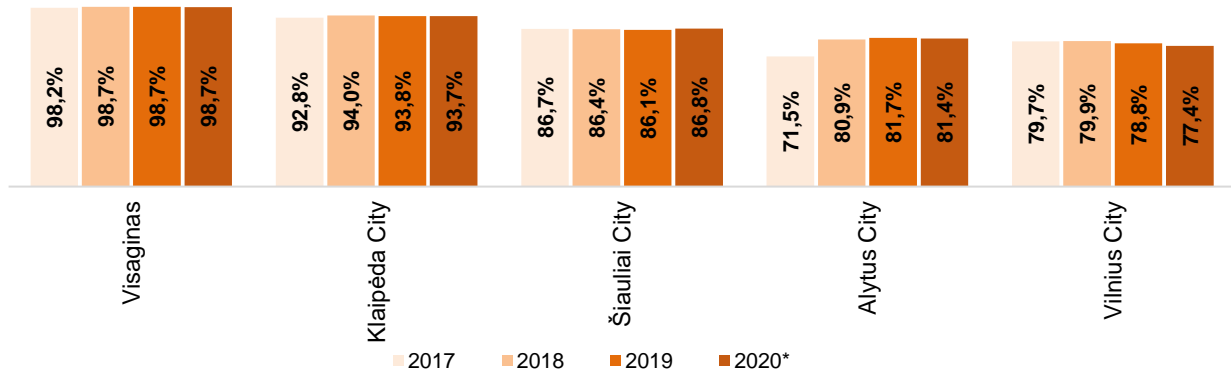
Fig. 8 Development of fixed communications networks in Lithuania by operators, %, and annual changes in the network development, pp, 2020

Source: RRT.

When analysing the development of public networks, it is important to analyse not only the overall coverage of the premises but also to assess the duplication of such networks. The duplication of the networks allows the end-users, for instance, the residents or businesses, to receive retail electronic communications services from several providers.

In 2017-2020, the majority of the same residential premises accessed by the fixed communications networks of at least 2 operators were located in the municipalities of Visaginas and Klaipėda City (98.7% and 93.7%, respectively, of all residential premises in the municipality in 2020) (see Fig. 9). Top five municipalities by accessibility also included the municipalities of Vilnius City, Šiauliai City and Alytus City. It must be noted

that in 2020, compared to 2019, this indicator went up by 0.7 percentage points in the municipality of Šiauliai City.

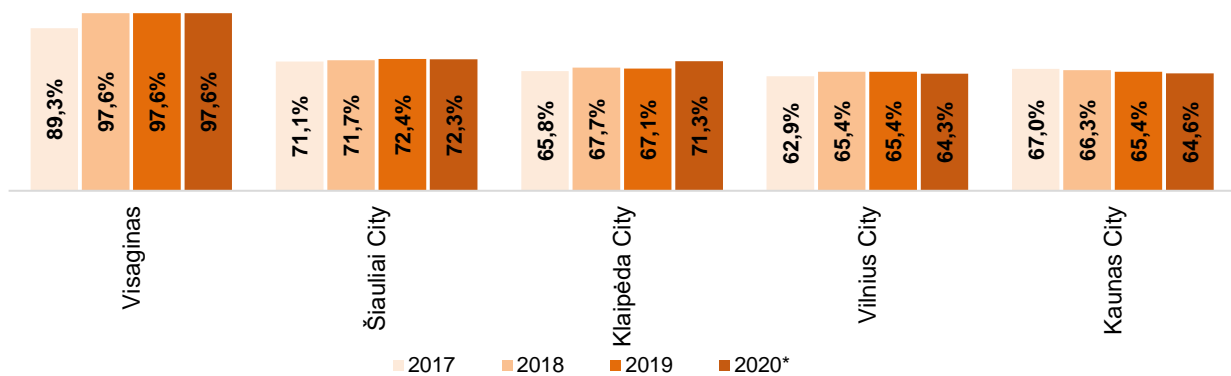


* Preliminary data which may be clarified in the future.

Fig. 9. Share of residential premises accessed by fixed communications networks of at least 2 operators by 5 top municipalities with best accessibility, %, 2017-2020

Source: RRT.

In 2017-2020, the majority of the same residential premises accessed by the fixed communications networks of at least 3 operators were located in the municipalities of Visaginas and Šiauliai City (97.6% and 72.3%, respectively, of all residential premises in the municipality in 2020) (see Fig. 10). Top five municipalities by accessibility also included the municipalities of 3 largest cities in Lithuania. It must be noted that in 2020, compared to 2019, the accessibility of fixed communications networks of at least 3 operators in the same residential premises increased by 4.2 percentage points in the municipality of Klaipėda City. The accessibility of fixed communications networks of at least 3 operators in the same residential premises exceeded 70% in the municipalities of Visaginas, Šiauliai City and Klaipėda City (in 2019, this indicator exceeded 70% in 2 municipalities – Visaginas and Šiauliai City).



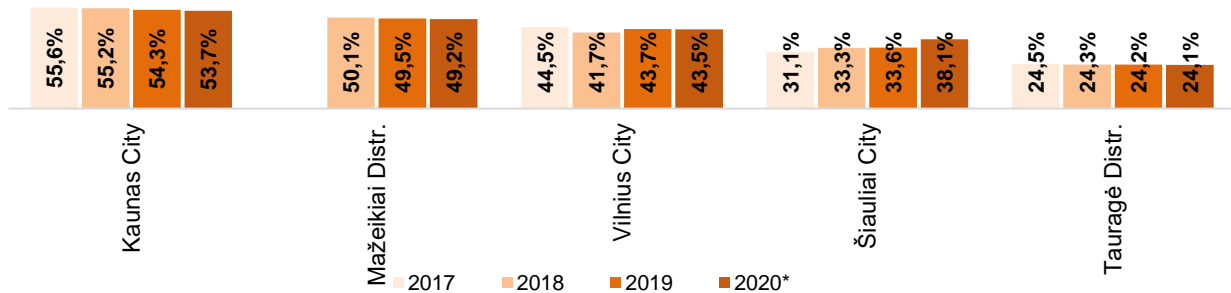
* Preliminary data which may be clarified in the future.

Fig. 10 Share of residential premises accessed by fixed communications networks of at least 3 operators by 5 top municipalities with best accessibility, %, 2017-2020

Source: RRT.

In 2017-2020, the majority of the same residential premises accessed by the fixed communications networks of at least 4 operators were located in the municipalities of Kaunas City and Mažeikiai District (53.7% and 49.2%, respectively, of all residential premises in the municipality in 2020) (see Fig. 11). Top five municipalities by accessibility also included the municipalities of Vilnius City, Šiauliai City and Tauragė District. It must be noted that in 2020, compared to 2019, the accessibility of fixed communications networks of at least

4 operators in the same residential premises increased in the municipality of Šiauliai City the most (by 4.5 percentage points).



* Preliminary data which may be clarified in the future.

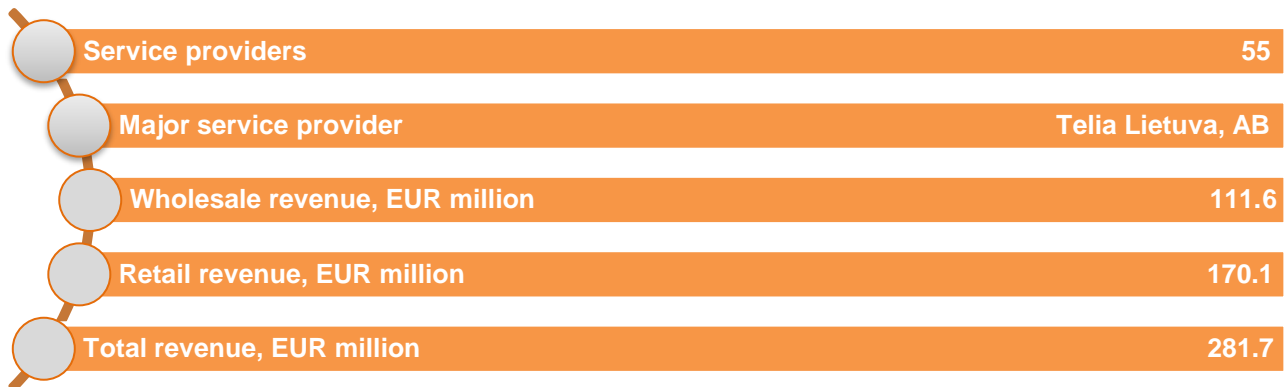
Fig. 11 **Share of residential premises accessed by fixed communications networks of at least 4 operators by 5 top municipalities with best accessibility, %, 2017-2020**

Source: RRT.

In 2020, 127 operators were operating in the electronic communications market, i.e. by 6 operators more than in 2019. The revenue of the electronic communications market continued to grow in 2020: the growth accounted for 2.5%, whereas the revenue constituted EUR 731.8 million. The *Covid-19* pandemic changed the way of communication: remote working and learning led to the increased demand for data transmission services. In 2020, the revenue from data transmission services went up by 10.7% and represented 48.5% of all revenue of the electronic communications sector. In 2020, Lithuanian public fixed communications networks accessed 76.0% and optical fibre lines – almost 61% of all residential premises. The year of 2020 witnessed the rapid development of the next-generation network (NGN) whose coverage, compared to 2019, increased by 7.2 percentage points. In 2020, this network accessed 71.3% of all residential premises. In 2020, the majority of the same residential premises accessed by the fixed communications networks of at least 3 operators were located in the municipalities of Visaginas, Šiauliai City and Klaipėda City (97.6%, 72.3% and 71.3%, respectively, of all residential premises in the municipality). In other municipalities, such accessibility did not reach 70%.

2. Telephone service

2.1. General Overview of the Market of Telephone Services



NB!

- In this section of the report, other telecommunications service providers shall be all providers of telecommunications services, except for Telia Lietuva, AB, UAB Tele2, UAB Bitė Lietuva and UAB Mediafon Carrier Services (hereinafter in this section – the “other providers”).

The telephone services provided in Lithuania in 2019 may be divided into retail public mobile and fixed telephone services, and wholesale public communications network provision and public telephone services (hereinafter – the ‘network interconnection services’).

Service providers. At the end of 2020, the telephone services were provided by 55 undertakings, i.e. by 4 undertakings more than at the end of 2019. Telephone service providers represented 43.3% of all 127 undertakings engaged in electronic communications activities. As many as 35 telephone service providers, i.e. 63.6% of all undertakings providing telephone services, were providing public fixed telephone services.

Revenue. In 2020, the revenue gained from telephone services amounted to EUR 281.7 million, i.e. by 8.7% less than in 2019 (see Fig. 12). Such revenue constituted 38.5% of all revenue of the electronic communications market. The trend of decreasing revenue of all telephone service groups (mobile, fixed communications and network interconnection services) has been observed for the fourth year in a row.

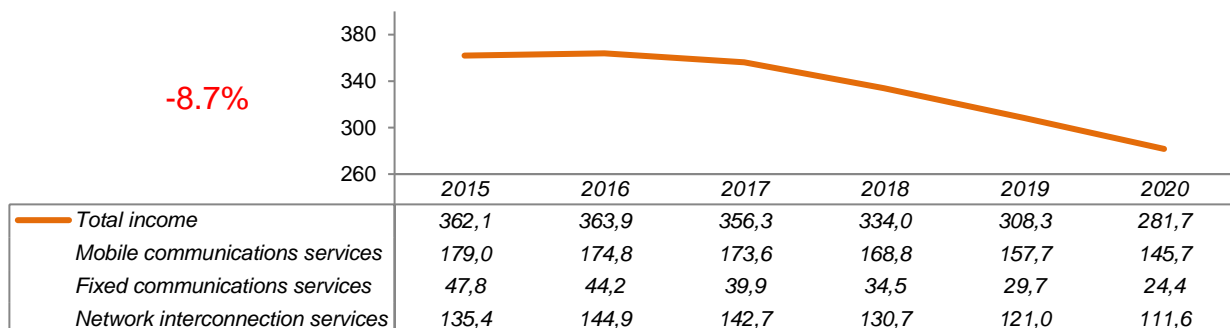


Fig. 12 Revenue from telephone services, EUR million, 2015-2020

Source: RRT.

In 2020, as was the case during the entire period between 2015 and 2020, the largest part of the revenue (51.7%) was comprised of the revenue received from retail public mobile telephone services (see

Fig. 13). In 2020, compared to 2019, a part of the revenue received from retail public mobile telephone services in terms of total revenue slightly increased (by 0.6 percentage points). In 2020, the revenue from fixed telephone services accounted for 8.7% of the total revenue or by 4.5 percentage points less than in 2015.

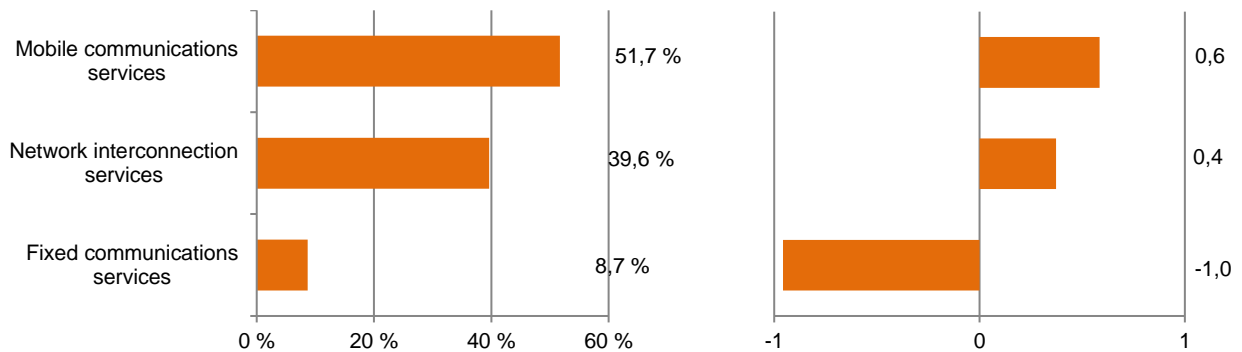


Fig. 13 Structure of revenue from telephone services by service groups, %, and annual changes of the revenue structure, pp, 2020

Source: RRT.

In 2020, the revenue of the four major telephone service providers remained almost unchanged and constituted 94.8% of all revenue from telephone services. In 2020, as was the case in 2019, the largest part of the revenue from telephone services was gained by Telia Lietuva, AB – 36.8% of all revenue from telephone services (see Fig. 14). Over the year, the market share of this undertaking grew by 0.7 percentage points. The market share held by UAB Bitė Lietuva experienced the steepest growth – in terms of the revenue, the market share held by that undertaking went up by 1.1 percentage points in 2020 and constituted 24.3%.

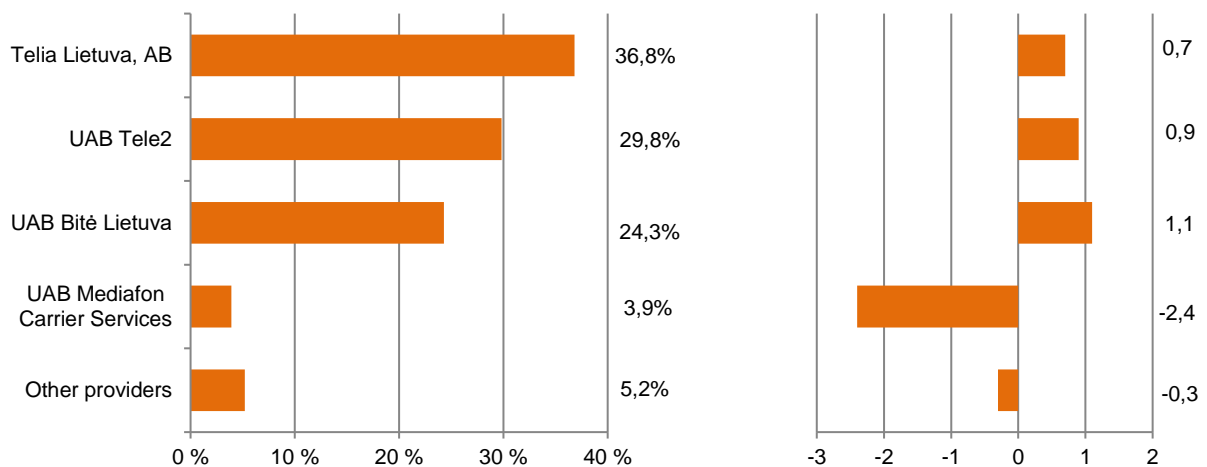


Fig. 14 Structure of revenue from telephone services by service providers, %, and annual changes of the revenue shares, pp, 2020

Source: RRT.

The trend of decreasing revenue from telephone services has been observed since 2016. In 2020, the revenue went down by 8.7%. The decline has been observed not only in the total revenue received from telephone services but also in the revenue of all telephone service groups since 2017. In 2020, the *Covid-19* pandemic led to the longer duration of calls originated by fixed and mobile telephone service users but this had no effect on revenue from telephone services due to applied flat-rate service plans. The declining trend was observed throughout the period of 2015 and 2020 in terms of revenue from fixed telephone services.

2.2. Public mobile telephone services



NB!

- In this section of the report, other public mobile telecommunications service providers shall be all public mobile telephone service providers, except for UAB Bitė Lietuva, Telia Lietuva, AB, and UAB Tele2 (hereinafter in this section – the ‘other providers’).

Public mobile telephone services consist of local¹, international² and international roaming³ calls via public mobile communications networks, where Lithuanian users of public mobile telephone services use roaming services in foreign countries (hereinafter – the ‘roaming calls’). This section also includes the Short Message Service (SMS) and Multimedia Messaging Service (MMS) sending services.

Information on the data transmission services via the mobile network by means of both telephones and computers is provided in the section “Data Transmission”.

Service providers. At the end of 2020, public mobile telephone services were provided by 24 undertakings: 3 operators were providing public mobile telephone services over their own network, 4 service providers had concluded the wholesale service agreements with the mobile operators.

Service Recipients. At the end of 2020, public mobile telephone services were provided to approximately 3.7 million active SIM (*Subscriber Identification Module*) cards⁴ (see Table 3). The number of active SIM cards slightly decreased over the year (by 0.9%). Mobile communications penetration⁵ went down by 0.9 percentage points due to a lower number of active SIM cards in 2020, and, at the end of 2020, 100 residents shared 131.4 active SIM cards.

In terms of the breakdown of active SIM cards by a manner of invoice settlement, the major share (66.5%) in 2020 was comprised of active SIM cards whose users paid under invoices (hereinafter – ‘post-paid’) rather than in advance (hereinafter – ‘pre-paid’) in 2020 (see Table 3). Over 2020, the number of active post-paid SIM cards increased by 1.8% or 42.8 thousand and stood at 2,443.1 thousand. Throughout the whole period under consideration between 2015 and 2020, a decreasing trend in pre-paid SIM cards was observed (it went down by 5.8% or 75.1 thousand in 2020). These trends could be associated with the flat rate service plans applied by the service providers, where set duration of local calls (usually unlimited calls to all networks of

¹ Local calls shall mean the calls originated and terminated in Lithuanian public mobile and fixed communications operator networks.

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

³ International roaming calls shall mean the calls originated by service users of Lithuanian public mobile communications network operators in foreign countries.

⁴ The number of service users referred to in this section of the report corresponds to the number of active SIM cards (used to send voice calls, SMS messages and/or MMS messages). An active SIM card shall mean a card which has been used to use a telecommunications service in the last 3 months (initiated or accepted call, sent or received short text message or another service used).

⁵ Mobile communications penetration is the number of active SIM cards per 100 residents.

Lithuania) and set duration of international calls as well as a certain amount of additional services (SMS/MMS/data transmission services) are offered for a regular fee.

Table 3. **Number of active SIM cards used to provide public mobile telephone services by service providers and method of payment, thousand units, 2015-2020**

	2015	2016	2017	2018	2019	2020
UAB Bitė Lietuva	840.2	812.4	880.0	858.5	864.3	853.7
<i>Pre-paid</i>	385.7	356.8	338.4	301.5	274.5	235.2
<i>Post-paid</i>	454.5	455.6	541.6	557.0	589.8	618.6
Telia Lietuva, AB	1,016.3	975.7	1,033.6	1,108.2	1,036.3	1,051.2
<i>Pre-paid</i>	351.3	305.8	277.3	262.6	277.5	293.7
<i>Post-paid</i>	665.0	670.0	756.3	845.5	758.8	757.5
UAB Tele2	1,713.2	1,724.5	1,704.2	1,715.2	1,723.6	1,690.5
<i>Pre-paid</i>	893.5	863.8	815.7	771.3	751.5	699.9
<i>Post-paid</i>	819.7	860.7	888.5	943.8	972.1	990.5
Other providers	79.6	87.5	82.5	82.8	80.1	76.6
<i>Pre-paid</i>	1.3	1.3	0.7	0.4	0.5	0.03
<i>Post-paid</i>	78.3	86.2	81.8	82.4	79.6	76.6
All providers	3,649.3	3,600.1	3,700.3	3,764.7	3,704.3	3,672.0
<i>Pre-paid</i>	1,631.8	1,527.7	1,432.0	1,335.9	1,304.0	1,228.8
<i>Post-paid</i>	2,017.5	2,072.4	2,268.2	2,428.8	2,400.3	2,443.1

Source: RRT.

When it comes to the breakdown of the number of public mobile telephone service users by providers, it is evident that in 2020 the number of active SIM cards of UAB Tele2, UAB Bitė Lietuva and other providers decreased, whereas the number of active SIM cards of Telia Lietuva, AB slightly increased (see Table 3). In 2020, as was the case in 2019, the major market share (46.0%) by the quantity of active SIM cards was held by UAB Tele2. This operator owned 40.5% of all post-paid SIM cards and 57.0% of all pre-paid SIM cards.

Number Portability Service. In 2020, this service was used 157.3 thousand times, i.e. by 5.1 thousand less than in 2019 (see Table 4). In 2020, the major part of service users that used the number portability service came to UAB Tele2 (35.0%), and most of them left Telia Lietuva, AB network (32.6%).

Table 4. **Flows of ported numbers by service providers, units., 2020**

	To	From	Balance sheet
UAB Bitė Lietuva	49,672	39,888	9,784
UAB Tele2	55,046	47,594	7,452
Telia Lietuva, AB	35,162	51,259	-16,097
Other providers	17,450	18,589	-1,139

Source: RRT.

Revenue. In 2020, compared to 2019, the revenue from public mobile telephone services shrank by 7.6% or EUR 12.0 million and stood at EUR 145.7 million (see Fig. 15). In 2020, such revenue accounted for one of the largest shares of the electronic communications service market revenue (20.0%). The trend of decreasing revenue from public mobile telephone services has been observed throughout the period in question between 2015 and 2020.

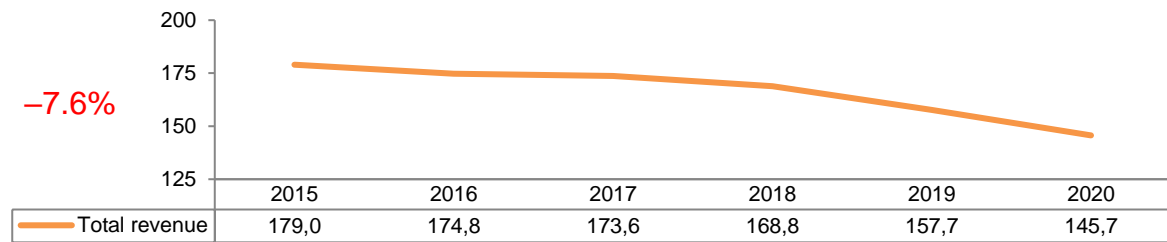


Fig. 15 Revenue from public mobile telephone services, EUR million, 2015-2020

Source: RRT.

In 2020, the total revenue of the three major mobile telephone service providers went down by 7.9% or EUR 12.0 million. The share of the revenue of all revenue received from mobile telephone services, however, remained almost unchanged and stood at 96.1%. In 2020, the largest market share (37.9%) by revenue from public mobile telephone services was held by UAB Tele2, as was the case in 2019 (see Fig. 16). In 2020, the market share held by UAB Bitė Lietuva was subject to the steepest growth (0.7 percentage points) and stood at 30.4%.

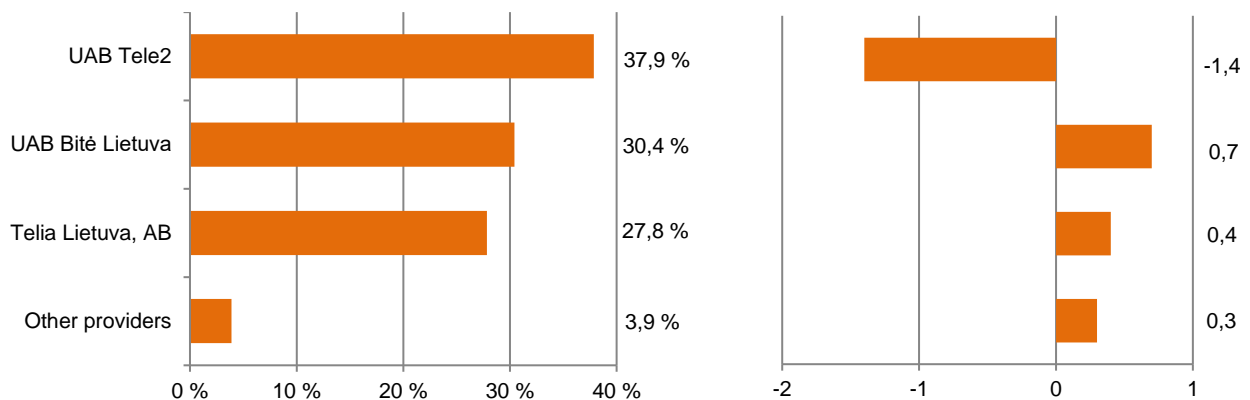


Fig. 16 Structure of revenue from public mobile telephone services by service providers, %, and annual changes of the revenue shares, pp, 2020

Source: RRT.

The average revenue per user (ARPU) a month for public mobile telephone services was slightly decreasing in 2020 (EUR 0.3) and it stood at EUR 3.3 per month (see Table 5). It must be noted that in 2015-2020, ARPU variations were not high: between EUR 3.3 and 3.9 per month.

Table 5. ARPU for public mobile telephone services, EUR per month, 2015-2020*

	2015	2016	2017	2018	2019	2020
ARPU for public mobile telephone services	3.6	3.5	3.9	3.7	3.6	3.3

*Since 2017 the calculations have included the more accurate number of active SIM cards used to send only voice calls, SMS and/or MMS. Source: RRT.

2.2.1. Mobile telephone voice services

Call Duration. The duration of calls originated by Lithuanian public mobile telephone service users was further increasing in 2020. Compared to 2019, the duration of calls originated in 2020 went up by 16.6% or by 1,501.7 million minutes and totalled 10,538.1 million minutes (see Fig. 17). In 2020, the Lithuanian public mobile telephone voice service users originated 96.7% of the calls by duration in Lithuania. The duration of such calls grew by 17.2% in 2020, compared to 2019. The duration of calls originated in foreign countries, where the Lithuanian public mobile telephone service users, when being abroad, were using the roaming services insignificantly increased (by 2.4% or 8.2 million minutes).

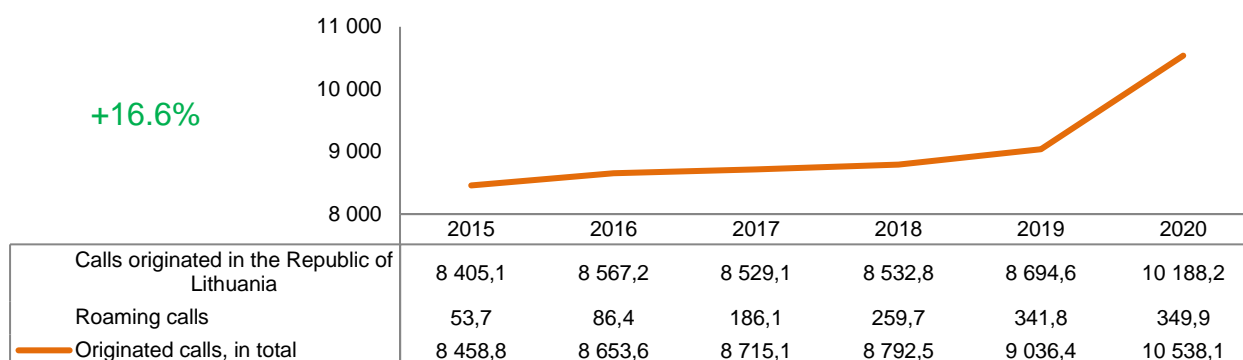


Fig. 17 Duration of calls originated by Lithuanian public mobile telephone voice service users, million minutes, 2015-2020

Source: RRT.

As regards the breakdown of the duration of calls originated by the Lithuanian public mobile telephone service users by providers, the longest duration remained that of the calls originated by UAB Tele2 service users in 2020 and it represented 50.3% of the duration of all originated calls (see Table 6).

Table 6. Duration of calls originated by Lithuanian public mobile telephone voice service users by service providers, million minutes, 2015-2020

	2015	2016	2017	2018	2019	2020
UAB Tele2	4,045.3	4,127.9	4,216.7	4,272.5	4,504.9	5,298.7
Telia Lietuva, AB	2,240.8	2,318.5	2,347.2	2,364.0	2,378.0	2,777.3
UAB Bitė Lietuva	1,947.3	1,972.3	1,939.4	1,945.5	1,954.9	2,249.5
Other providers	225.3	234.9	211.9	210.4	198.7	212.6
All providers	8,458.8	8,653.6	8,715.1	8,792.5	9,036.4	10,538.1

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 the networks of the Republic of Lithuania (i. e. calls are terminated in own networks, by short-number or service number calls, in other public mobile and public fixed communications networks) and in foreign operators' networks. The major part of all public mobile telephone calls was terminated in the networks of the Republic of Lithuania in 2020 (99.5%) (see Table 7).

Table 7. Duration of calls originated in Lithuanian public mobile communications networks by call destination, million minutes, 2015-2020*

	2015	2016	2017	2018	2019	2020
Terminated in the networks of the Republic of Lithuania	8,352.9	8,517.8	4,483.7	8,489.0	8,650.8	10,134.4
Of which terminated by short-number and service number calls	-	-	31.7	35.3	40.4	56.1
Terminated in foreign operators' networks	52.2	49.4	45.4	43.9	43.8	53.8
Total call duration	8,405.1	8,567.2	8,529.1	8,532.8	8,694.6	10,188.2

*The short-number calls or other premium or toll-free calls have been singled out since 2017.

Source: RRT.

When analysing the call structure by the way of settlement, most calls in Lithuania were originated by service users (legal and natural persons) which paid for the services under invoices in 2020, as was the case in 2019 – this accounted for 84.2% of the total duration of originated calls (see Table 8). The duration of such calls went up by 20.7% or by 1,473.5 million minutes in 2020, compared to 2019. The duration of pre-paid calls by service users increased by 1.3% or by 20.1 million minutes over the year.

Table 8. Duration of calls of various destinations originated in Lithuanian public mobile communications networks by way of settlement and type of service users, million minutes, 2019-2020

	2019			2020		
	Pre-paid	Post-paid		Pre-paid	Post-paid	
		Natural	Legal		Natural	Legal
Terminated in the networks of the Republic of Lithuania	1,579.6	5,086.4	1,673.2	1,604.7	6,387.0	2,142.7
Of which terminated by short-number and service number calls	3.1	22.9	14.5	4.7	32.4	18.9
Terminated in foreign operators' networks	3.2	14.5	26.1	3.5	17.1	33.2
Total originated	1,588.1	5,316.2	1,790.3	1,608.2	6,404.1	2,175.9

Source: RRT.

The duration of calls originated in foreign countries, where the Lithuanian public mobile telephone service users, when being abroad, were using roaming services, insignificantly increased in 2020, compared to 2019: by 2.4% or 8.2 million minutes. This growing trend has been observed throughout the entire period in question, i.e. since 2015. The most contributing factor was the increasing duration of mobile communications voice calls originated by the Lithuanian operators' service users travelling in the EU countries as a result of the principle 'Roam Like At Home' which came into force as of the middle of 2017 in the whole EU.

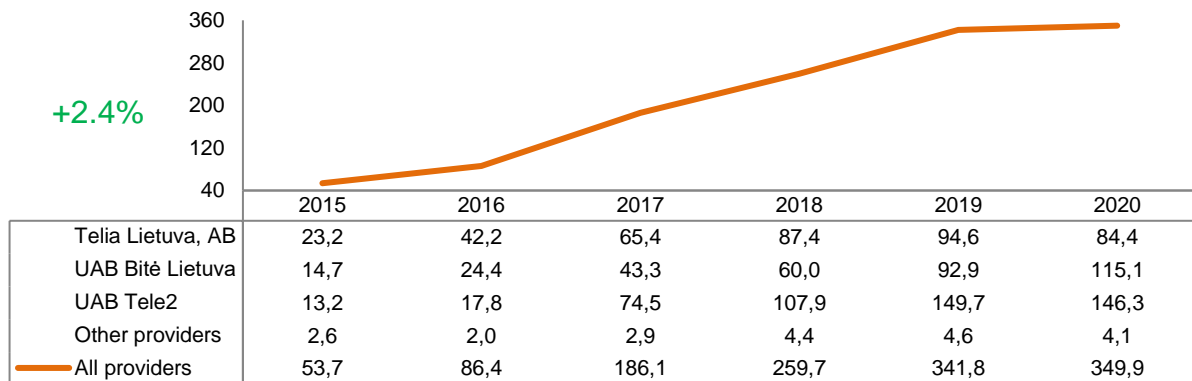


Fig. 18 Duration of calls originated by Lithuanian public mobile telephone service users using roaming services by service providers, million minutes, 2015-2020

Source: RRT.

In 2020, UAB Tele2 remained the leader of roaming services, by the duration of calls, where service users of the Lithuanian public mobile telephone service providers are calling while being abroad (see Fig. 18): in 2020, by means of SIM cards of this operator, 41.8% of all roaming calls were originated. The duration of roaming calls originated by means of UAB Tele2 SIM cards decreased by 2.2% or by 3.3 million minutes in 2020. The duration of roaming calls originated by means of UAB Tele2 SIM cards was subject to the steepest growth in 2020 – 22.2 million minutes or by 23.9%.

As far as the calls originated in Lithuanian public mobile communications networks are concerned, without differentiating call destinations, the average monthly call duration per service user was 232.1 minutes in 2020 (almost 4 hours), i.e. by 34.8 minutes longer than in 2019 (see Fig. 19). The average longest duration of the calls (253.9 minutes or 4.2 hours) was of the UAB Tele2 service user in 2020, as was the case in 2019. The average monthly duration of calls of the service users of UAB Tele2 was subject to the greatest increase: by 20.4% or 43.1 minutes. It must be noted that the average monthly duration of calls per service user was longer in terms of all providers in 2020. The average monthly call duration per post-paid service user was 294.9 minutes in 2020 (natural person – 307.3 minutes, legal person – 263.8 minutes) or by 17.8% longer than in 2019, and the duration per pre-paid service user was by 108.7 minutes or by 7.4% longer than in 2019.

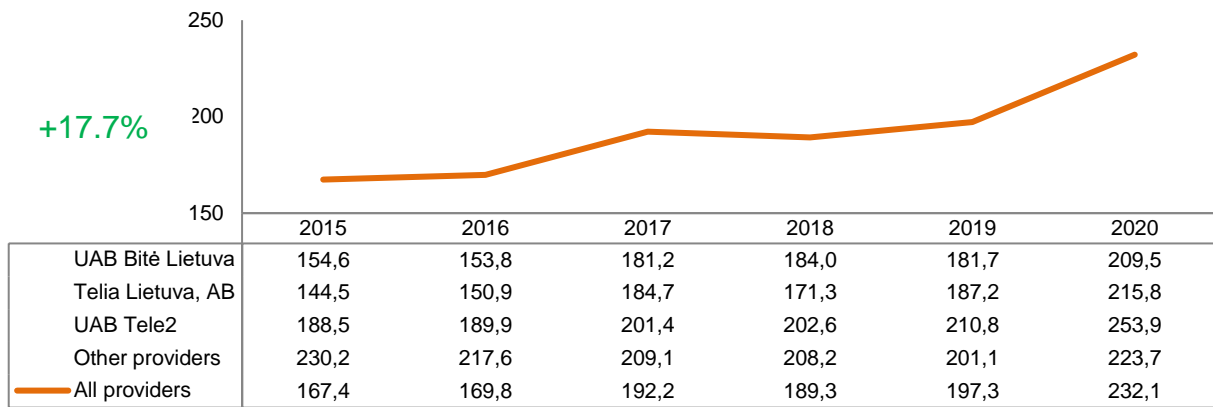


Fig. 19 Average monthly duration of calls originated by a single Lithuanian public mobile telephone service user by service providers, minutes, 2015-2020

Source: RRT.

Revenue. In 2020, compared to 2019, the revenue from public mobile telephone voice services went down by 10.6% or EUR 12.4 million (see Fig. 20). It must be noted that the decreasing trend in the revenue remained throughout the entire period under review (2015-2020).

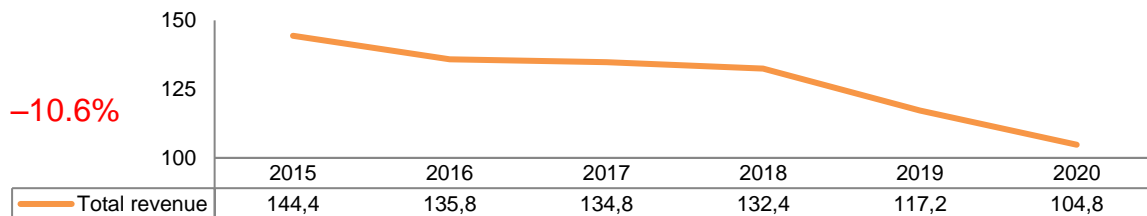


Fig. 20 Revenue from public mobile telephone voice services, EUR million, 2015-2020

Source: RRT.

In terms of the structure of revenue received by public mobile telephone voice service providers by call destinations, the major part of the revenue was generated from calls terminated in the networks of the Republic of Lithuania (local): the major part of total revenue from local calls (by 89.9% or 6.1 percentage points more than in 2019) was generated by UAB Bitė Lietuva in 2020, the lowest – by UAB Tele2 (see Table 9).

Table 9. Structure of revenue received by public mobile telephone voice service providers by call destinations, %, 2019-2020

	2019			2020		
	Local	International	International roaming	Local	International	International roaming
UAB Bitė Lietuva	83.8	9.3	6.9	89.9	6.7	3.4
Telia Lietuva, AB	73.5	14.4	12.1	79.8	14.5	5.7
UAB Tele2*	90.7		9.3	79.2	15.9	4.9
Other providers	75.5	13.3	11.2	86.1	9.1	4.8

* In 2019 UAB Tele2 did not single out the revenue from local and international calls.

Source: RRT.

When it comes to the roaming call segment, it must be noted that the major share of the total revenue for roaming calls (by 5.7% or 6.4 percentage points less than in 2019) was generated by Telia Lietuva, AB in 2020, the smallest share was that of UAB Bitė Lietuva.

ARPU. In 2020, the average monthly revenue from public mobile telephone voice services per subscriber shrank by 10.2% or EUR 0.3 and stood at EUR 2.4 per month (see Table 10). It comprised 71.9% of ARPU for all public mobile telephone services. In 2020, average revenue received from both public mobile telephone post-paid service users (13.3% or EUR 0.5) and pre-paid service users (2.4% or EUR 0.03) went

down. The revenue received from post-paid service users were 2.2 times higher than the revenue received from pre-paid service users. It may be stated that the difference between the expenditure when paying under invoices or in advance was not significant, and the choice was determined by flat rate service plans which corresponded to the users' needs and enabled planning the expenses.

Table 10. **ARPU for public mobile telephone voice services by way of settlement, EUR per month, 2015– 2020**

	2015	2016	2017	2018	2019	2020
ARPU for public mobile telephone voice services	2.9	2.7	3.0	2.9	2.7	2.4
<i>Post-paid</i>	3.7	3.4	3.7	3.6	3.4	2.9
<i>Pre-paid</i>	1.6	1.5	1.4	1.7	1.4	1.3
ARPU for all public mobile telephone services	3.6	3.5	3.9	3.7	3.6	3.3

Source: RRT.

The comparison of ARPU received by major operators for public mobile telephone voice services shows that in 2020, the lowest ARPU was that of UAB Tele2 (EUR 1.6 or by 14.7% less than in 2019), the highest ARPU was of UAB Bitė Lietuva (EUR 3.3 or by 7.0% less than in 2019) (see Table 11). This trend is observed throughout the entire period in question (2015-2020).

Table 11. **ARPU for public mobile telephone voice services by providers, EUR per month, 2015-2020**

	2015	2016	2017	2018	2019	2020
UAB Bitė Lietuva	3.2	3.4	3.9	3.8	3.5	3.3
Telia Lietuva, AB	2.9	2.9	3.5	3.2	3.2	2.9
UAB Tele2	2.7	2.4	2.4	2.4	1.9	1.6
Other providers	2.0	1.9	2.6	2.6	2.6	2.7
All providers	2.9	2.7	3.0	2.9	2.7	2.4

Source: RRT.

Prices. In Lithuania, the so-called *flat rate* service plans were prevailing during the period in question, whereby a certain duration of local calls and international calls or unlimited calls to all networks of Lithuania and a certain amount of additional services (SMS, data transmission) were offered for a certain regular fee. Where different mobile telephone service plans with one fixed price for voice and data transmission services 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, in terms of the calculated average prices of voice services (the ratio between the revenue from such services and duration of respective calls subject to received revenue), the decreasing trend in the price is evident throughout the period in question. In 2020, compared to 2019, the average price of voice services went down by 23.3%, or 0.3 euro cents per minute (see Table 12). The average price of voice services of all public mobile communications services decreased in 2020. The average price of voice services of Telia Lietuva, AB and UAB Bitė Lietuva went down by 0.4 euro cents per minute or, respectively, by 21.6% and 19.6%.

Table 12. **Calculated average public mobile telephone voice service prices by service providers, euro cents per minute, 2015-2020**

	2015	2016	2017	2018	2019	2020
UAB Bitė Lietuva	2.0	1.9	2.1	2.0	1.9	1.5
Telia Lietuva, AB	2.0	1.9	1.8	1.8	1.7	1.3
UAB Tele2	1.4	1.3	1.2	1.1	0.9	0.6
Other providers	0.8	0.9	1.2	1.2	1.3	1.2
All providers	1.7	1.6	1.5	1.5	1.3	1.0

Source: RRT.

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 indicators⁶ in relation to UAB Bitė Lietuva, Telia Lietuva, AB, 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 voice calls, call setup time, voice transmission quality and share of interrupted calls. Voice transmission quality is expressed in MOS scores⁷ – the higher the score, the higher the quality of the service. In terms of different service providers, it is evident that the quality of services in 2020 was high (see Table 13). In 2020, voice quality in the network of Telia Lietuva, AB was assessed by making a call using the VoLTE (*Voice over LTE*) technology – this led to a significantly improved MOS score and greater difference in comparison with other operators.

Table 13. **Average value of public mobile telephone voice service transmission quality in MOS scores by service providers, scores, 2017-2020**

	2017	2018	2019	2020
Telia Lietuva, AB	3.03	3.29	3.52	4.56
UAB Bitė Lietuva	3.40	3.45	3.50	3.66
UAB Tele2	3.24	3.22	3.28	3.49

Source: RRT.

2.2.2. Mobile telephone SMS and MMS services

The popularity of short-text messages (SMS), especially that of multimedia messages (MMS) which allow sending a video message supplemented with audio features and text has been gradually decreasing. Those technologies are being replaced by new, more convenient and more advanced platforms, such as Viber, Facebook Messenger, etc.

Number of SMS and MMS. During the period under review between 2015 and 2020, the number of SMSs was going down (see Table 14). In 2020, compared to 2019, the number of sent SMS declined by 11.7%. A single public mobile telephone service user sent 65 SMS per month on an average in 2020 (by 8 SMS fewer than in 2019), i.e. 2.1 SMS per day. In 2020, as many as 39.2 million A2P (*Application to Person*) SMS were sent. These messages represented 1.4% of all SMS sent in 2020.

⁶ For more information, see RRT website at: <https://www.rrt.lt/istekliai/rysio-paslaugu-kokybes-ataskaitos/viesuju-judriojo-telefono-rysio-paslaugu-kokybes-rodikliai-ataskaitos/>.

⁷ Voice transmission quality is a value showing the quality of voice transmitted over the network during a successful call expressed in MOS scores from 1 to 4.5: excellent quality from 3.7 scores and higher, good quality between 3.2 and 3.7 scores, fair quality between 2.3 and 3.2 scores, poor quality between 1.6 and 2.3 scores, bad quality below 1.6 scores. MOS assessment is carried out by means of specific software installed in the RRT measurement equipment that uses the wideband voice quality testing standard P.863-SWB 'POLQA'.

Table 14. Number of sent SMS, million units, and MMS, thousand units, and market shares of service providers, %, 2015-2020

	2015	2016	2017	2018	2019	2020
Number of sent SMS, in million units	6,350.2	5,259.3	4,489.7	3,978.0	3,248.6	2,869.6
<i>UAB Tele2</i>	51.3	53.9	56.8	56.7	55.2	52.8
<i>Telia Lietuva, AB</i>	22.5	21.5	21.7	22.6	25.4	29.9
<i>UAB Bitė Lietuva</i>	25.1	22.9	19.7	18.9	18.2	16.0
<i>Other providers</i>	1.1	1.7	1.8	1.9	1.3	1.3
Number of sent MMS, in thousand units	8,071.5	9,430.7	10,944.3	13,128.4	11,551.5	11,496.2
<i>UAB Tele2</i>	47.4	46.3	47.7	49.7	44.6	45.0
<i>Telia Lietuva, AB</i>	30.3	30.9	27.1	23.2	26.5	26.4
<i>UAB Bitė Lietuva</i>	16.5	15.5	21.0	22.3	24.2	24.3
<i>Other providers</i>	5.8	7.4	4.2	4.8	4.8	4.3

Source: RRT.

In 2020, compared to 2019, the number of sent MMS decreased insignificantly (by 0.5%) (see Table 14). The average number of MMS sent in 2020, as was the case in 2019, per public mobile telephone service user was 3.1. Despite greater possibilities of MMS, the popularity of this service is still significantly lower than that of SMS.

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 send the largest number of SMS and MMS every year (see Table 14).

Revenue. The revenue received from sent SMS and MMS messages increased by 5.5% and equalled EUR 25.2 million in 2020 (see Fig. 21). The major share of revenue from sent SMS and MMS (95.1%) consisted of the revenue from sent SMS in 2020. Compared to all⁸ revenue received from public mobile telephone services, the revenue from SMS accounted for 16.5%. In 2020, the revenue gained from sent A2P SMS amounted to EUR 2.0 million or 8.5% of all revenue from sent SMS.

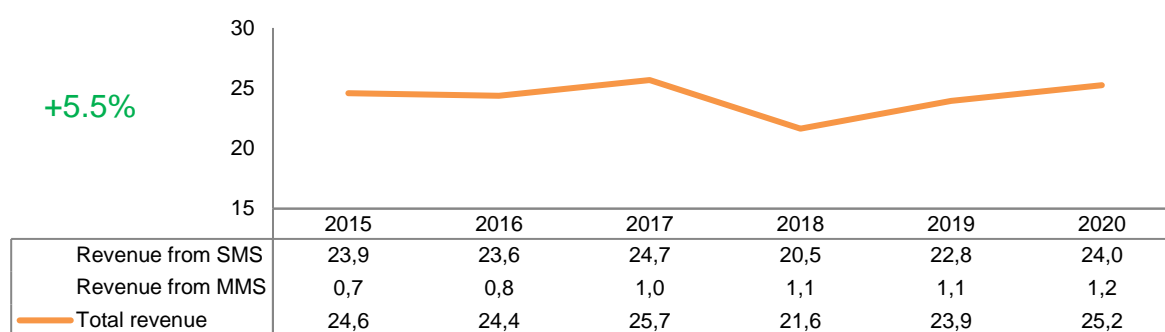


Fig. 21 Revenue from SMS and MMS, EUR million, 2015-2020

Source: RRT.

Prices. The average price of SMS service (ratio between revenue from such services and number of sent SMS) stood at 0.84 euro cents in 2020. Service users of UAB Bitė Lietuva had to pay the highest price per SMS (1.20 euro cents), whereas the lowest price (0.50 euro cents) for sending SMS was applied by Telia Lietuva, AB in 2020. The average price for UAB Tele2 service users was 0.84 euro cents in 2020. The largest

⁸ All revenue from public mobile telephone services includes the revenue from calls, SMS, MMS and other revenue.

difference between the highest and lowest calculated average SMS price applied by the major mobile communications operators stood at 0.70 euro cents in 2020. The average revenue received by other providers per sent SMS stood at 1.93 euro cents.

The average calculated price of sending MMS (ratio between revenue from such services and number of sent MMS) stood at 10.7 euro cents in 2020. The difference between the highest and lowest calculated average MMS price applied by the major mobile communications operators stood at 10.6 euro cents. UAB Bitė Lietuva service users had to pay the highest price for sending an MMS, i.e. 17.6 euro cents; the lowest price was paid by Telia Lietuva, AB, service users (6.9 euro cents). UAB Tele2 service users had to pay 10.3 euro cents for sending MMS in 2020. The calculated average price of other providers per sent MMS stood at 0.4 euro cents.

The consistently growing duration of calls shows that the public mobile telephone voice services remain popular. The decreasing number of active SIM cards, sent SMS and MMS and decreasing revenue from public mobile telephone services, however, demonstrates that the conventional services are gradually being replaced by the alternatives provided over the data transmission networks.

2.3. Public fixed telephone services



NB!

- In this section of the report, other public fixed telecommunications service providers shall be all public fixed telephone service providers, except for Telia Lietuva, AB, UAB CSC Telecom, UAB Baltnetos Komunikacijos, UAB Nacionalinis Telekomunikacijų Tinklas indicated in Figure 22; Telia Lietuva, AB indicated in Table 16, Tables 18 to 20, Figure 23; Telia Lietuva, AB, UAB Nacionalinis Telekomunikacijų Tinklas, UAB Baltnetos Komunikacijos, UAB CSC Telecom indicated in Figure 22U; Telia Lietuva, AB, UAB Baltnetos Komunikacijos, UAB Cgates indicated in Figure 25 (hereinafter in this section – the ‘other providers’).

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

Service providers. At the end of 2020, the public fixed telephone services were provided by 35 undertakings, i.e. by 6 undertaking more than at the end of 2019. Of which 33 undertakings provided public fixed telephone services by means of VoIP (Voice Over Internet Protocol) technology.

Service Recipients. The service users received public fixed telephone services via public fixed telephone lines by means of PSTN (Public Switched Telephone Network), ISDN (Integrated Services Digital Network) and VoIP technologies. In 2020, the number of used public fixed telephone lines decreased by 13.2% or by 46.5 thousand lines and the total number equalled 304.8 thousand lines (see Table 15).

Table 15. Number of public fixed telephone service users and of used lines, thousand units, and penetration (per 100 residents and 100 households), %, 2015-2020

	2015	2016	2017	2018	2019	2020
Number of lines, in thousand units	553.4	521.9	474.3	412.1	351.3	304.8
<i>Line penetration (per 100 residents), %</i>	19.4	18.3	16.9	14.7	12.6	10.9
<i>Line penetration (per 100 households), %</i>	43.4	41.0	37.8	31.3	26.8	22.6
Number of service users, in thousand units	560.8	529.9	485.9	426.5	367.8	321.9
<i>Natural entities</i>	396.8	374.7	333.7	282.1	229.8	193.6
<i>Legal entities</i>	164.0	155.2	152.2	144.5	138.0	128.3
<i>Service users' penetration (per 100 residents), %</i>	19.7	18.6	17.3	15.3	13.2	11.5
<i>Service users' penetration (per 100 households), %</i>	44.0	41.7	38.7	31.8	28.0	23.8

Source: RRT.

Due to the shrinking number of lines, the penetration of communications lines via which the public fixed telephone services were provided decreased as well. At the end of 2020, as many as 10.9 lines per 100 residents were available. It must be noted that the number of service users does not correspond to the number of lines as public fixed telephone services may be provided to several service users via a single line provided by means of different technologies. The overall number of public fixed telephone service users was decreasing

throughout the entire period in question. In 2020, this number went down by 12.5% or 45.9 thousand and totalled 321.9 thousand at the end of 2020.

In 2020, natural persons who used fixed telephone services represented the major shares of public fixed telephone service users – 60.2% (see Table 15). Over the year, this number dropped by 15.7% or 36.2 thousand. The number of legal persons using public fixed telephone services was not falling that rapidly – by 7.1% or 9.8 thousand, respectively. Their share with respect to the overall number of public fixed telephone service users was growing throughout the entire period in question (2015-2020).

The share of the market held by Telia Lietuva, AB in terms of the number of public fixed telephone services users was the greatest in 2020 and accounted for 81.3% (see Fig. 22). Its market share, compared to 2019, insignificantly increased by 0.8 percentage points. The market share of UAB CSC Telecom shrank the most (by 1.4 percentage points).

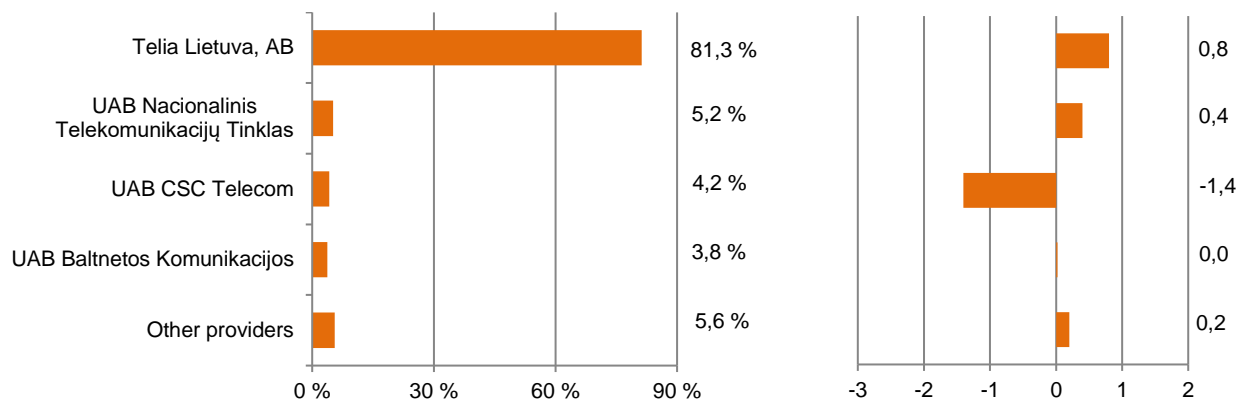


Fig. 22 Structure of public fixed telephone service market by the number of service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

The number of public fixed telephone service users of Telia Lietuva, AB decreased by 11.6% or 34.3 thousand in 2020, and the number of service users of other providers dropped by 16.2% or 11.6 thousand (see Table 16).

Table 16. Number of public fixed telephone service users by service providers, thousand units, and by types of service users, %, 2015-2020

	2015	2016	2017	2018	2019	2020
Telia Lietuva, AB	499.3	464.8	414.9	353.4	295.9	261.7
<i>Natural persons</i>	75.9	76.0	74.8	72.5	69.7	68.1
<i>Legal persons</i>	24.1	24.0	25.2	27.5	30.3	31.9
Other providers	61.4	65.1	71.0	73.1	71.9	60.2
<i>Natural persons</i>	28.6	32.6	32.7	35.5	32.7	25.8
<i>Legal persons</i>	71.4	67.4	67.3	64.5	67.3	74.2

Source: RRT.

The decreasing overall number of service users resulted in the changes in the market structure by a type of service users (see Table 16). The number of natural persons using public fixed telephone services provided by Telia Lietuva, AB dropped by 13.7% and stood at 178.1 thousand in 2020. The market share held by Telia Lietuva, AB in the segment of services provided to natural persons increased by 2.2 percentage points and stood at 92.0% of the overall market. The number of natural persons using public fixed telephone services provided by other providers fell by 33.8% and stood at 15.6 thousand service users at the end of 2020, compared to 2019.

The number of legal persons using public fixed telephone services provided by Telia Lietuva, AB and other providers dropped by 6.8% (6.1 thousand) and 7.6% (3.7 thousand), respectively, in 2020. Telia Lietuva, AB whose public fixed telephone services were used by 83.6 thousand legal persons at the end of 2020 held 65.2% of the market of public fixed telephone services provided to legal persons.

Number Portability Service. In 2020, this service was used 9.2 thousand times, i.e. by 31.7% less than in 2019 (see Table 17). The majority of telephone numbers were ported from Telia Lietuva, AB network (6.8 thousand or 73.7% of all users who used the number portability service) and from UAB CSC Telecom network (1.5 thousand or 16.4%) to another network. As many as 1.8 thousand telephone numbers (19.7%) were ported to Telia Lietuva, AB network from the networks of other providers, and 5.9 thousand or 64.3% of the numbers were ported to UAB CSC Telecom.

Table 17. **Number of ported numbers by service providers, units, 2020**

	To	From	Balance sheet
UAB CSC Telecom	5,893	1,502	4,391
UAB Tele2	396	39	357
UAB EcoFon	154	36	118
UAB Nacionalinis Telekomunikacijų Tinklas	483	369	114
UAB Mediafon Carrier Services	394	385	9
AB Lietuvos Radijo ir Televizijos Centras	8	10	-2
Voxbone SA	0	5	-5
AB LTG Infra	0	15	-15
UAB Teledema SIP	34	51	-17
Telia Lietuva, AB	1,802	6,752	-4,950

Source: RRT.

Call Duration. The duration of calls originated by public fixed telephone service users, which was going down till 2019, increased by 3.2% in 2020, compared to 2019 (see Fig. 23). The market of public fixed telephone services, in terms of the duration of calls originated in the networks of different providers, maintained the same positions in 2020 as in the previous year: the major market share (80.0%) was held by Telia Lietuva, AB but its market share shrank by 3.4 percentage points over the year.

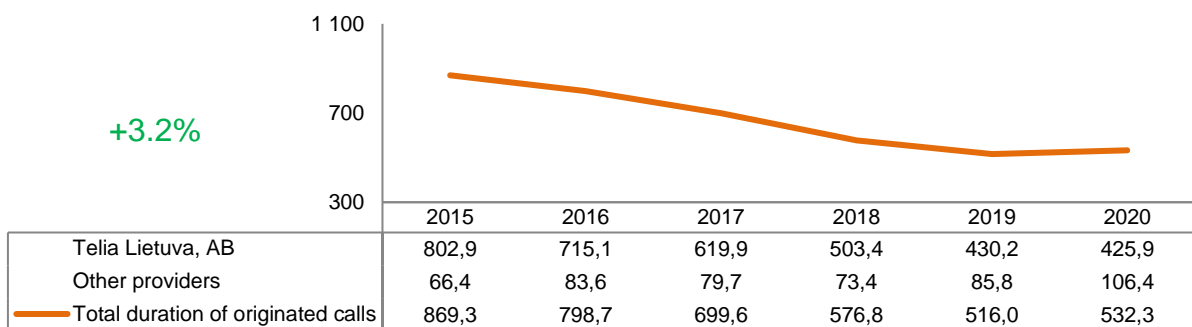


Fig. 23 **Duration of calls originated by public fixed telephone service users by service providers, million minutes, 2015-2020**

Source: RRT.

In 2020, the duration of international calls of Telia Lietuva, AB and other operators went down (see Table 18). The decreasing trend of Telia Lietuva, AB calls terminated in public mobile communications networks is observed during the entire period of 2015-2020. This growth affected the overall duration of local calls which went up by 4.4%.

Table 18. Duration of calls originated in individual public fixed telephone communications networks by call destination, million minutes, 2015-2020*

Telia Lietuva, AB	2015	2016	2017	2018	2019	2020
Terminated in the networks of the Republic of Lithuania	781.6	696.2	602.7	490.1	419.4	417.9
Of which terminated by short-number and service number calls	-	-	11.8	9.5	9.0	9.6
Terminated in foreign operators' networks	21.3	18.9	17.2	13.3	10.8	8.0
Other providers						
Terminated in the networks of the Republic of Lithuania	56.6	62.7	55.1	56.2	75.1	98.1
Of which terminated by short-number and service number calls	-	-	0.4	0.5	0.9	0.5
Terminated in foreign operators' networks	9.7	20.9	24.6	17.1	10.7	8.3
All providers						
Terminated in the networks of the Republic of Lithuania	838.3	758.9	657.8	546.4	494.5	516.0
Of which terminated by short-number and service number calls	-	-	12.3	10.0	9.9	10.0
Terminated in foreign operators' networks	31.0	39.8	41.8	30.4	21.5	16.2

*The short-number calls or other premium or toll-free calls have been singled out since 2017.

Source: RRT.

Revenue. The trend of consistently decreasing revenue from public fixed telephone services has been observed throughout the entire period in question. In 2020, such revenue went down by 17.7% or EUR 5.3 million and amounted to EUR 24.4 million (which constituted 3.3% of the total revenue of the electronic communications market) (see Fig. 24).

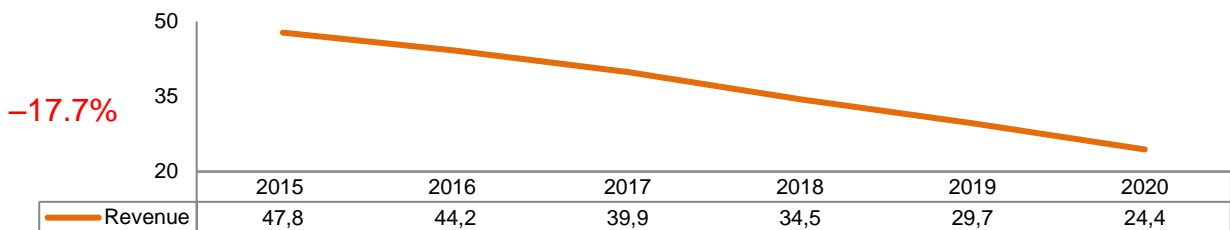


Fig. 24 Revenue from public fixed telephone services, EUR million, 2015-2020

Source: RRT

In terms of the breakdown of revenue from public fixed telephone services by providers, the revenue received by Telia Lietuva, AB from the provision of public fixed telephone voice services constituted the major part (85.7%) (see Fig. 25). In 2020, compared to 2019, the market share held by Telia Lietuva, AB shrank by 1.7 percentage points.

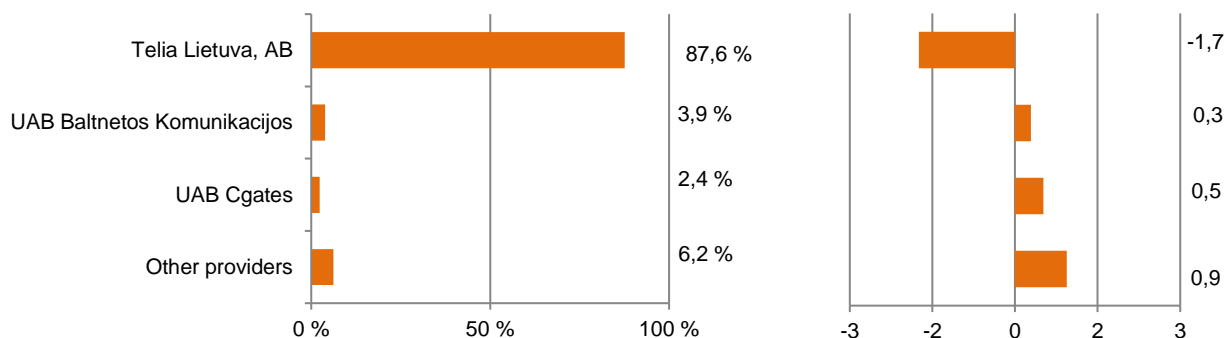


Fig. 25 Structure of revenue from public fixed telephone services by service providers, %, and annual changes of the revenue shares, pp, 2020

Source: RRT.

ARPU. The average revenue from public fixed telephone services per subscriber per month (ARPU) went down by EUR 0.4 and accounted for EUR 6.0 in 2020, compared to 2019 (see Table 19). In 2020, ARPU fell by 11.2% in the segment of legal persons, whereas it dropped by 5.8% in the segment of natural persons. This may be associated with favourable conditions in terms of competition in the segment of both legal and natural persons.

Table 19. **ARPU for public fixed telephone services by service providers and type of service users, EUR per month, 2015-2019**

	2015	2016	2017	2018	2019	2020
ARPU for public fixed telephone services*	7.1	7.0	6.6	6.4	6.4	6.0
ARPU by users						
<i>Natural persons</i>	6.0	5.8	5.5	5.4	5.5	5.2
<i>Legal persons</i>	9.7	9.9	9.2	8.3	8.0	7.1
ARPU by providers						
<i>Telia Lietuva, AB</i>	8.1	7.5	7.0	6.9	6.9	6.4
<i>Other providers</i>	3.7	3.6	4.3	3.9	4.4	4.3

* Including the revenue from subscriber loops.

Source: RRT.

In 2020, as was the case in 2019, ARPU from public fixed telephone services exceeded ARPU from public mobile telephone services by 1.8 times. Since ARPU may be used to calculate the average monthly expenses of a single service user, it must be concluded that the public mobile telephone voice services are more attractive to the service user not only due to the difference between the functionality of fixed and mobile telephone voice services but also due to lower expenses. This may be referred to as one of the reasons for the rapid shrinkage of the public fixed telephone service market.

Prices. The calculated average prices of different public fixed telephone service providers in 2020 (ratio between revenue for such services and duration of calls that revenue was generated from) per minute of a local and international call slightly changed (see Table 20). In 2020, compared to 2019, the calculated average price per minute of a local call originated in the network of Telia Lietuva, AB remained almost unchanged, while the calculated average prices of the said services provided by other providers went down by 0.3 euro cents or by 23.7%.

Table 20. **Calculated average public fixed telephone service prices by service providers, euro cents per minute, 2015-2020**

Local call	2015	2016	2017	2018	2019	2020
Telia Lietuva, AB	2.3	2.4	2.5	2.6	2.5	2.5
Other providers	2.0	1.7	1.3	1.1	1.1	0.8
All providers	2.3	2.4	2.4	2.5	2.3	2.2
International call						
Telia Lietuva, AB	11.8	12.4	12.2	13.2	15.0	17.7
Other providers	8.3	5.8	6.0	6.6	8.6	6.8
All providers	10.7	8.9	8.6	9.5	11.8	12.1

Source: RRT

When analysing the calculated average prices per international call minute by service providers, it is clear that the lowest calculated average prices were applied to the services provided by other providers (6.8 euro cents per minute) in 2020 as was the case in the previous periods. It decreased by 1.7 euro cents or by

20.0% over the year. The prices of the services provided by Telia Lietuva, AB rose by 2.6 euro cents or 17.4% (see Table 20).

In 2020, the market of public fixed telephone services was further shrinking in terms of both the number of service users and revenue, whereas it grew by the duration of calls. The duration of calls originated by public fixed telephone service users which was going down till 2019, increased by 3.2% in 2020. This was caused by changed communication and remote working due to the *Covid-19* pandemic.

2.4. Wholesale services of the provision of public communications networks and wholesale public telephone services

2.4.1. General overview of the market

Service providers	17
Major service provider	Telia Lietuva, AB
Wholesale revenue, EUR million	111.6

NB!

- In this section of the report, other network interconnection service providers shall be all providers of network interconnection services, except for Telia Lietuva, AB, UAB Tele2, UAB Bitė Lietuva, UAB Mediafon Carrier Services, and UAB Ecofon (hereinafter in this section – the ‘other providers’).

The wholesale public communications network and wholesale public telephone services are wholesale services necessary to enable the provision of retail public telephone services. These 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 telephone service providers so that their service users were able to use public mobile telephone services while being in Lithuania.

Revenue. The trend of decreasing revenue from network interconnection services has been observed since 2017. The revenue received in 2020, compared to the revenue received in 2019, decreased by 7.8% and equalled EUR 111.6 million (see Fig. 26). The share of the revenue from the network interconnection services in the overall structure of the revenue of the electronic communications service market shrank by 1.7 percentage points and accounted for 15.2%.

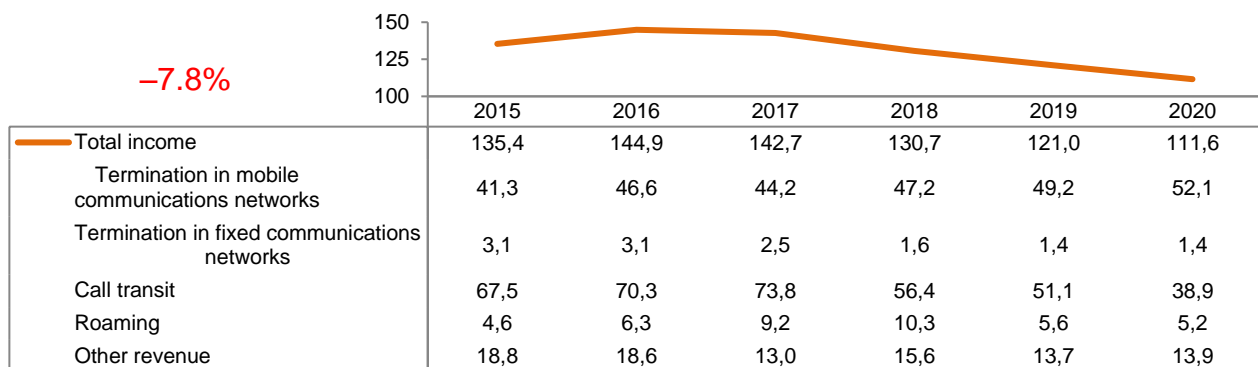


Fig. 26 **Structure of revenue received from network interconnection services by service groups, EUR million, 2015-2020**

Source: RRT.

In terms of the structure of the revenue from network interconnection services by service groups, the revenue from call termination in the mobile communications networks exceeded the revenue from call transit services for the first time in 2020. In 2020, the revenue from call termination in mobile communications networks constituted 46.7% of all revenue received from network interconnection services and this was by 6.0 percentage points more than in 2019. The revenue of this service group was growing almost throughout the entire period in

question. The revenue from call transit services represented 34.9% of all revenue received from network interconnection services in 2020 and it was by 7.3 percentage points lower than in 2019. The revenue from SMS termination services stood at EUR 1.8 million in 2020.

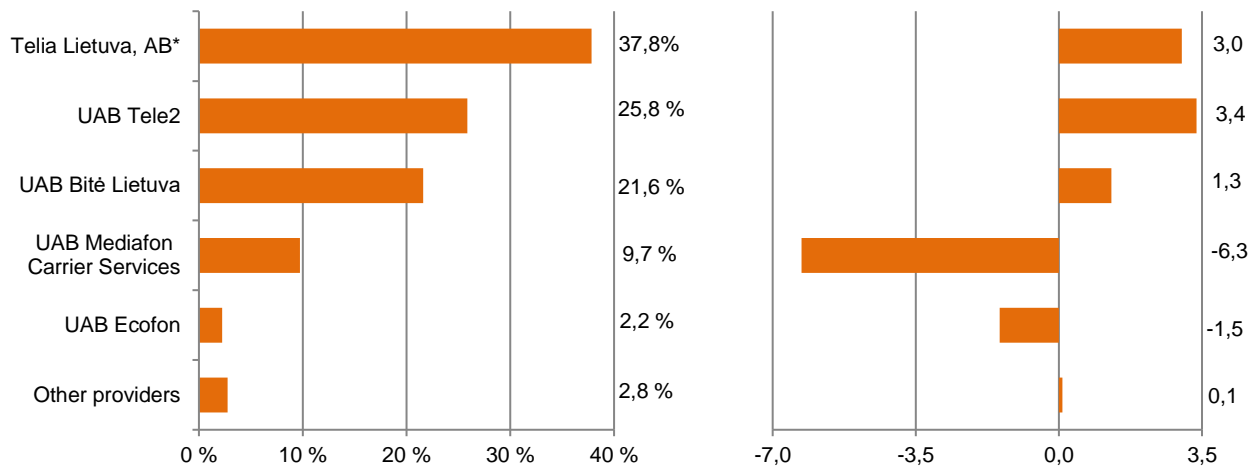


Fig. 27 Structure of the network interconnection services market in terms of revenue received by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT

In 2020, as was the case in 2019 and in 2018, the market share held by UAB Tele2 experienced the speediest growth in terms of the revenue from network interconnection services – by 3.4 percentage points (see Fig. 27). The market share held by Telia Lietuva, AB increased by 3.0 percentage points in 2020 and constituted the major share of the revenue (37.8%).

The decrease in the revenue from network interconnection services, which started in 2016, continued in 2020 as well. The revenue from call termination in the mobile communications networks exceeded the revenue from call transit services for the first time in 2020. The revenue of this service group continued to grow during the entire period in question.

2.4.2. Call Transit Services



NB!

- The call transit services discussed in this section include pure transit only, i.e. where the calls are originated or terminated in network other than the transit service is provided.
- In this section of the report, other call transit service providers shall be all providers of call transit services, except for Telia Lietuva, AB, UAB Mediafon Carrier Services, UAB Bitė Lietuva, UAB Nacionalinis Telekomunikacijų Tinklas, UAB Raystorm indicated in Figure 29; Telia Lietuva, AB, UAB Mediafon Carrier

Services, UAB Bitė Lietuva, UAB Ecofon indicated in Figure 31 (hereinafter in this section – the ‘other providers’).

The call transit service is significant to public telephone 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 2020, call transit services were provided by 10 undertakings⁹ – the same number as at the end of 2019.

Duration of transferred calls. When assessing the duration of calls forwarded by transit by call destinations, the following call transit services are singled out, where calls are forwarded as follows: 1) from public communications networks of the Republic of Lithuania to other public communications networks of the Republic of Lithuania, 2) from public communications networks of the Republic of Lithuania to foreign operators’ networks, 3) from foreign operators’ networks to the public communications networks of the Republic of Lithuania, 4) from foreign operators’ networks to other foreign operators’ networks via the territory of the Republic of Lithuania.

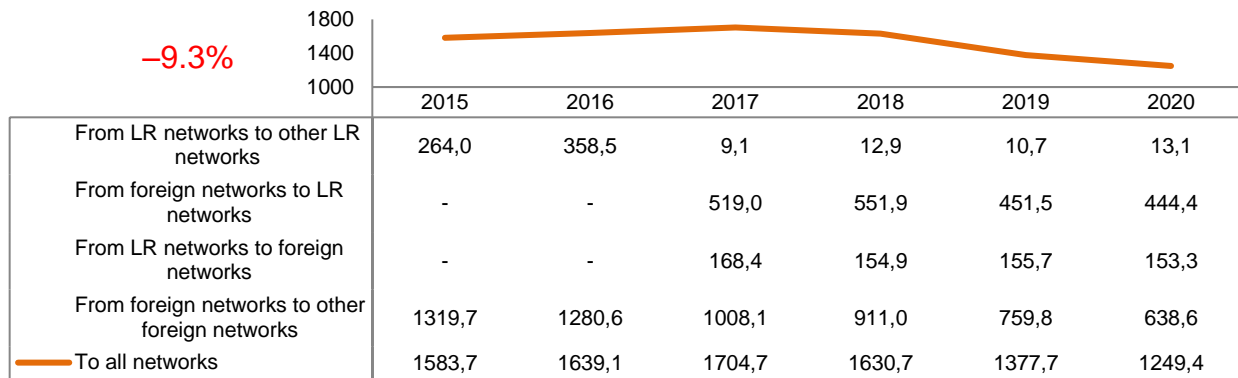


Fig. 28 **Duration of calls forwarded by transit to public communications networks of Lithuanian and foreign operators, million minutes, 2015-2020**

Source: RRT.

In 2020, the duration of calls forwarded by transit to foreign operators’ public communications networks shrank by 13.5%, whereas the duration of calls forwarded by transit to other public telephone communications networks of the Republic of Lithuania decreased by 1.0%. Irrespective of this, the following trend remained: the largest share (63.4%) of all calls forwarded by transit in 2020 was forwarded to the networks of foreign operators (see Fig. 28).

⁹ Telia Lietuva, AB, UAB Bitė Lietuva, UAB Ecofon, UAB Mediafon, UAB Mediafon Carrier Services, UAB Nacionalinis Telekomunikacijų Tinklas, UAB Raystorm, UAB TCG Telecom, UAB Teleksas, UAB Moremins Lietuva

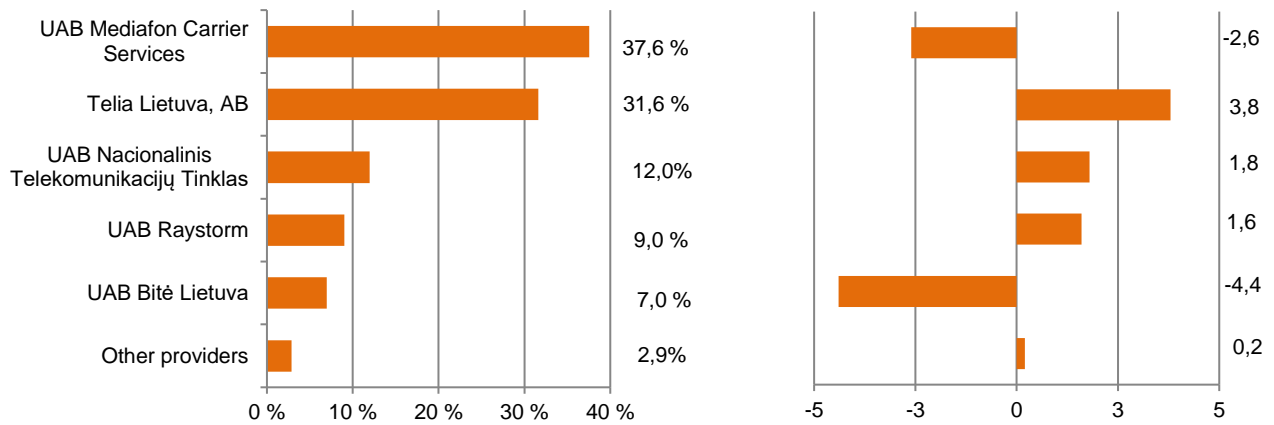


Fig. 29 Structure of the market of call transit services by duration of forwarded calls, %, and annual changes of the market shares, pp, 2020

Source: RRT.

The largest share on the market of call transit services by the duration of forwarded calls (37.6%) was held by UAB Mediafon Carrier Services in 2020 – its share decreased by 2.6 percentage points over the year (see Fig. 29). The steepest growth of the market share was that of Telia Lietuva, AB in 2020 (by 3.8 percentage points) and it stood at 31.6%.

Revenue. Since 2018, the downward trend in the revenue from call transit services has been observed (see Fig. 30). In 2020, compared to 2019, the revenue decreased by 23.7% or EUR 12.1 million. The fall of the revenue from call transit services was influenced by the shorter duration of calls forwarded by transit to the public communications networks of foreign operators in 2020 (by 13.5%).

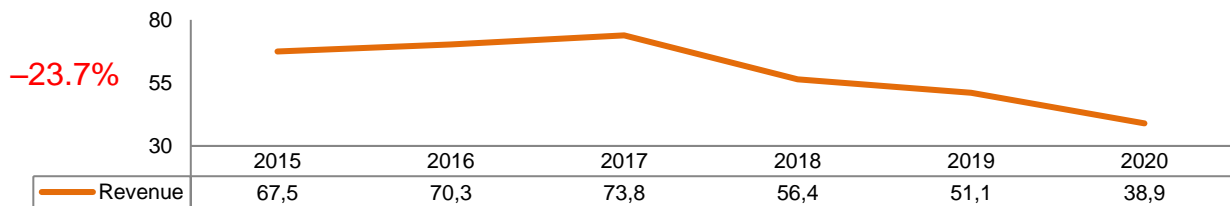


Fig. 30 Revenue from call transit services, EUR million, 2015-2020

Source: RRT.

With regard to the market of call transit services by revenue, it is evident that the major part (57.4%) of the revenue was generated by Telia Lietuva, AB in 2020, as was the case in the several previous years (see Fig. 31). Over the year, its market share grew by 12.3 percentage points. This growth was affected by the decline of all revenue from call transit services and by a smaller share of the market held by UAB Mediafon Carrier Services which shrank by 10.1 percentage points.

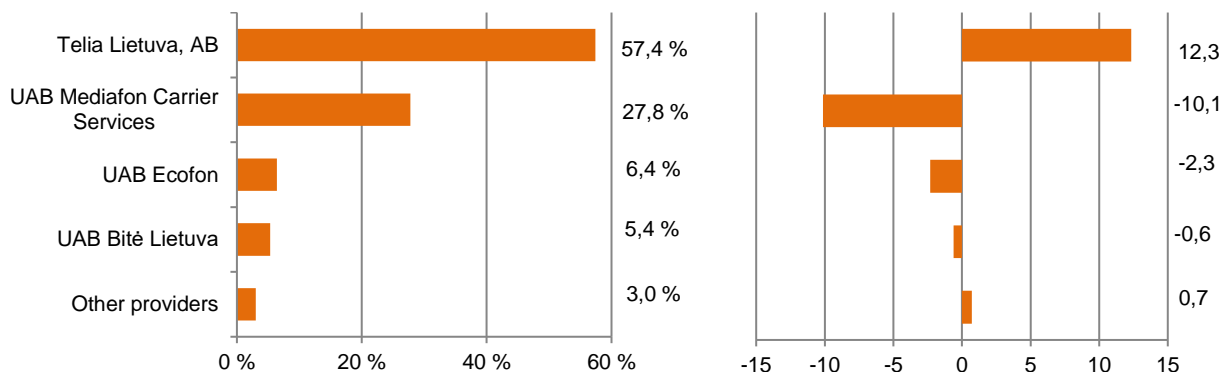


Fig. 31 **Structure of the market of call transit services by revenue, %, and annual changes of the market shares, pp, 2020**
 Source: RRT.

In 2020, as was the case in the several previous years, two undertakings – Telia Lietuva, AB and UAB Mediafon Carrier Services – were leading on the market of call transit services. In terms of the revenue, the major market share (57.4%) was held by Telia Lietuva, AB, whereas in terms of the duration of forwarded calls (37.6%) – by UAB Mediafon Carrier Services.

2.4.3. Call Termination Services

2.4.3.1. Call termination in public mobile communications networks



NB!

- The services of call termination in public mobile communications networks discussed in this section include the termination of calls originated in other networks only, and 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, Telia Lietuva, AB, and UAB Tele2 (hereinafter in this section – the ‘other providers’).

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

Service Providers. In 2020, the services of call termination in public mobile communications networks were provided by 9 operators¹⁰.

Duration of terminated calls. In 2020, the overall duration of calls terminated in public mobile communications networks was 4,994.0 million minutes, i.e. by 13.4% more than in 2019 (see Table 21). During this period, most calls were terminated in UAB Tele2 network and this accounted for 42.6% of all calls terminated in public mobile communications networks. The duration of calls terminated in UAB Tele2 public mobile communications networks went up by 15.4% or by 283.7 million minutes over the year. The duration of calls terminated in the public mobile communications networks of other providers increased by 21.8% or by 6.3 million

¹⁰ Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2, UAB CSC Telecom, UAB Mediafon Carrier Services, UAB Ecofon, UAB Nacionalinis Telekomunikacijų Centras, ONOFFAPP OÜ, Compatel Limited.

minutes in 2020. In 2020, as was the case in 2019, the largest share of calls terminated in public mobile communications networks (83.2%) by call duration was originated in public mobile communications networks.

Table 21. **Duration of calls terminated in public mobile communications networks by service providers, million minutes, and shares of the duration of terminated calls by call origination network, %, 2015-2020**

UAB Bitė Lietuva	2015	2016	2017	2018	2019	2020
Originated in public mobile communications networks	88.9	87.5	87.8	84.0	84.9	85.7
Originated in public fixed communications networks	7.7	8.5	6.5	7.2	6.8	6.7
Originated in foreign operators' networks	3.4	4.0	5.7	8.8	8.3	7.6
Duration of terminated calls	979.8	1,041.3	1,064.3	1,135.5	1,134.7	1,326.0
Telia Lietuva, AB						
Originated in public mobile communications networks	84.0	84.0	82.5	82.1	84.8	88.7
Originated in public fixed communications networks	4.8	4.8	4.6	4.1	3.9	0.02
Originated in foreign operators' networks	11.2	11.2	12.9	13.8	11.3	11.3
Duration of terminated calls	1,129.8	1,226.0	1,288.4	1,335.2	1,317.4	1,505.3
UAB Tele2						
Originated in public mobile communications networks	83.7	82.5	82.2	79.1	77.3	78.0
Originated in public fixed communications networks	5.3	5.4	5.0	4.8	4.0	3.9
Originated in foreign operators' networks	11.0	12.1	12.7	16.1	18.7	18.1
Duration of terminated calls	1,455.1	1,594.8	1,664.3	1,752.7	1,844.1	2,127.8
Other providers						
Originated in public mobile communications networks	93.0	95.1	47.8	58.9	55.6	58.7
Originated in public fixed communications networks	5.0	3.1	42.4	28.9	26.2	31.6
Originated in foreign operators' networks	2.0	1.8	9.9	12.3	18.2	9.7
Duration of terminated calls	37.5	3.1	11.5	17.1	28.7	35.0
Duration of terminated calls	3,602.1	3,865.2	4,028.6	4,240.6	4,324.9	4,994.0

Source: RRT.

Revenue. Since 2017, the upward trend in the revenue from call termination in public mobile communications networks has been observed (see Fig. 32). In 2020, compared to 2019, the revenue from call termination in public mobile communications networks went up by 5.9% or EUR 2.9 million.

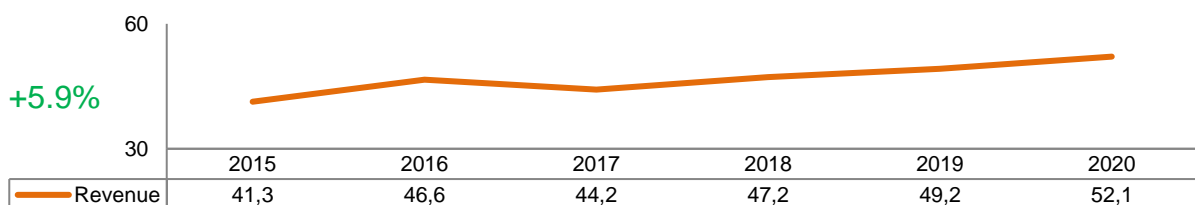


Fig. 32 **Revenue from call termination in public mobile communications networks, EUR million, 2015-2020**

Source: RRT.

In 2020, as was the case in 2019, the major part of such revenue (42.4%) was received by UAB Tele2 (see Fig. 33). The revenue of UAB Tele2 from call termination in public mobile communications networks went up by 10.7% or EUR 2.1 million over the year. The share of Telia Lietuva, AB in the revenue structure shrank most drastically, i.e. by 3.4 percentage points, and the revenue from call termination in public mobile communications networks went down by 5.3%.

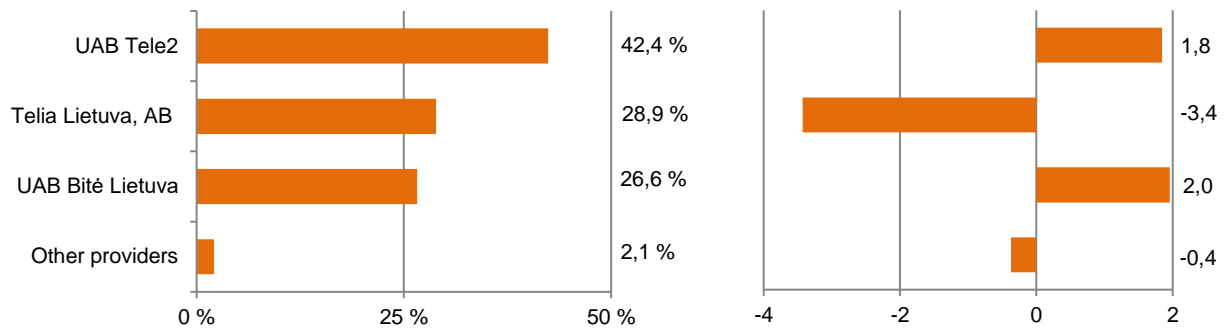


Fig. 33 **Structure of revenue from termination of calls in public mobile communications networks by service providers, %, and annual changes of the market shares, pp, 2020**
Source: RRT

Prices. In 2020, the price of call termination in public mobile communications networks did not change due to the regulation applied by RRT. Based on this regulation, the price of call termination in public mobile communications networks, where calls are originated in the Member States of the European Economic Area¹¹, could not exceed 0.94 euro cents per minute (VAT excl.) till 31 December 2020.

2.4.3.2. Call termination in public fixed communications networks



NB!

- 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 Telia Lietuva, AB indicated in Table 22 and Figure 35 (hereinafter in this section – the ‘other providers’).

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

Service Providers. In 2020, as was the case in 2019, the services of call termination in public fixed communications networks were provided by 8 operators¹².

Duration of terminated calls. In 2020, compared to 2019, the duration of calls terminated in public fixed communications networks went up by 21.5% and accounted for 401.2 million minutes (see Table 22). In 2020, the largest share of calls terminated in public fixed communications networks (77.1%) by call duration was originated in public mobile communications networks, the duration of such calls increased by 29.5% or 70.5 million minutes in 2020.

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

¹² Telia Lietuva, AB, AB LTG Infra, AB Lietuvos Radijo ir Televizijos Centras, UAB CSC Telecom, UAB Ecofon, UAB Mediafon Carrier Services, UAB Nacionalinis Telekomunikacijų Tinklas, Voxbone SA.

Table 22. Durations of calls terminated in individual public fixed communications networks by call origination network, million minutes, 2015-2020

Telia Lietuva, AB	2015	2016	2017	2018	2019	2020
Originated in public mobile communications networks	235.6	252.9	211.0	248.5	186.5	240.4
Originated in public fixed communications networks	43.6	52.4	49.6	42.2	29.8	24.1
Originated in foreign operators' networks	81.3	40.1	30.1	24.6	21.3	22.4
Duration of terminated calls	360.5	345.4	290.7	315.3	237.7	287.0
Other providers						
Originated in public mobile communications networks	31.8	45.9	50.7	61.5	52.5	69.1
Originated in public fixed communications networks	26.0	31.9	26.6	25.2	35.9	41.9
Originated in foreign operators' networks	5.6	4.3	5.6	4.5	4.1	3.3
Duration of terminated calls	63.4	82.1	83.0	91.2	92.5	114.2
Duration of terminated calls	423.9	427.6	373.6	406.5	330.1	401.2

Source: RRT.

When it comes to the structure of the market of call termination in public fixed communications networks by service providers, it is evident that most calls (71.5%) were terminated in Telia Lietuva, AB public fixed communications network in 2020 (see Table 22). The largest share (83.8%) of calls terminated in Telia Lietuva, AB network was comprised of the calls originated in public mobile communications networks. The duration of calls terminated in the networks of other providers went up by 23.5% or by 21.7 million minutes in 2020. The largest share (60.5%) of calls terminated in the networks of other providers by duration was comprised of the calls originated in public mobile communications networks.

Revenue. The revenue from call termination in public fixed telecommunications networks slightly decreased in 2020. In 2020, compared to 2019, such revenue went down by 1.2% or by EUR 0.02 million (see Fig. 34).

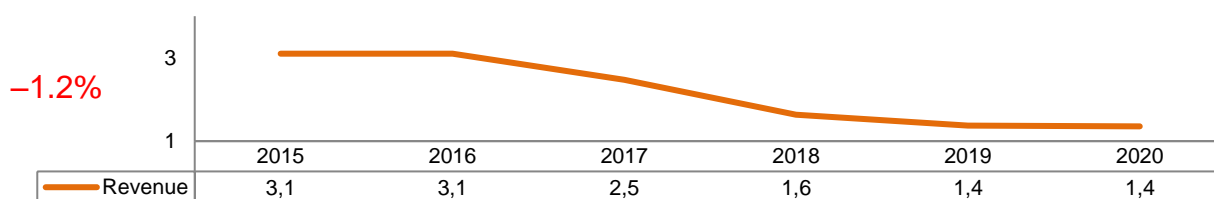


Fig. 34 Revenue from call termination in public fixed communications networks, EUR million, 2015-2020

Source: RRT.

The largest part of revenue from call termination in public fixed telecommunications networks (79.4%) was generated by Telia Lietuva, AB in 2020, as was the case in 2019 (see Fig. 35).

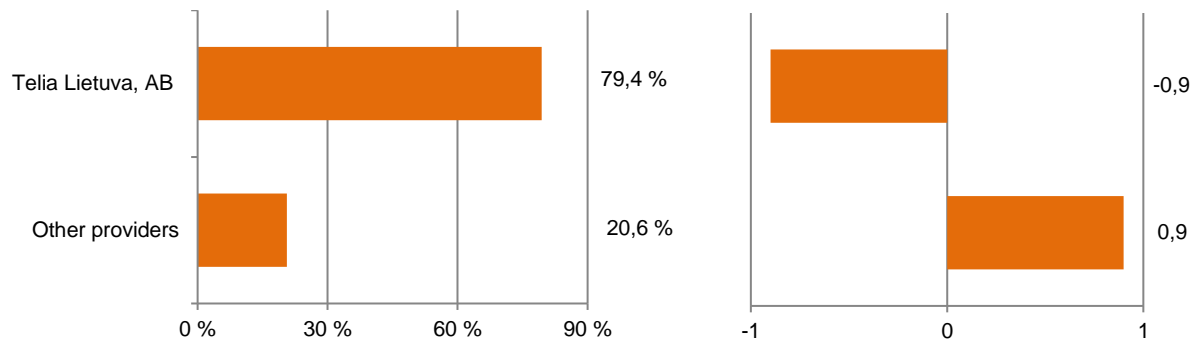


Fig. 35 **Structure of revenue from termination of calls in public fixed communications networks by service providers, %, and annual changes of the market shares, pp, 2020**

Source: RRT.

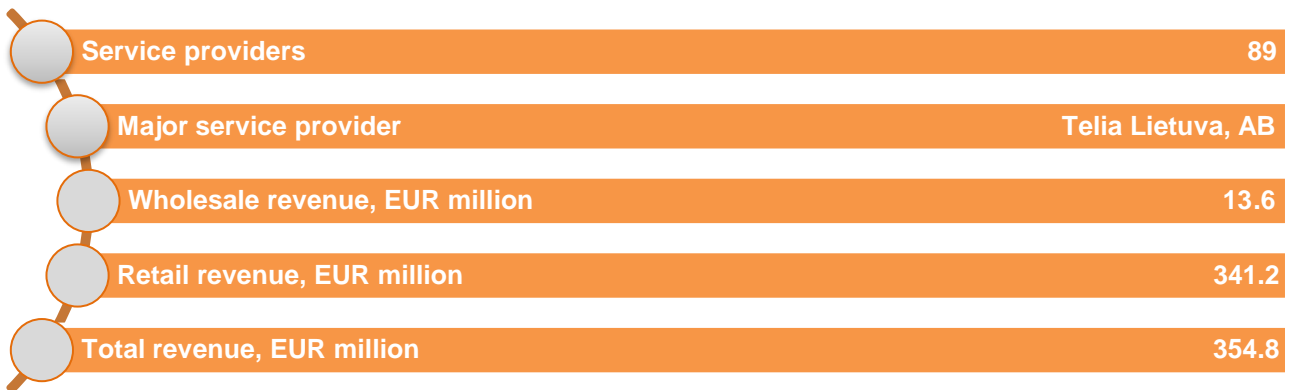
Prices. In 2020, the price of call termination in public fixed communications networks did not change due to the regulation applied by RRT. Based on this regulation, as of 1 July 2019 the price of call termination in public fixed communications networks, where calls are originated in the Member States of the European Economic Area¹³, cannot exceed 0.09 euro cents per minute (VAT excl.).

The revenue from call termination services accounted for 47.9% of all revenue received from network interconnection services. The revenue from call termination in public mobile communications networks represented 97.5% of all revenue from call termination services. In 2020, the duration of calls terminated in the public mobile communications network exceeded the duration of calls terminated in the public fixed communications network by 12.4 times.

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

3. Data transmission

3.1. General Overview of the Market of Data Transmission Services



NB!

- In this section of the report, other data transmission service providers shall be all providers of such services, except for Telia Lietuva, AB, UAB Tele2, UAB Bitė Lietuva, AB Lietuvos Radijo ir Televizijos Centras and UAB Cgates indicated in Figure 38 (hereinafter in this section – the ‘other providers’).

In 2020, the data transmission services provided in Lithuania may be divided into Internet access services (retail and wholesale) and other data transmission services (retail and wholesale).

Service providers. The number of data transmission service providers went up by 2 undertakings, compared to 2019. At the end of 2020, the data transmission services were provided by 89 undertakings (at the end of 2018, there were 87 undertakings). Data transmission services were provided by 70.1% of all 127 undertakings engaged in the electronic communications activities. The majority (84) of data transmission service providers were providing retail Internet access services in 2020, as was the case in the previous periods (in 2019 – 82).

Revenue. In 2020, the revenue gained from data transmission services amounted to EUR 354.8 million, i.e. by 10.7% more than in 2019 (see Fig. 36). The provision of data transmission services remains one of the most important activities of the electronic communications sector generating almost 48.5% of all revenue of the electronic communications market. It must be noted that the revenue from data transmission services were growing during the entire period from 2015 to 2020.

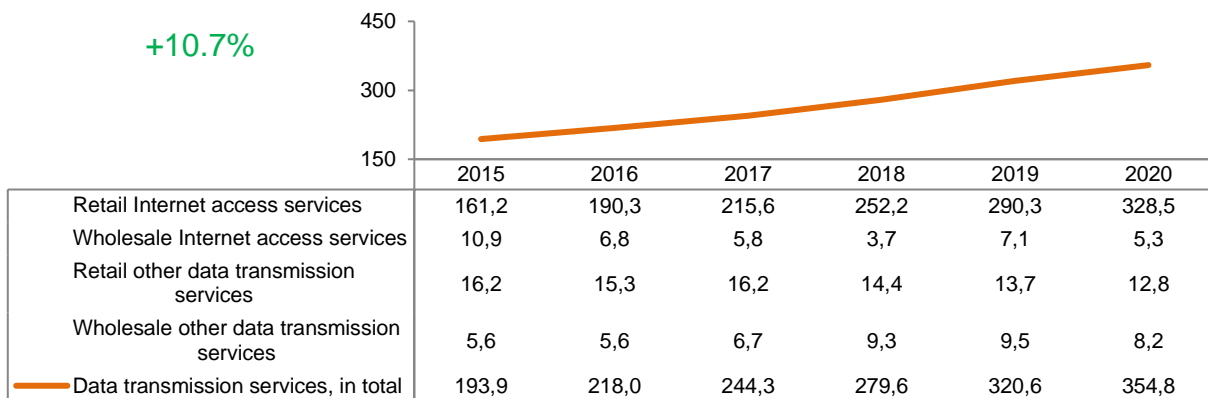


Fig. 36 **Structure of revenue received from data transmission services by service groups, EUR million, 2015-2020**
Source: RRT

In 2020, as was the case during the entire period between 2015 and 2020, the largest part of the revenue (92.6%) was comprised of the revenue from retail Internet access services (see Fig. 37). In 2020, compared to 2019, a part of the revenue from retail Internet access services grew by 2.0 percentage points in the total revenue of data transmission services. This was mainly affected by the *Covid-19* pandemic which led to the increasing demand for the retail Internet access services.

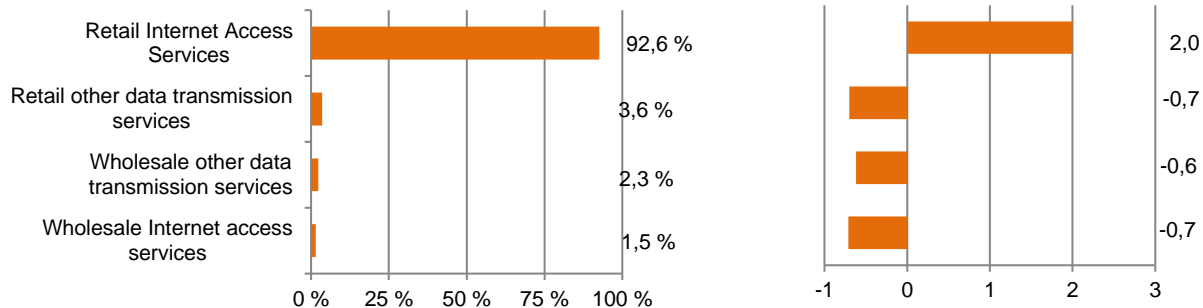


Fig. 37 Structure of revenue from data transmission services by service groups, %, and annual changes of the revenue structure, pp, 2020

Source: RRT

In 2020, as was the case in 2019, the largest part of the revenue from data transmission services was gained by Telia Lietuva, AB – the received revenue represented 38.0% of all revenue from data transmission services (see Fig. 38). The second largest operator, in terms of revenue from data transmission services, was UAB Tele2 in 2020, which received 27.4% of all revenue from data transmission services; its revenue was subject to the largest increase in 2020, compared to 2019 (by 3.0 percentage points).

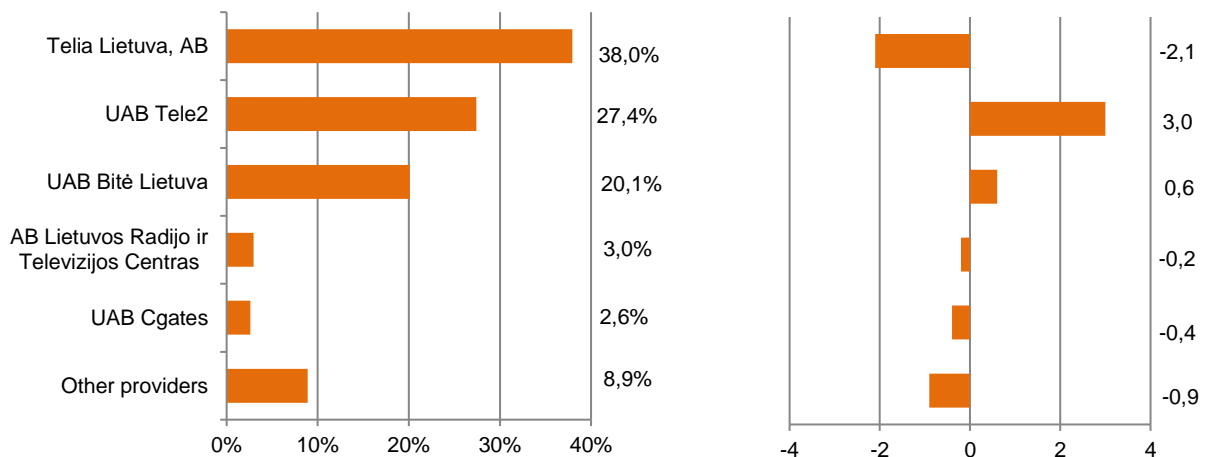


Fig. 38 Structure of revenue from data transmission services by service providers, %, and annual changes of the revenue shares, pp, 2020

Source: RRT.

In terms of revenue, the market of data transmission services was growing throughout the entire period between 2015 and 2020. In 2020, the revenue in this market went up by 10.7%. This growth was caused by the increase of revenue from retail Internet access services. Telia Lietuva, AB has remained the major leader of the market of data transmission services despite the evident downward trend in its market share.

3.2. Retail Internet Access Services



Methods of the Service Provision. In 2020, the retail Internet access services were provided by means of fixed communications or mobile communications technologies in Lithuania.

Service providers. The Lithuanian market of retail Internet access services was characteristic of the high number of service providers in 2020, as was the case in the previous periods. At the end of 2020, the Internet access services were provided by 84 undertakings (by 2 undertakings more than in 2019).

Service Recipients. At the end of 2020, Internet access services were used by 4,033.2 thousand service providers (796.8 thousand service users were using Internet access services by means of fixed communications technologies, 3,236.4 thousand – by means of mobile communications technologies (of which 700.1 thousand – by means of mobile communications technologies where not the Internet access service plan, but the telephony plan is applied).

According to the data of the European Commission, in 2020, the use of retail Internet access services¹⁴ in Lithuanian households grew by 0.6 pp, compared to 2019, i.e. from 81.5% to 82.1%¹⁵ (see Fig. 39). The overall average of the use of the Internet by the EU Member States grew by 0.4 percentage points and stood at 90.9% in 2020, compared to 2019, i.e. by 8.8 pp more than in Lithuania. With regard to the use of such services in the households, Lithuania remained at the lower positions in the European Union, as in the last year. The Lithuanian indicator was also the lowest one compared to the closest neighbouring countries Poland, Estonia and Latvia, where this indicator, respectively, stood at 90.4%, 90.0% and 89.7%. The retail Internet access services were used in the Netherlands most actively, the lowest use was recorded in Bulgaria. In these countries, the share of households using the Internet accounted for 97.0% and 78.9%, respectively, in 2020.

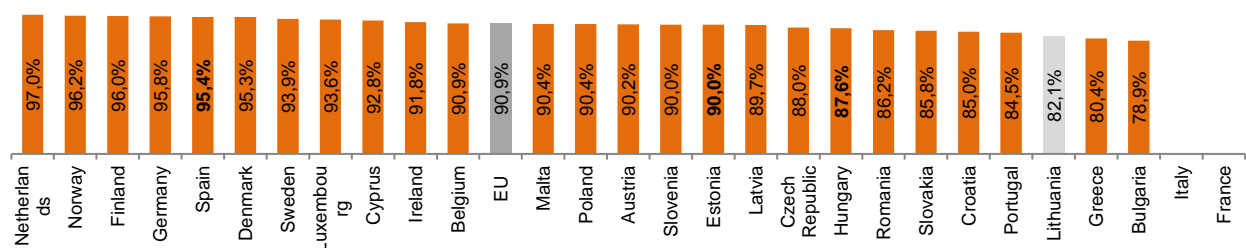


Fig. 39 Share of households using Internet access service in the EU Member States¹⁶, %, 2020

Source: European Commission.

¹⁴ Including retail Internet access services provided via xDSL loops, wireless communication lines, CTV networks, FTTx lines, LAN lines and mobile communications technologies (by means of computers).

¹⁵ Calculation based on Eurostat information provided in the report of the European Commission 'Digital Scoreboard'.

¹⁶ Italy and France did not provide information in 2020.

Based on the data of Statistics Lithuania¹⁷, at the beginning of 2020, 83% of Lithuanian households were using Internet access services, i.e. by 1 percentage point more than at the beginning of 2019. Internet access services were mainly used for the search for information, communications, entertainment, e-commerce and banking.

Revenue. The total revenue from retail Internet access grew throughout the entire period between 2015 and 2020. In 2020, compared to 2019, such revenue increased by 13.1% and accounted for EUR 328.5 million (see Fig. 40). In 2020, the revenue received from retail Internet access services provided by means of mobile communications technologies represented 70.9% of the total revenue from retail Internet access services or by 2.8 percentage points more than in 2019, whereas the revenue from retail Internet access services provided by means of fixed communications technologies accounted for, respectively, 29.1% of the total revenue from retail Internet access services or by 2.8 percentage points less than in 2019.

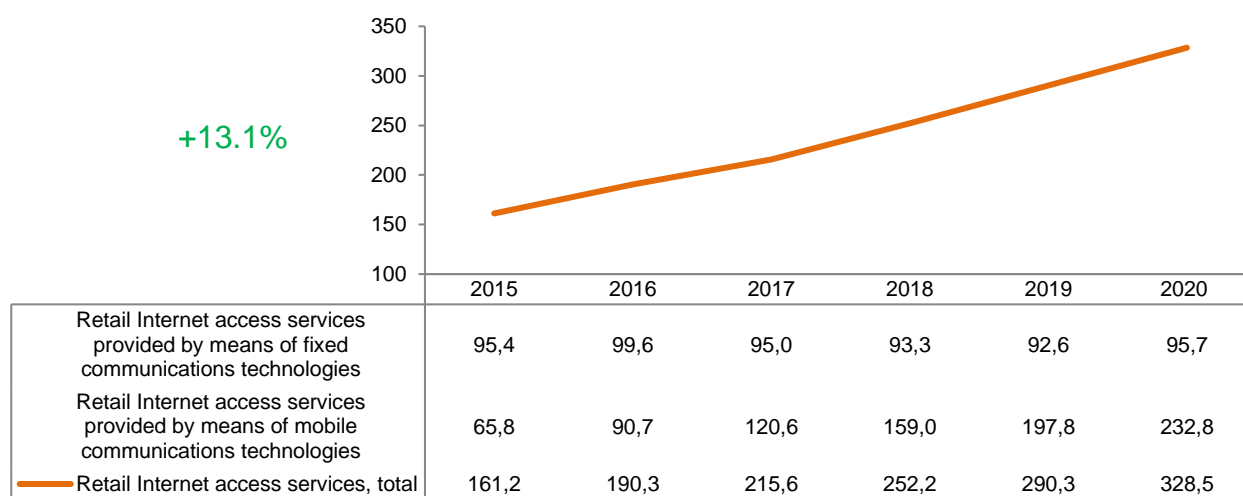


Fig. 40. **Structure of revenue received from retail Internet access services by service provision technologies, EUR million, 2015-2020**

Source: RRT.

In 2020, as was the case last year, the revenue from the provision of retail Internet access services continued to grow – it went up by 13.1%. The major revenue share – 70.9% – was comprised of the revenue from retail Internet access services provided by means of mobile communications technologies. Such revenue has been growing on an annual basis, whereas the revenue received from retail Internet access services provided by means of fixed communications technologies remain stable – there is an insignificant downward or upward change.

¹⁷ <https://ivpk.lrv.lt/lt/naujienos/informaciniu-technologiju-naudojimas-namu-ukiuose-6>

3.2.1. Retail Internet access services provided by means of fixed communications technologies



NB!

- In this section of the report, the other providers of retail Internet access services provided by means of fixed communications technologies shall be all providers of such services, except for Telia Lietuva, AB, UAB Cgates, UAB Init, UAB Splus, UAB Balticum TV, UAB Penkių Kontinentų Komunikacijų Centras, AB Lietuvos Radijo ir Televizijos Centras indicated in Figure 44; Telia Lietuva, AB, UAB Cgates, UAB Splus, UAB Balticum TV, UAB Init, UAB Penkių Kontinentų Komunikacijų Centras, UAB Kauno Interneto Sistemos, AB Lietuvos Radijo ir Televizijos Centras, UAB Baltnetos Komunikacijos, UAB Besmegeniai, UAB Bitė Lietuva, UAB Kvartalo tinklas, UAB Magnetukas, UAB Etanetas in Table 24; Telia Lietuva, AB, UAB Cgates, AB Lietuvos Radijo ir Televizijos Centras, UAB Init, UAB Balticum TV, UAB Baltnetos Komunikacijos, UAB Splus, UAB Penkių Kontinentų Komunikacijų Centras indicated in Figure 47 (hereinafter in this section – the ‘other providers’).

Methods of the Service Provision. In 2020 retail Internet access services were provided by means of fixed communications technologies using the following methods in Lithuania:

- metallic twisted pair loops using xDSL technology (hereinafter – ‘xDSL loops’);
- wireless communication lines using Wi-Fi (Wireless Fidelity) and other wireless communication technologies (hereinafter – ‘wireless communication lines’);
- coaxial cable lines (hereinafter – ‘CTV networks’);
- optical fibre lines using FTTB¹⁸ (Fibre to the Building) and FTTH¹⁹ (Fibre to the Home) technologies (hereinafter – ‘FTTH lines and FTTB lines’, jointly to be referred to as FTTx lines);
- by means of other technologies (shielded twisted pair, STP and unshielded twisted pair, UTP lines in LAN (Local Area Network) networks (hereinafter –the ‘LAN lines’), leased lines, etc.).

Service providers. In 2020, 81 undertakings (by 1 undertaking fewer than in 2019) were providing retail Internet access services by means of fixed communications technologies.

Service Recipients. At the end of 2020, compared to the data at the end of 2019, the number of users of retail Internet access services provided by means of fixed communications technologies grew by 6.4 thousand or by 0.8% and stood at 796.8 thousand subscribers (see Fig. 41). The penetration of retail Internet access services provided by means of fixed communications technologies (number of service users per 100 residents) went up by 0.2 percentage points in 2020 and accounted for 28.5%. Although the number of service users and penetration decreased in 2017-2018, in 2019-2020, the number of users of retail Internet access services provided by means of fixed communications technologies slightly increased.

¹⁸ Fibre to the Building.

¹⁹ Fibre to the Home.

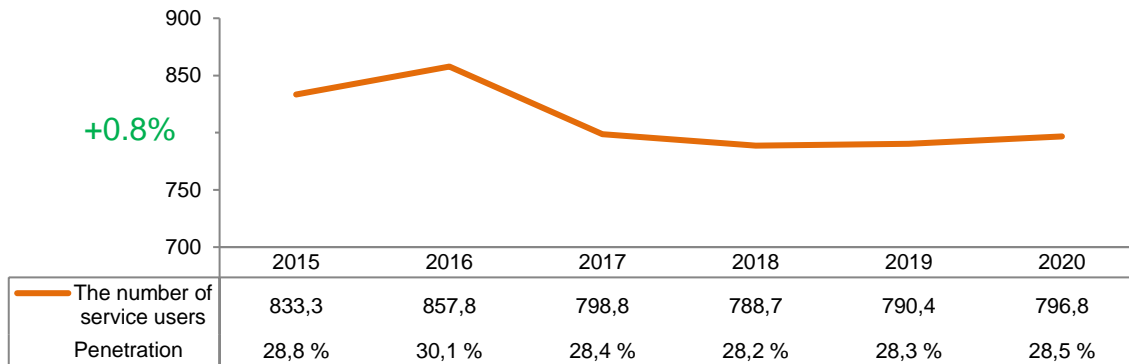


Fig. 41. The number of users of retail Internet access services provided by means of fixed communications technologies, thousands, and penetration, %, 2015-2020

Source: RRT.

According to the data of the European Commission, in the middle of 2020 the penetration of retail Internet access services provided by means of fixed communications technologies stood at 28.4% in Lithuania²⁰ (see Fig. 42). The average penetration of the EU Member States amounted to 35.9% in the middle of 2020. Based on this indicator, Lithuania outperforms two closest neighbours: Latvia and Poland (with average penetration, respectively, 26.2% and 20.8%). Estonia where the penetration of said services stood at 33.9% in the middle of 2020 is ahead of Lithuania. The highest penetration of Internet access services provided by means of fixed communications technologies in the European Union was recorded in France (46.0%) and Denmark (44.2%).

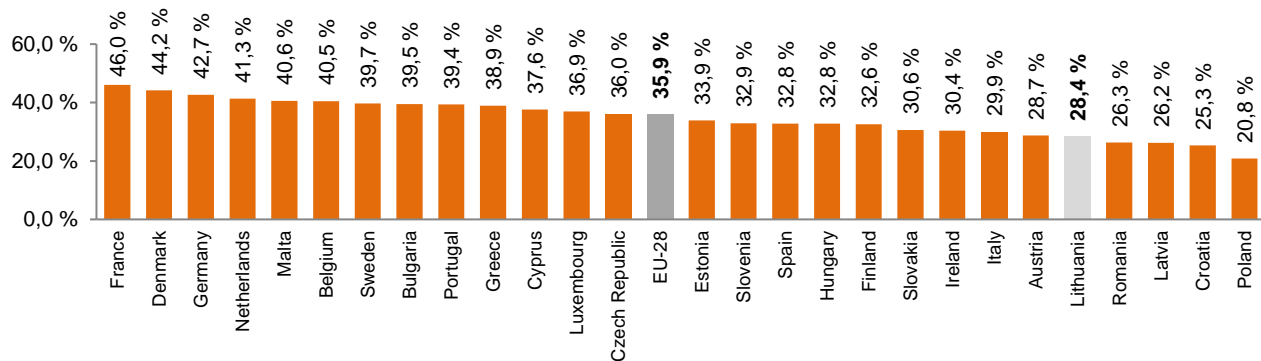


Fig. 42. The number of users of retail Internet access services provided by means of fixed communications technologies per 100 residents, in the EU Member States, %, June 2020

Source: European Commission²¹

The structure of the market of retail Internet access services by fixed communications technologies used by service users maintained the similar proportions in 2020, as in the previous periods (see Table 23); FTTx lines were used most often (76.6% or 610.1 thousand users). 54.2% (330.6 thousand) of all users of retail Internet access service provided via FTTx lines used Internet access services provided via FTTH lines, and 45.8% (279.6 thousand) users used services provided via FTTB lines. In 2015, these indicators were 42.4% and 57.6%, respectively. During the period between 2015 and 2020, the number of users of retail Internet access

²⁰ The penetration of Lithuanian retail Internet access services provided by means of fixed communications technologies in Figure 41 differs from that in Figure 42 because of the different period and calculation methodology applied by the European Commission.

²¹ [https://digital-agenda-data.eu/charts/see-the-evolution-of-an-indicator-and-compare-countries#chart={\"indicator-group\":\"broadband\", \"indicator\":\"bb_penet\", \"breakdown\":\"total_fbb\", \"unit-measure\":\"subs_per_100_pop\", \"ref-area\":\[\"AT\", \"BE\", \"BG\", \"HR\", \"CY\", \"CZ\", \"DK\", \"EE\", \"EU\", \"FI\", \"FR\", \"DE\", \"EL\", \"HU\", \"IE\", \"IT\", \"LV\", \"LT\", \"LU\", \"MT\", \"NL\", \"PL\", \"PT\", \"RO\", \"SK\", \"SI\", \"ES\", \"SE\"\]}](https://digital-agenda-data.eu/charts/see-the-evolution-of-an-indicator-and-compare-countries#chart={\)

services provided via FTTH lines was increasing more rapidly than the number of users of retail Internet access services provided via FTTB lines. For this reason, the number of users of retail Internet access services provided by means of FTTH lines has exceeded the number of users of services provided by means of FTTB lines since the end of 2018.

In 2020, compared to 2015, the number of the users of retail Internet access services provided by means of FTTx technology grew by 14.5 percentage points. In 2020, as was in the previous periods, the number of users of retail Internet access services provided by means of xDSL lines, wireless communication lines and CTV networks continued to go down. In 2020, compared to 2019, the number of users of retail Internet access services provided via xDSL lines went down by 4.3 thousand and totalled 120.2 thousand at the end of the year. At the end of 2020, 38.1 thousand users of this service were using hybrid Internet services (xDSL combined with mobile communications LTE access), and 16.2 thousand – high-speed xDSL service (VDSL).

The number of users of retail Internet access services provided via CTV networks decreased by 0.8 thousand in 2020 and, at the end of the year, the number stood at 19.9 thousand. The decrease of the number of the users of retail Internet access services provided via CTV networks is the outcome of continuous investments in FTTx networks: a large number of service users who used to receive retail Internet access service via CTV networks switched to the services provided via FTTx lines.

Table 23. Share of the number of service users by employed fixed communications technologies to receive retail Internet access services, %, 2015-2020

	2015	2016	2017	2018	2019	2020
FTTx	62.1	63.6	70.8	73.6	75.6	76.6
xDSL	19.8	18.3	17.9	16.8	15.7	15.1
Wireless communication lines	13.1	13.4	7.2	6.0	5.5	5.4
CTV network	3.8	3.5	3.1	2.9	2.6	2.5
Other technologies (UTP, STP, leased line, etc.)	1.3	1.3	1.0	0.7	0.5	0.5

Source: RRT.

According to the data of the²² study conducted by association 'FTTH Council Europe' and IDATE in June 2020, Lithuania was ranked sixth by the penetration of broadband Internet provided by means of optical fibre in Europe (51.3 connections per 100 households) (see Fig. 43). Iceland was ranked first with the penetration of 70.7%, Belarus remained second in the European rating (70.4%), Spain was in top three European countries (62.6%) and Sweden was ranked fourth (61.8%). In this rating, Norway was ranked fifth with the penetration of 51.4%. The average penetration of the EU Member States (27+UK) (20.5%) was by 3.4 percentage points higher than in 2019. In 2020, the European ratings included four new countries: Belgium, Israel, Malta and Cyprus. More and more European countries switch from outdated copper networks to optical fibre.

²² <https://www.ssnf.org/globalassets/konferens/forelasarpresentationer/ak-2021/17-mars---fibre-roll-out-in-europe-eng---roland-montagne.pdf>

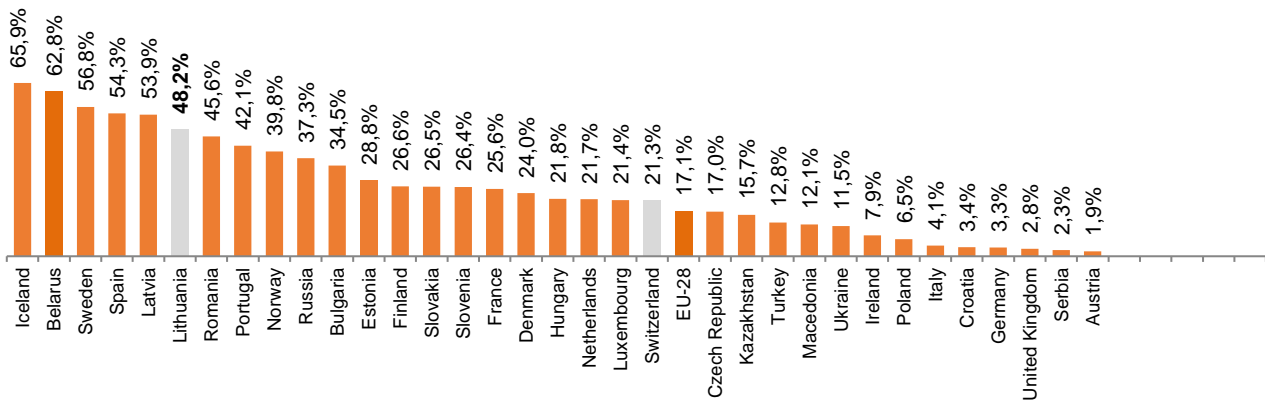


Fig. 43. Number of subscribers to broadband access by means of optical fibre per 100 households in the European countries in May 2021, units

Source: Association 'FTTH Council Europe' and IDATE.

As many as 52.3% of all users of retail Internet access services provided by means of fixed communications technologies were choosing the services provided by Telia Lietuva, AB (see Fig. 44). 14.2% of such users opted in for the services of UAB Cgates, 5.9% – UAB Init, 5.3% – UAB Splius. Over the year, the market share held by Telia Lietuva, AB grew by 0.2 percentage points, whereas the share held by UAB Balticum TV and UAB Penkių Kontinentų Komunikacijų Centras shrank by 0.1 percentage point each.

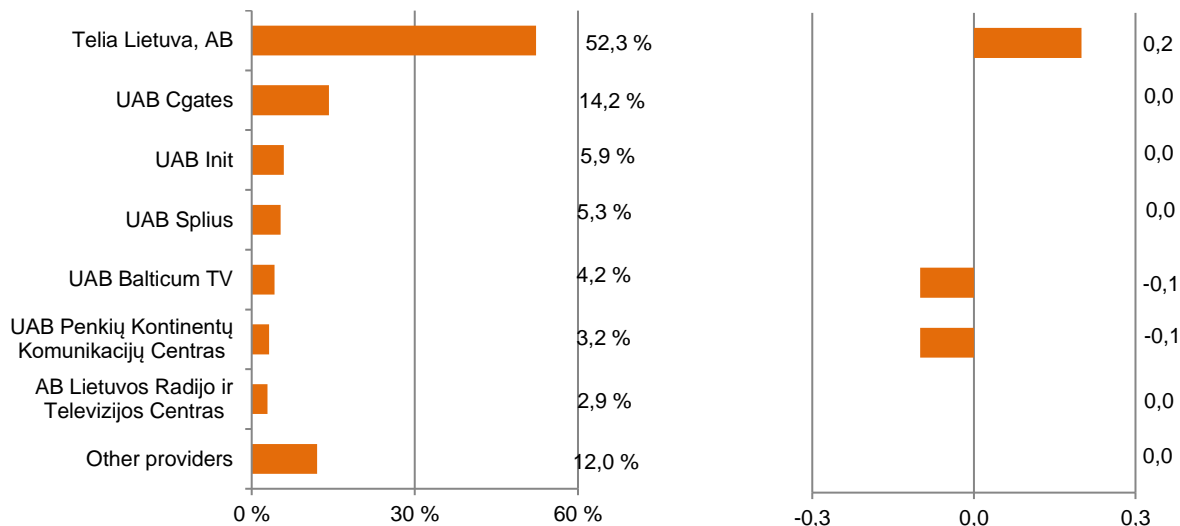


Fig. 44. Breakdown of users of retail Internet access services provided by means of fixed communications technologies by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

When it comes to the breakdown of the number of the users of retail Internet access services provided by the service providers by fixed communications technologies used to provide such services, it is apparent that in 2020, as in the previous year, Telia Lietuva, AB was the major provider of retail Internet access services via FTTx lines and xDSL lines (see Table 24). In 2020, accordingly, 48.7% (where services were provided by FTTx lines) and 99.4% (where services were provided by xDSL lines) of all Internet access service users were using the services provided by Telia Lietuva, AB. In 2020, AB Lietuvos Radijo ir Televizijos Centras held the greatest share of the market of retail Internet access services provided by means of wireless communication lines (50.3%). The largest share of the market of Internet access services provided via CTV networks (77.9%) was held by UAB Init.

Table 24. **Share of the number of service users who used fixed communications technologies by service providers, %, 2020**

	FTTx	Wireless communication	CTV networks	xDSL
Telia Lietuva, AB	48.7	-	-	99.4
UAB Cgates	18.3	3.4	2.0	-
UAB Splus	6.2	3.1	14.7	-
UAB Balticum TV	4.9	7.1	2.0	-
UAB Init	5.2	-	77.9	-
UAB Penkių Kontinentų Komunikacijų Centras	4.2	-	-	-
UAB Kauno Interneto Sistemos	2.1	-	-	-
AB Lietuvos Radijo ir Televizijos Centras	-	50.3	-	-
UAB Baltnetos Komunikacijos	-	-	-	-
UAB Besmegeniai	-	4.3	-	-
UAB Bitė Lietuva	-	2.7	-	-
UAB Kvartalo Tinklas	-	2.5	-	-
UAB Magnetukas	-	6.2	-	-
UAB Etanetas	-	3.8	-	-
Other providers	10.4	16.7	3.4	0.6

Source: RRT.

Speed rate. The number of service users using high-speed Internet access services has been annually increasing. In 2020, the speed rate higher than 100 Mb/s was selected by 1.3 pp more service users than in 2019 (Table 25), i.e. 50.0% of all service users using fixed communications technologies. Of which 0.7 percentage points were using Internet speed of 1 Mb/s and higher.

In 2020, the number of users of speed rate of 30–100 Mb/s also increased (2.4 percentage points). In 2020, 18.2% of all users of Internet access services provided by means of fixed communications technologies used Internet access services of a speed rate lower than 30 Mb/s, accordingly, i.e. by 3.7 percentage points less than in 2019.

Table 25. **Share of the number of users of retail Internet access services provided by means of fixed communications technologies by speed rate, %, 2015-2020**

	2015	2016	2017	2018	2019	2020
up to 2 Mb/s	2.1	1.4	0.6	0.3	0.2	-
2 Mb/s to 10 Mb/s	21.7	19.8	14.7	5.1	3.3	-
10 Mb/s to 30 Mb/s	16.1	15.9	12.7	19.4	18.4	18.2*
30 Mb/s to 100 Mb/s	42.4	36.0	27.9	28.7	29.4	31.8
More than 100 Mb/s	17.7	26.8	44.0	46.5	48.7	50.0

* In 2020, the data includes all subscribers with up to 30 Mb/s of data downstream rate.

Source: RRT.

Until 2017, the number of households using broadband Internet of the speed higher than 100 Mb/s provided by means of fixed communications technologies rapidly grew, but it has decelerated since 2019 (see Fig. 45).

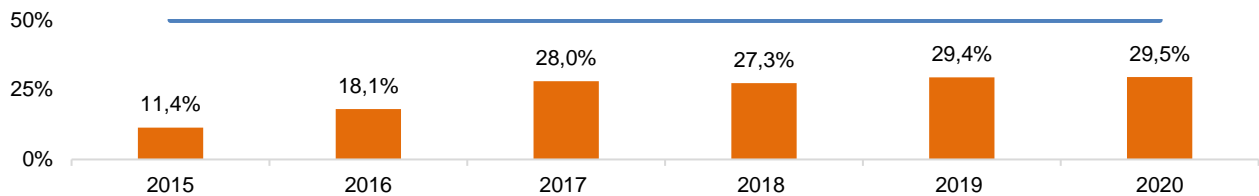


Fig. 45. **Percentage of Lithuanian households which used Internet with the speed of at least 100 Mb/s**

Source: RRT.

Revenue. In 2020, compared to 2019, the service providers' revenue from retail Internet access services provided by means of fixed communications technologies went up by 3.4% or by EUR 3.1 million. In 2020, that revenue stood at EUR 95.7 million (see Fig. 46). During the period of 2016-2019, the downward trend in the revenue from retail Internet access services provided by means of fixed communications technologies was observed but it slightly increased in 2020. This was also affected by the *Covid-19* pandemic which led to the increasing demand for Internet access services.

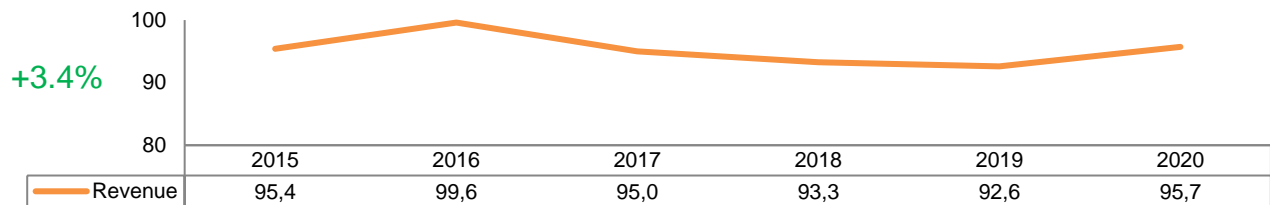


Fig. 46. **Revenue received from retail Internet access services provided by means of fixed communications technologies, EUR million, 2015-2020**

Source: RRT.

With regard to the service providers by revenue gained (see Fig. 47), the structure of the market was not subject to the significant changes in 2020, as was the case in 2019: the leader's position (the largest part of the revenue gained) was maintained by Telia Lietuva, AB. Its market share stood at 60.7% but, compared to 2019, it increased by 1.2 percentage points. In 2020, besides Telia Lietuva, AB, only AB Lietuvos Radijo ir Televizijos Centras and other providers were subject to the growth of the market shares (0.1 and 2.3 percentage points, respectively). The market share of UAB Cgates shrank most radically (by 2.9 percentage points).

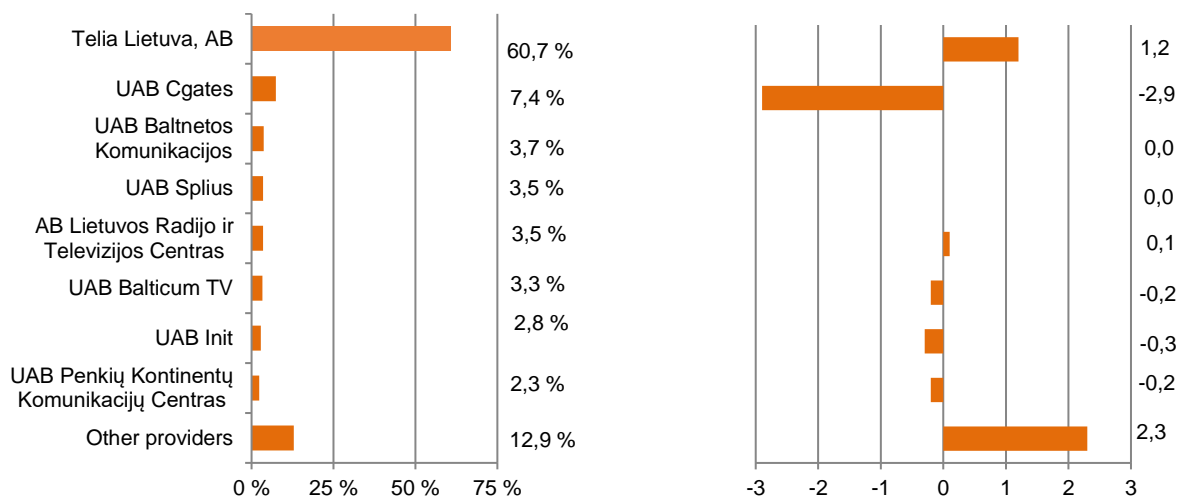


Fig. 47. **Structure of the revenue by service providers, %, and annual changes of the market shares, pp, 2020**

Source: RRT.

ARPU. The average monthly revenue per user of retail Internet access services provided by means of fixed communications technologies (ARPU) accounted for EUR 10.1 in 2020 and it was by EUR 0.3 larger than in 2019 (see Fig. 48). As was the case in the previous periods, one of the highest ARPU was received from service users who connected to the Internet by means of other technologies (via leased lines, UTP, STP). In 2020, compared to 2019, ARPU of this service went down by 78.2% or by EUR 46.1 per month.

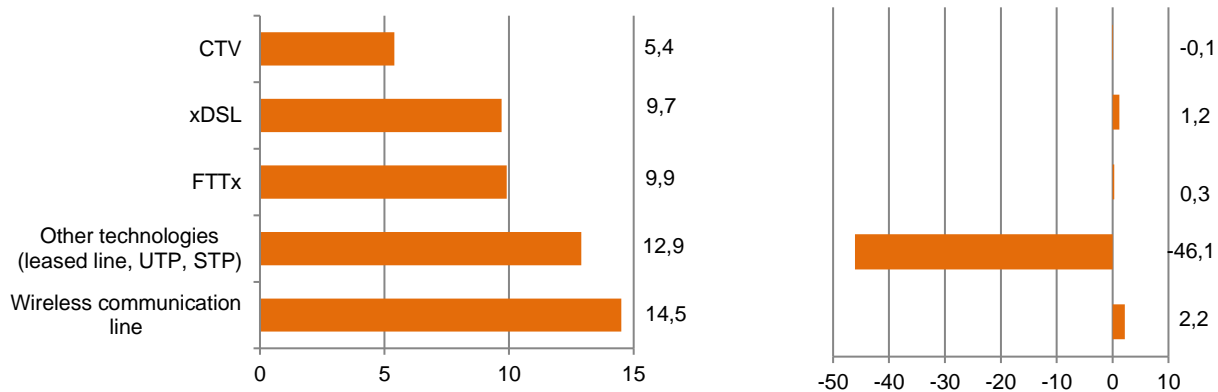


Fig. 48. **ARPU by employed technologies, EUR per month, and ARPU annual changes, EUR per month, 2020**
Source: RRT.

The lowest revenue (EUR 5.4) per service user per month in 2020, as was the case in 2019, was received from retail Internet access services provided by means of CTV networks. ARPU of the most popular retail Internet access services provided via FTTx lines increased by EUR 0.3 up to EUR 9.9 per month in 2020. ARPU of retail Internet access services provided via xDSL lines rose by EUR 1.2 in 2020, compared to 2019.

The structure of the market of retail Internet access services by fixed communications technologies used by service users maintained the similar proportions in 2020 as was the case in the previous periods – FTTx lines were used most often (76.6% of the users). In 2020, compared to 2015, the number of the users of retail Internet access services provided by means of FTTx technology grew by 14.5 percentage points.

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



NB!

- In this section of the report, other providers of retail Internet access services provided by means of mobile communications technologies shall be all providers of such services, except for UAB Bitė Lietuva, Telia Lietuva, AB, UAB Tele2, AB Lietuvos Radijo ir Televizijos Centras indicated in Table 26, Table 27 and Figures 52, 53 and 54 (hereinafter in this section – the ‘other providers’).

Methods of the Service Provision. Retail Internet access services were provided by means of GPRS, EDGE, UMTS, UMTS HSDPA, UMTS HSUPA, LTE²³ and other mobile communications technologies ensuring higher speed.

Service providers. In 2020, retail Internet access services provided by means of mobile communications technologies were provided by 9 service providers (compared to 2019, the number went up by one undertaking²⁴).

Service Recipients. It must be noted that the number of active SIM cards to provide Internet access services has been growing on a yearly basis. Over 2020, the number of active SIM cards for the provision of Internet access services increased by 266.2 thousand, or by 9.0% and stood at 3,236.4 thousand at the end of 2020 (see Fig. 49). Moreover, in 2020, compared to 2019, the number of LTE technology-based active SIM cards grew by 10.8% and equalled 2,672.1 thousand. It must be noted that since 2015 the penetration²⁵ of active SIM cards used to provide Internet access services has been annually increasing which exceeded 100% in 2018 already (i.e. one person used more than one card). At the end of 2020, this penetration was 115.8, i.e. by 9.5 percentage points more than in 2019.

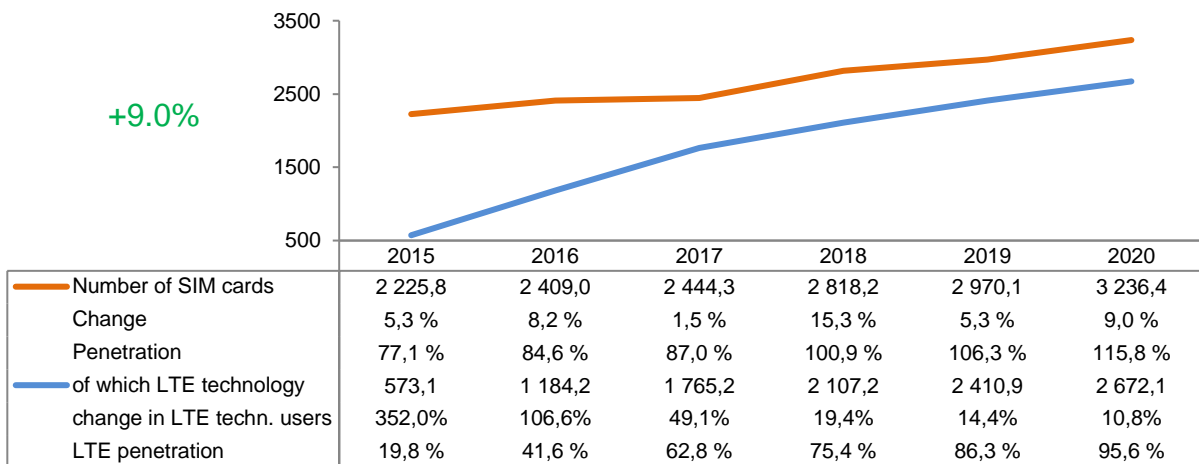


Fig. 49. Retail Internet access services provided by means of mobile communications technologies, number of active SIM cards used to provide Internet access services, thousands, annual change, %, and penetration, %, 2015-2020

Source: RRT.

In 2020, compared to 2019, the number of active SIM cards of retail Internet access services provided by means of mobile communications technologies, where the Internet access service provision plan instead of the telephony plan is used, grew by 30.6% and it amounted to 700.1 thousand (see Fig. 50). Since 2018, the growing trend in the number of such SIM cards has been observed.

²³ 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).

²⁴ Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2, AB Lietuvos Radijo ir Televizijos Centras, UAB CSC Telecom, UAB Eurocom, UAB Teledema and AS TV Play Baltics, Cubic Telecom Limited.

²⁵ Penetration means active SIM cards per 100 residents.

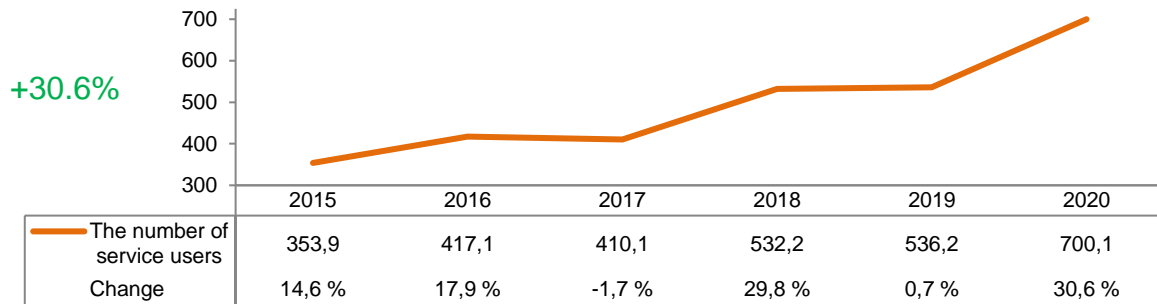


Fig. 50. **Number of active SIM cards of retail Internet access services provided by means of mobile communications technologies, where the Internet access service provision plan instead of the telephony one is used, thousands, and annual change, %, 2015-2020**

Source: RRT.

In 2020, on the market of retail Internet access services provided by means of mobile communications technologies the most active competitors were three major players: Telia Lietuva, AB, UAB Bitė Lietuva and UAB Tele2 (see Table 26). The largest market share (37.6%) by the number of active SIM cards used to provide Internet access services was held by UAB Tele2 in 2020. In 2015-2020, these market shares changed insignificantly. There was an additional market participant between 2017 and 2020 – AB Lietuvos Radijo ir Televizijos Centras.

Table 26. **Share of the number of active SIM cards used to provide Internet access services by service providers, %, 2015-2020**

	2015	2016	2017	2018	2019	2020
UAB Tele2	40.0	40.5	35.8	39.0	39.4	37.6
UAB Bitė Lietuva	27.6	28.3	28.4	28.2	27.0	30.0
Telia Lietuva, AB	30.7	29.4	31.2	28.5	29.4	28.6
AB Lietuvos Radijo ir Televizijos Centras	-	-	2.6	2.6	2.5	2.3
Other providers	1.6	1.7	1.9	1.7	1.6	1.6

Source: RRT.

Revenue. In 2020, as was the case in the previous periods, the service providers' revenue from retail Internet access services provided by means of mobile communications technologies was growing. In 2020, such revenue amounted to EUR 232.8 million, i.e. by 17.7% or by EUR 35.0 million more than in 2019 (see Fig. 51).

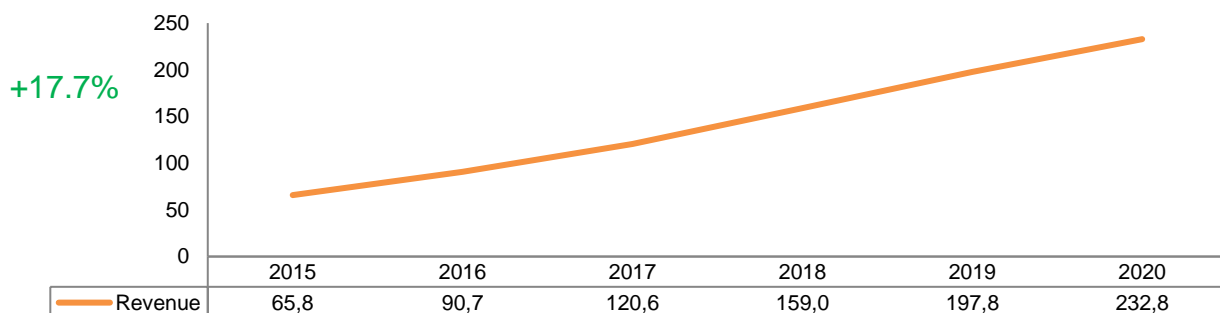


Fig. 51 **Revenue received from retail Internet access services provided by means of mobile communications technologies, EUR million, 2015-2020**

Source: RRT.

UAB Tele2 held the leader's position (41.5%) in the structure of the market of retail Internet access services provided by means of mobile communications technologies in 2020, in terms of the revenue received by individual undertakings, i.e. by 2.1 percentage points more than in 2019 (see Fig. 52). As mentioned afore,

a new market player emerged in this segment in 2017 – AB Lietuvos Radijo ir Televizijos Centras which held 2.8% of the market in 2020, i.e. by 0.5 percentage points less than in 2019.

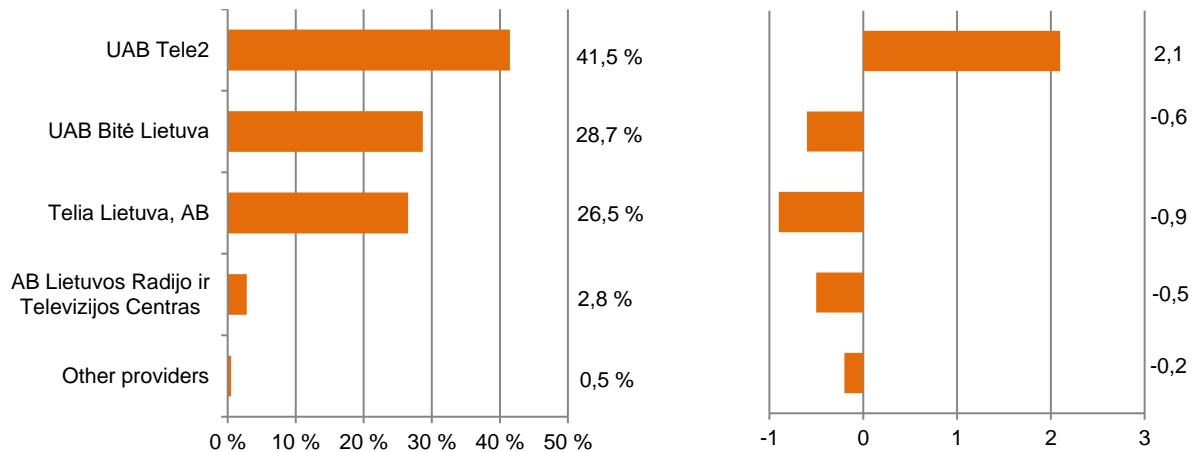


Fig. 52 Structure of revenue from retail Internet access services provided by means of mobile communications technologies by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

ARPU. The monthly ARPU per SIM card user of retail Internet access services provided by means of mobile communications technologies accounted for EUR 6.1 in 2020 and, compared to 2019, it was by EUR 0.4 larger (see Fig. 53). In 2020, the highest ARPU was that of AB Lietuvos Radijo ir Televizijos Centras – EUR 7.4 per month. In 2020, compared to 2019, the largest growth of ARPU was that of UAB Tele2 (EUR 1.1).

When comparing ARPU for retail Internet access services provided by means of fixed communications technologies and by means of mobile communications technologies presented in Fig. 53 and Fig. 48, it is clear that the average ARPU from the provision of services by means of fixed communications technologies, as specified in Figure 48 exceeds the average ARPU from the provision of services by means of mobile communications technologies, as specified in Figure 53, by EUR 4.0.

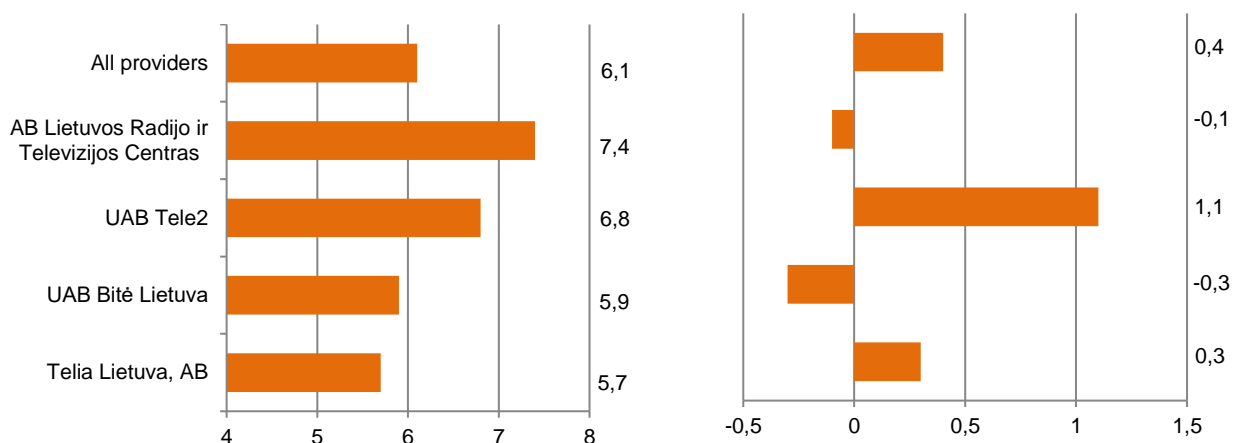


Fig. 53 ARPU of all service providers and of each of the major providers, EUR per month, and ARPU annual changes, EUR per month, 2020

Source: RRT.

The monthly ARPU per SIM card user, where the Internet access service provision plan is applied instead of the telephony plan, accounted for EUR 7.4 in 2020 and it was by 0.7 percentage points lower than in 2019 (see Fig. 54). In 2020, Telia Lietuva, AB received the highest ARPU – EUR 7.7 per month.

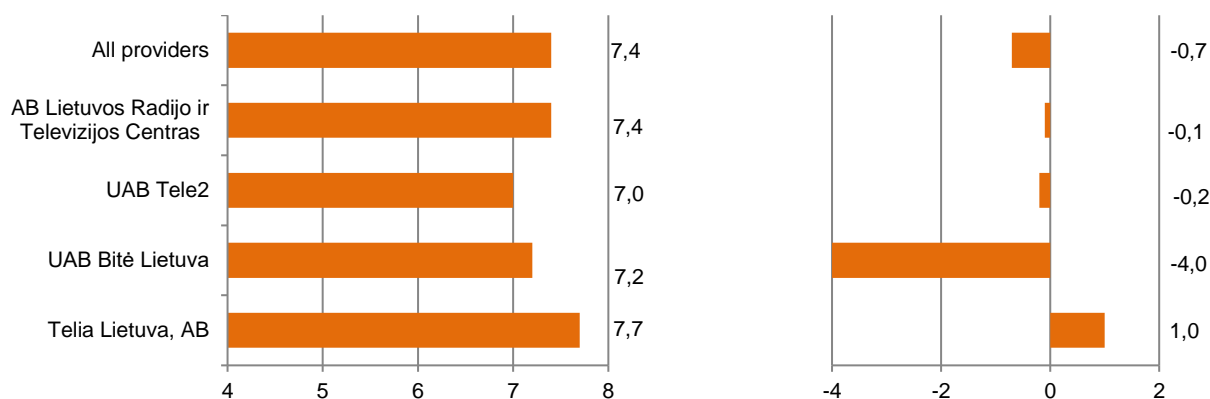


Fig. 54 **ARPU of all service providers and each of the major providers, where the Internet access service provision plan is applied instead of the telephony plan, EUR per month, and ARPU annual changes, EUR per month, 2020**

Source: RRT.

Data Volume. In 2020, compared to 2019, the volume of sent and received data per service user per month grew by 45.6% and it stood at 20,355.4 MB (see Table 27). The greatest volume of data (155,064.6 MB) per month per service user was transmitted by means of Internet access services of AB Lietuvos Radijo ir Televizijos Centras in 2020 as this undertaking provided such services only to SIM card users, where the Internet access service provision plan was applied instead of the telephony plan. The largest growth of other service providers providing the services in 2020 was of the volume of sent and received data per user per month of Telia Lietuva, AB (73.8%) and it stood at 20,000.8 MB. The monthly volume of sent and received data per service user of UAB Bitė Lietuva and UAB Tele2 also increased, respectively, by 45.0% and 45.6% and, accordingly, constituted 14,683.9 MB and 17,395.0 MB.

Table 27. **Monthly volume of data sent and received by a single service user, MB, and their changes, %, 2020**

Service Provider	Data volume per month in 2020	Data volume per month in 2019	Change per year, %
AB Lietuvos Radijo ir Televizijos Centras	155,064.6	122,354.1	26.7
UAB Tele2	17,395.0	11,946.0	45.6
Telia Lietuva, AB	20,000.8	11,510.8	73.8
UAB Bitė Lietuva	14,683.9	10,127.2	45.0
Other providers	2,767.4	2,714.4	2.0
All providers	20,355.4	13,976.5	45.6

Source: RRT.

Quality. Speed rate. The measurements conducted by the Communications Regulatory Authority of the Republic of Lithuania (RRT) confirm the continuously growing speed of data download. During 2020, the data download speed measurements were performed with regard to all mobile communications operators (UAB Bitė Lietuva, Telia Lietuva, AB, UAB Tele2 and Lithuanian Radio and Television Centre). Fig. 55 presents the comparison of average values of data download speed in the cities and on the roads in 2019 and 2020, Mb/s. Data download speed of all operators, except for UAB Tele2, went up more rapidly in 2020: as was the case in 2019, speed of Telia Lietuva, AB increased by 11.7%, UAB Bitė Lietuva – by 5.6%, AB Lietuvos Radijo ir Televizijos Centras – by 4.9% and speed of UAB Tele2 slightly decreased in 2020 – by 8.3%.²⁶

²⁶ The data of the measurements performed by the RRT and respective maps are published on the website <http://matavimai.rrt.lt/>.

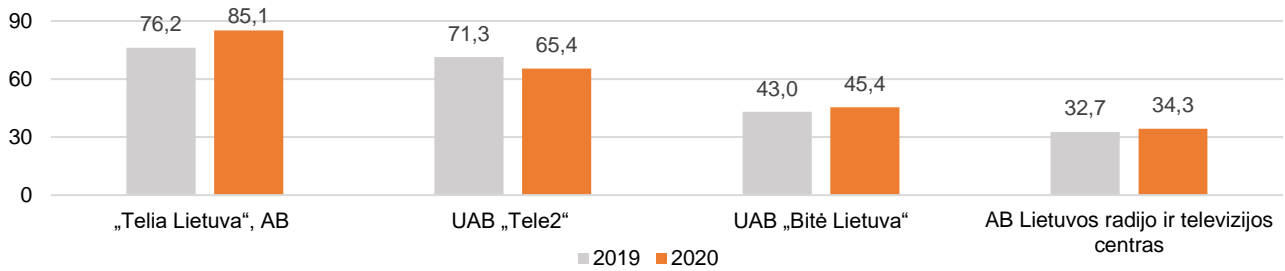


Fig. 55 Comparison of average values of data download speed in the cities and on the roads in 2019 and 2020, Mb/s

Source: RRT.

In order to determine which part of the population has an opportunity to use high-speed (30 Mb/s and 100 Mb/s) LTE technology data transmission services, the RRT carried out the calculations of the mobile communications network coverages and speeds²⁷. The calculations were made by applying the 10% network load designed to assess and compare the data transmission capacity of the operators' networks, namely when downloading data at the low load of the network, and by applying the 50% network load when the data are downloaded under usual load conditions. The calculation results are presented in Table 28.

Table 28. Part of the population able to use LTE technology data transmission services, %, 2020

Data download speed	30 Mb/s	100 Mb/s
At 10% network load	99%	87.9%
At 50% network load	92.7%	35.6%

Source: RRT.

According to the data of portal 'Global Speed Test (Ookla)²⁸, in February 2020, Lithuania was ranked 13th (1 place higher than in 2019) by data download speed of Internet access services (3G/4G) provided by means of mobile communications technologies in Europe – data download speed was 57.7 Mb/s in Lithuania (see Fig. 56), i.e. by 22.6% higher than in 2019. The Netherlands had the highest data download speed – 103.4 Mb/s. In terms of data download speed, Lithuania outperformed its neighbouring countries Latvia and Estonia whose data download speed was 35.5 Mb/s and 51.4 Mb/s, respectively, and Poland whose data download speed was 35.5 Mb/s.

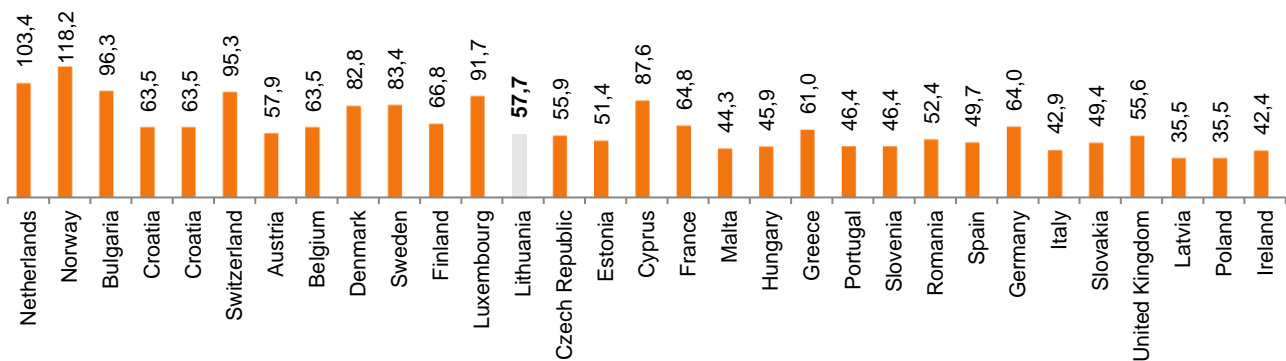


Fig. 56 Data download speed (Mb/s) of Internet access services provided by means of mobile communications technologies (3G/4G) in European countries

Source: Data of 'Global Speed Test' ('Ookla') of March 2020.

²⁷ The data of the calculations performed by the RRT and respective maps are published on the RRT website <https://www.rrt.lt/judriojo-risio-tinklu-tiketos-aprepties-zonos/>.

²⁸ <https://www.speedtest.net/global-index#mobile>

5G network accessibility. According to the company 'OpenSignal' established in London²⁹, increasingly more countries start operating 5G networks in major cities where Internet speed is much higher than in the rest of the territory of the country. Figure 57 presents the list of 10 cities of the world with the highest available 5G speed.

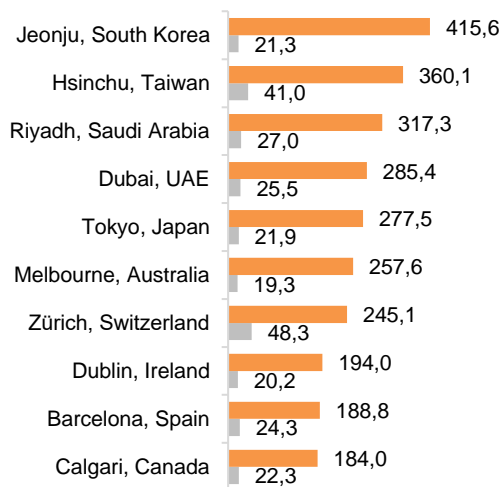


Fig. 57 **Maximum possible speed of downloaded data by means of 5G smart phones in 10 cities of the world, Mbps, September-March 2021**

Source: OpenSignal.

The global trends show that the development of information and communications technology (ICT) is an integral part of the development of the fifth-generation mobile communications technology. At the beginning of 2019, Telia Lietuva, AB started testing this network and provided the possibility to the residents of three major cities (Vilnius, Kaunas and Klaipėda) to participate in the testing of 5G network. At the end of 2019, there were 11 5G base stations running, and in July 2021, as many as 72 5G base stations were operating. Currently (July 2021), all Lithuanian residents who have equipment that supports 5G can test the advantages provided by 5G network.

In Lithuania, taking account of the Opinion on spectrum related aspects for next-generation wireless systems (5G) of the European Commission Radio Spectrum Policy Group, the 3400-3800 MHz (3.6 GHz), 24.25-27.50 GHz (26 GHz) and 694-790 MHz (700 MHz) frequency bands are firstly prepared. The public consultations regarding the plans for the use and development of radio frequencies (channels) are being conducted. The market players have an option of testing the elements of the next-generation network. In the second half of 2021, a public auction in the 700 MHz frequency band is planned in Lithuania, whereas the auction in the 3.6 GHz band will be organised later (depends on the international negotiations with the Russian Federation) and the auction in the 26 GHz band will be held based on the demand. It is likely that by 2022 at least one the largest cities of the Republic of Lithuania, by population, will start providing electronic communications services via electronic communications networks suitable for 5G, and a year later such services will be provided in all cities of the country.

In 2020, the revenue received from retail Internet access services provided by means of mobile communications technologies totalled EUR 232.8 million, i.e. by 17.7% more than in 2019. The number of active

²⁹ <https://opensignal.com/reports/2018/02/state-of-lte>

SIM cards used to provide Internet access services grew by 266.2 thousand or 9.0% in 2020. The number of active SIM cards per 100 residents used for LTE services grew by 9.3 percentage points and stood at 95.6%.

3.3. Wholesale Internet Access Services

Service providers	8
Major service provider	Telia Lietuva, AB
Wholesale revenue, EUR million	5.3

NB!

- In this section of the report, other wholesale Internet access service providers shall be all providers of such services, except for Telia Lietuva, AB, UAB Bitė Lietuva, UAB Nacionalinis Telekomunikacijų Tinklas, SIA Tet branch indicated in Figure 59 (hereinafter in this section – the ‘other providers’).

Revenue. In 2020, compared to 2019, the revenue from wholesale Internet access services went down by 24.9% and amounted to EUR 5.3 million. When it comes to the changing trend in the revenue between 2015 and 2020, it must be noted that from 2015 to 2018, the revenue from wholesale Internet access services was dropping (see Fig. 58), and it was only in 2019 that revenue increased – this was a result of the wholesale roaming revenue growth. In 2020, however, when the roaming revenue went down, the total revenue from wholesale Internet access services were falling again – 24.9%.

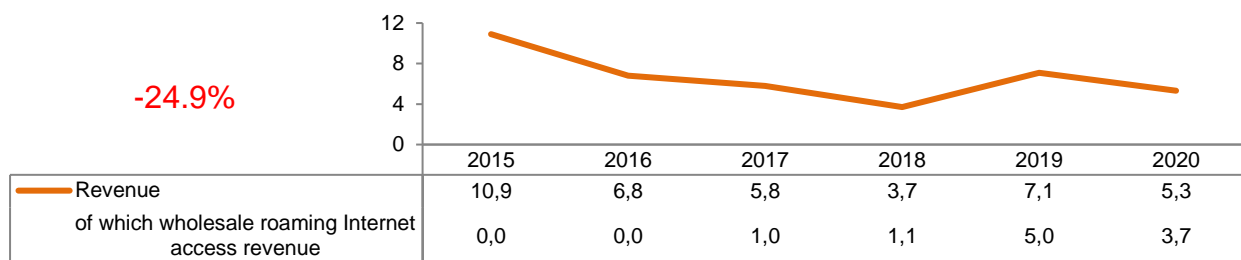


Fig. 58. Revenue from wholesale Internet access services, EUR million, 2015-2020

Source: RRT.

In 2020, wholesale Internet access services were provided by 8 service providers. In 2020, the largest market share, in terms of revenue from the provision of wholesale Internet access services, was held by Telia Lietuva, AB (74.2%) (see Fig. 59). The other major providers were as follows: UAB Bitė Lietuva with 11.2% of the market, UAB Nacionalinis Telekomunikacijų Tinklas with 8.7% of the market and SIA Tet affiliate with 2.5% of the market. In 2020, compared to 2019, the market share held by Telia Lietuva, AB was subject to the largest increase (by 6.4 percentage points).

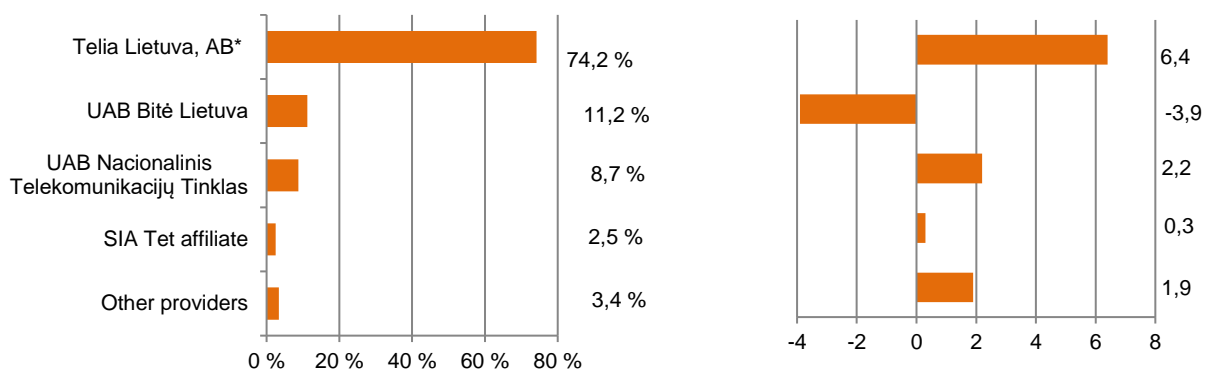


Fig. 59. Structure of revenue from wholesale Internet access services by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

*As of Q2 2019, Telia Lietuva, AB has included the revenue from wholesale roaming Internet access in the revenue from wholesale Internet access services. UAB Tele2 does not distinguish such revenue.

With the rapidly growing use of Internet data, the Internet access service providers have been raising the speed of international online communication channels. The overall speed of direct international online communication channels increased by 50.8% in 2020 and stood at 1,611.2 Gb/s.

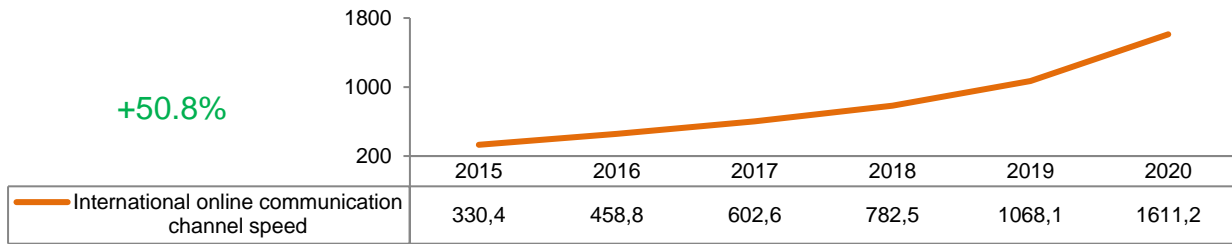


Fig. 60. Overall speed of direct international online communication channel, thousand Mb/s, 2015-2020

Source: RRT.

Overall speed of direct international online communication channel increased by 5.8% in 2020. The major international online communication channel was possessed by Telia Lietuva, AB which held around 50% of the common channel.

3.4. Other Data Transmission Services

Service providers	17
Service users, thousands*	15.7
Revenue, EUR million	21.0

* Active SIM cards used to receive M2M services are not included.

Methods of the Service Provision. Other data transmission services are usually the services provided by the Internet Protocol (IP) 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, Ethernet services, Multiprotocol Label Switching (MPLS) services for data flow transmission.

Revenue. In 2020, the revenue from other data transmission services totalled EUR 21.0 million or by 9.5% less than in 2019 (see Fig. 61). Throughout the entire period of 2015-2020, the revenue received from other data transmission services changed insignificantly.

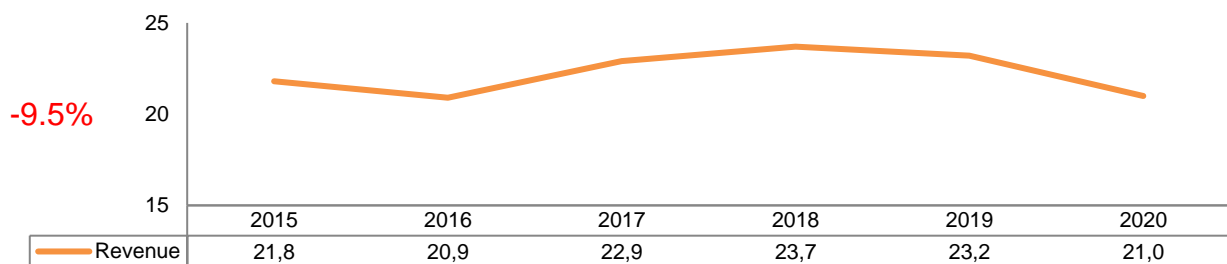


Fig. 61. Revenue from other data transmission services, EUR million, 2015-2020
Source: RRT.

3.4.1. Retail other data transmission services

Service providers	12
Service users, thousands	15.7
Number of M2M SIM cards, thousand	370.4
Retail revenue, except for M2M, EUR million	9.5
Revenue from M2M services, EUR million	3.3

NB!

- In this section of the report, providers of other retail other data transmission services shall be all providers of such services, except for Telia Lietuva, AB, UAB Bitė Lietuva, UAB Baltnetos Komunikacijos, UAB Dekbera indicated in Figure 63; Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2 indicated in Figures 65 and 68; Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2, UAB Dekbera, AB Lietuvos Radijo ir Televizijos Centras indicated in Figure 67 (hereinafter in this section – the ‘other providers’).

Service Recipients. In 2020, compared to 2019, the number of users increased by 4.1% up to 15.7 thousand users³⁰ (see Fig. 62). In 2015-2016, the number of users that are provided services through leased lines was added to the number of other data transmission service users considering, with reservation, that 1 leased line equals 1 service user.

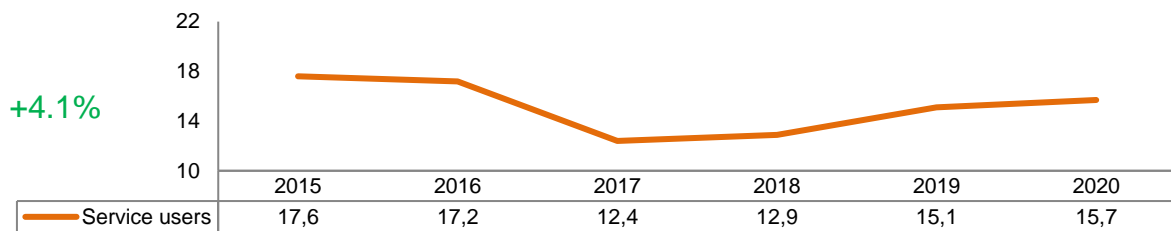


Fig. 62. **Number of retail other data transmission service users, thousands, 2015-2020**

Source: RRT.

The majority of retail other data transmission service users were using the services provided by Telia Lietuva, AB. At the end of 2020, Telia Lietuva, AB was providing retail other data transmission services to 81.4% of such service users, which was by 1.5 percentage points less than in 2019 (see Fig. 63).

³⁰ Active SIM cards used to receive M2M services are not included.

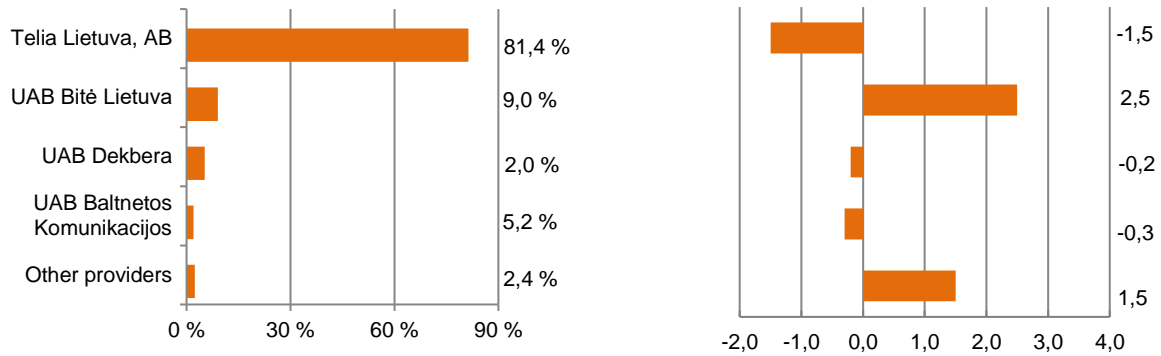


Fig. 63. Share of the number of service users by service providers, %, and annual changes of the market shares, pp, 2020
Source: RRT.

Number of M2M SIM cards. Between 2015 and 2020, the number of active SIM cards used to provide M2M (*Machine to Machine, Man to Machine, Machine to Man*) services was continuously growing. In 2020, there were 370.4 thousand SIM cards for M2M services, i.e. by 14.2% or by 46.0 thousand more than in 2019 (see Fig. 64). 159.2 thousand or 43.0% of all M2M services were machine to machine services.

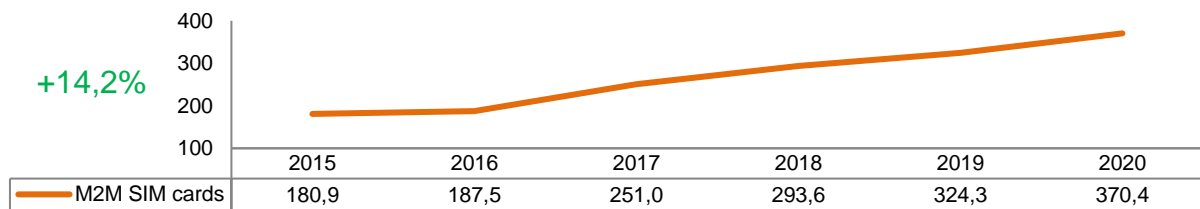


Fig. 64. Number of SIM cards for the provision of M2M services, thousands, 2015-2020
Source: RRT.

Over 2020, Telia Lietuva, AB held 55.2% of the market by the number of SIM cards used for the provision of M2M services. UAB Bitė Lietuva held 23.3% of the market and UAB Tele2 – 19.7% of the market (see Fig. 65). In 2020, compared to 2019, the market share held by UAB Tele2 grew by 1.2 percentage points, whereas the share held by Bitė Lietuva, AB shrank by 1.4 percentage points.

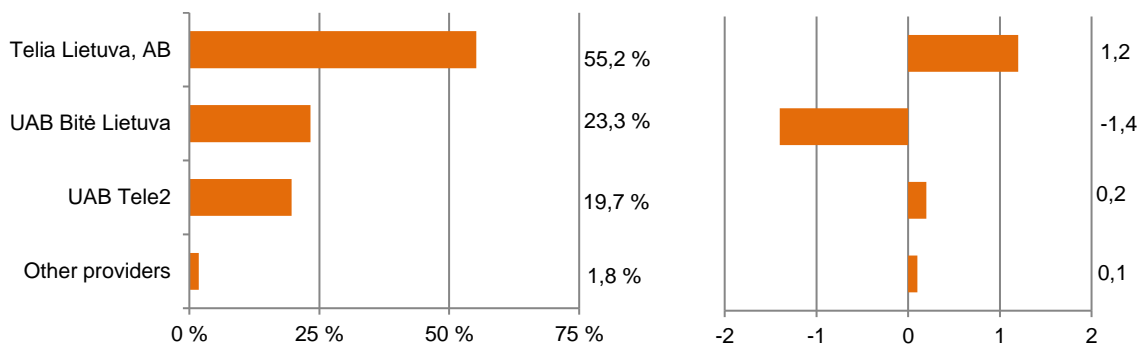


Fig. 65. Share of the number of SIM cards for the provision of M2M services by service providers, %, and annual changes of the market shares, pp, 2020
Source: RRT.

Revenue. Between 2015 and 2020, the revenue from retail other data transmission services were consistently decreasing, and it was only in 2017 that a slight growth was recorded (5.6%). In 2020, compared to 2019, the revenue from retail other data transmission services went down by 6.9% and amounted to EUR 12.8 million (see Fig. 66). With regard to the revenue from the provision of M2M services, it is evident that such revenue had grown between 2016 and 2019, whereas in 2020, it slightly decreased (2.5%) and stood at EUR 3.3 million.

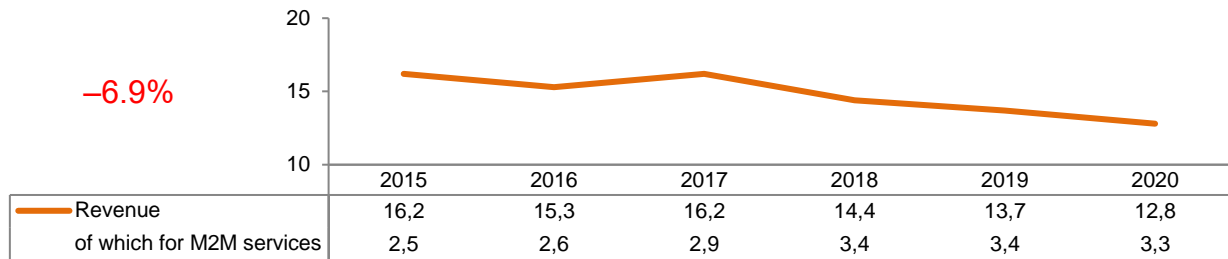


Fig. 66 Revenue from retail other data transmission services, EUR million, 2015-2020

Source: RRT.

In 2020, the largest market share, in terms of revenue from the provision of other retail data transmission services, was held by Telia Lietuva, AB (63.9%) (see Fig. 67). It must be noted, however, that the market share held by Telia Lietuva, AB shrank by 1.3 percentage points in 2020, compared to 2019. In 2020, UAB Bitė Lietuva held 19.1% of the market, and, compared to 2019, the market share held by UAB Bitė Lietuva and UAB Tele2 was subject to the steepest increase (1.9 percentage points each).

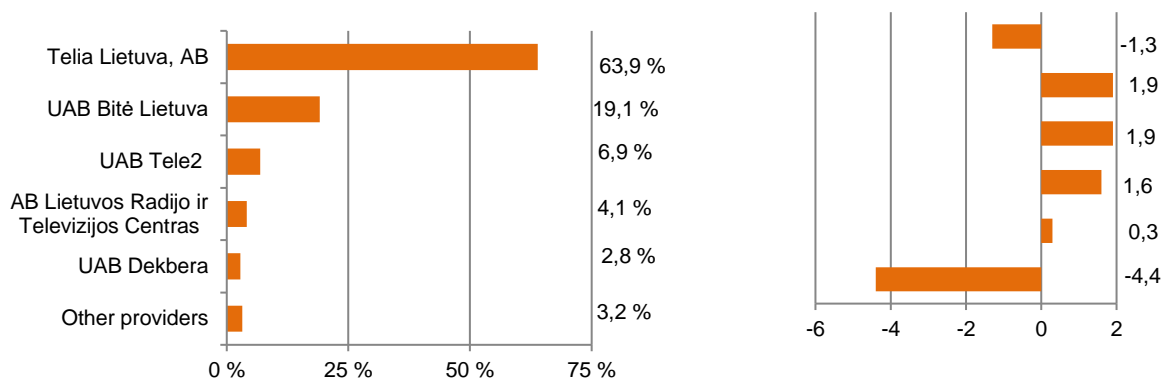


Fig. 67. Structure of revenue from retail other data transmission services by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

In 2020, the largest market share, in terms of revenue from the provision of M2M services, was held by Telia Lietuva, AB (45.8%). The revenue generated by UAB Tele2 constituted 27.0% and that of UAB Bitė Lietuva – 26.9% of the market revenue (see Fig. 68). The market share held by UAB Tele2 was subject to the largest growth (by 5.4 percentage points) in 2020, compared to 2019. The market share held by UAB Bitė Lietuva shrank the most (by 4.9 percentage points).

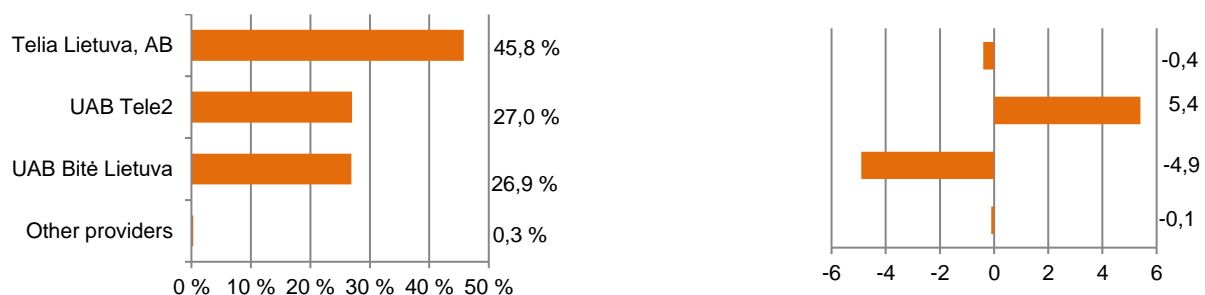


Fig. 68. Structure of revenue from M2M services by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

In 2020, the number of retail other data transmission service users grew by 4.1%, while the revenue received from this service dropped by 6.9%. In 2020, as many as 370.4 thousand SIM cards were used to provide M2M services, which was by 14.2% more than in 2019. Although the number of M2M SIM cards was increasing in 2020, the revenue from the provision of M2M services slightly decreased (2.5%).

3.4.2. Wholesale other data transmission services

Service providers	7
Granted wholesale central accesses at a fixed location, thousands	12,078
Wholesale revenue, EUR million	8.2

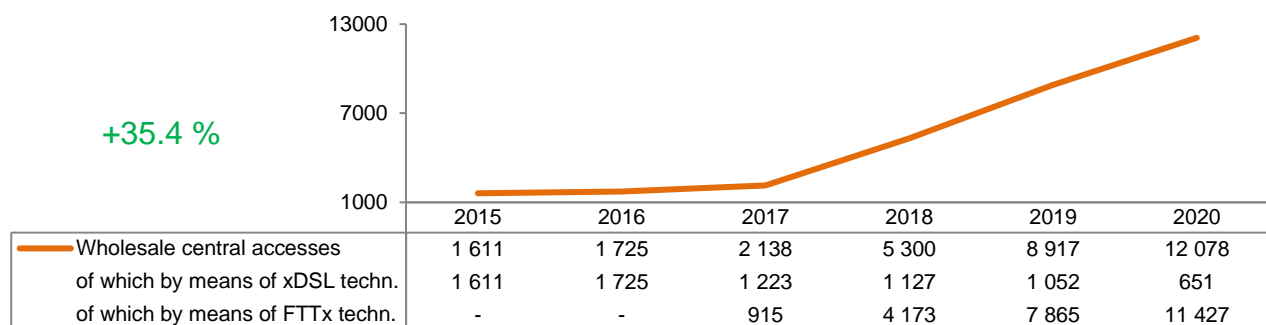
NB!

- In this section of the report, the other wholesale other data transmission service providers shall be all providers of such services, except for Telia Lietuva, AB, Public Enterprise Plačiajuostis Internetas, UAB Duomenų Logistikos Centras in indicated Figure 71 (hereinafter in this section – the ‘other providers’).

Service providers. In 2020, the wholesale other data transmission services were provided by 7 undertakings (in 2019, such services were provided by 7 undertakings as well).

Wholesale central access at a fixed location for mass-market products (hereinafter – the ‘wholesale central access’) is the service of wholesale data transmission which is used by the electronic communications service provider to provide retail (Internet access, pay-TV and fixed telephone services) services by means of fixed communications technologies to the end-user.

At the end of 2020, the service of wholesale central access was provided by 1 undertaking – Telia Lietuva, AB. At the end of 2020, Telia Lietuva, AB had granted 12,078 wholesale central accesses in total. The number of such accesses went up by 35.4% over the year. As many as 94.2% of wholesale central accesses (11,427 wholesale accesses) were granted by means of FTTx technology and 5.8% (651 wholesale accesses) – by means of xDSL technology (see Fig. 69). The demand for the services provided by means of FTTx technology has continuously grown: in 2020, compared to 2019, the number of wholesale central accesses by means of FTTx technology was higher by 45.3%, and the number of accesses granted by means of xDSL technology fell by 38.1%. The demand for wholesale central access services by means of xDSL technology is likely to go down in the future as well, and the provision of such services by means of FTTx technology is likely to go up.

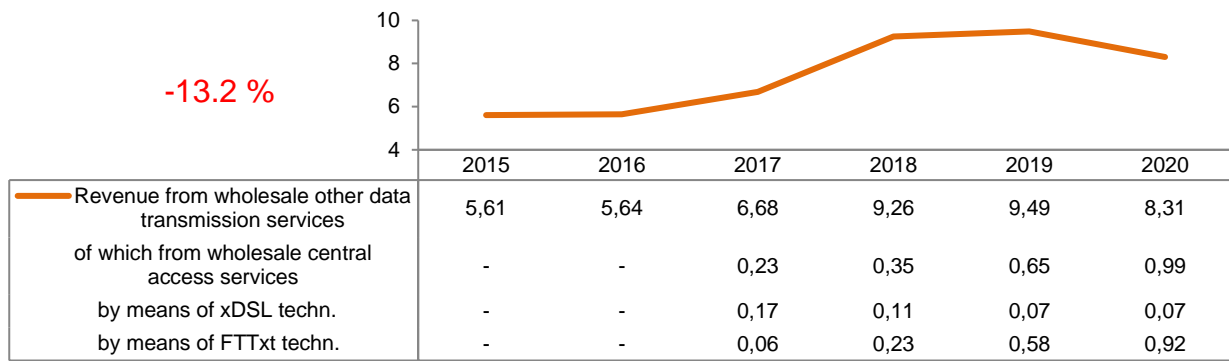


* Between 2015 and 2016, there are no data on the number of granted wholesale central accesses by means of FTTx technology.

Fig. 69 Number of granted wholesale central accesses, 2015-2020

Source: RRT.

Revenue. In 2020, compared to 2019, the revenue from the provision of wholesale other data transmission services decreased by EUR 1.3 million or by 13.2% and accounted for EUR 8.2 million (see Fig. 70). In 2020, the revenue from the provision of wholesale central access services accounted for EUR 1.0 million or 12.0% of all revenue from the provision of wholesale other data transmission services.



* Between 2015 and 2016, there are no data on the revenue received from the services of wholesale central accesses provided by means of both xDSL and FTTx technologies.

Fig. 70 Revenue from wholesale other data transmission services, EUR million, 2015-2020

Source: RRT.

In 2020, the largest market share, in terms of revenue received from the provision of wholesale other data transmission services, was held by Telia Lietuva, AB (46.5%) (see Fig. 71). It must be noted, however, that the market share held by Telia Lietuva, AB shrank by 9.2 percentage points in 2020, compared to 2019. In 2020, compared to 2019, the market share held by Public Enterprise Plačiąjuostis Internetas was subject to the largest increase (5.9 percentage points).

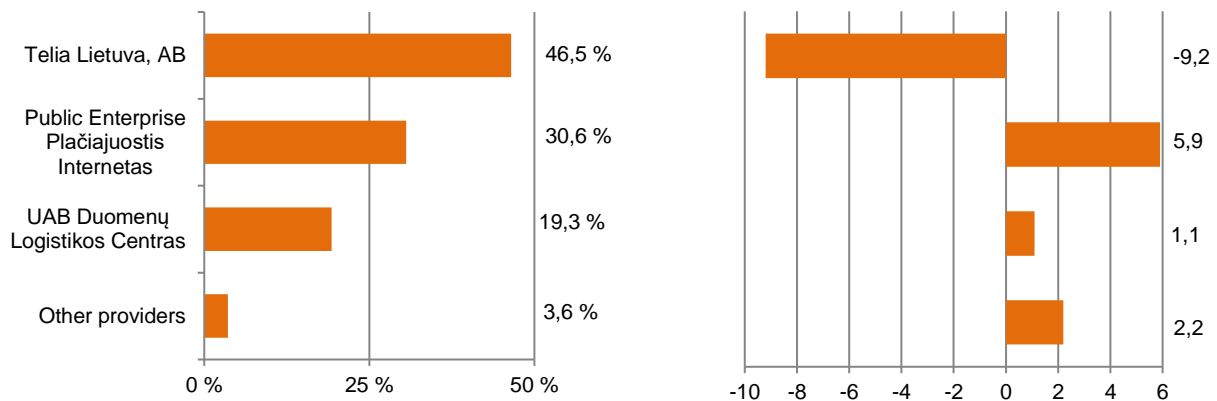


Fig. 71 Structure of revenue from wholesale other data transmission services by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

In 2020, the revenue received from the provision of wholesale other data transmission services decreased by 13.2% and accounted for EUR 8.2 million. The number of granted wholesale central accesses at a fixed location for mass-market products grew by 35.4% and stood at 12,078 in 2020.

4. Television and Radio

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

Service providers	42
Major service provider	Telia Lietuva, AB
Wholesale revenue, EUR million	4.5
Retail revenue, EUR million	80.2
Total revenue, EUR million	84.7

NB!

- 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, UAB Splus, Telia Lietuva, AB and AS TV Play Baltics (hereinafter in this section – the ‘other providers’).

In the context of this report, the market of television and radio services covers 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 2020, television and radio activities, insofar as it relates to the electronic communications activities, were carried out by 42 undertakings, i.e. by 2 undertaking more than at the end of 2019 (see Table 29).

In 2020, there were 42 retail pay-TV service providers (in 2019 – 39). Wholesale radio and television broadcasting services were provided by 1 undertaking in total at the end of 2020 – AB Lietuvos Radijo ir Televizijos Centras was providing both retail pay-TV services and radio and television broadcasting services.

Table 29. **The number of television and radio service providers by services provided, units, 2015-2020**

	2015	2016	2017	2018	2019	2020
Radio and television broadcasting	4	4	3	3	3	1
Pay-TV services	41	42	39	40	39	42
Total	45	44	40	41	40	42

Source: RRT.

Revenue. In 2020, compared to 2019, the revenue from the provision of retail pay- and wholesale television and radio services grew by EUR 10.0 million or 13.3% and stood at EUR 84.7 million (see Fig. 72). This is the steepest growth throughout the entire period under consideration from 2015 till 2020. This prominent increase in the revenue was mainly caused by the higher revenue from pay-TV services.

In 2020, as was the case in the previous periods, the largest part of the revenue was gained from retail pay-TV services. The revenue generated from this activity stood at EUR 80.2 million or 94.6% of the total revenue received from the provision of television and radio services (in 2019, such revenue accounted for 94.1% of the total revenue from the provision of television and radio services). It must be noted that in 2020, compared to 2019, the part of the total revenue received from the provision of television and radio services consisting of the revenue from retail pay-TV services increased. In 2020, the revenue from wholesale television and radio

broadcasting services amounted to EUR 4.5 million or 5.4% of the total revenue (by 0.6 percentage points less than in 2019), of which: 3.8% were received from television broadcasting services, 1.1% – from radio broadcasting services and 0.5% – from other services related to television and radio broadcasting.

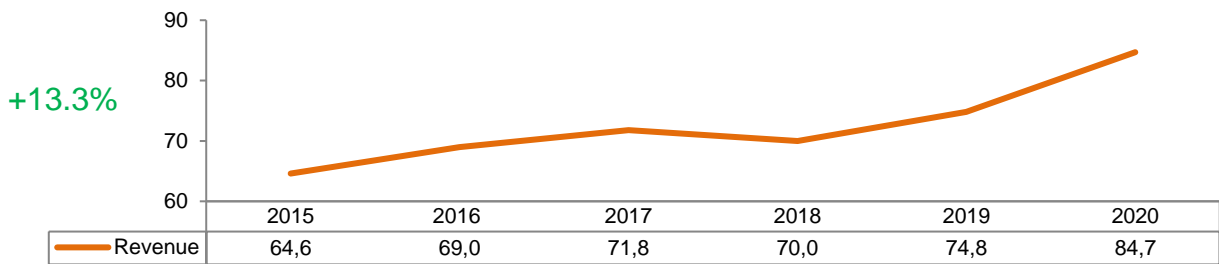


Fig. 72. Revenue from television and radio services, EUR million, 2015-2020

Source: RRT.

When it comes to the structure of the market of television and radio services by revenue of service providers in 2020, it is obvious, that the same 7 undertakings remained the major service providers that jointly held 94.6% of the market (in 2019 – 94.3%) (see Fig. 73). Telia Lietuva, AB remained the major service provider and reinforced its market share by holding 44.7% of the market or by 4.1 percentage points more, compared to 2019. The market shares held by other 6 providers in 2020 slightly decreased. The market share of UAB Init shrank most radically – by 1.0 percentage point.

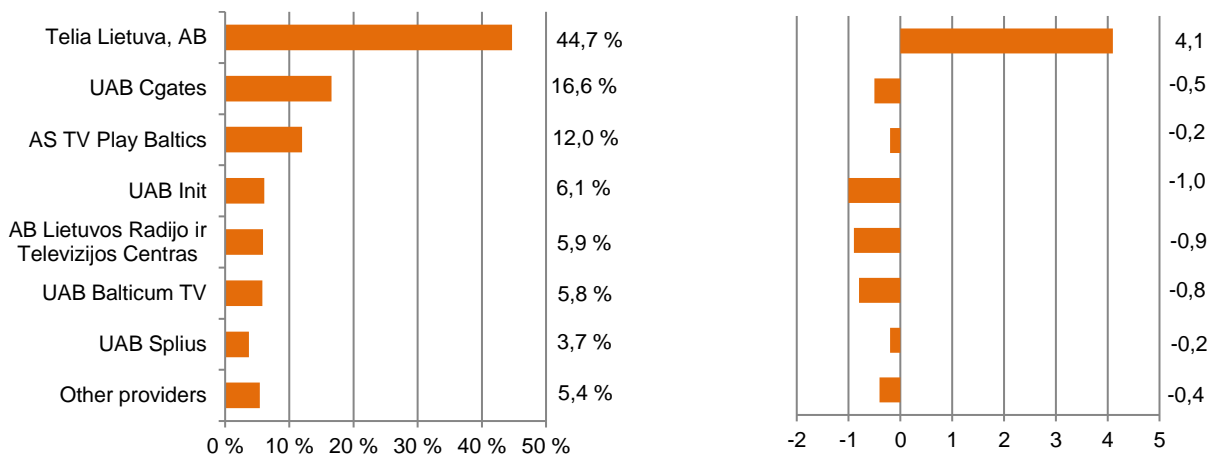


Fig. 73. Structure of revenue from television and radio services by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

During the period between 2015 and 2020, the steepest growth was that of the revenue received from television and radio services (increased by 13.3%) which stood at EUR 84.7 million in 2020 and represented the largest revenue throughout the entire period in question. In 2020, as was the case in 2019, the same 7 undertakings remained the major service providers that jointly held 94.6% of the market (in 2019 – 94.3%).

4.2. Retail Pay-TV Services

Service providers	42
Service users, thousands	677.6
Retail revenue, EUR million	80.2
ARPU, EUR per month	9.86

NB!

- In this section of the report, other retail pay-TV service providers shall be all retail television service providers, except for UAB Balticum TV, UAB Cgates, UAB Init, UAB Splius, Telia Lietuva, AB and AS TV Play Baltics (hereinafter if this section – the ‘other providers’).

Methods of the Service Provision. In 2020, pay-TV services were provided by employing 5 different methods in Lithuania:

- via cable television networks (hereinafter – ‘CTV’);
- via broadband networks by means of Internet Protocol technologies (hereinafter – ‘IPTV’);
- via satellite networks (hereinafter – ‘satellite TV’);
- via terrestrial television networks (hereinafter – ‘DVB-T’);
- via microwave multi-channel distribution system networks (hereinafter – ‘MMDS’).

Service providers. In 2020, compared to 2019, the number of pay-TV service users slightly increased. The changes were recorded in IPTV, CTV and DVB-T segments (see Table 30). In 2020, the number of undertakings providing IPTV services grew by 4 undertakings and stood at 26. 25 undertakings provided their services by means of fixed communications technologies (FTTx technology – 20, xDSL technology – 2, other technology – 10), whereas 2 undertakings used mobile communications technologies. The number of undertakings providing CTV services went up from 24 to 26 service providers in 2020, and the number of digital CTV service providers went up from 16 to 20 providers. In 2020, as was the case in the previous periods, MMDS services were provided by 2 undertakings, and satellite TV services were provided by 1 undertaking (AS TV Play Baltics). In 2020, retail pay-DVB-T services were provided by UAB Balticum TV only.

Table 30. Number of pay-TV service providers by service provision methods, units, from 2015 till the end of 2020

	2015	2016	2017	2018	2019	2020
IPTV	15	16	18	20	22	26
CTV	32	30	26	25	24	26
- Digital CTV	17	17	14	15	16	20
MMDS	2	2	2	2	2	2
DVB-T	2	2	2	2	2	1
Satellite TV	1	1	1	1	1	1

Source: RRT.

Service Recipients. At the end of 2020, the number of pay-TV service users was the lowest during the period of 2015-2020 and stood at 677.6 thousand service users or by 0.1% less than in 2019 (see Fig. 74). The largest share (46.2%) of television service users were still preferring CTV services, but their number was

dropping on an annual basis. In 2020, compared to 2019, the share of CTV service subscribers decreased by 5.8%. In 2020, IPTV and satellite TV services were used by 45.0% and 7.7% of all pay-TV service users, respectively. In 2020, as was the case in 2019, the DVB-T service was the least popular service whose users accounted for mere 0.04%.

When analysing the structure of pay-TV service users by methods of the television service provision, it is obvious, that the number of the users of services provided by all methods, except for IPTV and digital CTV, was decreasing in 2020, as was the case 2019. The number of IPTV subscribers continued to go up in 2020, as was the case in the previous periods: in 2020, compared to 2019, the number of IPTV subscribers grew by 21.5 thousand or 7.6%. The consistent growth of the demand for IPTV services may be related to the fact that the end-users have further appreciated the value added of these services – such services are conveniently provided in a single service package together with the Internet access services, moreover, IPTV services ensure high video quality. In 2020, compared to 2019, the number of digital CTV subscribers slightly increased as well (1.7%). In 2020, the number of DVB-T and MMDS television service users was dropping the most (in percentage) and, at the end of the year, it stood at 0.3 thousand and 7.4 thousand service users, respectively.

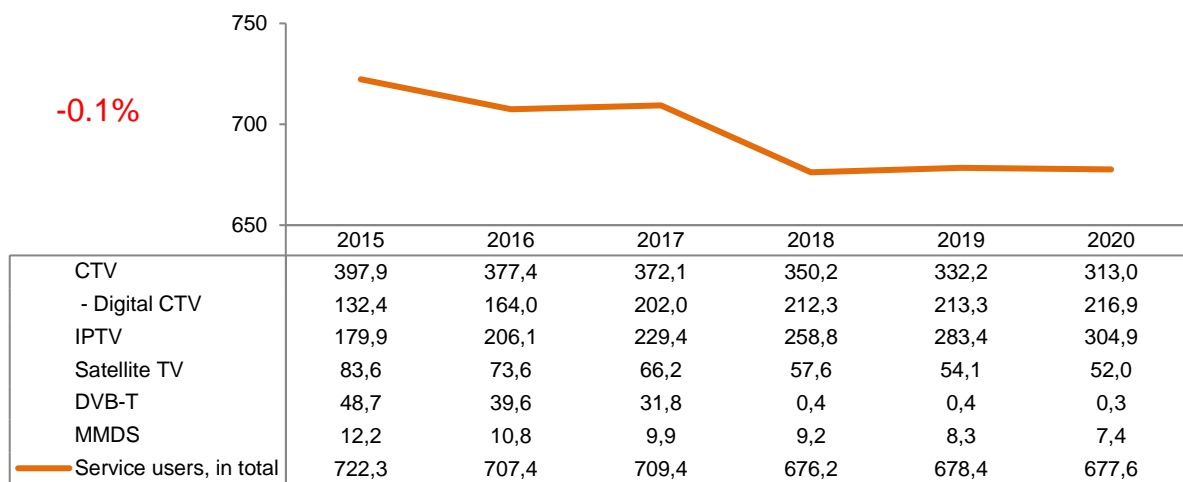


Fig. 74. **Number of pay-TV service users by service provision methods, thousand units, 2015-2020**

Source: RRT.

Revenue. When it comes to the market of retail pay-TV services by revenue, the opposite trend may be observed compared to the assessment by the number of service users. In 2020, compared to 2019, the revenue received from the provision of pay-TV services went up by 14.0% and amounted to EUR 80.2 million. This represented the most substantial revenue throughout the entire period in question (2015-2020). In 2020, the growth of the revenue from pay-TV services was largely impacted by the increase of the revenue received from IPTV services: in 2020, compared to 2019, such revenue went up by 26.2% and stood at EUR 40.9 million (of which EUR 39.8 million were received by using fixed communications technologies and EUR 1.1 million – by using mobile communications technologies). The revenue from IPTV services accounted for over a half (51.0%) of all revenue from pay-TV services (see Fig. 75). In 2020, compared to 2019, the revenue received from CTV services (2.6%), digital CTV services (7.0%) and satellite TV services (11.5%) also grew. The revenue from DVB-T services went down by 91.3% and that from MMDS services – by 5.3%.

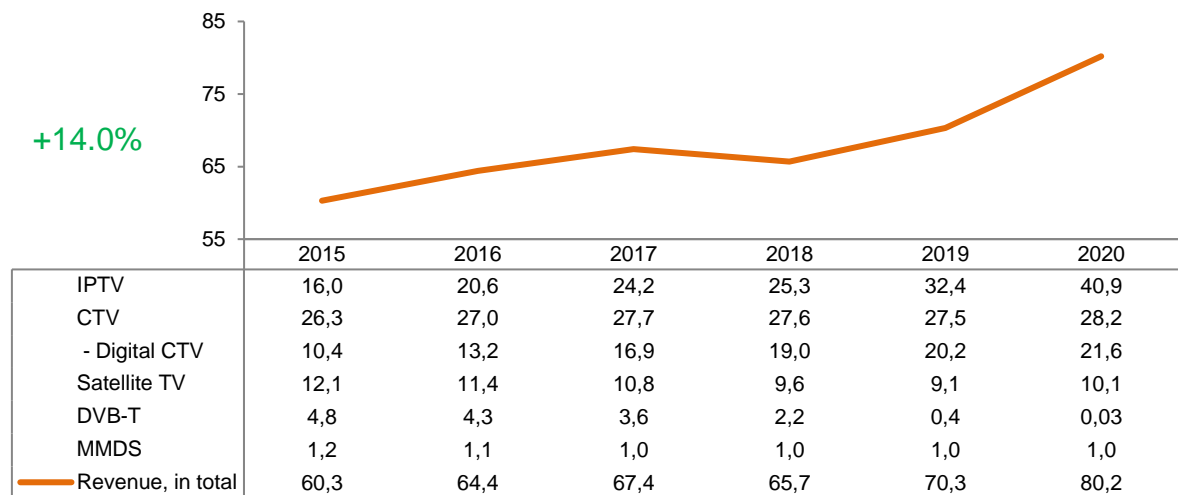


Fig. 75. **Structure of revenue from pay-TV services by service provision methods, EUR million, 2015-2020**
Source: RRT.

The market of pay-TV services by the revenue received by service providers in 2020 (see Fig. 76) was shared by the same undertakings as was the case in 2019. Telia Lietuva, AB which held 47.2% of the market remained the leader of the market, UAB Cgates was the second with 17.5% of the market, AS TV Play Baltics held the third position with 12.6% of the market. It must be noted that only Telia Lietuva, AB increased its market share (4.1%) in 2020.

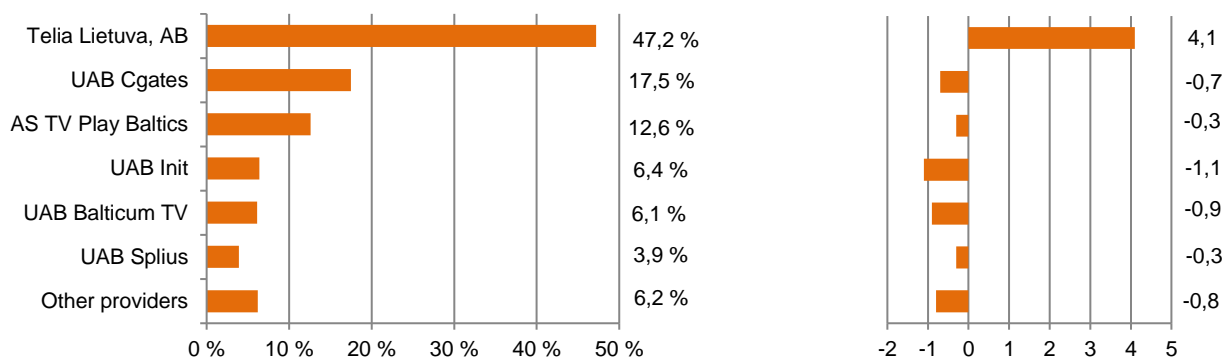
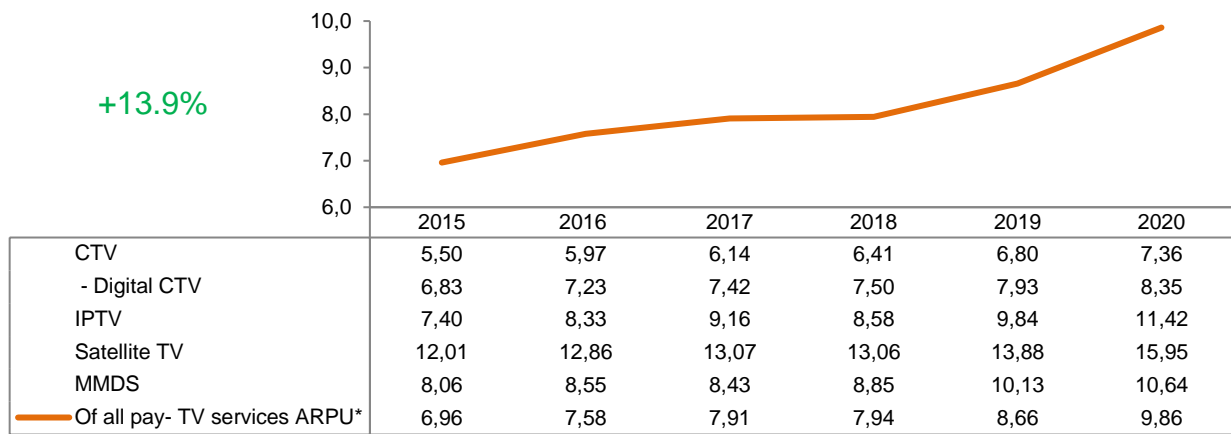


Fig. 76. **Structure of revenue from pay-TV services by service providers, %, and annual changes of the market shares, pp, 2020**
Source: RRT.

ARPU. The monthly revenue per pay-TV service user was going up throughout the entire period in question (2015-2020). The steepest growth was recorded in 2020 and it amounted to EUR 9.86 or by EUR 1.20 more than in 2019 (see Fig. 77). In 2020, as was the case in the previous periods, the greatest ARPU was earned by satellite TV service providers. The lowest ARPU was earned by CTV service providers in 2020, as was the case in 2019. In 2020, IPTV ARPU was by 36.8% higher than digital CTV ARPU. In 2020, ARPU of IPTV provided by means of fixed communications technologies reached EUR 11.76, whereas in case of mobile communications technologies it stood at EUR 5.56.



* - DVB-T data were not included in the calculations in 2019 and 2020.

Fig. 77. ARPU from pay-TV services by service provision methods, EUR per month, 2015-2020

Source: RRT.

In 2020, compared to 2019, the number of both IPTV service providers and IPTV service users as well as revenue received by service providers from the provision of such services went up. The significant increase of the market of IPTV services is evident throughout the entire period in question (2015-2020). This growth suggests further positive future trends. In 2020, compared to 2019, the most considerable growth (14.0%) in terms of total revenue from the provision of pay-TV services was recorded since 2015. It stood at EUR 80.2 million. In 2020, the increase of ARPU from the television service provision by all methods was higher than in the previous periods.

4.3. Wholesale Television and Radio Broadcasting Services

Service providers	1
Major service provider	AB Lietuvos Radijo ir Televizijos Centras
Wholesale revenue, EUR million	4.5

Service providers. In 2020, wholesale television broadcasting services were provided by 1 undertaking – AB Lietuvos Radijo ir Televizijos Centras which was providing such services over national networks. This number is by 2 undertakings lower than in 2019.

In 2020, as was the case previously, wholesale radio broadcasting services were provided by one undertaking only – AB Lietuvos Radijo ir Televizijos Centras.

Revenue. In 2020, compared to 2019, the revenue from the provision of television and radio broadcasting services grew by 2.2% and stood at EUR 4.53 million (see Fig. 78). In 2020, compared to 2019, the revenue received from other services related to television and radio broadcasting was singled out – it stood at EUR 0.40 million in 2020. In 2020, all revenue from television and radio broadcasting services was gained by AB Lietuvos Radijo ir Televizijos Centras. In 2019, this undertaking held 99.9% of the market.

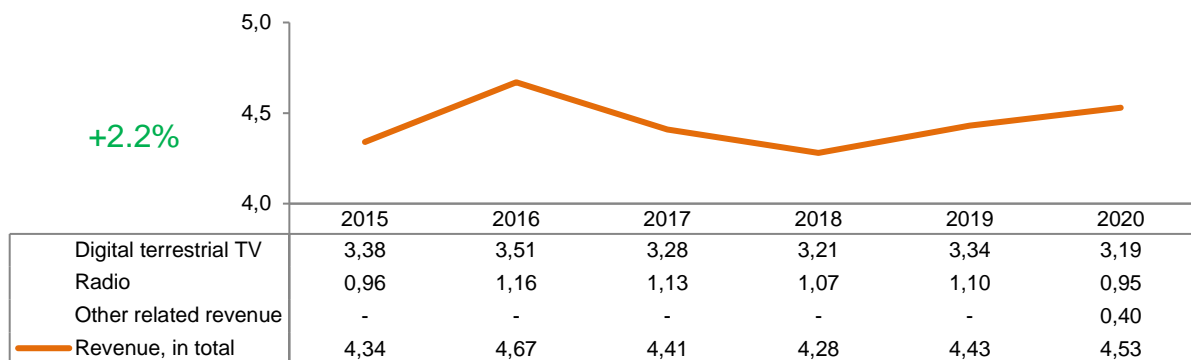
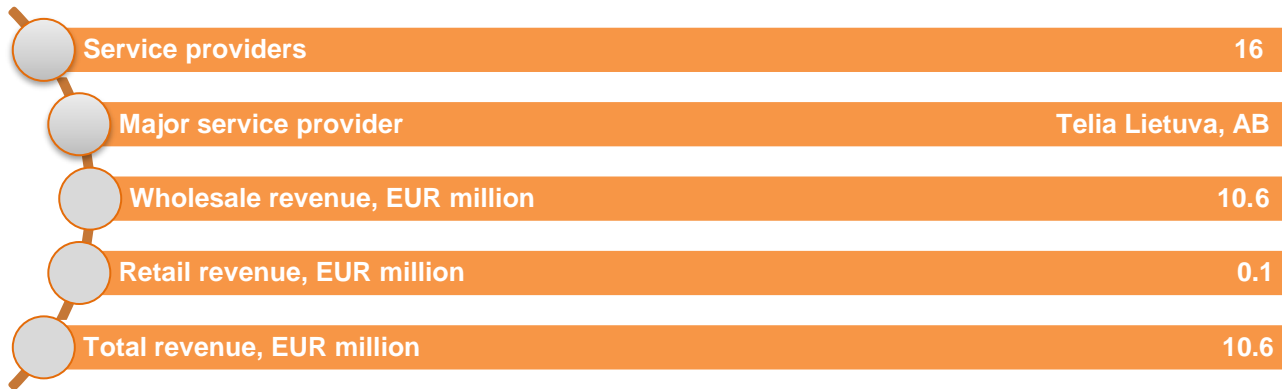


Fig. 78 Revenue from television and radio broadcasting services by service groups, EUR million, 2015-2020
Source: RRT.

Digital terrestrial television broadcasting stations. At the end of 2020, as many as 91 digital terrestrial television stations were operating in Lithuania (in 2019 – 87). 16 stations were used to transmit TV programmes of local and regional broadcasters, the remaining 75 stations were used to transmit the programmes of two networks of national coverage (the network of Public Enterprise Lithuanian National Radio and Television and the first network of Lietuvos Radijo ir Televizijos Centras).

In 2020, the revenue received from wholesale radio and television broadcasting services increased by 2.2% and amounted to 5.4% of all revenue of the television and radio market. All revenue from these services was gained by AB Lietuvos Radijo ir Televizijos Centras.

5. Access to Physical Infrastructure



NB!

- As the information possessed by RRT until 2017 includes the access to unused dark fibre and full unbundled and shared access to the local metallic twisted pair loop services only, the information contained in this section reflects the provision of the said services throughout the entire period of 2015-2020, whereas information on other services of access to physical infrastructure covers the period of 2017-2020 only.
- 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 Telia Lietuva, AB indicated in Figure 79, UAB Duomenų Logistikos Centras, Public Enterprise Plačiajuostis Internetas, UAB Skaidula and Telia Lietuva, AB indicated in Figure 81 (hereinafter in this section – the ‘other providers’).

In 2020, the following wholesale access to physical infrastructure services were provided in Lithuania:

- wholesale line rental service (WLR) for the provision of public fixed telephone services by the way of pre-selection of the operator;
- service of access to optic fibre lines;
- service of fully and partially unbundled access to the local loop (local metallic twisted pair loop, local fibre loops);
- service of access to communications cable duct system;
- services of access to other physical infrastructure.

Providers. Wholesale access to physical infrastructure services were provided by 16 undertakings in 2020, i.e. by 1 undertaking more than in 2019. In 2020, as was the case in 2019, Telia Lietuva, AB was the only one to provide the wholesale line rental services for the provision of public fixed telephone services by the way of pre-selection of the operator. In 2020, services of access to local metallic twisted pair loop were provided by Telia Lietuva, AB and AB LTG Infra, whereas AB Lietuvos Radijo ir Televizijos Centras and AB LTG Infra were providing access to local fibre loop services. At the end of 2020, services of access to optic fibre lines were provided by 12 undertakings, i.e. by 1 undertaking fewer than in 2019. Access to communications cable duct system services were provided by 3 undertakings in 2020.

Number of Granted Accesses. During the period between 2015 and 2020, the demand for fully and partially unbundled access to the local loop services was gradually decreasing (see Fig. 79). At the end of 2020, the total number of granted accesses to the local line stood at 25 units or by 13.8% less than in 2019: of which 16 accesses were granted to the local metallic twisted pair loop and 9 – to local fibre loop. It is assumed that the decrease in the popularity of fully and partially unbundled accesses to the local loop is caused by the growth of the number of accesses to optic fibre lines, as it is shown in Fig. 80.

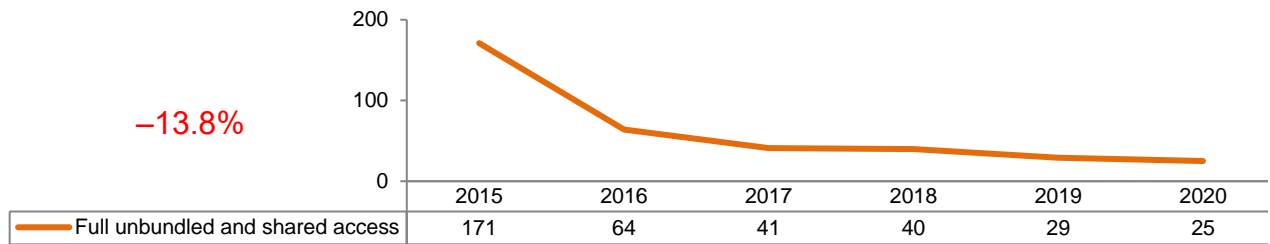


Fig. 79 **Number of granted accesses to fully and partially unbundled local line, units, 2015-2020**

Source: RRT.

At the end of 2020, the service providers had provided 3,489 optic fibre lines (see Fig. 80). The number of accesses granted to optic fibre lines was going down in 2015-2016 but since 2017, the number of granted accesses has been rising. At the end of 2020, the number of optic fibre lines granted was by 6.6% or by 215 fibres more than at the end of 2019. The number of retail accesses to optic fibre lines stood at 631 in 2020. In 2020, UAB Skaidula further maintained the leader's position on the market of access to optic fibre lines in terms of the number of accesses granted – in 2020, compared to 2019, the market share held by UAB Skaidula grew by 0.1 percentage point and accounted for 32.7%.

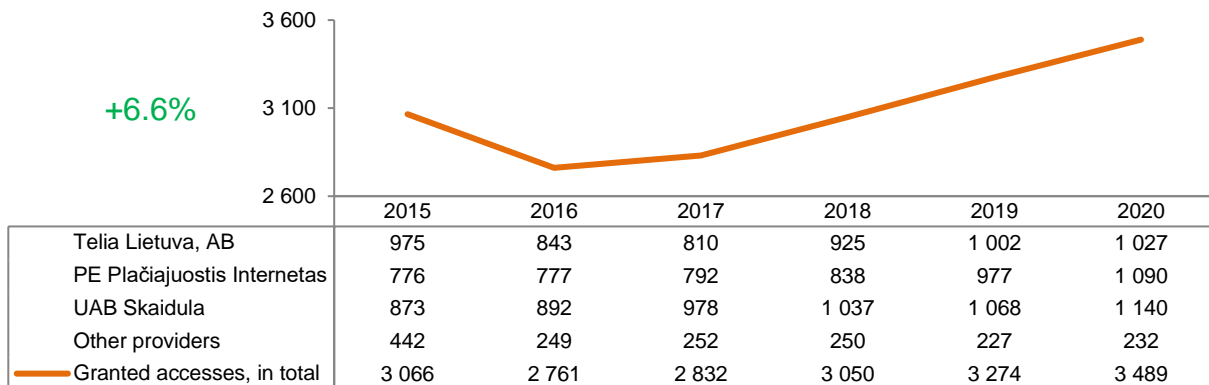


Fig. 80. **The number of granted accesses to dark fibre, units, 2015-2020**

Source: RRT.

At the end of 2020, as many as 843 wholesale local lines were assigned for the provision of public fixed telephone services by the way of pre-selection of the operator (by 27 lines more than in 2019) as well as access to the communications cable duct system of 8,954 km long.

Revenue. The total revenue from the provision of services of access to physical infrastructure equalled EUR 10.6 million in 2020 or by 6.4% more than in 2019. 49.8% of the revenue from the provision of services of access to physical infrastructure or EUR 5.3 million (see Fig. 81) were received from the provision of access to optic fibre lines. The revenue received from the provision of retail access to optic fibre lines equalled EUR 0.1 million. In 2020, compared to 2019, providers of the access to optic fibre lines earned by 6.0% more revenue. The amount of EUR 3.0 million was received from the provision of service of access to communications cable duct system. The largest part of the revenue from the provision of services of access to physical infrastructure was gained by Telia Lietuva, AB, i.e. 58.7% of all revenue received from the provision of services of access to physical infrastructure.

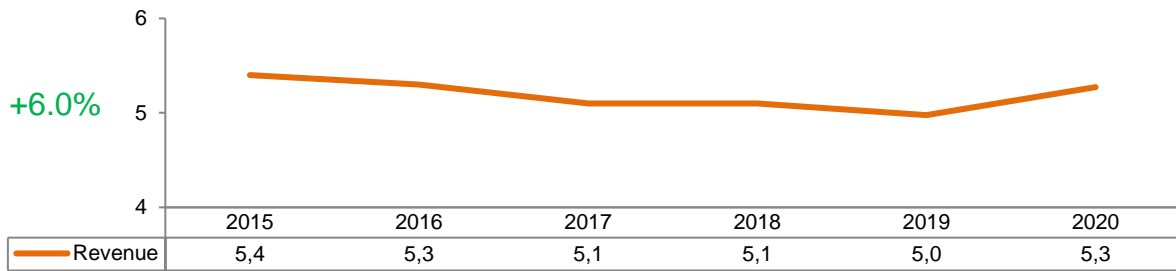


Fig. 81. Revenue from service of access to optic fibre lines, EUR million, 2015-2020

Source: RRT.

In 2020, UAB Skaidula remained the leader of the market of the provision of access to dark fibre services by revenue gained – its market share increased by 1.1 percentage points (see Fig. 82). In 2020, compared to 2019, the market share held by Public Enterprise Plačiajuostis Internetas also expanded (by 0.8 percentage points) and stood at 19.8%.

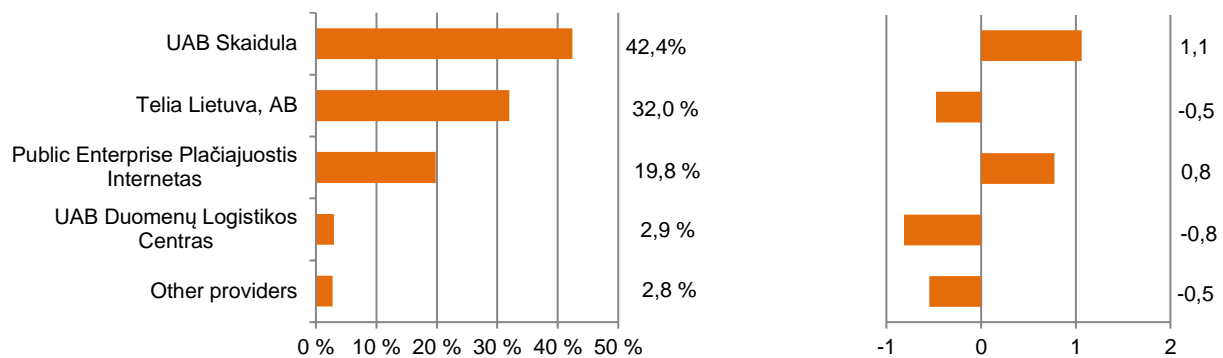


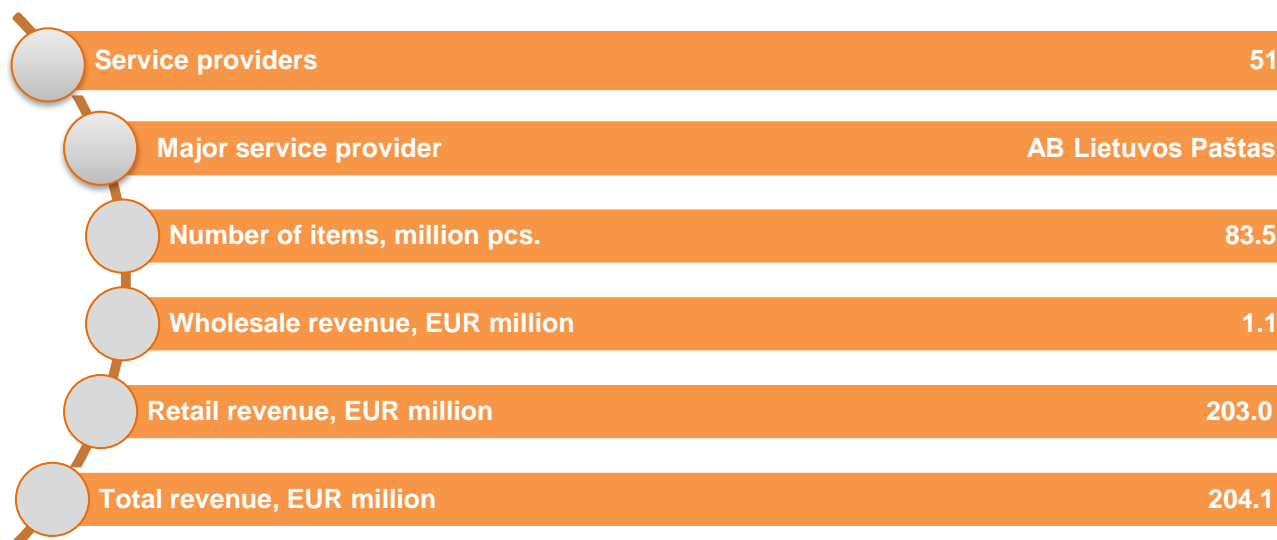
Fig. 82. Structure of revenue from the service of access to optic fibre lines by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

In 2020, the revenue received from the provision of services of access to physical infrastructure equalled EUR 10.6 million and it exceeded the revenue gained in 2019 by 6.4%. The service providers had provided 3,489 optic fibre lines at the end of 2020, i.e. by 6.6% more than in 2019.

POSTAL SERVICE MARKET

1. General Overview of the Postal Service Market



NB!

- In this section of the report, other postal service providers shall be all postal service providers, except for AB Lietuvos Paštas, UAB DPD Lietuva, UAB DHL Lietuva, UAB Venipak Lietuva, UAB TNT, UAB Skubios Siuntos, UAB Omniva LT, UAB Négé, Federal Express Corporation affiliate, UAB Itella Logistic (hereinafter in this section – the ‘other providers’).

The postal service – clearance, sorting, transport and delivery – still remains a significant part of the national economic and social development. This has been one of the oldest and most widespread communications measures, also one of the most rapidly changing services. The development of new technologies is promoting the changes in the postal service sector the most – an especially increasing use and automation of electronic means. The scales of e-commerce, which have been significantly growing both nationwide and worldwide, lead to the increase of the flow of postal parcels. In Lithuania, the postal service market has been rapidly growing for twelve years now – since 2009. During this period, the market has grown by 211.7% and in 2020, its revenue accounted for EUR 204.1 million, i.e. 21.8% of the all revenue of the Lithuanian communications sector.

The provision of postal service may be divided into the following three main activities: sending of items of correspondence³¹ (letters and small packages), sending of postal parcels (articles and merchandise up to 50 kg), provision of other postal and post service-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 2020, 62 undertakings had notified of the provision of the postal service, i.e. by 7 postal service providers more than at the end of 2019 (see Table 31). 7 new postal service providers were registered in 2020, and no one provider was excluded from the list of the postal service providers.

³¹ An item of correspondence is a postal item to be dispatched and delivered bearing a recipient's address, which contains a notice inscribed on any physical material, including small packages (books, catalogues, newspapers and other periodicals are not considered items of correspondence).

However, there were 51 out of 62 undertakings that were actually providing the postal service at the end of 2020, i.e. by 3 undertakings more than in 2019.

Table 31. Number of postal service providers, units, 2015-2020

	2015	2016	2017	2018	2019	2020
Number of providers actually engaged in the provision of the postal service	47	55	46	45	48	51
Total number of postal service providers	66	67	65	57	55	62

Source: RRT.

Total volume of items. In 2020, the volume amounting to 83.5 million of the postal items was sent, which was by 0.01% more than in 2019 (see Fig. 83). During the entire period between 2015 and 2020, the volume of postal items went down by 0.4 million units or 0.5%. During the entire period in question, the major part of postal items consisted of items of correspondence but it was annually decreasing with regard to the total amount of postal items: in 2015 – 88.6%, in 2020 – 61.3%.

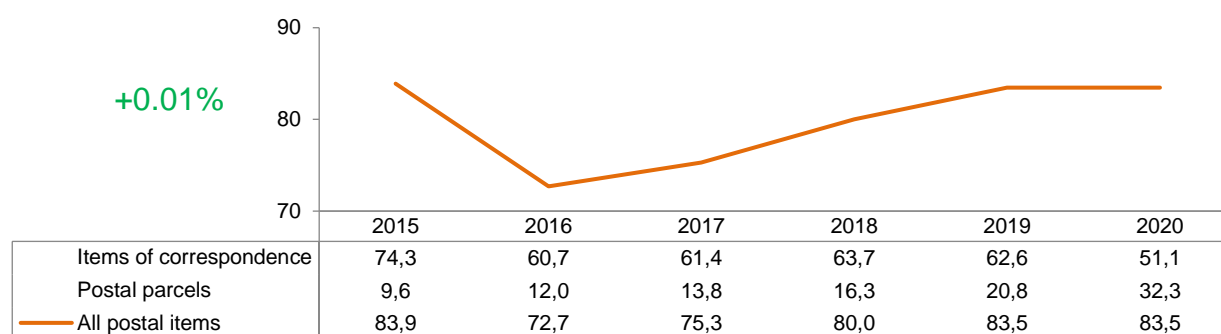


Fig. 83. Dynamics of the total number of postal items, million pcs., 2015–2020

Source: RRT.

Revenue. In 2020, all postal service providers earned the revenue amounting to EUR 204.1 million, which was by 11.3% or by EUR 20.7 million more than in 2019 (see Fig. 84). It must be noted that the revenue received from the provision of postal service was annually increasing by over 8.5% between 2015 and 2020. When it comes to a percentage value, the largest growth (12.4%) was recorded in 2017, but with regard to a monetary value, the steepest increase is observed in 2020 (EUR 20.7 million).

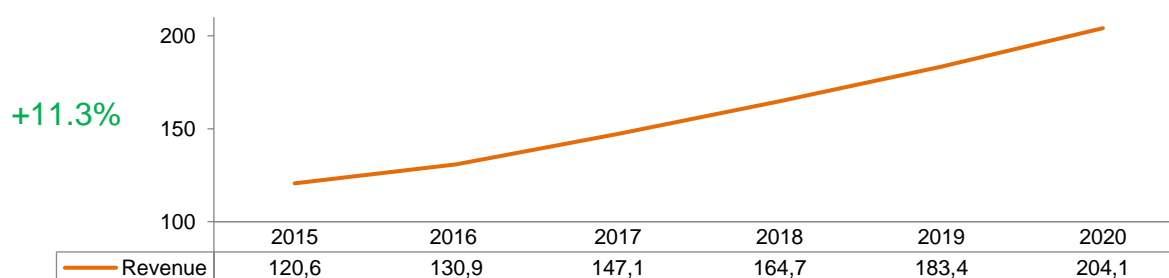


Fig. 84. Revenue from the provision of postal services, EUR million, 2015-2020

Source: RRT.

In 2020, the postal service market maintained the same proportions of the revenue structure which have been existing since 2015: the major revenue share (66.2%) was comprised of the revenue from the dispatch of postal parcels (see Table 32), the revenue share from the dispatch of items of correspondence stood at 29.0%, the revenue from other postal services³² – 4.3%, and from wholesale postal service³³ – 0.5%.

The revenue received from the provision of non-universal postal service has further constituted the major share of the postal service revenue (84.6%) in 2020 which increased by 2.4 percentage points over the year (see Table 32). The revenue from the provision of universal postal service³⁴ which was rapidly going up in 2015-2019 went down by 7.3% and stood at EUR 30.3 million in 2020.

Table 32. **Structure of revenue of the postal service by types of postal items and services, EUR million, 2015-2020**

	2015	2016	2017	2018	2019	2020
By types of postal items:						
<i>items of correspondence</i>	49.0	49.5	55.4	67.8	68.9	59.1
<i>postal parcels</i>	59.7	72.3	83.1	90.4	106.4	135.1
<i>other</i>	11.9	9.1	8.6	6.5	8.0	8.7
<i>wholesale postal service*</i>	-	-	-	-	-	1.1
By types of the service:						
<i>universal</i>	18.7	20.4	24.1	30.6	32.7	30.3
<i>non-universal</i>	101.9	110.5	123.0	134.1	150.7	172.7
<i>wholesale postal service*</i>	-	-	-	-	-	1.1
Total	120.6	130.9	147.1	164.7	183.4	204.1

* singled out as of 2020.

Source: RRT.

In terms of the revenue, the major share of the postal service market (37.6%) was held by AB Lietuvos Paštas in 2020 (see Fig. 85). Over the year, its market share grew by 0.1 pp. The second largest undertaking in terms of the share of the postal service market was UAB DPD Lietuva holding 18.5% of the market, and UAB DHL Lietuva with the market share of 9.1% was ranked the third. In 2020, the market shares of UAB Omniva LT and Federal Express Corporation affiliate grew most rapidly – 3.7 and 1.9 percentage points, respectively.

³² The revenue from other postal services: revenue from selling postage, envelopes, packages, etc. Such revenue does not include the revenue from delivery of periodical publications.

³³ Revenue from wholesale postal service means revenue from the delivery of postal items received by the postal service provider from another postal service provider carrying out the activities of the provision of postal service in the Republic of Lithuania to the recipient.

³⁴ 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 across the Republic of Lithuania for an affordable fee. In the territory of the Republic of Lithuania, the provision of the following 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 of 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.

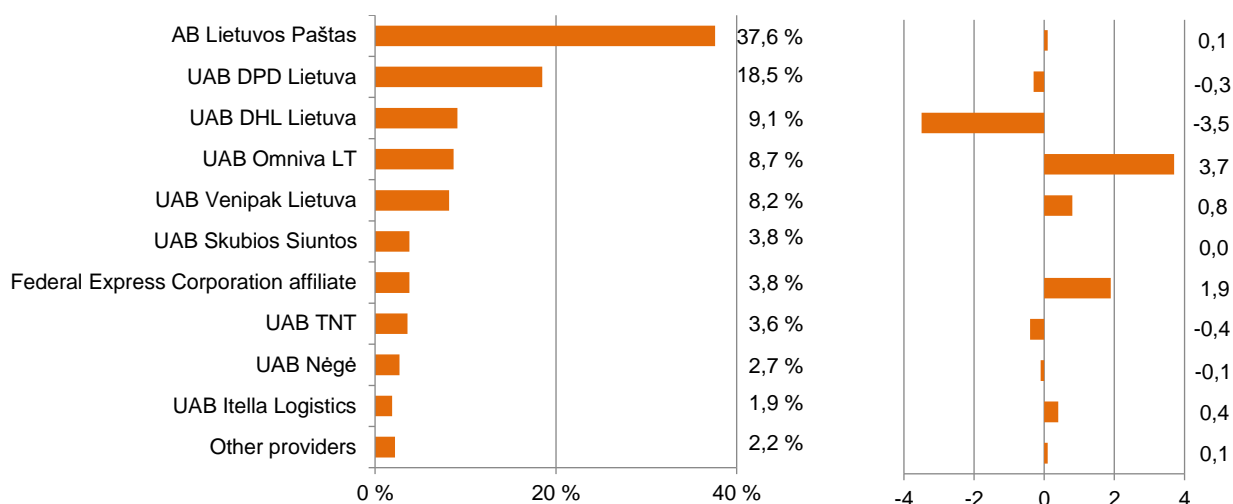


Fig. 85 Structure of the revenue of the postal service market by service providers, %, and annual changes of the market shares, pp, 2020

Source: RRT.

Investments. RRT has been collecting information on investments related to the provision of the postal service since 2018. In 2018, it stood at EUR 5.5 million, in 2019 – EUR 12.0 million, in 2020 – EUR 22.4 million. In 2020, 82.7% (EUR 18.5 million) of all investments was comprised of investments by AB Lietuvos Paštas, whereas investments by UAB DPD Lietuva and UAB Miesto Logistika exceeded EUR 1 million in 2020. Postal service providers mainly invested in the development and modernisation of the postal network, especially of self-service terminals, as well as the innovative solutions of logistics software.

Postal network. In 2020, we observed the downward trend of traditional postal service access points, such as stationary postal service access points, post boxes, rented post boxes, and upward trend of modern postal service access points. In 2020, compared to 2019, the number of self-service terminals grew by 52.0%: from 550 to 836 units. At the end of 2020, UAB Omniva had the highest number of such terminals – 35.9%, (300 units), AB Lietuvos Paštas – 32.5% (272 units), UAB DPD Lietuva – 17.3% (145 units), UAB Itella Logistics – 12.8% (107 units).

In 2020, the RRT started collecting information on pick up/drop off points for postal items³⁵ – there were 382 points in Lithuania at the end of the year.

The last twelve years were subject to the prominent upward trend of the postal service market. The increasingly larger share of the postal service revenue in the Lithuanian communications sector shows that people are very active in sending and receiving various postal items. This was caused by advanced electronic communications means, growing scales of online shopping, and in 2020, a greater demand for postal services due to the *Covid-19* pandemic.

³⁵ Pick up/drop off points for postal items mean a place where postal services are provided and where a sender may place postal items for dispatch and a recipient may collect them with the direct presence of a person servicing the pick up/drop off points. Stationary and temporary points for the provision of the postal service are not categorised as pick up/drop off points.

2. Items of correspondence

Service providers	31
Number of items, million pcs.	51.1
Retail revenue, EUR million	59.1

NB!

- In this section of the report, other providers of items of correspondence shall be all providers of items of correspondence, except for AB Lietuvos Paštas, UAB DHL Lietuva, UAB Venipak Lietuva, UAB TNT (hereinafter in this section – the ‘other providers’).

Service Providers. In 2020, items of correspondence were provided by 31 undertakings, i.e. by 4 undertakings fewer than in 2019.

Total volume of items. In 2020, as many as 51.1 million items of correspondence were sent. This is by 18.3% less than in 2019 (see Table 33). During the entire period between 2015 and 2020, the total volume of items of correspondence went down by 23.2 million units or 31.2%. During the entire period in question, the major part of items of correspondence consisted of non-universal items of correspondence, and in 2020, their share of the total volume of items stood at 69.5%. It must be noted that as of 2015 the volume of items of correspondence was gradually decreasing in the segment of non-universal services (except for the minor growth in 2018), whereas the volume of universal items of correspondence was annually increasing between 2015 and 2019, but in 2020, compared to 2019, it dropped by 24.4%.

Table 33. **Volumes of items of correspondence, million units, 2015-2020**

	2015	2016	2017	2018	2019	2020
Universal items of correspondence	16.8	17.2	18.8	19.7	20.7	15.6
Non-universal items of correspondence	57.5	43.5	42.6	44.0	42.0	35.5
Total	74.3	60.7	61.4	63.7	62.6	51.1

Source: RRT.

The greatest share (86.7%) of all items of correspondence was sent and received via AB Lietuvos Paštas although this is by 1.5 percentage points less than in 2019. UAB Pašto Paslaugos sent and received 4.3% (by 1.2 percentage points more than in 2019), UAB Šiaulių Naujienos – 2.4% (by 1.4 percentage points more than in 2019), UAB Venipak Lietuva – 1.7% (by 0.7 percentage points more than in 2019) of items of correspondence.

Number of items by destination. By destination, the items of correspondence are divided into domestic outgoing, cross-border outgoing and cross-border incoming items of correspondence. In 2020, the volume amounting to 31.9 million units of domestic outgoing items of correspondence was sent, which was by 24.2% less compared to 2019 (see Fig. 86). During the entire period between 2015 and 2020, the downward trend in the volume of domestic outgoing items of correspondence is observed (18.4 million units or 36.6%). The greatest market share (79.8%), in terms of domestic outgoing items of correspondence, was held by AB Lietuvos Paštas in 2020, UAB Pašto Paslaugos held 6.9%, UAB Šiaulių Naujienos – 3.8%, UAB Venipak Lietuva – 2.4%, UAB Araneum – 1.6%, UAB Apskonta – 1.1%.

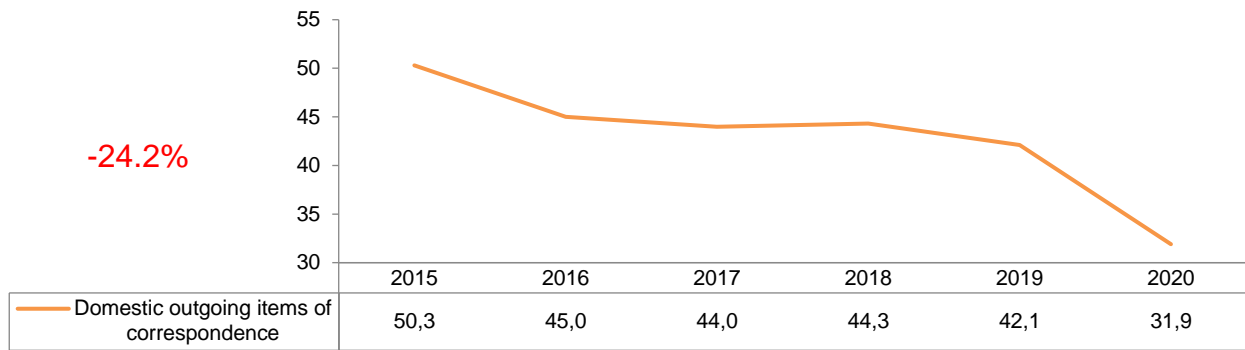


Fig. 86. Dynamics of the number of domestic outgoing items of correspondence, million units, 2015-2020
Source: RRT.

The number of cross-border items of correspondence decreased by 5.3 million units or 21.6% during the period between 2015 and 2020. In 2020, as many as 19.2 million units of cross-border items of correspondence were sent and received (by 6.4% less than in 2019) (see Fig. 87), of which 5.2 million units or 27.1% of cross-border outgoing items of correspondence and 14.0 million units or 72.9% of cross-border incoming items of correspondence. In 2020, as many as 10.4 million units or 54.1% of all cross-border items of correspondence were sent to and/or received from EU Member States. The largest market share (98.3%), in terms of the number of cross-border items of correspondence, was held by AB Lietuvos Paštas in 2020.

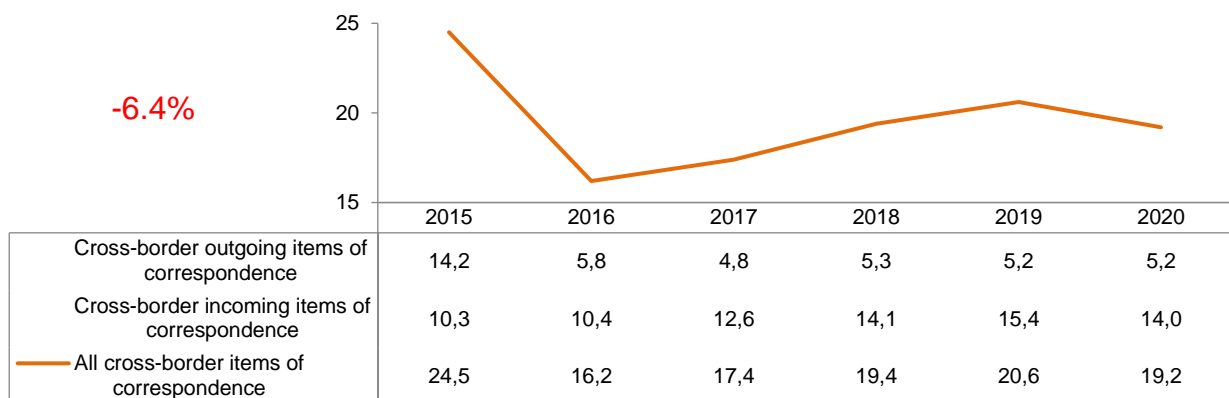


Fig. 87. Dynamics of the number of cross-border items of correspondence, million units, 2015-2020
Source: RRT.

The major part (42.1%) of items of correspondence delivered within the territory of Lithuania in 2020 were delivered to the incoming mail boxes, 32.5% were collected from post office divisions, 21.7% were delivered to the recipient at the residential or registered office address.

Revenue from dispatch of items of correspondence. In 2020, compared to 2019, all revenue received from the dispatch of items of correspondence decreased by 14.3% and equalled EUR 59.1 million (see Fig. 88) but, compared to 2015, it went up by 20.4%. The largest part of the revenue (53.6%) was generated from the provision of the services of delivery of non-universal items of correspondence in 2020. The revenue from the provision of these services went down by 18.3% over the year. Revenue from the dispatch of universal items of correspondence dropped by 9.2%.

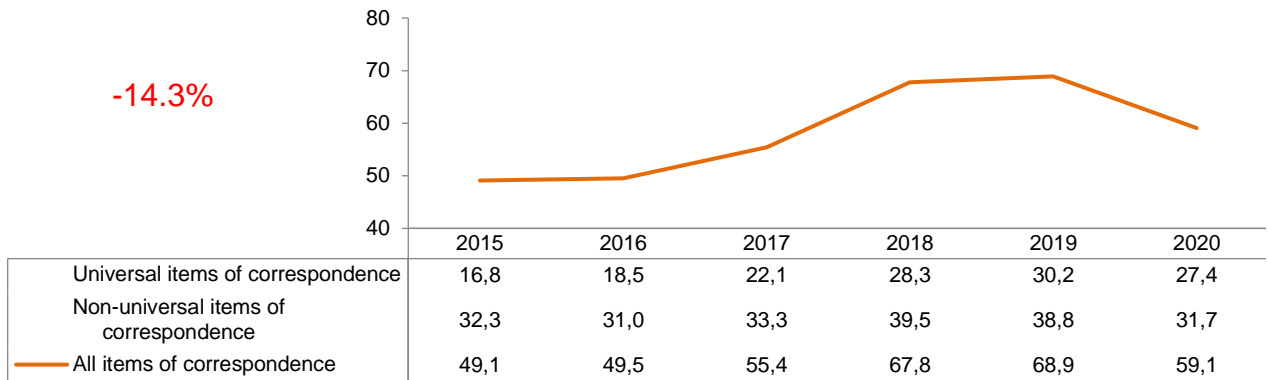


Fig. 88. Revenue from the services of dispatch of items of correspondence, EUR million, 2015-2020

Source: RRT.

AB Lietuvos Paštas received the most revenue from the dispatch of items of correspondence (see Fig. 89). The market share held by this undertaking represented 88.9% in 2020 and it was by 7.7 percentage points larger than in 2019. UAB Venipak Lietuva generated 3.9%, UAB DHL Lietuva – 2.8% of all revenue received from the dispatch of items of correspondence. Of all postal service providers, the market share held by UAB DHL Lietuva shrank the most in 2020 (by 8.8 percentage points).

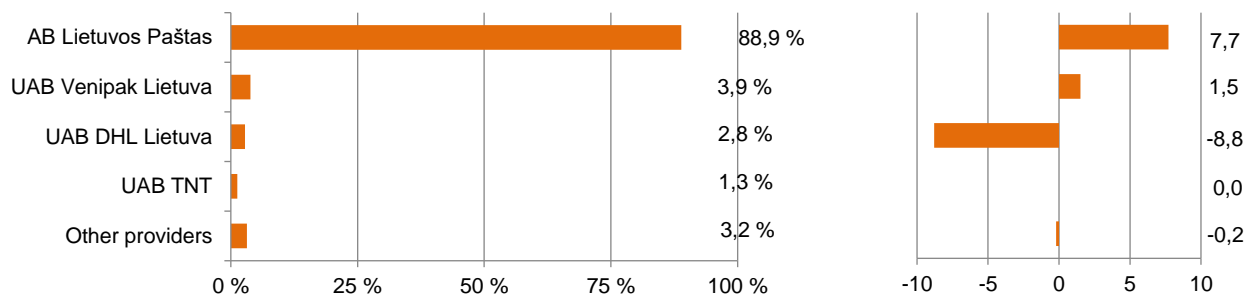


Fig. 89 Structure of the market shares of the postal service provider by revenue from the dispatch of items of correspondence, %, and annual changes of the market shares, pp, 2020

Source: RRT.

In 2015–2020, the significance of items of correspondence on the postal service market decreased. In 2020, as many as 51.1 million items of correspondence were sent, i.e. by 18.3% less than in 2019 and by 31.2% less than in 2015. The reduction can be observed in the segment of both universal and non-universal services. In 2020, compared to 2019, the revenue received from the dispatch of items of correspondence dropped by 14.3% but it went up by 20.4% during the entire period of 2015-2020. It is likely that this was caused by the dispatch of heavier and more expensive items and higher tariffs set by the postal service providers.

3. Postal parcels

Service providers	36
Number of parcels, million units	32.3
Retail revenue, EUR million	135.1

NB!

- In this section of the report, other postal service providers shall be all postal service providers, except for AB Lietuvos Paštas, UAB DPD Lietuva, UAB DHL Lietuva, UAB Venipak Lietuva, UAB TNT, UAB Skubios Siuntos, UAB Omniva LT, UAB Négé, Federal Express Corporation affiliate, UAB Itella Logistic (hereinafter in this section – the ‘other providers’).

Service Providers. In 2020, the postal parcel services were provided by 36 undertakings, i.e. by 5 undertakings more than in 2019.

Number of parcels. During the period between 2015 and 2020, the number of parcels was continuously growing. In 2020, as many as 32.33 million units of postal parcels were handed over, i.e. by 55.2% more than in 2019. In 2020, 32.10 million units of non-universal postal parcels were sent and received, i.e. by 55.6% more than in 2019, and the number of universal postal parcels stood at 0.23 million units, i.e. by 9.8% more than in the previous year (see Table 34).

Table 34. Volumes of universal and non-universal postal parcels, million units, 2015-2020

	2015	2016	2017	2018	2019	2020
Universal postal parcels	0.19	0.18	0.17	0.19	0.21	0.23
Non-universal postal parcels	9.36	11.79	13.65	16.14	20.63	32.10
Total	9.55	11.97	13.82	16.33	20.84	32.33

Source: RRT.

The major share (29.5%) of the market by the number of postal parcels was held by UAB DPD Lietuva (by 4.4 percentage points less than in 2019). UAB Omniva LT held 26.8% of the market (by 9.6 percentage points more than in 2019), AB Lietuvos Paštas – 19.7% (by 7.4 percentage points more than in 2019), UAB Venipak Lietuva – 11.2% (by 3.9 percentage points less than in 2019), UAB Itella Logistics – 3.1% (by 0.8 percentage points less than in 2019), UAB DHL Lietuva – 3.0% (by 1.6 percentage points less than in 2019), UAB Skubios Siuntos – 2.9% (by 1.2 percentage points less than in 2019), UAB Négé – 1.4% (by 0.7% percentage point less than in 2019). The remaining undertakings shared 2.5% of the market.

Number of parcels by destination. By destination, the postal parcels are divided into domestic outgoing, cross-border outgoing and cross-border incoming postal parcels. In 2020, the volume amounting to 22.5 million units of domestic outgoing postal parcels was sent, which was by 51.7% more, compared to 2019 (see Fig. 90). During the entire period between 2015 and 2020, the volume of domestic outgoing postal parcels almost tripled – by 14.7 million units or 188.5%. The largest (28.6%) market share in terms of the volume of domestic outgoing postal parcels was held by UAB Omniva LT in 2020, UAB Lietuvos Paštas held 27.0%, UAB DPD Lietuva – 26.7%, UAB Venipak Lietuva – 13.8%, UAB Négé – 2.0% of the market.

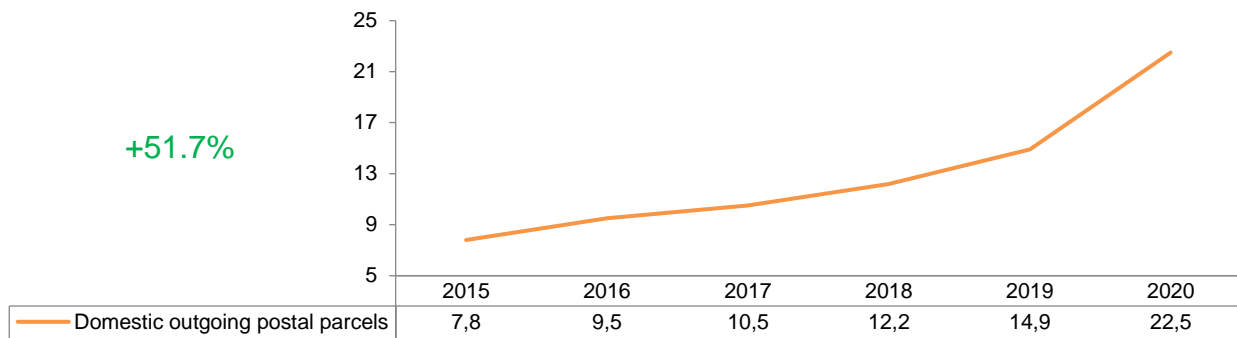


Fig. 90. **Dynamics of the number of domestic outgoing postal parcels, million units, 2015-2020**

Source: RRT.

The number of cross-border postal parcels went up by about 5 times between 2015 and 2020, i.e. by 7.7 million units. In 2020, as many as 9.8 million units of cross-border postal parcels were sent and received (by 64.0% more than in 2019) (see Fig. 91), of which 64.8% were incoming and 35.2% – outgoing postal parcels. The major part of cross-border postal parcels (8.8 million units or 90.1%) was sent to and/or received from the EU Member States. In terms of the number of cross-border postal parcels in 2020, UAB DPD Lietuva held 35.9% of the market, UAB Omniva LT – 22.6%, UAB DHL Lietuva – 9.8%, UAB Skubios Siuntos – 9.5%, UAB Itella Logistics – 8.9%, UAB Venipak Lietuva – 5.2%, UAB Lietuvos Paštas – 2.9%, Federal Express Corporation affiliate – 2.6%, UAB TNT – 1.9%.

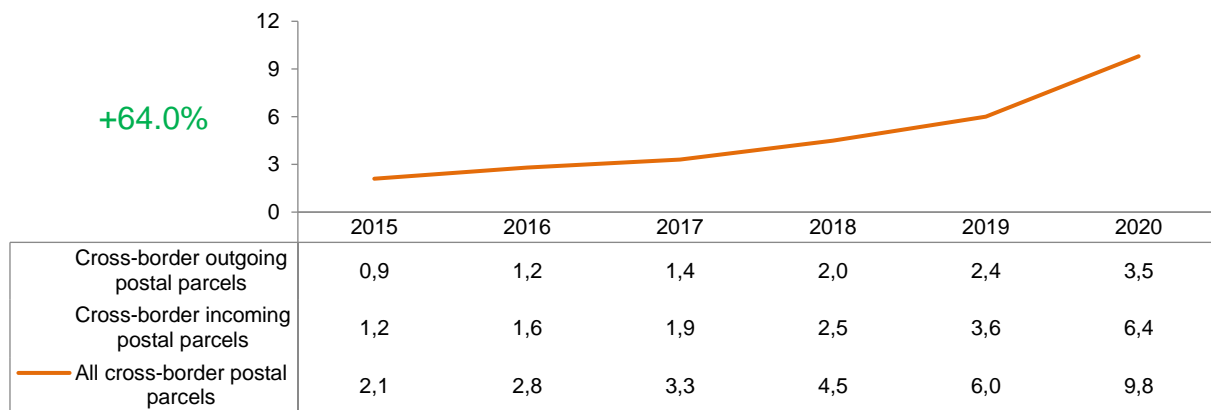


Fig. 91. **Dynamics of the number of cross-border postal parcels, million units, 2015-2020**

Source: RRT.

The major part (55.3%) of postal parcels delivered within the territory of Lithuania were delivered to the recipient in their residential place or at the registered office address, 42.8% were collected from postal item self-service terminals.

Revenue from postal parcel dispatch services. During the period from 2015 till 2020, the revenue from postal parcel dispatch services increased by 2.3 times (126.3%). In 2020, the revenue amounting to EUR 135.1 million was received from postal parcel dispatch services, which was by EUR 28.7 million or by 27.0% more than in 2019 (see Fig. 92). The increasingly higher demand for the postal parcel service was significantly affected by e-commerce which became even more intensive due to the impact of the *Covid-19* pandemic.

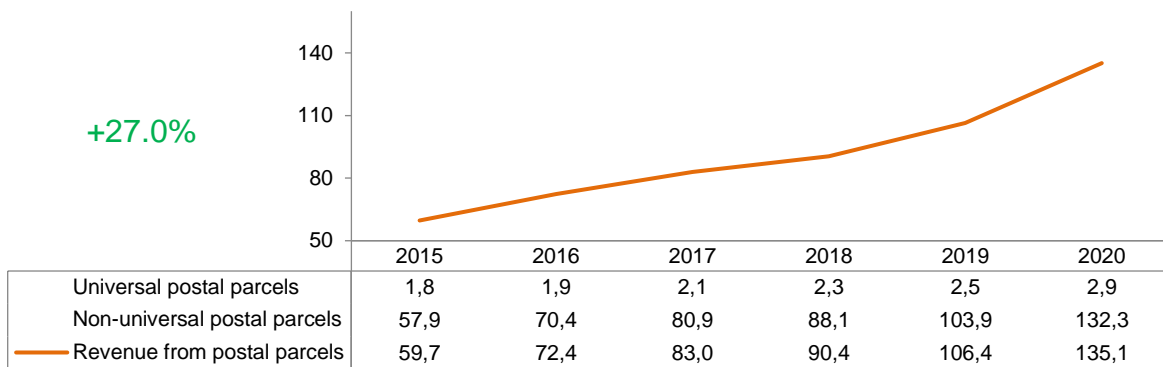


Fig. 92. Revenue from postal parcel dispatch services, EUR million, 2015-2020

Source: RRT.

In 2020, 97.9% of the revenue was received from the dispatch of non-universal postal parcels, and 2.1% – from the dispatch of universal postal parcels. The revenue received from the dispatch of non-universal postal parcels grew by 27.2% or by EUR 28.3 million in 2020, compared to 2019. The revenue from the provision of universal postal parcel services increased by 16.1% or EUR 0.4 million over the year (see Fig. 92).

The largest market shares, in terms of the revenue from the dispatch of postal parcels, were shared between UAB DPD Lietuva, which held 27.8% in 2020, UAB Omniva LT – 13.1%, AB Lietuvos Paštas – 11.7%, and UAB Venipak Lietuva – 10.6% (see Fig. 93). The market share held by UAB Omnitel LT was subject to the largest growth (by 4.5 percentage points) in 2020, and the market share held by UAB DPD Lietuva shrank the most (by 4.4 percentage points).

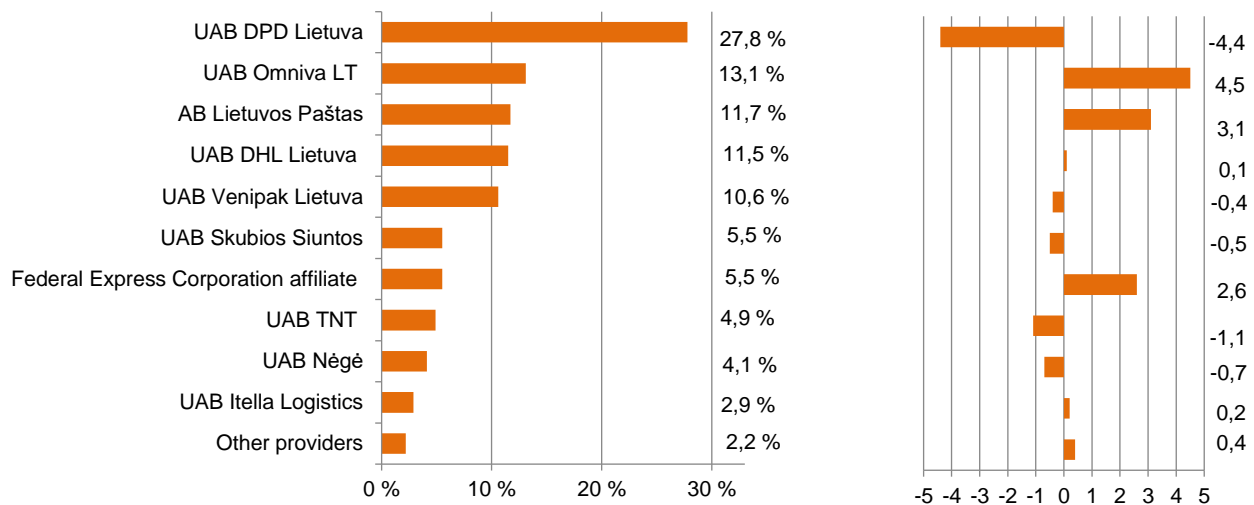


Fig. 93 Shares of market held by postal service providers by revenue for dispatch of postal parcels, %, and annual changes of the market shares, pp, 2020

Source: RRT.

In 2020, the growth of the postal parcel market was the steepest over the entire period of 2015-2020. This rapid increase was caused by the *Covid-19* pandemic which led to more intense e-commerce, changed habits of the customers, improved availability of the postal service. From 2015 till 2020, the volume of postal parcels grew by 3.4 times, whereas the revenue received from postal parcel dispatch increased by 2.3 times. Postal parcels held the major share (66.2%) of the postal service market in terms of the revenue.

4. Universal Postal Service

Service provider	AB Lietuvos Paštas
Points of access, units	576
Number of items, million units	15.8
Retail revenue, EUR million	30.3

Service Provision. In 2020, as was the case in the previous periods, the sole universal postal service provider in Lithuania was AB Lietuvos Paštas. There were 576 points of access to this service, i.e. by 96 points of access fewer than in 2019 (see Table 35). During the period between 2015 and 2020, the number of mobile points of access to universal postal service increased by 2.4 times (190 units), whereas the number of stationary ones went down by 2.6 times (406 units). At the end of 2020, 56.1% of all access points were mobile, and 43.9% were stationary ones.

Table 35. Number of points of access to universal postal services, units, 2015-2020

	2015	2016	2017	2018	2019	2020
Mobile access points	133	128	156	187	323	323
Stationary access points	659	627	564	545	349	253
Total	792	755	720	732	672	576

Source: RRT.

In 2020, there were 1,228 post boxes for outgoing mail in Lithuania, i.e. by 148 post boxes fewer or by 10.8% less than in 2019 (see Table 36). During the period between 2015 and 2020, the number of post boxes for outgoing mail was annually decreasing.

Table 36. Number of post boxes for outgoing mail, units, 2015-2020

	2015	2016	2017	2018	2019	2020
Post boxes for outgoing mail	1,687	1,670	1,606	1,583	1,376	1,228

Source: RRT.

Volume of service. In 2020, the volume amounting to 15.8 million of the universal postal service items was sent and received, which was by 24.1% less than in 2019 (see Fig. 94).

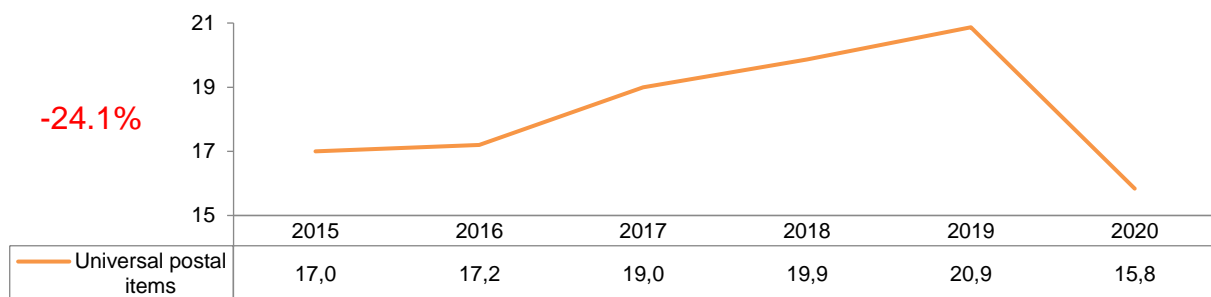


Fig. 94. Scale of universal postal service provided, million units, 2015-2020

Source: RRT.

Revenue. The revenue received from the provision of universal postal service which has been growing for the fourth year in a row dropped by 7.3 in 2020, compared to 2019, and stood at EUR 30.3 million,

nevertheless, it was by 1.6 times or EUR 11.6 million higher than in 2015. The highest increase was recorded in 2018 – this was mainly caused by higher tariffs of the provision of the universal postal service (see Fig. 95).

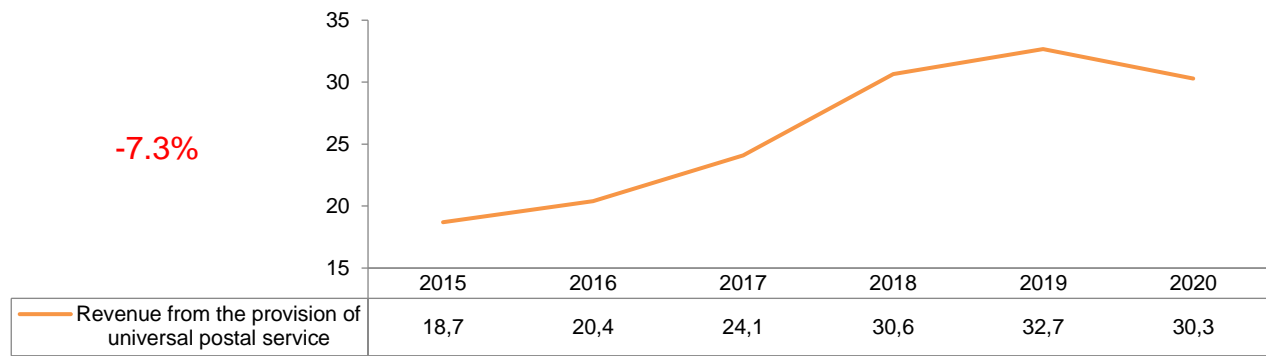


Fig. 95. Revenue from the provision of universal postal service, EUR million, 2015-2020

Source: RRT.

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. However, with the decreasing number of items of correspondence, the number of universal postal service items, which was annually growing during the period from 2015 till 2019, also fell in 2020.

5. Competition in the postal market

HHI by volume of letter-post items	7,554.8
HHI by volume of postal parcels	2,130.4
HHI by revenue	2,033.0

To determine the intensity of competition in the postal market, the factors indicating market concentration³⁶ are analysed: market structure indicators CR₄³⁷ and CR₈³⁸ and Hirschman-Herfindahl index (HHI)³⁹.

Concentration by volume of letter-post items. Where the concentration of the postal market is evaluated by the volume of letter-post items, CR₄ and CR₈ ratios show that during the period between 2015 and 2020, the market was highly concentrated and the level remained stable (see Table 37). These ratios, being that high, reveal that despite the sufficiently large number of active postal service providers, the market of letter-post items is concentrated, and its structure is similar to that of an oligopolistic market, where the major share of the market is held and dominated by several postal service providers.

The dynamics of the CR₄ ratio of the market share held by four major service providers demonstrates that the values of this index are quite stable and range between 91.1% and 95.1%. In 2020, compared to 2019, the ratio went up by 0.8 percentage points. By comparing the values of the index in during the period of 2015-2020, it is clear that CR₄ increased by 1.9 percentage points.

The dynamics of the CR₈ ratio of the market share held by eight major service providers during the period between 2015 and 2020 shows that the highest concentration on the market was in 2020, when eight major service providers occupied 97.9% of the letter-post item market. In 2020, compared to 2019, the ratio went up by 0.1 percentage point. Taking account of the fact that CR₄ and CR₈ values do not differ much, it may be stated that the letter-post item market is shared by four market players.

Table 37. **Market concentration indexes in terms of the volume of letter-post items in 2015-2020**

Index	2015	2016	2017	2018	2019	2020
CR ₄ , %	93.2	91.1	93.2	94.4	94.3	95.1
CR ₈ , %	97.4	96.2	97.2	97.7	97.8	97.9
HHI	5,933.4	7,181.5	7,645.1	8,169.4	7,811.7	7,554.8

Source: RRT.

³⁶ Concentration means a market situation in which economic activity is concentrated under the control of one or several firms, in other words, when a small number of firms hold the major share of a particular market.

³⁷ The concentration level ratio CR₄ indicates the market share of four major market players in an industry as a percentage.

³⁸ The concentration level ratio CR₈ indicates the market share of eight major market players in an industry as a percentage. CR values:

- A value of 0% means perfect competition, excellent conditions for competing or a very low monopolistic competition, i.e. four major undertakings do not have any significant market power.
- A value below 40% means effective competition and low concentration on the market.
- A value below 70% means moderate concentration, the market is similar to an oligopolistic market.
- A value above 70% means high concentration, the market ranges from oligopoly to monopoly.
- 100% means an extremely concentrated oligopoly: if, for example, CR₁ = 100%, the market is a monopoly.

³⁹ HHI shows an uneven distribution of market powers of all market players and is the best known and the most important index of the intensity of competition on the market. HHI is directly proportional to concentration (i.e. when the latter increases, the former also increases as well, and when the former decreases, the latter also decreases). The lower the HHI, the higher the level of competition, and vice versa – the increase in the HHI indicates the decrease in competition and the increase in market power. HHI values:

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

As it is shown in Table 37, HHI index also demonstrates that the letter-post market is highly concentrated. It must be noted that between 2015 and 2018 the HHI value continued to go up, in 2018, it crossed the limit of 8,000 and stood at 8,169.4, whereas in 2019, it started to go down again and it equalled 7,554.8 in 2020. Such a high HHI value demonstrates a great inequality in the distribution of the capacities of the actors operating on the letter-post item market as well as concentration of the letter-post item service in one undertaking.

Concentration by volume of postal parcels. The evaluation of the concentration of the postal market by the volumes of postal parcels shows that the market of postal parcels in Lithuania is less concentrated than the market of letter-post items (see Table 38).

CR₄ ratio of the market share held by four major service providers shows the concentration level which is higher than moderate but does not exceed the level of concentration of 90%: in 2015-2018, this value ranged between 81.2 and 84.9%, in 2019, it dropped to 77.0%, and in 2020, it increased up to 87.2%. Throughout the period in question (2015-2020), CR₄ index increased by 2.3 percentage points.

CR₈ ratio of the market share held by eight major service providers during the period between 2015 and 2020 remained almost unchanged and ranged between 95 and 97%. Although the CR₄ ratio fluctuated around the average and high concentration limit, another indicator of the intensity of competition CR₈ showed the highly concentrated market of postal parcels, since in 2020, eight major postal service providers held 97.5% of the market of postal parcels.

It must be noted that in 2015-2020, the HHI index value dropped by 134.7 points. The sharpest fall was observed in 2018 – by 244.7 points, and in 2020, compared to 2019, HHI went up by 217.9 points. Taking account of the decreased values of HHI index in 2015-2020, it may be stated that more and more competing providers of this service emerge on the market of postal parcels.

Table 38. **Market concentration indexes in terms of the number of postal parcels, 2015-2020**

Index	2015	2016	2017	2018	2019	2020
CR ₄ , %	84.9	81.2	82.4	81.3	77.0	87.2
CR ₈ , %	96.9	95.3	96.4	96.3	96.8	97.5
HHI	2,265.1	2,020.9	2,114.8	1,870.1	1,912.5	2,130.4

Source: RRT.

Concentration by revenue of postal service providers. In terms of the market concentration by the revenue of the postal service providers, CR₄ and CR₈ indicators also demonstrate a high level of concentration. The market share held by four major postal service providers shrank by 2.4 percentage points in 2020, compared to 2019, whereas that of eight major providers expanded by 1.3 percentage points (see Table 39). From 2015 till 2020, CR₄ fell by 1.5 percentage points, CR₈ increased by 2.4 percentage points. Taking account of CR₄ and CR₈ values, some positive developments on the postal service market can be observed – the revenue is less concentrated in the hands of four major postal service providers, and the most active competition as well as sharing of the market take place between eight major service providers.

When measuring the competition on the postal market by HHI, the value of this indicator dropped by 202.8 points during the period from 2015 till 2020. The decreasing indicator shows the declining concentration of postal service providers and growing competition on the postal service market. Nevertheless, the HHI value exceeded 2,000 and it therefore may be concluded that the postal service market is subject to high concentration by this index.

Table 39. **Market concentration indexes by revenue, 2015-2020**

Index	2015	2016	2017	2018	2019	2020
CR ₄ , %	75.4	73.6	74.6	72.9	76.3	73.9
CR ₈ , %	90.8	90.9	91.0	91.3	91.9	93.2
HHI	2,235.8	1,965.2	1,793.1	1,861.5	2,051.5	2,033.0

Source: RRT.

The highest concentration of the analysed markets in Lithuania is on the market of letter-post items. The market of postal parcels is less concentrated than the market of letter-post items. When assessing the markets of revenue received by providers of postal parcels and of postal parcels by HHI index, it is clear that they are subject to high concentration.

Electronic communications service providers that were providing services in 2020

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to physical infrastructure
1	Telia Lietuva, AB	•	•	•	•
2	A. Judickas' Individual Enterprise	•	•		
3	A. Zaica's Individual Enterprise VIPI		•		
4	AB LTG Infra	•			•
5	AB Ogmios Centras	•	•		
6	AB Lietuvos Radijo ir Televizijos Centras	•	•	•	•
7	AS TV Play Baltics		•	•	
8	Dainius Kamarauskas' company Davgita		•		
9	DIDWW Ireland Ltd	•			
10	G. Pečiulis' company		•		
11	H. Abramavičius' company		•		
12	Individual Enterprise IT Kubas		•		
13	Individual Enterprise Satinet		•		
14	Inmarsat Global Limited		•		
15	Ivančikas' Individual Enterprise Žaibas		•	•	
16	J. Jasiulionis' Individual Enterprise			•	
17	UAB Vilniaus Radijo Studija		•	•	
18	UAB Besmegeniai (former KLI LT, UAB)	•	•	•	
19	KTU Department of Information Technology		•		
20	L. Bulovas' firm Elektromedija		•		
21	UAB Inetas LT		•		
22	SIA Tet affiliate (former SIA Lattelecom Ltd.)		•		
23	UAB Splius	•	•	•	•
24	UAB Teleline LT	•			

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to physical infrastructure
25	UAB Internetas Vilniuje		•	•	
26	UAB Agon Networks	•			
27	UAB AirnetTV		•	•	•
28	UAB Arvilas	•			
29	UAB Autožvilgsnis	•			
30	UAB AVVA		•	•	
31	UAB Balticum TV	•	•	•	•
32	UAB Baltnetos Komunikacijos	•	•		
33	UAB Bitė Lietuva	•	•		
34	UAB Bitosis		•		
35	UAB Cgates	•	•	•	•
36	UAB Consilium Optimum	•	•	•	
37	UAB CSC Telecom	•	•		
38	UAB Data Business		•	•	
39	UAB Dekbera		•		
40	UAB Dicto Citius		•		
41	UAB Mediafon Technology	•			
42	UAB Duomenų Logistikos Centras		•		•
43	UAB Dzūkijos Internetas		•		
44	UAB EcoFon	•	•	•	•
45	UAB Ektra		•		•
46	UAB Elneta		•		
47	UAB Eltida		•		
48	UAB Etanetas		•	•	•
49	UAB Eteris		•	•	
50	UAB Eurocom	•	•		
51	UAB Funaris			•	
52	UAB Horda			•	

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to physical infrastructure
53	UAB Ignalinos Televizija		•	•	
54	UAB Ilora		•	•	
55	UAB Informacijos Labirintas		•		
56	UAB Init	•	•	•	
57	UAB Kalbu Lt	•			
58	UAB Kalvanet		•		
59	UAB Kauno Interneto Sistemos		•	•	
60	UAB Kednetas		•		
61	UAB Kodas		•		
62	UAB Krėna		•	•	
63	UAB Kvartalo Tinklas		•	•	
64	UAB Lema		•		
65	UAB Linaspas		•		
66	UAB CITIC Telecom CPC Lithuania		•		
67	UAB LT Telekomunikacijos	•			
68	UAB Magnetukas		•	•	
69	UAB Mano Kamanė			•	
70	UAB Marsatas		•	•	
71	UAB Mavy Studija	•			
72	UAB Mediafon Carrier Services	•			
73	UAB Mediafon	•			
74	UAB Metamedia Ir Ko	•			
75	UAB Molėtų Radijas ir Televizija		•	•	
76	UAB N Plius		•		
77	UAB Nacionalinis Telekomunikacijų Tinklas	•	•	•	
78	UAB Netas		•		
79	UAB Netsis		•		
80	UAB NNT		•		

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to physical infrastructure
81	UAB Pakeleivis		•		
82	UAB Parabolė		•	•	
83	UAB Patrimpas			•	
84	UAB Penkių Kontinentų Komunikacijų Centras	•	•	•	•
85	UAB Peoplefone	•			
86	UAB Progmera		•	•	
87	UAB Proitas	•			
88	UAB Radijo Elektroninės Sistemos	•	•	•	
89	UAB Raystorm	•			
90	UAB Roventa	•	•	•	
91	UAB Arcus Novus (former UAB Satgate)		•		
92	UAB SauleNet		•		
93	UAB Skaidula				•
94	UAB Skylink LT	•			
95	UAB Socius		•	•	•
96	UAB Sugardas		•	•	•
97	UAB Šilutės Internetas		•		
98	UAB TCG Telecom	•			
99	UAB Tele2	•	•		
100	UAB Teledema SIP	•			
101	UAB Teledema	•	•		
102	UAB Telekomunikaciniai Projektai	•	•		
103	UAB Teleksas	•			
104	UAB Telemeta	•			
105	UAB Televizijos Komunikacijos	•	•	•	
106	UAB Verslo Tiltas		•		
107	UAB Viltuva		•	•	

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to physical infrastructure
108	UAB Vinetika		•		
109	MB VIP Sprendimai		•		
110	UAB Zirzilė		•	•	
111	Public Enterprise Plačiajuostis Internetas		•		•
112	UAB Blue Bridge		•		
113	Vytautas Ričkauskas' Company		•		
114	Voxbone SA	•			
115	Public Enterprise Comtel		•		
116	UAB Ukmergės IT		•		
117	UAB Moremins Lietuva	•			
118	UAB Alantic	•			
119	ONOFFAPP OÜ	•			
120	Nord Connect OU	•			
121	Compatel Limited	•			
122	Cubic Telecom Limited		•		
123	Telvox Global B. V. (Telserv Compliance)	•			
124	IP Telecom Bulgaria	•			
125	BELGACOM INTERNATIONAL CARRIER SERVICES SA	•			
126	Nexmo Inc.	•			
127	Zoom Voice Communications, Inc.	•			
		55	89	42	16

Postal service providers in 2020

Item No.	Service Providers	Items of correspondence	Postal parcels
1	AB Lietuvos Paštas	•	•
2	A. Safošina's Individual Enterprise		•
3	UAB Altas Baltikos		•
4	UAB Apskonta	•	
5	UAB Araneum	•	
6	UAB Autopašto terminalas	•	•
7	UAB Avaneta*		
8	Individual Enterprise Britlita		•
9	UAB DHL Lietuva	•	•
10	UAB DPD Lietuva	•	•
11	UAB Drusvilma	•	
12	UAB Emduva	•	
13	UAB EU Broker		•
14	Federal Express Corporation affiliate	•	•
15	UAB Finansinės Strategijos	•	•
16	UAB Gosenda		•
17	UAB Greitasis Paštas	•	
18	UAB HRES		•
19	UAB Investbaltija	•	
20	UAB Invicte		•
21	UAB In Salvo	•	
22	UAB Itella Logistics		•
23	UAB Kastinida		•
24	UAB Kautra	•	•
25	UAB Kodas	•	
26	Public Enterprise Kultūros Vizija	•	
27	UAB Linkera group		•
28	UAB Litgina	•	•
29	UAB Litpost	•	
30	UAB Logistiniai Projektai		•
31	UAB Miesto Logistika		•
32	UAB MBE Baltic	•	•
33	UAB MBE Klaipėda	•	•
34	UAB Négé		•
35	UAB Omniva LT		•
36	UAB Pašto Paslaugos	•	
37	UAB Prima Line		•
38	UAB Rusko	•	•
39	UAB Samus	•	•
40	UAB Skubios Siuntos	•	•
41	UAB Šiaulių Naujienos	•	
42	UAB Šiaurės Siunta		•
43	UAB TNT	•	•
44	UAB Toras LT		•
45	UAB Utenos Diena	•	
46	UAB Velo Kurjeris		•
47	UAB Venipak Lietuva	•	•
48	UAB Verslo Spaudos Centras	•	•
49	Public Enterprise Vilties pagalba		•

Item No.	Service Providers	Items of correspondence	Postal parcels
50	UAB VIM Agentūra	•	•
51	UAB Zenesa	•	
	Total	31	36

* Only unaddressed advertisements are sent.

Annex 3

Number of residents and households in Lithuania on 1 January, 2015-2020

	2015	2016	2017	2018	2019	2020
Number of residents	2,921,262	2,888,582	2,849,317	2,794,184	2,794,090	2,795,175
Number of households	1,298,339	1,289,546	1,272,017	1,318,011	1,311,779	1,350,326

Source: Statistics Department of Lithuania.

Maximum Tariffs of the Universal Postal Service⁴⁰

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	0.49	0.55
2.	> 20 grams, up to 50 grams	0.59	0.65
3.	> 50 grams, up to 100 grams	0.69	0.75
4.	> 100 grams, up to 500 grams	0.79	0.85

Large-sized items 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	0.79	0.85
2.	> 100 grams, up to 500 grams	0.99	1.05
3.	> 500 grams, up to 1,000 grams	1.19	1.25
4.	> 1,000 grams, up to 2,000 grams	1.59	1.65

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

⁴⁰ 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	2.03
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.