LITHUANIAN COMMUNICATIONS SECTOR 2022

26 September 2023, No. (73.10E)ND-12

POSTAL SECTOR

2022

44
service providers
-5 providers

all postal items
85,3
€ million
-7,4%

total revenue
257,2
€ million
+7,6%

+7,4%
196,6
€ million of revenue for parcels

55,2
€ million of revenue for correspondence
+8,1%

18,7 € million of investments **-3,6%**

1521 self-service parcel terminals **+15%**

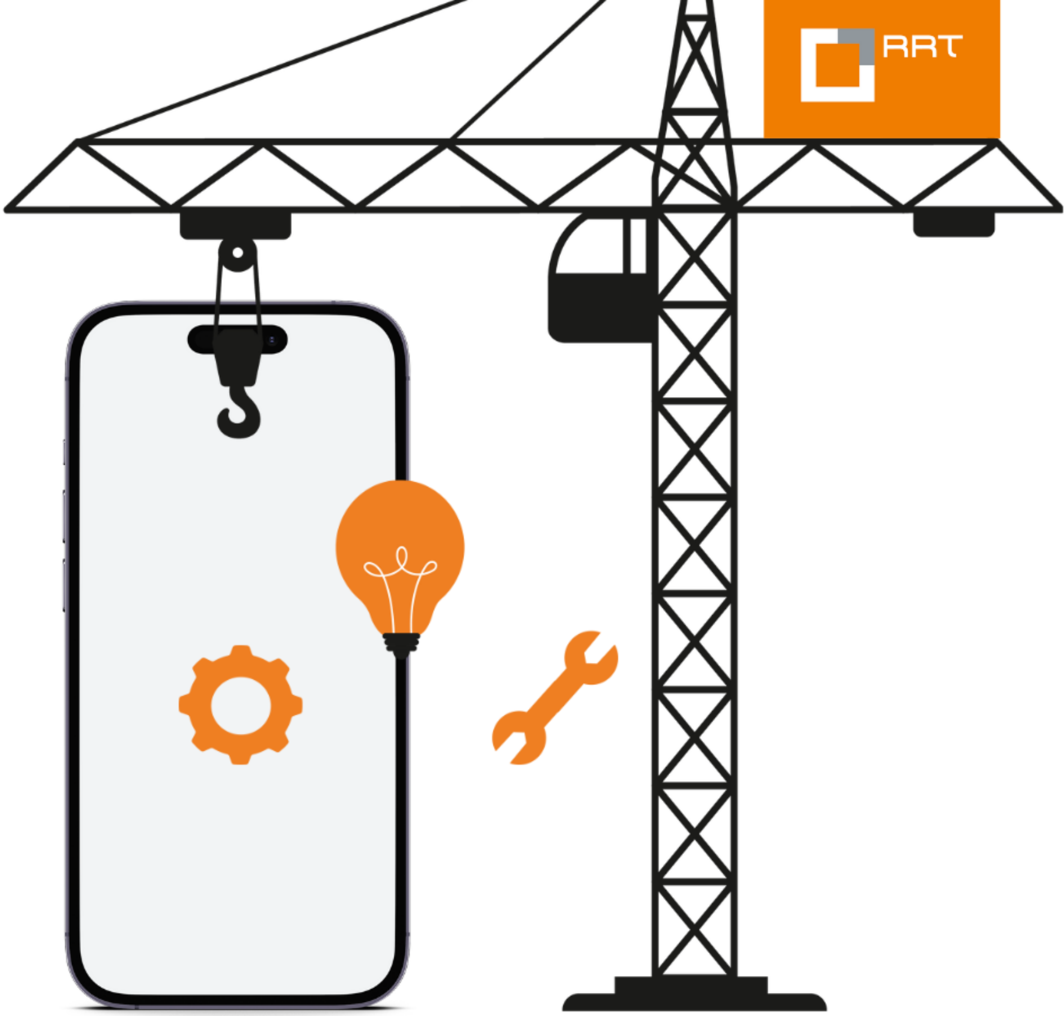
ELECTRONIC COMMUNICATIONS SECTOR

138 service providers **+5** providers

803,5 € million of gross revenue **+5,4%**

456,3 € million of revenue from data transmission **+13,2%**

1116,6 Pb of data transmitted using a mobile network **+21,3%**



116,7

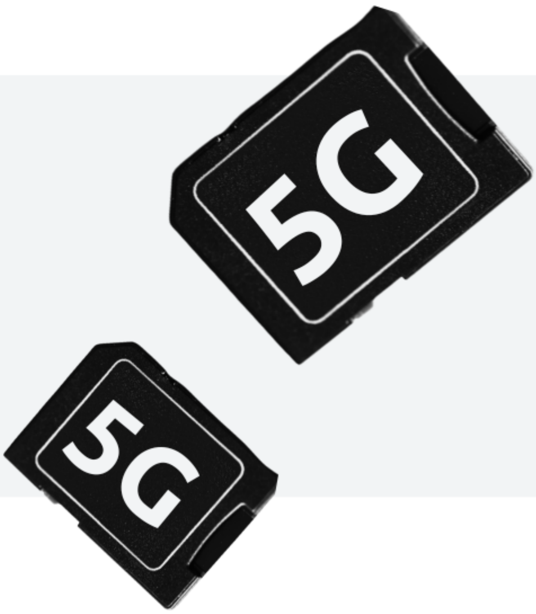
€ million of investments

59%

of investments into mobile infrastructure

41%

of investments into fixed infrastructure



1543	5G base stations
2,5	Pb of data transmitted using 5G
46,7	thousands of 5G SIM cards

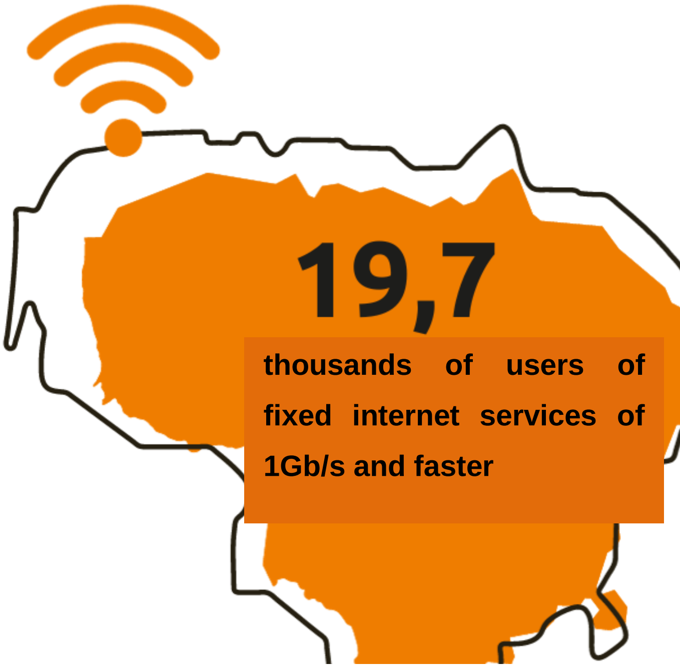
In Lithuania...

77,2%

of all residences had access to public fixed line networks

60,6%

of all residences had access to fibre optic lines



19,7

thousands of users of fixed internet services of 1Gb/s and faster

CONTENT

Name of the country	Lithuania
Capital	Vilnius
Area, km^2	65 200
Population	2 860 002
Number of households	1 361 906
Country telephone code	+370
Internet domain	.lt

IMPORTANT!

- The report “Lithuanian Communications Sector 2022” is based on information provided by providers of electronic communications networks and postal service providers on their electronic communications and postal activities.
- The report draws on data from a survey of online television service providers, the European Commission and other reliable publicly available sources.
- Lists of providers of electronic communication services and postal services are provided in Annex 1 and 2.
- The data provided by providers of electronic communication networks and services and postal service providers may be updated after the publication of the annual report for a given year, so the data for earlier periods may differ from year to year.
- The data in the tables and figures in the report are rounded to the nearest tenth, so that the sum of the market shares does not always equal to 100%.
- The reported revenues generated by service providers or the indicators used to calculate the revenue values are excluding VAT.
- The numbers of the population and households used to calculate the penetration for the relevant year in the report are shown in Annex 3.
- The methodologies for calculating some of the indicators are presented in Annex 4.

OVERVIEW OF THE COMMUNICATIONS SECTOR

Communications service providers	182
Largest service provider	"Telia Lietuva", AB
Communications wholesale revenue, € million	119.7
Communications retail sector revenue, € million	940.9
Total revenue of the communications sector, € million	1 060.6

IMPORTANT!

- In this section of the report, other communications service providers (hereinafter in this section of the report - the other providers) are all communications service providers, with the exception of UAB "Bitė Lietuva", UAB "DHL Lietuva", UAB "DPD Lietuva", AB "Lietuvos paštas", UAB "Cgates", UAB "Omniva LT", UAB "Tele2", UAB "Telia Lietuva", AB, and UAB "Venipak Lietuva".

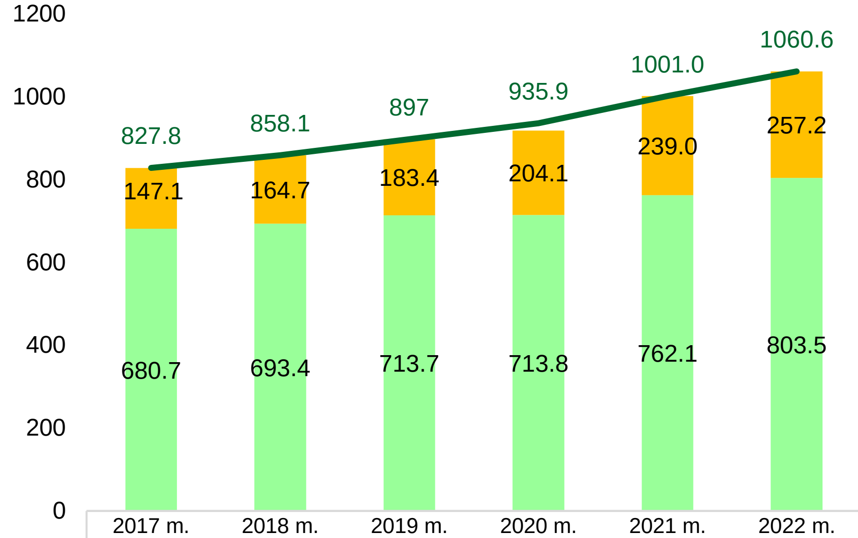
The Lithuanian communications sector comprises two service markets - the electronic communications market and the postal services market - in which 182 undertakings were active at the end of 2022 (see Table 1).

Table 1. **Number of undertakings engaged in electronic communications activities or providing a postal service, by markets, in pcs., 2017-2022**

	2017	2018	2019	2020	2021	2022
Electronic communications market	127	116	121	127	133	138
Postal service market	46	45	48	51	49	44
ALL PROVIDERS	**173**	**161**	**169**	**178**	**182**	**182**

Revenue in the communications sector grew over the whole of the 2017-2022 period under review. In 2022, compared to 2021, the revenues of the communications sector increased by 6.0% (€59.6 million) to €1,060.6 million. Of these, revenue from postal services grew by 7.6% (€18.2 million) and electronic communications revenue by 5.4% (€41.4 million). Over the period of 2017-2022, revenues from the postal service have been growing steadily, accounting for 17.8% of total communications sector revenues in 2017 and 24.2% in 2022.

Change in communications sector revenue in 2022 compared to 2021: +6,0 %



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
Postal service market	147.1	164.7	183.4	204.1	239.0	257.2
Electronic communications market	680.7	693.4	713.7	713.8	762.1	803.5
COMMUNICATIONS SECTOR REVENUE, in total	827.8	858.1	897	935.9	1001.0	1060.6

Figure 1. **Communications sector revenue, € million, 2017-2022**

Source: The Communications Regulatory Authority of the Republic of Lithuania (hereinafter - the CRA).

The structure of the communications sector over the period 2017-2022, both in terms of revenue and activity, shows that the sector is dominated by providers of electronic communications services (see Table 1 and Figure 2). In 2022, “Telia Lietuva”, AB, a provider of electronic communications services, accounted for the largest share of revenue (29.0%) of the 182 undertakings active in the communications sector, although its market share declined by 0.3 percentage points in 2022. The other two providers with the highest revenues from the provision of communications services were UAB “Tele2” and UAB “Bitė Lietuva”, with market shares of 20.2% and 15.7% respectively. The revenue of AB “Lietuvos paštas”, the largest postal service provider, accounted for 6.7% of the total revenue of the communications sector in 2022.

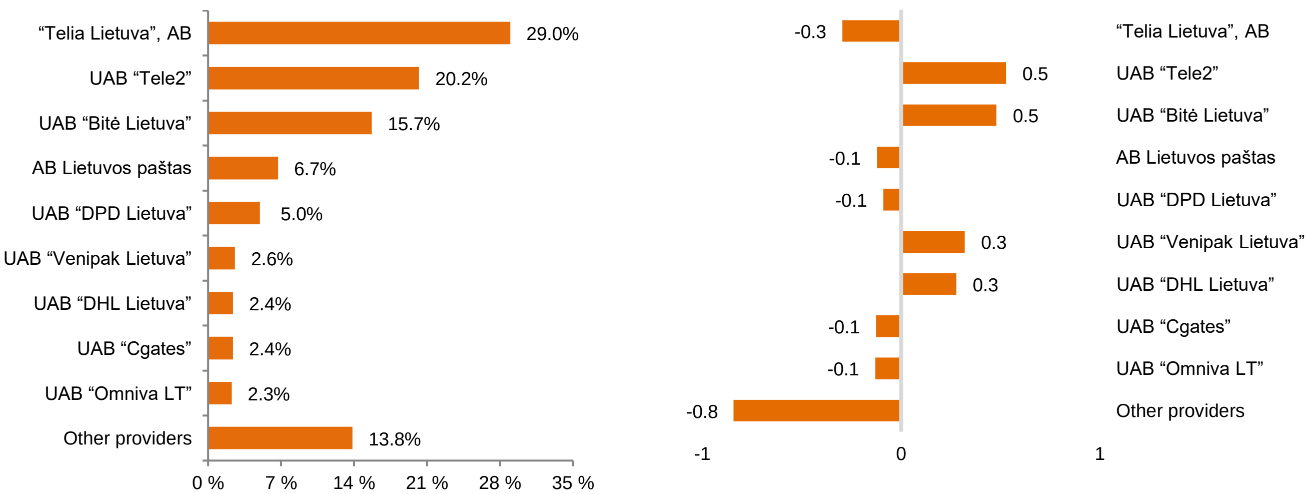


Figure 2. **Market shares of communications sector service providers by revenue, in %, and annual changes in market shares, in percentage points, 2022**

Source: CRA.

In 2022, both the postal market and the electronic communications market grew, resulting in 6.0% annual revenue growth in the communications sector.

MARKET OF ELECTRONIC COMMUNICATIONS SERVICES

1. General overview of the electronic communications market

Providers of electronic communications services	138
Wholesale revenue, € million	118,2
Retail revenue, € million	685,3
Total revenue, € million	803,5
Investments, € million	116,7

IMPORTANT!

- In this section of the report, other providers of electronic communications services (hereinafter - the other providers) are all providers of electronic communications services, with the exception of UAB “Bitė Lietuva”, UAB “Cgates”, UAB “Tele2” and “Telia Lietuva”, AB.

The market for electronic communications services comprises 4 groups of services:

- voice communication services;
- data transmission services;
- television and radio services;
- physical infrastructure access services.

Service providers. The number of persons engaged in electronic communications activities increased by 5 undertakings to 138 in 2022 (see Table 2). As in previous years, the largest number of providers were data service providers.

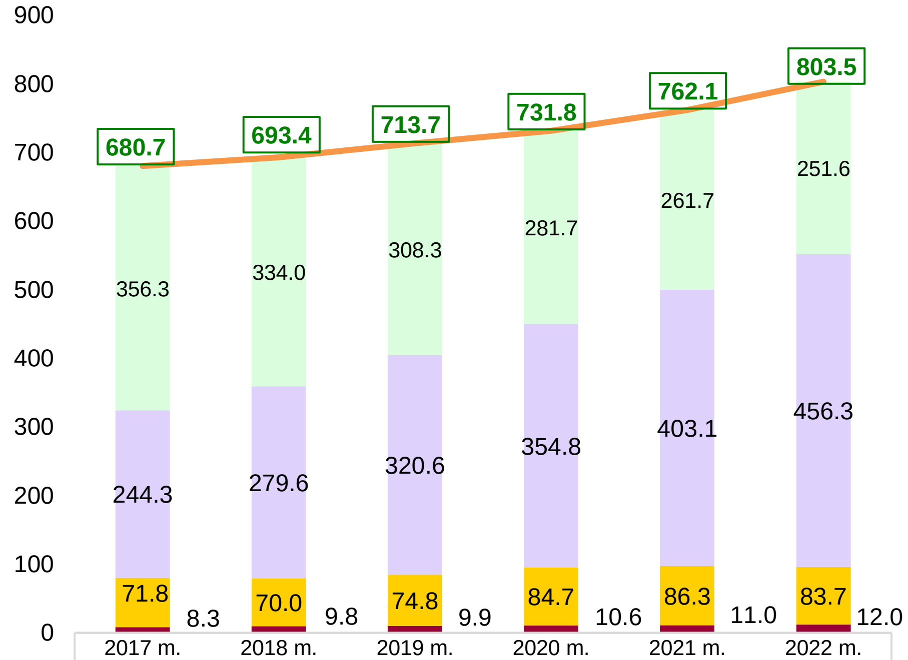
Table 2. **Number of electronic communications service providers that provided services, pcs., 2017-2022**

	2017	2018	2019	2020	2021	2022
Voice communication services	49	46	51	55	62	62
Data transmission services	93	87	87	89	88	93
Television and radio services	40	41	40	43	42	41
Physical infrastructure access services	15	16	15	16	16	17
All service providers	**127**	**116**	**121**	**127**	**133**	**138**

Source: CRA.

Revenue. In 2022, revenue in the electronic communications market continued to grow (see Figure 3). Compared to 2021, revenue in 2022 increased by 5.4% or €41.4 million and reached €803.5 million. In 2022, the largest share of revenue in the electronic communications sector (56.8%) came from the provision of data transmission services, while telephony services accounted for 31.3% (52.9% and 34.3% in 2021 respectively). In 2022, revenue from television and radio services accounted for 10.4% and 1.5% of revenue from physical infrastructure access services.

Change in revenue in the electronic communications market, 2022 compared to 2021: +5,4 %



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
Voice communication	356.3	334.0	308.3	281.7	261.7	251.6
Data transmission	244.3	279.6	320.6	354.8	403.1	456.3
Television and radio	71.8	70.0	74.8	84.7	86.3	83.7
Physical infrastructure access*	8.3	9.8	9.9	10.6	11.0	12.0
REVENUE IN THE ELECTRONIC COMMUNICATIONS MARKET, in total	680.7	693.4	713.7	731.8	762.1	803.5

Figure 3. **Structure of revenue in the electronic communications market by group of service, € million, 2017-2022**
Source: CRA.

In 2022, “Telia Lietuva”, AB remained the market leader in the electronic communications market in terms of revenue, although its market share declined slightly over the year (by 0.2 percentage points), accounting for 38.2% of total revenue in the electronic communications market (see Figure 4). The fastest growth in market share was recorded by UAB “Tele2” - 0.8 percentage points.

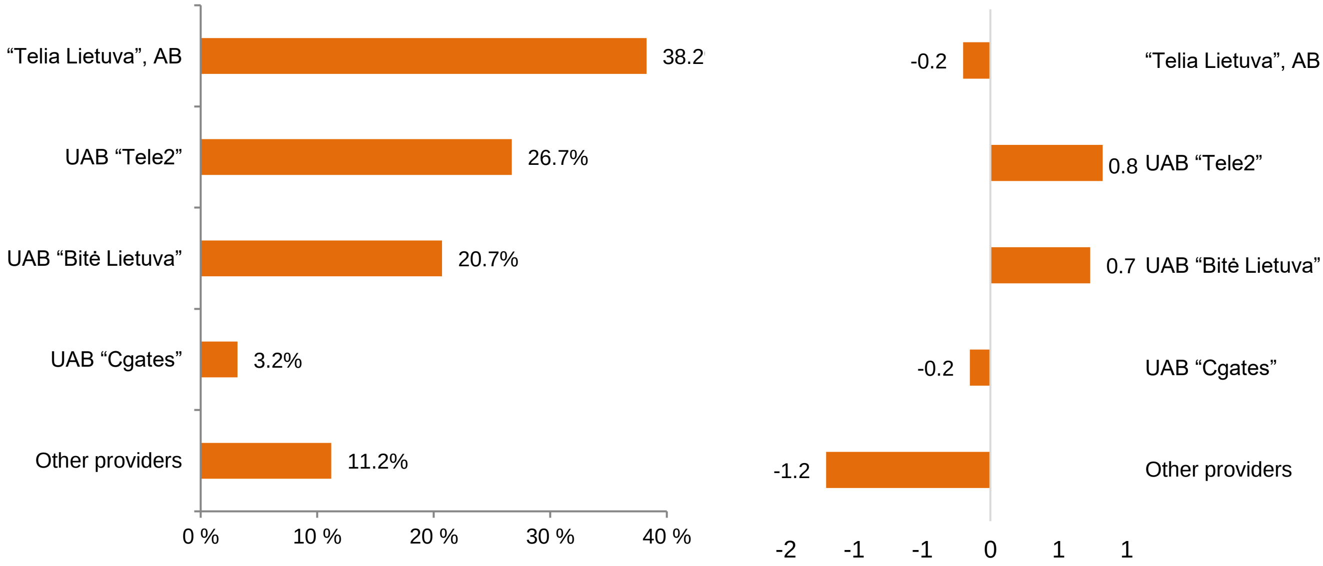


Figure 4. **Structure of electronic communications market revenue by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Investments. In 2022, investment increased by 4.6% compared to 2021 and amounted to €116.7 million. In 2022, the main investors in public electronic communications network infrastructure were "Telia Lietuva", AB (44.2%), UAB "Bitė Lietuva" (20.6%) and UAB "Tele2" (13.7%). The main investments were in the renewal and expansion of the mobile network, in particular the 5G network (59.3% of the total investments or €69.2 million), and in fibre optic networks. When looking at the potential for the development of the electronic communications market, it is also important to look at the relationship between investment and the total revenue of this market. In 2022, the ratio of investment in electronic communications infrastructure to total revenue in this market was 14.5%.

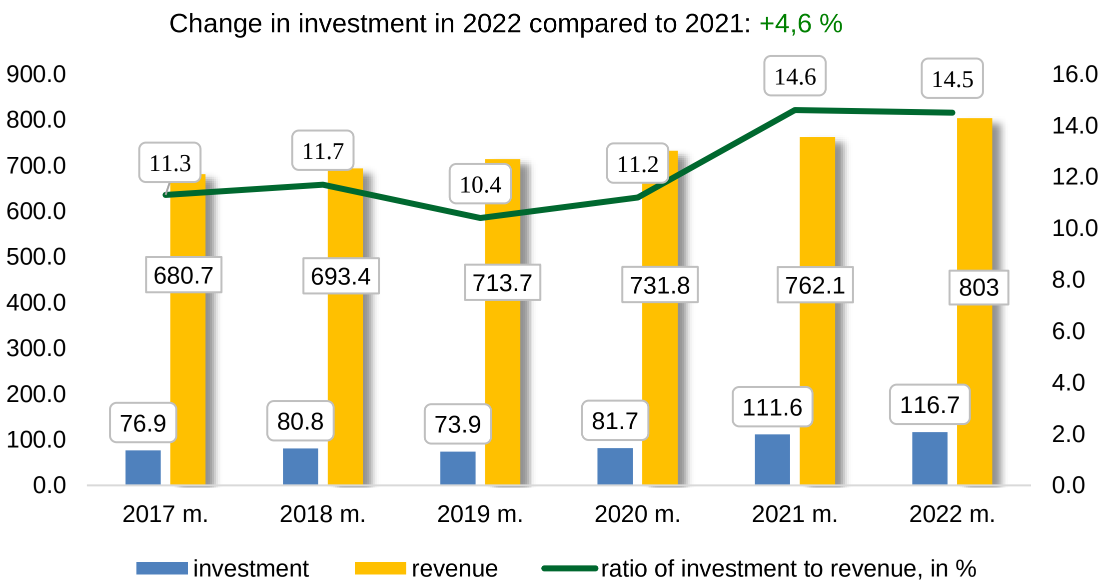


Figure 5. **Investment in electronic communications infrastructure, € million, and the ratio of investment in electronic communications infrastructure to total revenue of the electronic communications market, %, 2017-2022**
Source: CRA.

In Lithuania, the 694-790 MHz (700 MHz), 3400-3800 MHz (3.5 GHz) and 24.25-27.50 GHz (26 GHz) radio frequency bands are being prepared in the first instance, in line with the European Commission's Radio Spectrum Policy Group's opinion on the next generation of wireless radio communications systems (5G). In Lithuania, the auction procedures were finalised in Q3 of 2022 and the following radio frequencies were awarded to the successful bidders. In the second half of 2022, the successful bidders ("Telia Lietuva", AB, UAB "Bitė Lietuva" and UAB "Tele2") started to provide commercial electronic communications services over 5G-capable electronic communications networks.

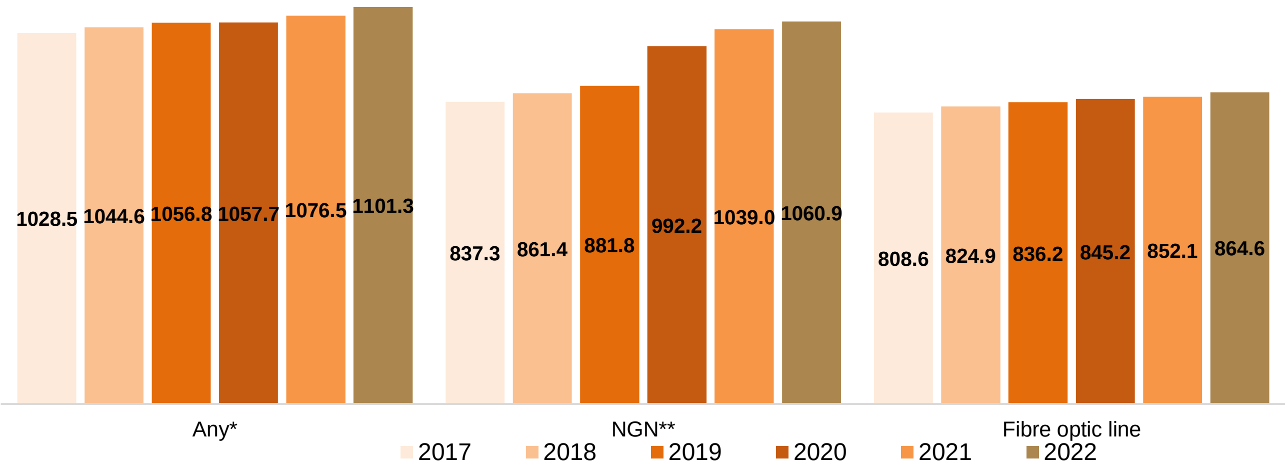
In 2022, 1,543 5G NR base stations were already operational (see Table 3). In 2022, LTE technology base stations were the fastest growing technology. LTE technology remains the main technology used to provide mobile services to the Lithuanian population. In order to make more efficient use of scarce electronic communications resources, more and more countries are deciding to switch off the networks of previous generations and use the freed-up resources for new, more efficient technologies. In Lithuania, mobile operators are also starting to gradually phase out 3G technology as it is successfully replaced by newer generation 4G and 5G technologies. In December 2022, "Telia Lietuva", AB permanently switched off 3G services.

Table 3. **Total number of registered mobile radio base stations, pcs., 2017-2022**

	2017	2018	2019	2020	2021	2022
GSM/DSC	3 812	3 915	3 884	4 015	4 022	4 205
UMTS	4 321	5 074	5 274	5 653	4 618	3 942
LTE	5 549	7 839	9 158	10 888	11 745	15 778
5G NR	-	-	-	-	4	1 543
In total	**13 682**	**16 828**	**18 316**	**20 556**	**20 389**	**25 468**

Source: CRA.

Development of public fixed line networks. In Lithuania, between 2017 and 2022, 1 101,300 (77.2%) residential premises were covered by public fixed line networks over any lines (copper lines or fibre optic lines or coaxial cable lines, and from 2022 onwards, wireless lines) (see Figure 6). In 2022, compared to 2021, the coverage of public fixed networks increased by 24.8 thousand residential premises. In percentage terms, the increase is not significant (0.8 percentage points).



* Wireless lines are included from 2021.
** NGN is a next-generation network combining fibre, copper with VDSL technology and coaxial cable with Docsis 3.x technology.

Figure 6. **Fixed line networks development in Lithuania according to network lines, thousands of residential premises 2017-2022**
Source: CRA:

As from 2021, coverage of public fixed networks includes wireless lines, which had a coverage of 2.8% in residential areas in Lithuania and already reached 6.2% in 2022, in total 88.6 thousand residential premises. In 2022, Next Generation Network (NGN) development increased by 0.6 percentage points (21.9 thousand homes) compared to 2021, reaching 1 060.9 thousand (74.4%) homes in 2022. NGN growth is mainly driven by the development of copper lines with VDSL technology (reaching 3.8% in 2019, 27.1% in 2020, 50.4% in 2021 and 51.9% in 2022). In 2022, 864.6 thousand (60.6%) residential premises were covered by fibre optic lines.

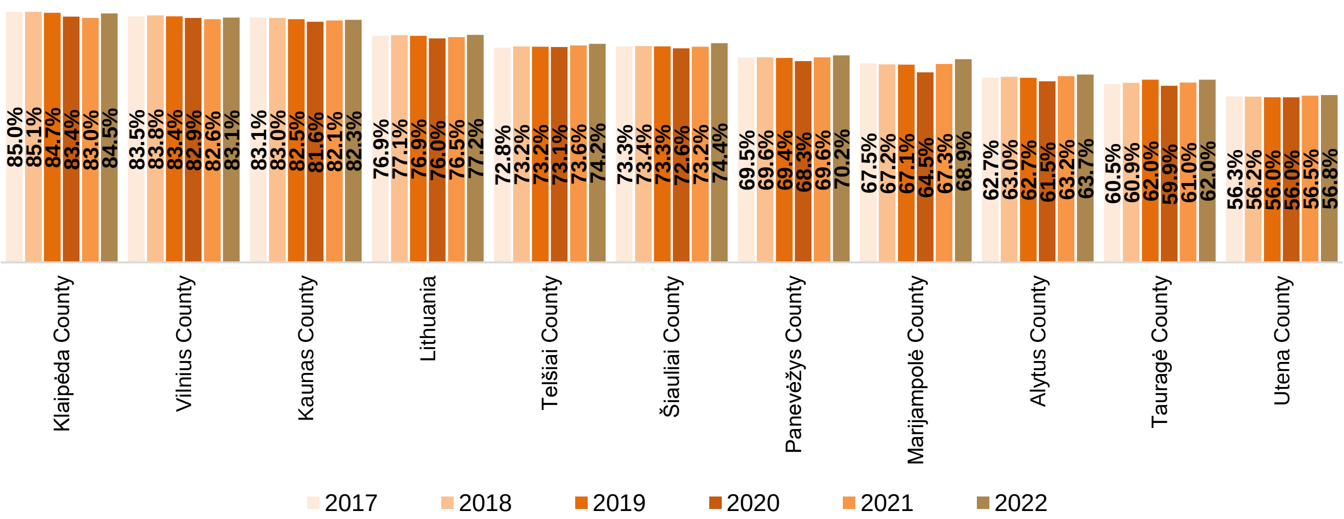


Figure 7. **Fixed line network development in Lithuania by county and in the whole territory of Lithuania, %, 2017-2022**
Source: CRA:

In terms of residential coverage, in 2022, public fixed line networks were best developed in Klaipėda County (84.5%), Vilnius County (83.1%) and Kaunas County (82.3%) (see Figure 7). In these 3 counties, the coverage of public fixed networks was higher than the overall coverage of public fixed networks in Lithuania. The least developed public fixed networks were in Alytus, Tauragė and Utena counties. In 2022, compared to 2021, in terms of the number of covered residences, the deployment of fixed line networks increased in all counties, with the highest growth recorded in Vilnius County - 8.8 thousand residences, Klaipėda County - 5.1 thousand residences and Kaunas County - 4.3 thousand residences.

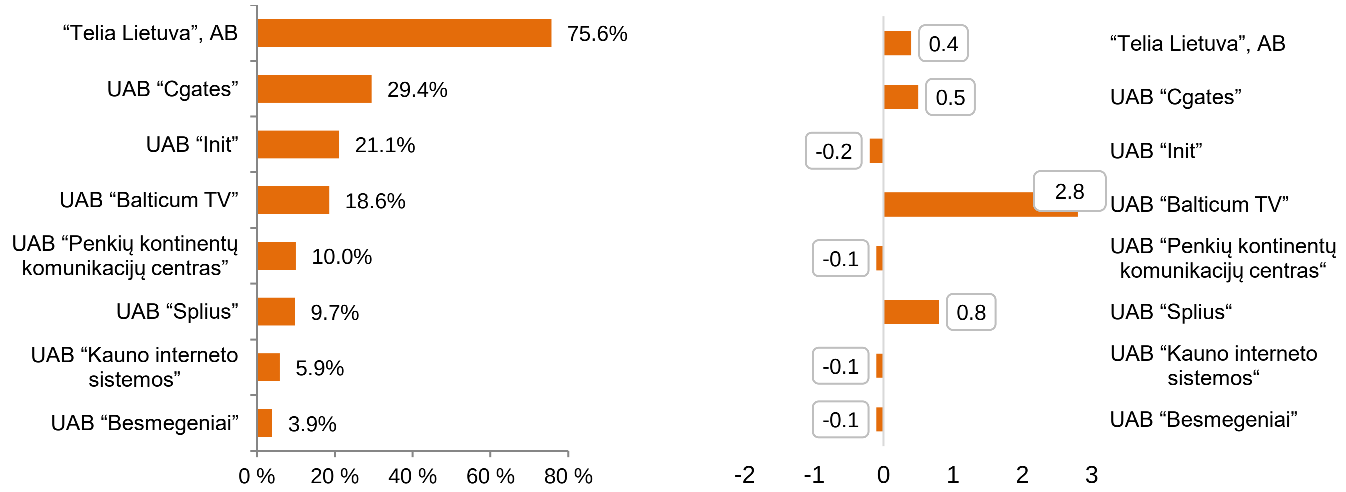


Figure 8. **Fixed network deployment in Lithuania by operator, %, and annual changes in network deployment, in percentage points, 2022**
Source: CRA:

In 2022, public fixed line network of "Telia Lietuva", AB covered 75.6% of all residences (see Figure 8). The second operator with the best development of its fixed line network in Lithuania was UAB "Cgates", whose fixed line network covered 29.4% of all residences. UAB "Balticum TV" public fixed line network has the highest growth (2.8 percentage points) in 2022 compared to 2021. When analysing the deployment of public networks, it is important not only to look at the overall coverage of the residences, but also to assess the duplication of these networks. Duplication of networks allows end-users to obtain retail electronic communications services from multiple providers.

In 2017-2022, the municipalities of Visaginas and Klaipėda have the highest share of residences in the same municipality that are reached by fixed networks of at least 2 operators (98.7% and 94.6% of the total number of residences in that municipality in 2022, respectively) (see Figure 9). The municipalities of Šiauliai, Alytus and Vilnius were also in the top five for accessibility.

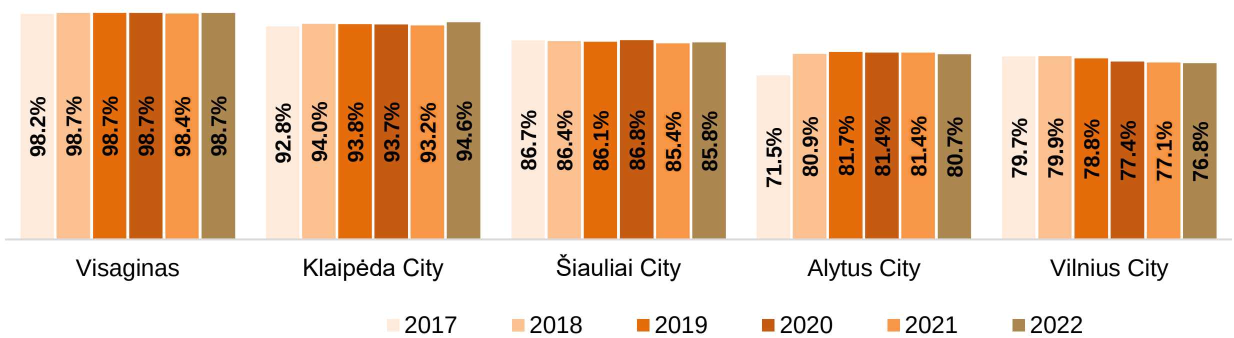


Figure 9. **Share of residential premises accessible by fixed line networks of at least 2 operators in the 5 municipalities with the best accessibility, %, 2017-2022**
Source: CRA.

In 2017-2022, the municipalities of Visaginas, Klaipėda and Šiauliai have the highest share of the same residences reached by fixed line networks of at least 3 operators (97.3%, 74.6% and 71.3% of all residences in that municipality in 2022, respectively) (see Figure 10). The top five municipalities in terms of accessibility were also the municipalities of the 2 largest Lithuanian cities. It should be noted that in 2022, compared to 2021, the availability of fixed line networks of at least 3 operators in the same residential premises in Klaipėda City Municipality increased by 2.3 percentage points. In 2022, the availability of fixed line networks of at least 3 operators in the same residence in the municipalities of Visaginas, Klaipėda and Šiauliai exceeded 70%.

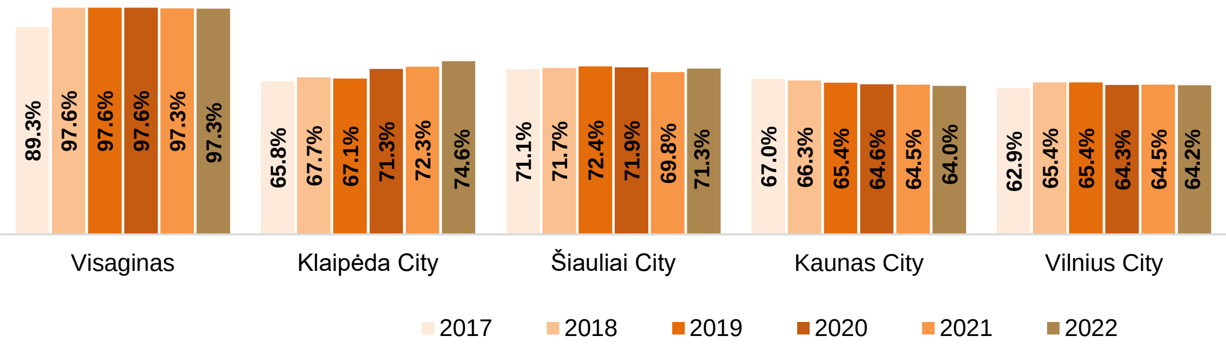


Figure 10. **Share of residential premises accessible by fixed line networks of at least 3 operators in the 5 municipalities with the best accessibility, %, 2017-2022**
Source: CRA.

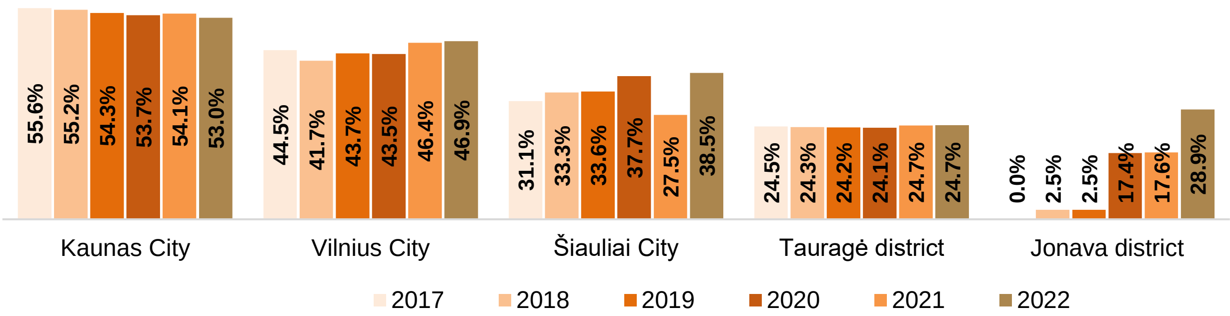


Figure 11. **Share of residential premises accessible by fixed line networks of at least 4 operators in the 5 municipalities with the best accessibility, %, 2017-2022**
Source: CRA.

In 2022, the electronic communications market had 138 service providers, 5 more than in 2021. In 2022, the electronic communications market grew by 5.4%, with revenue of €803.5 million. In 2022, revenue from data transmission services increased by 13.2% to 56.8% of total revenue in the electronic communications sector. In 2022, 77.2% of all residences in Lithuania were covered by public fixed line networks and almost 60.6% by fibre optic networks. In 2022, 74.4% of all residential premises were covered by the Next Generation Network (NGN).

2. Voice communication

2.1. General overview of the market of voice communication services

Service providers	62
Largest service provider	“Telia Lietuva”, AB
Wholesale revenue, € million	87,3
Retail revenue, € million	164,2
Total revenue, € million	251,6

IMPORTANT!

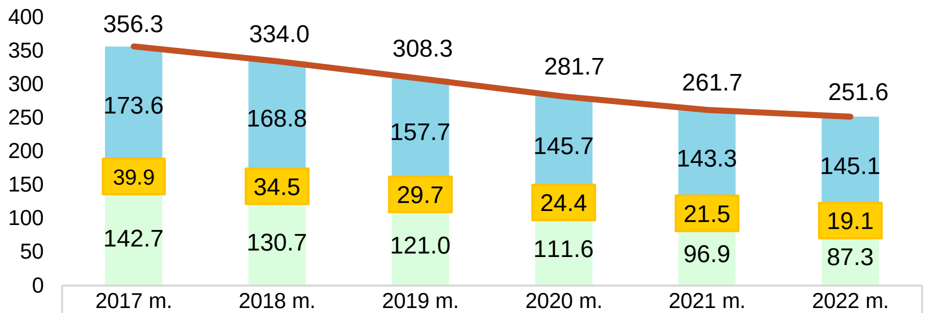
- In this section of the report, other providers of voice communication services (hereinafter in this section of the report - the other providers) are all providers of voice communication services except “Telia Lietuva”, AB, UAB “Tele2”, UAB “Bitė Lietuva” and UAB “Mediafon Carrier Services”.

In 2022, voice communication services in Lithuania consist of retail public mobile and fixed voice communication services and wholesale public communications network provisioning and public voice communication services (hereinafter - network interconnection services).

Service providers. At the end of 2022, 62 undertakings were providing voice communication services (the same number at the end of 2021). Voice communication service providers accounted for 44.9% of all 138 undertakings active in electronic communications. 37 providers of voice communication services, i.e. 59.7% of all operators providing voice communication services, provided retail public fixed voice communication services.

Revenue. In 2022, revenue from voice communication services amounted to €251.6 million, 3.9% lower than in 2021 (see Figure 12). This revenue accounted for 31.3% of the total revenue of the electronic communications market. The downward trend in revenue for all groups of voice communication services (mobile, fixed and interconnection services) has continued for the fifth year.

Change in revenue from voice communication services, 2022 compared to 2021: - 3,9 %



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
Revenue from mobile communication services	173.6	168.8	157.7	145.7	143.3	145.1
Revenue from fixed communication services	39.9	34.5	29.7	24.4	21.5	19.1
Revenue from network interconnection services	142.7	130.7	121.0	111.6	96.9	87.3
REVENUE FROM VOICE COMMUNICATION SERVICES, in total	356.3	334.0	308.3	281.7	261.7	251.6

Figure 12. **Revenue from voice communication services, € million, 2017-2022**
Source: CRA:

In 2022, the largest share (57.7%) was accounted for by revenue from retail public mobile voice communication services (see Figure 13).

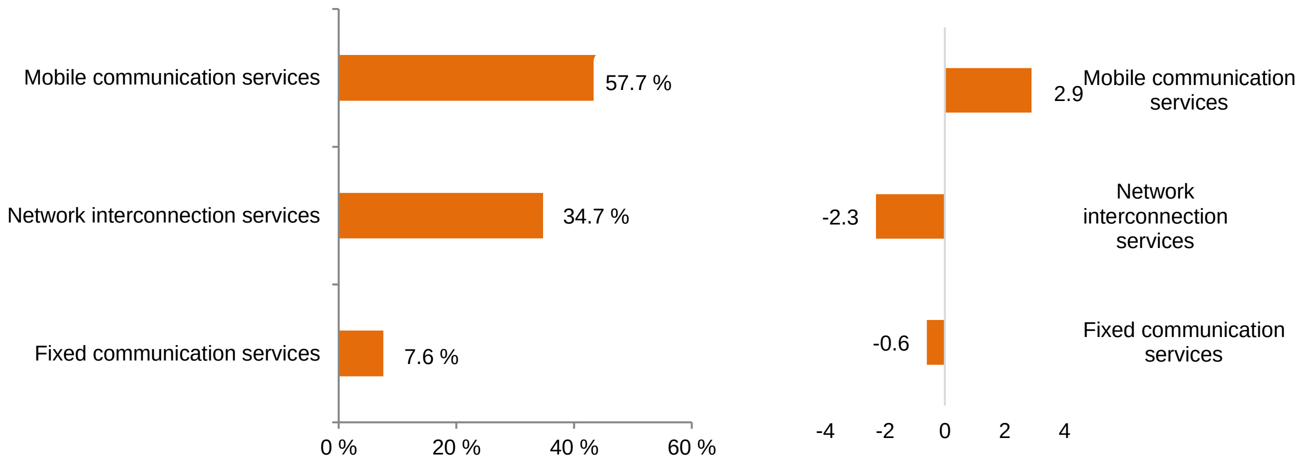


Figure 13. **Structure of revenue from voice communication services by service group, %, and annual changes in the structure of revenues, in percentage points, 2022**
Source: CRA.

In 2022, the top four voice communication service providers accounted for 95.8% of total revenue from voice communication services. In 2022, as in 2021, “Telia Lietuva”, AB received the largest share of revenue from voice communication services, accounting for 35.6% of total revenue from voice communication services (see Figure 14). The market share of this undertaking decreased by 1.6 percentage points over the year. UAB “Tele2” market share has increased by 2.0 percentage points to 31.6% of the market revenue for voice communication services.

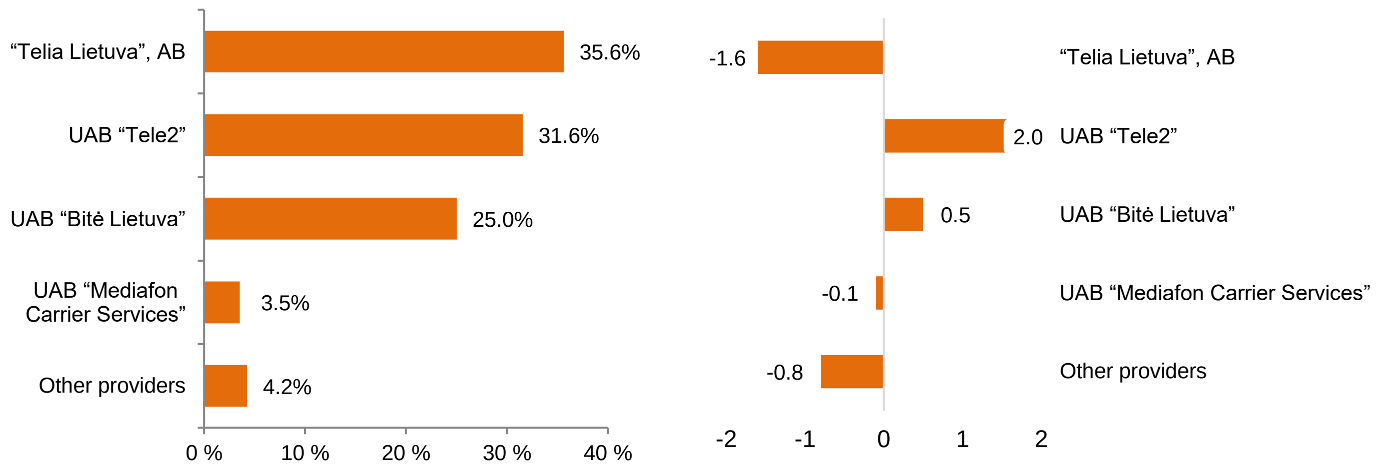


Figure 14. **Structure of revenue from voice communication services by service provider, in %, and annual changes in revenue shares, in percentage points, 2022**
Source: CRA.

Over 2022, gross revenue from voice communications services decreased by 3.9%. This was due to lower revenue from interconnection and fixed voice communication services.

2.2. Public mobile voice communication services

Service providers	**25**
Active SIM cards, million	**3,8**
Call duration, billion minutes	**10,0**
Retail revenue, € million	**145,1**
ARPU, €/month	**3,2**

IMPORTANT!

- In this section of the report, other providers of public mobile voice communication services (hereinafter in this section of the report - the other providers) are all providers of public mobile voice communication services except UAB "Bitė Lietuva", "Telia Lietuva", AB and UAB "Tele2".

Public mobile voice communication services consist of national[1], international[2] and international roaming calls[3] made over public mobile networks when Lithuanian users of public mobile voice communication services use roaming services when travelling to foreign countries (hereinafter - roaming calls). In addition to calls, this chapter also looks at Short Message Service (SMS) and Multimedia Messaging Service (MMS) services. It also calculates the average revenue per active SIM card per month (hereinafter - the ARPU).

For information on data services over a mobile network using both a phone and a computer, see the section on "Data transmission".

Service providers. At the end of 2022, 25 undertakings provided public mobile voice communication services: 3 operators provided public mobile voice communication services over their own network, and 3 service providers had a wholesale contract with mobile operators.

Service users. At the end of 2022, approximately 3.8 million active SIM (Subscriber Identification Module) cards[4] were available for public mobile voice communication services (see Table 4). The number of active SIM cards grew slightly over the year (2.7%). Mobile penetration[5] has increased during 2022 and at the end of the year there were 133.8 active SIM cards per 100 residents (133.8 active SIM cards per 100 residents at the end of 2021).

When looking at the distribution of active SIM cards by payment method, the largest share (68.6%) in 2022 is accounted for by active SIM cards with post-paid rather than pre-paid users (see Table 4). The number of active SIM cards whose users have paid for the services provided according to invoices increased by 3.0%, or 75.7 thousand, to a total of 2,623.0 thousand during 2022.

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[1] National calls - calls initiated and completed on the public mobile and fixed operator networks in Lithuania.
[2] International calls - calls initiated on the networks of Lithuanian public mobile and fixed line operators and completed on the networks of foreign operators.
[3] International roaming calls - calls initiated by users of services of Lithuanian public mobile network operators in foreign countries.
[4] The number of users reported in this part of the report corresponds to the number of active SIM cards (used for the provision of voice calls, Short Message Service (SMS) and/or Multimedia Messaging Service (MMS)).
An active SIM card is considered as a card that has been used to access a telecommunication service (initiate or receive a call, send or receive a text message, or use another service) during the last 3 months.
[5] Mobile penetration - the number of active SIM cards per 100 residents.

Table 4. **Number of active SIM cards used to provide public mobile voice communication services, by service provider and payment method, thousand pcs., 2017-2022**

	2017	2018	2019	2020	2021	2022
UAB "Tele2"	1 704.2	1 715.2	1 723.6	1 690.5	1 719.6	1 765.2
Pre-paid	815.7	771.3	751.5	699.9	682.8	682.1
Post-paid	888.5	943.8	972.1	990.5	1 036.7	1 083.1
"Telia Lietuva", AB	1 033.6	1 108.2	1 036.3	1 051.2	1 064.3	1 123.6
Pre-paid	277.3	262.6	277.5	293.7	282.1	325.6
Post-paid	756.3	845.5	758.8	757.5	782.2	798.0
UAB "Bitė Lietuva"	880.0	858.5	864.3	853.7	866.9	859.0
Pre-paid	338.4	301.5	274.5	235.2	214.1	195.2
Post-paid	541.6	557.0	589.8	618.6	652.8	663.8
Other providers	82.5	82.8	80.1	76.6	75.9	78.5
Pre-paid	0.7	0.4	0.5	0.03	0.3	0.4
Post-paid	81.8	82.4	79.6	76.6	75.5	78.0
All providers	**3 700.3**	**3 764.7**	**3 704.3**	**3 672.0**	**3 726.7**	**3 826.3**
Pre-paid	1 432.0	1 335.9	1 304.0	1 228.8	1 179.3	1 203.3
Post-paid	2 268.2	2 428.8	2 400.3	2 443.1	2 547.3	2 623.0

Source: CRA.

When looking at the distribution of the number of users to public mobile voice communication services by provider, it can be seen that the number of active SIM cards held by UAB "Tele2" and "Telia Lietuva", AB (see Table 4) has been increasing over 2022, while the number of SIM cards held by UAB "Bitė Lietuva" and other providers has been decreasing marginally. As in 2021, in 2022 the operator with the largest market share in terms of the number of active SIM cards (46.1%) was UAB "Tele2". This operator accounted for 41.3% of all SIM cards whose users paid for services according to invoice and 56.7% of all SIM cards whose users paid for services in advance.

Number portability service. In 2022, this service was used 173,500 times, an increase of 1.6% compared to 2021 (see Table 5). In 2022, the largest number of users who used the number portability service came to (35.6%) and left (34.3%) UAB "Tele2" network.

Table 5. **Number portability flows by service provider, pcs., 2022**

	Came	Left	**Balance**
UAB "Tele2"	61 802	59 572	**2 230**
UAB "Bitė Lietuva"	57 927	59 732	**-1 805**
"Telia Lietuva", AB	38 563	39 759	**-1 196**
Other providers	15 167	14 396	**771**

Source: CRA.

Revenue. In 2022, compared to 2021, revenue from public mobile voice communication services increased by 1.3% or €1.8 million to €145.1 million (see Figure 15). In 2021, this revenue accounted for one of the largest shares of revenue from the electronic communications services market (18.1%).

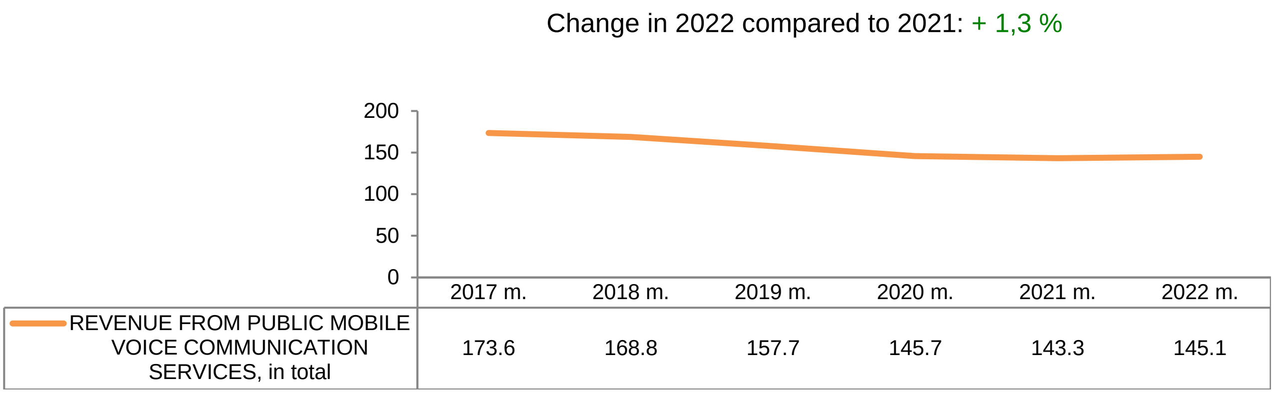


Figure 15. **Revenue from public mobile voice communication services, € million, 2017-2022**
Source: CRA.

In 2022, the combined revenue of the top three mobile voice communication service providers decreased slightly (€1.8 million or 1.3%). Their share of overall mobile voice communication revenue was 96.2%. In 2022, as in 2021, UAB "Tele2" had the largest market share (37.2%) in terms of revenue from public mobile voice communication services (see Figure 16), while UAB "Bitė Lietuva" had the largest increase in market share (0.9 percentage points), reaching 31.8%.

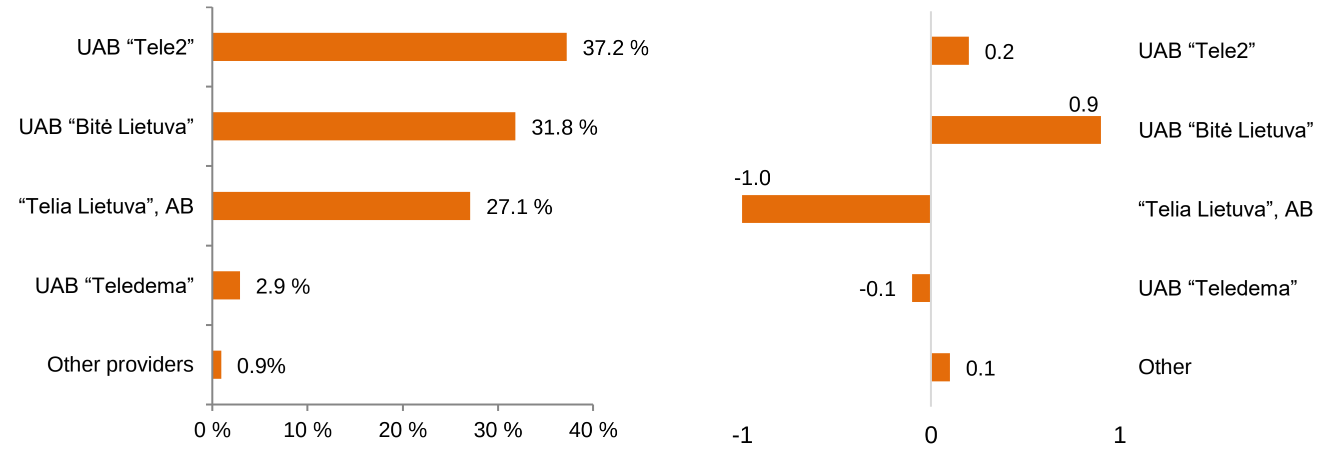


Figure 16. **Structure of revenue from public mobile voice communication services by service provider, %, and annual changes in revenue shares, in percentage points, 2022**
Source: CRA:

The average revenue per subscriber per month (ARPU) for public mobile voice communication services declined slightly (EUR 0.08) to EUR 3.2 per month in 2022 (see Table 6). Over the period of 2017-2022, the ARPU has varied from EUR 3.9 to EUR 3.2, with a downward trend.

Table 6. **ARPU for public mobile voice communication services, €/month, 2017-2022**

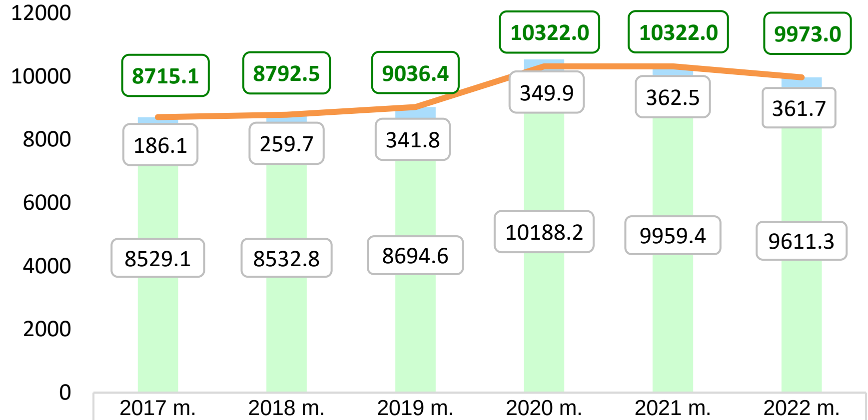
	2017	2018	2019	2020	2021	2022
ARPU for public mobile voice communication services	3.9	3.7	3.6	3.3	3.2	3.2

Source: CRA.

2.2.1. Mobile voice communication services

Duration of calls. The growth in the duration of calls initiated by users of Lithuanian public mobile voice communication services up to 2020 has led to a 3.4% or 348.9 million minutes reduction in 2022 compared to 2021, reaching a total of 9,973.0 million minutes (see Figure 17). In 2022, 96.4% of calls, measured in terms of duration, were originated in Lithuania by users of Lithuanian public mobile voice communication services. The duration of these calls has decreased by 3.5% in 2022 compared to 2021. The duration of calls initiated in foreign countries when users of public mobile voice communication services in Lithuania roamed abroad decreased (0.2% or 0.8 million minutes).

Change in the duration of calls initiated by users of Lithuanian public mobile voice communication services in 2022 compared to 2021: - 3,4 %



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
Roaming calls	186.1	259.7	341.8	349.9	362.5	361.7
In Lithuania initiated calls	8529.1	8532.8	8694.6	10188.2	9959.4	9611.3
DURATION OF CALLS INITIATED BY USERS OF LITHUANIAN PUBLIC MOBILE VOICE COMMUNICATION SERVICES, in total	8715.1	8792.5	9036.4	10322.0	10322.0	9973.0

Figure 17. **Duration of calls initiated by users of Lithuanian public mobile voice communication services, million minutes, 2017-2022**
Source: CRA.

When looking at the distribution of the duration of calls initiated by users of Lithuanian public mobile voice communication services by provider, the longest duration of calls initiated by users of UAB “Tele2” during the whole period 2017-2022 was observed. In 2022, it accounted for 47.4% of the total duration of initiated calls (see Table 7).

Table 7. **Duration of calls initiated by users of Lithuanian public mobile voice communication services, by service provider, million minutes, 2017-2022**

	2017	2018	2019	2020	2021	2022
UAB “Tele2”	4 216.7	4 272.5	4 504.9	5 298.7	5 019.6	4 722.6
“Telia Lietuva”, AB	2 347.2	2 364.0	2 378.0	2 777.3	2 797.1	2 559.8
UAB “Bitė Lietuva”	1 939.4	1 945.5	1 954.9	2 249.5	2 297.6	2 502.6
Other providers	211.9	210.4	198.7	212.6	207.8	188.0
ALL PROVIDERS	**8 715.1**	**8 792.5**	**9 036.4**	**10 538.1**	**10 322.0**	**9 973.0**

Source: CRA.

When assessing the structure of calls, it is also important to take into account the destination of the calls. The following destinations are distinguished for calls initiated on Lithuanian public mobile networks: calls are terminated on the networks of the Republic of Lithuania (on its own network, on short and service numbers, on other public mobile networks, on public fixed networks) and on networks of foreign operators. 99.4% of all Lithuanian public mobile voice communication calls in 2022 were completed on networks in the Republic of Lithuania (see Table 8).

Table 8. **Duration of calls originated on Lithuanian public mobile networks by call destination, million minutes, 2017-2022**

	2017	2018	2019	2020	2021	2022
Terminated in the networks of the Republic of Lithuania	4 483.7	8 489.0	8 650.8	10 134.4	9 907.1	9 556.2
Of which terminated with short and service numbers	31.7	35.3	40.4	56.1	66.4	60.9
Terminated on foreign operators' networks	45.4	43.9	43.8	53.8	52.3	55.1
Total duration of calls initiated on Lithuanian public mobile networks by call destination	**8 529.1**	**8 532.8**	**8 694.6**	**10 188.2**	**9 959.4**	**9 611.3**

Source: CRA.

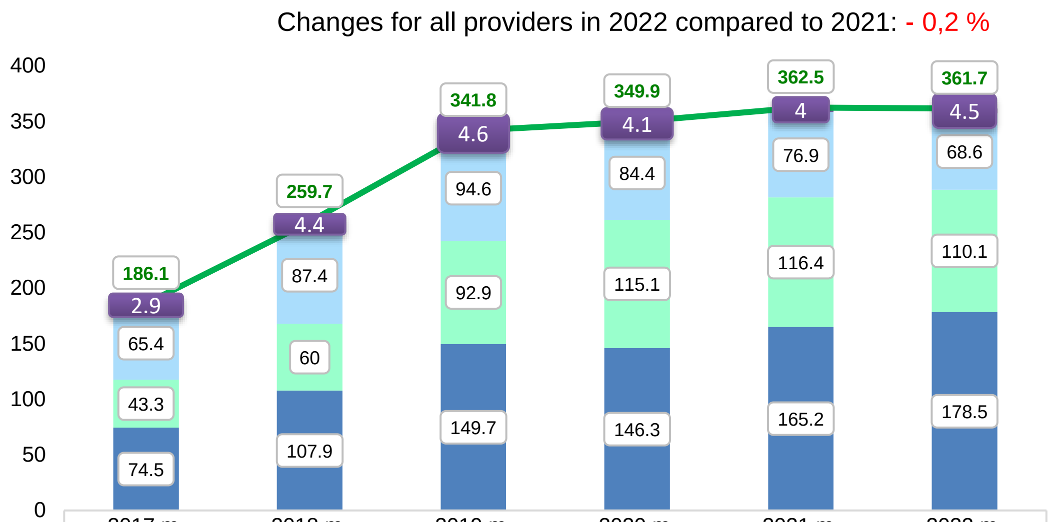
An analysis of the structure of calls by payment method shows that in 2022, the majority of calls in Lithuania were initiated by service users (natural and legal persons) who paid for services on the basis of invoices, which accounted for 84.3% of the total duration of all initiated calls (see Table 9), and the duration of calls in 2022 has decreased by 3.3% compared to 2021, or by 278.8 million minutes. Pre-paid service users experienced a 4.4% reduction in call duration over the year or 69.4 million minutes.

Table 9. **Duration of calls originated on Lithuanian public mobile voice communication networks of different destination by payment method and type of user of services, million minutes, 2021-2022**

	2021			2022		
	Pre-paid	Post-paid		Pre-paid	Post-paid	
		Natural	Legal		Natural	Legal
Terminated in the networks of the Republic of Lithuania	1 570.1	6 129.8	2 207.2	1 495.8	5 812.8	2 247.6
Of which terminated with short and service numbers	6.0	37.9	22.5	4.8	35.2	20.9
Terminated on foreign operators' networks	3.7	16.0	32.5	8.6	15.5	31.0
Duration of calls originated on Lithuanian public mobile voice communication networks of different destinations, by payment method and type of user of services, in total	**1 573.9**	**6 145.8**	**2 239.7**	**1 504.5**	**5 828.2**	**2 278.6**

Source: CRA.

The duration of calls initiated in foreign countries by users of Lithuanian public mobile voice communication services who roamed abroad grew throughout the period 2017-2022. In 2022, compared to 2021, the duration of these calls decreased by 0.2% or 0.8 million minutes.

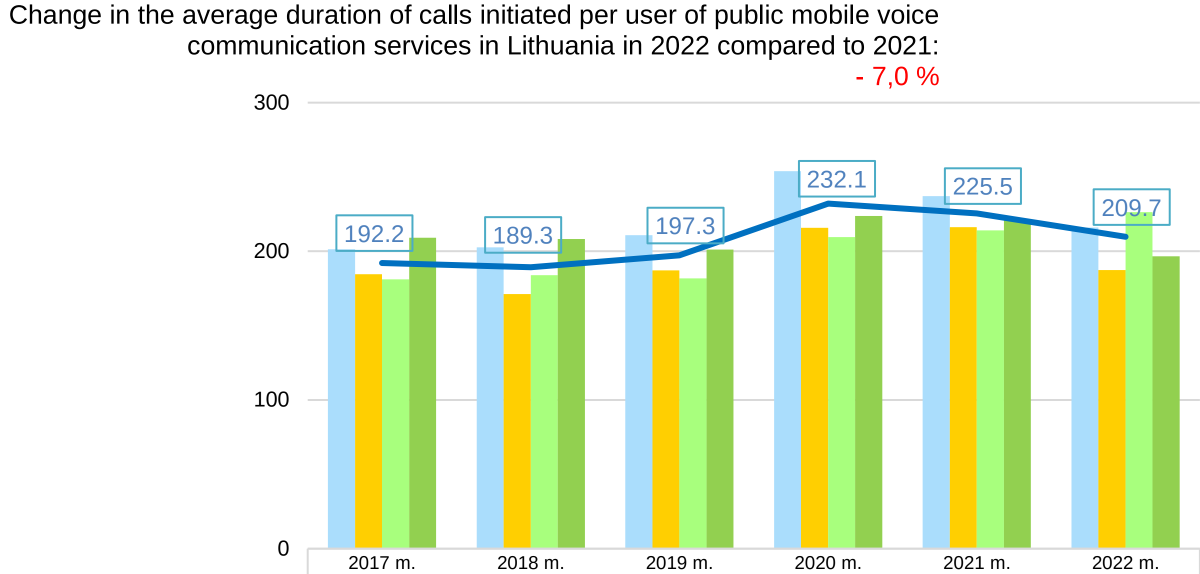


	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
Other providers	2.9	4.4	4.6	4.1	4	4.5
“Telia Lietuva”	65.4	87.4	94.6	84.4	76.9	68.6
UAB „Bitė Lietuva“	43.3	60	92.9	115.1	116.4	110.1
UAB „Tele2“	74.5	107.9	149.7	146.3	165.2	178.5
ALL PROVIDERS	186.1	259.7	341.8	349.9	362.5	361.7

Figure 18. **Call duration by service provider of Lithuanian public mobile voice communication service users using roaming services, million minutes, 2017-2022**
Source: CRA.

In 2022, UAB “Tele2” remained the leading provider of roaming services when a user of the services of Lithuanian public mobile voice communication service providers makes a call while staying in a foreign country, in terms of call duration (see Figure 18): in 2022, 49.3% of all roaming calls were initiated using SIM cards from this operator. The duration of roaming calls made using UAB “Tele2” SIM cards increased by 8.1% or 13.3 million minutes over 2022.

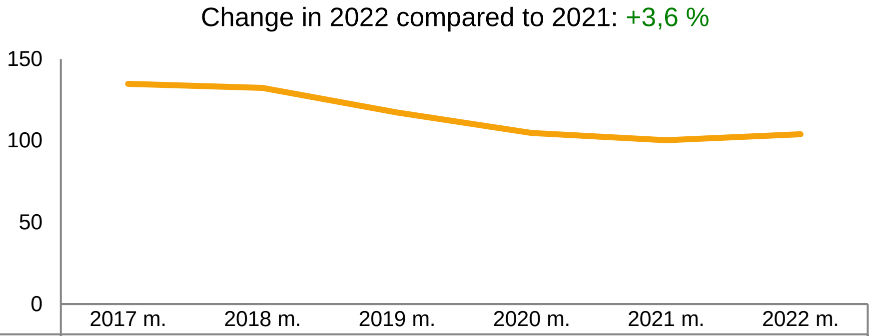
Based on calls initiated on Lithuanian public mobile networks, undifferentiated by call destination, the average duration of calls per service user per month in 2022 was 209.7 minutes and 3.5 hours, i.e. 15.8 minutes shorter than in 2021 (see Figure 19). The average length of time (226.3 minutes or almost 4 hours) in 2022 was the longest spoken by a user of services from UAB “Bitė Lietuva”. On average, a user who paid for services according to invoices spoke for 260.8 minutes per month in 2022 (272.7 minutes for a natural person, 234.4 minutes for a legal person), or 6.7% shorter than in 2021, and a user who pre-paid for services spoke for 102.1 minutes, or 8.2% less than in 2021.



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
UAB „Tele2“	201.4	202.6	210.8	253.9	237.1	216.1
„Telia Lietuva“, AB	184.7	171.3	187.2	215.8	216.2	187.3
UAB „Bitė Lietuva“	181.2	184.0	181.7	209.5	214.1	226.3
Other providers	209.1	208.2	201.1	223.7	221.7	196.6
AVERAGE DURATION OF CALLS INITIATED PER PUBLIC MOBILE VOICE COMMUNICATION SERVICE USER IN LITHUANIA	192.2	189.3	197.3	232.1	225.5	209.7

Figure 19. **Average duration of calls initiated per public mobile voice communication service user per month in Lithuania by service provider, in minutes, 2017-2022**
Source: CRA.

Revenue. In 2021, revenue from public mobile voice communication services increase by 3.6% or €3.6 million compared to 2020 (see Figure 20).



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
REVENUE FROM PUBLIC MOBILE VOICE COMMUNICATION SERVICES	134.8	132.4	117.2	104.8	100.3	103.9

Figure 20. **Revenue from public mobile voice communication services, € million, 2017-2022**
Source: CRA.

An analysis of the structure of revenue from public mobile voice communication services in 2022 shows that 81.6%, or €84.8 million, is from users (natural and legal persons) who paid for services according to post-paid invoices and 18.4%, or €19.1 million, is from pre-paid invoices.

ARPU. In 2022, the average revenue per subscriber per month for public mobile voice communication services was the same as in 2021, at €2.3 per month (see Table 10). This represented 71.6% of the ARPU obtained for all public mobile voice communication services. Compared to 2021, the average revenue from users of public mobile voice communication services who pay according to post-paid invoices (€0.1) has decreased, but the average revenue from users of pre-paid services (€0.1) has increased.

Table 10. **ARPU for public mobile voice communication services by payment method, €/month, 2017-2022**

	2017	2018	2019	2020	2021	2022
ARPU for public mobile voice communication services	3.0	2.9	2.7	2.4	2.3	2.3
Pre-paid	3.7	3.6	3.4	2.9	2.8	2.7
Post-paid	1.4	1.7	1.4	1.3	1.2	1.3
ARPU for public mobile voice communication services	3.9	3.7	3.6	3.3	3.2	3.2

Source: CRA:

Comparing the public mobile voice communication services of the major operators in terms of ARPU, we can see that in 2022, the lowest average monthly revenue per subscriber (€1.4) was generated by UAB “Tele2”, while the highest average monthly revenue (€3.5) was generated by UAB “Bitė Lietuva” (see Table 11). This trend has been maintained throughout the period of 2017-2022.

Table 11. **ARPU for public mobile voice communication services by provider, €/month, 2017-2022**

	2017	2018	2019	2020	2021	2022
UAB “Bitė Lietuva”	3.9	3.8	3.5	3.3	3.3	3.5
“Telia Lietuva”, AB	3.5	3.2	3.2	2.9	2.8	2.6
UAB “Tele2”	2.4	2.4	1.9	1.6	1.4	1.4
Other providers	2.6	2.6	2.6	2.7	2.8	2.8
ALL PROVIDERS	**3.0**	**2.9**	**2.7**	**2.4**	**2.3**	**2.3**

Source: CRA.

Prices. During the period under review, Lithuania was dominated by so-called fixed-rate service plans, which offered, for a certain periodic fee, a certain duration of national and international calls, or unlimited calls to all Lithuanian networks and a certain amount of additional services (SMS, data transmission). When the market offers a variety of mobile voice communication plans with a single fixed price for voice and data services, it is difficult to distinguish the price of public mobile voice communication from the total price offered in the plan. The estimated average cost of public mobile voice communication services (the ratio of the revenue from these services to the duration of the corresponding calls for which they are received) shows a downward trend over the period of 2017-2022. In 2022, the average cost of voice communication services has changed only slightly compared to 2021, at €0.9 cents per minute (see Table 12).

Table 12. **Estimated average prices for public mobile voice communication services by service provider, €/minute, 2017-2022**

	2017	2018	2019	2020	2021	2022
UAB “Bitė Lietuva”	2.1	2.0	1.9	1.5	1.5	1.2
“Telia Lietuva”, AB	1.8	1.8	1.7	1.3	1.3	1.1
UAB “Tele2”	1.2	1.1	0.9	0.6	0.6	0.5
Other providers	1.2	1.2	1.3	1.2	1.2	1.2
ALL PROVIDERS	**1.5**	**1.5**	**1.3**	**1.0**	**1.0**	**0.9**

Source: CRA.

2.2.2. Mobile SMS and MMS communication services

The popularity of Short Message Service (SMS), and in particular Multimedia Messaging Service (MMS), which offers the possibility of sending a visual message supplemented by audio and text, is gradually declining.

These technologies are being replaced by new, more convenient and advanced platforms such as “Viber”, “Messenger”, “WhatsApp” and others.

Number of SMS and MMS. Over the whole period of 2017-2022, a downward trend in the number of SMS is visible (see Table 13). The number of SMS sent in 2022 is down 3.5% compared to 2021. On average, 56 SMS were sent per user of public mobile voice communication services per month in 2022 (5 fewer SMS than in 2021).

Table 13. **Number of SMS, million pcs, and MMS, thousand pcs, sent and service providers’ market shares, %, 2017-2022**

	2017	2018	2019	2020	2021	2022
Number of SMS sent, million	4489.7	3978	3 248.6	2 869.6	2 680.1	2 586.5
Market share of service providers, %:						
UAB “Tele2”	56.8	56.7	55.2	52.8	55.1	53.8
“Telia Lietuva”, AB	21.7	22.6	25.4	29.9	29.2	31.8
UAB “Bitė Lietuva”	19.7	18.9	18.2	16	14.5	13.5
Other providers	1.8	1.9	1.3	1.3	1.2	1.0
Number of MMS sent, thousand	10 944.3	13 128.4	11 551.5	11 496.2	10 028.1	10 002.4
Market share of service providers, %:						
UAB “Tele2”	47.7	49.7	44.6	45	47.3	41.9
“Telia Lietuva”, AB	21	22.3	24.2	24.3	26.4	30.9
UAB “Bitė Lietuva”	27.1	23.2	26.5	26.4	21.1	22.9
Other providers	4.2	4.8	4.8	4.3	5.2	4.3

Source: CRA.

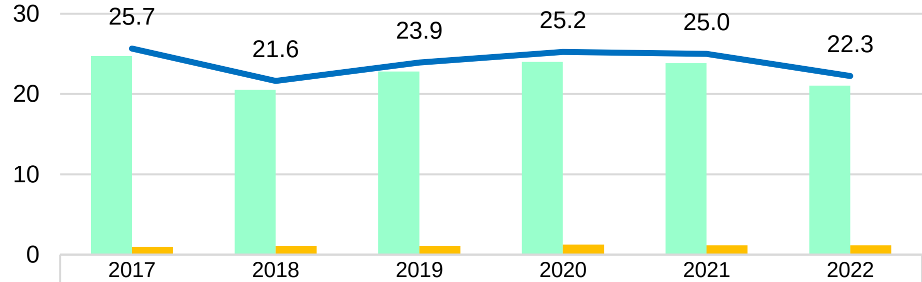
The number of MMS sent in 2022 is down 0.3% compared to 2021 (see Table 13). On average, each user of public mobile voice communication services sent 3 MMS in 2022, as in 2021. Despite the increased capabilities of MMS, the popularity of this service is far below that of SMS.

An analysis of the structure of SMS and MMS services in terms of the number of messages sent and their distribution by service provider shows that UAB “Tele2” users send the highest number of SMS and MMS each year. This trend has been maintained throughout the period of 2017-2022.

Revenue. Revenue from SMS and MMS decreased by 11.0% to €22.3 million in 2022 (see Figure 21). In 2022, SMS and MMS accounted for the largest share (94.7%) of revenue from sent SMS. Compared to total revenue from public mobile voice communication services, SMS revenue accounted for 14.5% of the total revenue[6].

[6] Total revenue from public mobile voice communication services consists of revenue from calls, SMS, MMS and other revenue.

Change in revenue (SMS and MMS) in 2022 compared to 2021: -11,0 %



	2017	2018	2019	2020	2021	2022
Revenue from SMS	24.7	20.5	22.8	24.0	23.9	21.1
Revenue from MMS	1.0	1.1	1.1	1.2	1.2	1.2
REVENUE FROM SMS AND MMS, in total	25.7	21.6	23.9	25.2	25.0	22.3

Figure 21. **Revenue from SMS and MMS, € million, 2017-2022**
Source: CRA.

Prices. In 2022, the average cost of an SMS service (the ratio of the revenue from these services to the number of SMS sent) was €0.81 cents. UAB "Bitė Lietuva" had the highest cost per SMS (€1.02 cents), while "Telia Lietuva", AB had the lowest cost per SMS (€0.58 cents) for its service users in 2022. The average cost of sending an SMS to UAB "Tele2" customers in 2022 was €0.87 cents. In 2022, the difference between the most expensive and the cheapest estimated average SMS price charged by the main mobile operators on the market was €0.45 cents.

The average estimated cost of an MMS service (the ratio of the revenue from these services to the number of MMS sent) in 2022 was €11.85 cents. The difference between the estimated average MMS price of the most expensive and the cheapest of the main mobile operators was €8.7 cents. The cost of sending one MMS was the highest for the user of the services of UAB "Bitė Lietuva" (€17.8 cents) and the lowest for the user of the services of "Telia Lietuva", AB (€9.1 cents).

Over the whole period of 2017-2022, there has been a fluctuation in the revenue generated from public mobile voice communication services. The declining number of SMS and MMS shows that traditional services are gradually being replaced by alternatives provided over data transmission networks.

2.3. Public fixed voice communication services

Service providers	**37**
Service users, thousands	**249.6**
Call duration, million min.	**381.1**
Retail revenue, € million	**19,1**
ARPU, €/month.	**6,1**

IMPORTANT!

- In this section of the report, other providers of public fixed voice communication services (hereafter in this section of the report - the other providers) are all providers of public fixed voice communication services, except "Telia Lietuva", AB, as listed in Table 15, Tables 17-19 and Figure 23; UAB "Baltnetos komunikacijos", UAB "CSC Telecom", UAB "Nacionalinis telekomunikacijų tinklas", UAB "Telia Lietuva", AB, as indicated in Figure 22; UAB "Baltnetos komunikacijos", UAB "Cgates", UAB "Telia Lietuva", AB, as indicated in Figure 25; UAB "CSC Telecom", UAB "Ecofon", UAB "Mediafon Carrier Services", UAB "Nacionalinis telekomunikacijų tinklas", UAB "Tele2", "Telia Lietuva", AB, as indicated in Table 16.

Public fixed voice communication services consist of national and international calls made over public fixed networks.

Service providers. At the end of 2022, 37 undertakings were providing public fixed voice communication services, 3 fewer than at the end of 2021. Of these, 35 undertakings provided public fixed voice communication services using Voice Over Internet Protocol (VoIP) technology.

Service users. Service users received public fixed voice communication services over public fixed voice communication lines using PSTN (Public Switched Telephone Network), ISDN (Integrated Services Digital Network) and VoIP technologies. The number of public fixed voice communication lines in use decreased by 13.4% or 35.6 thousand lines in 2022 reaching a total of 231.2 thousand lines (see Table 14).

Table 14. **Number of users and lines in use of public fixed voice communication services, in thousands, and penetration (per 100 residents and per 100 households), %, 2017-2022.**

	2017	2018	2019	2020	2021	2022
Number of lines, thousands	**474.3**	**412.1**	**351.3**	**304.8**	**266.8**	**231.2**
Line penetration (per 100 residents), %	16.9	14.7	12.6	10.9	9.5	8.1
Line penetration (per 100 households), %	37.8	31.3	26.8	22.6	19.1	17.0
Number of service users, thousands	**485.9**	**426.5**	**367.8**	**321.9**	**290.6**	**249.6**
Natural persons	333.7	282.1	229.8	193.4	171.7	143.6
Legal persons	152.2	144.5	138.0	128.5	118.9	106.0
Service user penetration (per 100 residents), %	17.3	15.3	13.2	11.5	10.4	8.1
Service user penetration (per 100 households), %	38.7	31.8	28.0	23.9	20.8	18.3

Source: CRA.

The decline in the number of lines has also led to a decline in the penetration of lines providing public fixed voice communication services. At the end of 2022, there were 8.1 lines per 100 residents. It should be noted that the number of users does not correspond to the number of lines, as a single line using different technologies may provide public fixed voice communication services to several users. The total number of users of public fixed voice communication services has been declining over the whole period under review. This figure dropped by 14.1% or 41.0 thousand in 2022 and reached 249.6 thousand at the end of 2022.

In 2022, natural persons who used fixed voice communication services accounted for the largest share of users of public fixed voice communication services - 57.5% (see Table 14). By 2021, their number have fallen by 16.4% or 28.2 thousand. The number of legal entities using public fixed voice communication services decreased less rapidly, by 10.8% or 12.9 thousand respectively. As a share of the total number of users of public fixed voice communication services, they have been declining throughout the period of 2017-2022.

In 2022, "Telia Lietuva", AB had the largest market share of 80.2% in terms of the number of users of public fixed voice communication services (see Figure 22). Its market share has increased the most by 0.9 percentage points compared to 2021.

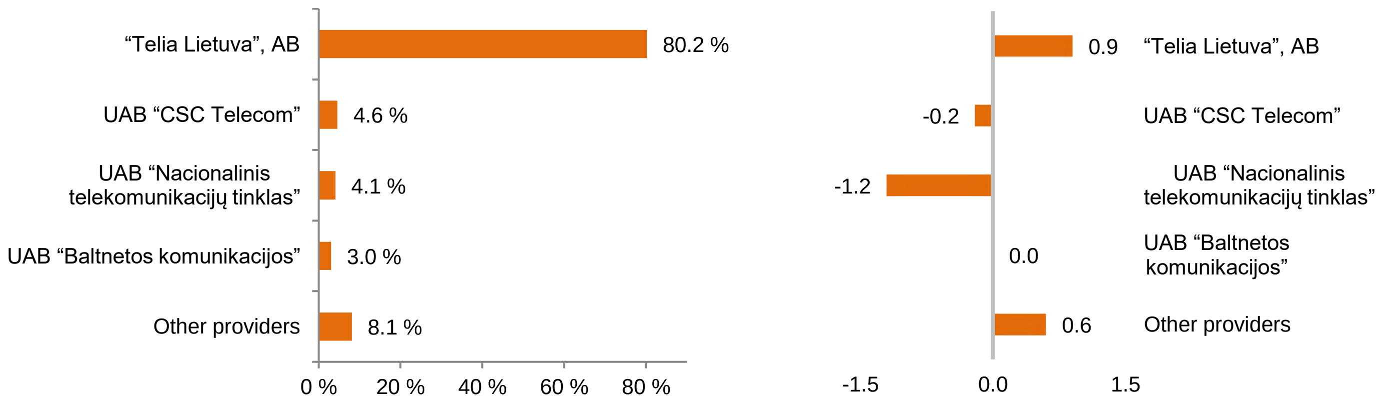


Figure 22. **Market structure of public fixed voice communication services by number of users, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA:

The number of users of public fixed voice communication services provided by "Telia Lietuva", AB decreased by 13.1% or 30.2 thousand over 2022, while the number of users of services provided by other providers decreased by 10.8 thousand (see Table 15).

Table 15. **Number of users of public fixed voice communication services by service provider, in thousands, and by type of user, %, 2017-2022**

	2017	2018	2019	2020	2021	2022
"Telia Lietuva", AB	**414.9**	**353.4**	**295.9**	**261.7**	**230.3**	**200.1**
of which, breakdown by type of service user, %:						
Natural persons	74.8	72.5	69.7	68.1	65.9	64.8
Legal persons	25.2	27.5	30.3	31.9	34.1	35.2
Other providers	**71.0**	**73.1**	**71.9**	**60.2**	**60.3**	**49.5**
of which, breakdown by type of service user, %:						
Natural persons	32.7	35.5	32.7	25.5	33.1	28.4
Legal persons	67.3	64.5	67.3	74.5	66.9	71.6

Source: CRA.

The number of natural persons using public fixed voice communication services provided by "Telia Lietuva", AB decreased by 14.6% to 129.5 thousand in 2022. "Telia Lietuva, AB market share in the segment of services provided to natural persons increased by 1.8 percentage points and accounted for 90.2% of the total public fixed voice communication market. The number of natural persons using public fixed voice communication services provided by other providers decreased by 29.7% in 2022 compared to 2021, reaching 14.0 thousand at the end of the year.

The number of legal entities using public fixed voice communication services provided by “Telia Lietuva”, AB and other providers decreased by 10.2% (8.0 thousand) and 12.1% (4.9 thousand), respectively, over 2022. "Telia Lietuva, AB, with 70,500 legal entities using its public fixed voice communication services at the end of 2022, had a 66.5% share of the market for public fixed voice communication services provided to legal entities.

Number portability service. In 2022, this service have been used 30.1 thousand times (see Table 16). The largest number of voice communication numbers were ported to another network from the network of UAB “Mezon” (9.3 thousand numbers or 30.9% of all ported voice communication numbers) and from the network of UAB “CSC Telecom” (8.9 thousand numbers or 29.4%). 10.3 thousand numbers or 34.5% were ported from the networks of other providers to the network of UAB "Nacionalinis telekomunikacijų tinklas".

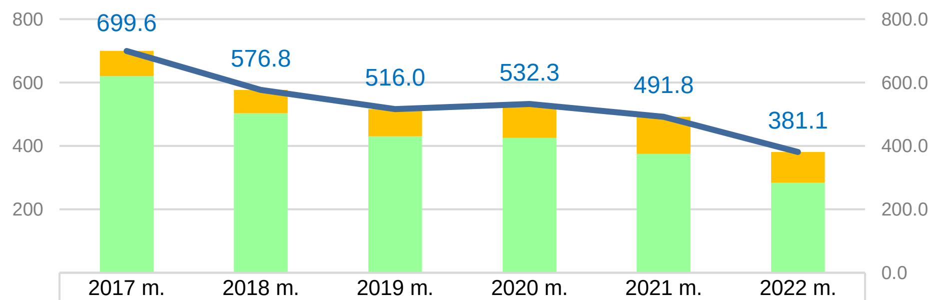
Table 16. **Number of ported numbers by service provider, pcs., 2022**

	Came	Left	**Balance**
UAB “Nacionalinis telekomunikacijų tinklas”	10 384	751	9 633
UAB “CSC Telecom”	10 071	8 850	1 221
UAB “Tele2”	221	50	171
UAB “EcoFon”	8 030	8 002	28
UAB “Mediafon Carrier Services”	92	597	-505
“Telia Lietuva”, AB	1 184	2 512	-1 328
UAB “Mezon”	0	9 288	-9 288
Other providers	79	11	68
	30 061	30 061	0

Source: CRA.

Duration of calls. In 2022, compared to 2021, the duration of calls initiated by users of public fixed voice communication services has decreased by 22.5% (see Figure 23). The market for public fixed voice communication services, measured in terms of the duration of calls originated on different providers' networks, maintained the same position in 2022 as in the previous year, with “Telia Lietuva”, AB holding the largest market share (74.5%), although its market share declined by 1.8 percentage points over the year.

Change in the total duration of initiated calls in 2022 compared to 2021: -22,5 %



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
Other providers	79.7	73.4	85.8	106.4	116.6	97.3
„Telia Lietuva“, AB	619.9	503.4	430.2	425.9	375.1	283.7
TOTAL DURATION OF INITIATED CALLS	699.6	576.8	516.0	532.3	491.8	381.1

Figure 23. **Duration of calls initiated by users of public fixed voice communication services by service provider, million minutes, 2017-2022**
Source: CRA.

In 2022, the total duration of calls terminated both on the networks of the Republic of Lithuania and on the networks of foreign operators decreased (see Table 17). The duration of calls terminating on foreign operators' networks shows a downward trend over the whole period 2017-2022. In 2022, the duration of calls from other providers terminating on foreign operators' networks accounted for 72.8% of all such calls. In the period 2017-2022, the largest share of calls terminating on the networks of the Republic of Lithuania was accounted for by calls initiated on the network of “Telia Lietuva”, AB, accounting for 76.2% in 2022.

Table 17. **Duration of calls initiated on individual public fixed voice communication networks by call destination, million minutes, 2017-2022***

“Telia Lietuva”, AB	2017	2018	2019	2020	2021	2022
Terminated in the networks of the Republic of Lithuania	602.7	490.1	419.4	417.9	370.1	280.1
Of which terminated with short and service numbers	11.8	9.5	9.0	9.6	7.0	6.6
Terminated on foreign operators’ networks	17.2	13.3	10.8	8.0	5.1	3.6
Other providers						
Terminated in the networks of the Republic of Lithuania	55.1	56.2	75.1	98.1	107.0	87.7
Of which terminated with short and service numbers	0.4	0.5	0.9	0.5	0.6	0.6
Terminated on foreign operators’ networks	24.6	17.1	10.7	8.3	9.6	9.6
All providers						
Terminated in the networks of the Republic of Lithuania	657.8	546.4	494.5	516.0	477.0	367.8
Of which terminated with short and service numbers	12.3	10.0	9.9	10.0	7.6	7.2
Terminated on foreign operators’ networks	41.8	30.4	21.5	16.2	14.7	13.2

**Since 2017, calls to short and other premium-rate or free calls are distinguished.*
Source: CRA.

Revenue. Over the whole period under review, there has been a downward trend in revenue from public fixed voice communication services. In 2022, this revenue decreased by 10.9% or €2.3 million and reached €19.1 million, accounting for 2.4% of the gross revenue of the electronic communications market of €803.5 million (see Figure 24).

Change in 2022 compared to 2021: -10,9 %

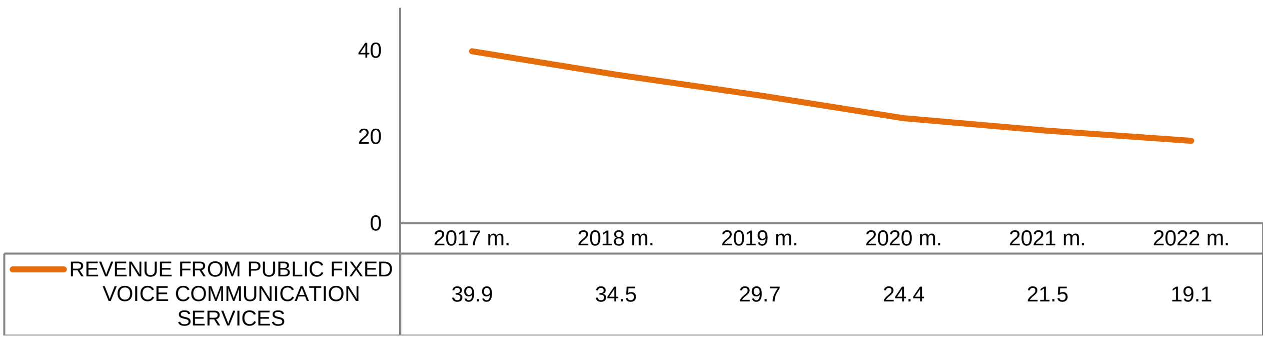


Figure 24. **Revenue from public fixed voice communication services, € million, 2017-2022**
Source: CRA.

When looking at the distribution of revenue from public fixed voice communication services by provider in 2022, “Telia Lietuva”, AB has the largest share (84.0%) of the revenue from public fixed voice communication services (see Figure 25). In 2022, “Telia Lietuva”, AB market share decreased by 1.1 percentage points compared to 2021.

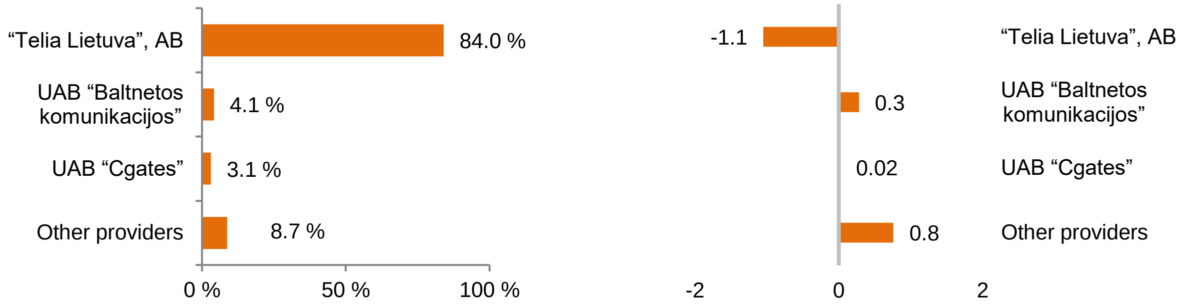


Figure 25. **Structure of revenue from public fixed voice communication services by service provider, in %, and annual changes in market revenue shares, in percentage points, 2022**
Source: CRA.

ARPU. In 2022, as in 2021, the average revenue per subscriber per month (ARPU) for public fixed voice communication services was €6.0 (see Table 18).

Table 18. **ARPU for public fixed voice communication services by service provider and type of user, €/month, 2017-2022**

	2017	2018	2019	2020	2021	2022
ARPU for public fixed voice communication services*	**6.6**	**6.4**	**6.4**	**6.0**	**6.0**	**6.0**
ARPU by users:						
Natural persons	5.5	5.4	5.5	5.2	5.2	5.3
Legal persons	9.2	8.3	8.0	7.1	7.1	7.1
ARPU by providers:						
"Telia Lietuva", AB	7.0	6.9	6.9	6.4	6.3	6.3
Other providers	4.3	3.9	4.4	4.3	4.6	5.0

* Including revenue from the subscription line.
Source: CRA.

In 2022, ARPU for public fixed voice communication services were 1.9 times higher than ARPU for public mobile voice communication services.

Prices. The average prices (the ratio of the revenue from these services to the duration of the calls for which they are earned) per national call minute calculated by providers of public fixed voice communication services increased by 14.8% in 2022 compared to 2021 (see Table 19). In 2022, compared to 2021, the estimated average price per minute of an international call initiated on the networks of other providers has increased by €0.9, or 18.9%, while on the network of "Telia Lietuva", AB it has increased by €2.1 or 9.2%.

Table 19. **Estimated average prices of public fixed voice communication services by service provider, €/minute, 2017-2022**

	2017	2018	2019	2020	2021	2022
National call						
"Telia Lietuva", AB	2.5	2.6	2.5	2.5	2.5	2.9
Other providers	1.3	1.1	1.1	0.8	0.9	1.0
All providers	2.4	2.5	2.3	2.2	2.1	2.4
International call						
"Telia Lietuva", AB	12.2	13.2	15.0	17.7	22.5	24.6
Other providers	6.0	6.6	8.6	6.8	4.9	5.8
All providers	8.6	9.5	11.8	12.1	10.9	10.9

Source: CRA.

Over the whole period of 2017-2022, there is a downward trend in both revenue and the number of users of services. The increase in call durations caused by the Covid-19 pandemic is also decreasing. It should be noted that in 2022, compared to 2021, the number of legal persons using public fixed telephony services has declined at a lower rate (10.8% or 12.9 thousand) than the number of natural persons (16.4% or 28.2 thousand).

2.4. Wholesale public communications network provisioning and wholesale public voice communication services

2.4.1. General market overview

Service providers	21
Largest service provider	“Telia Lietuva”, AB
Wholesale revenue, € million	87,3

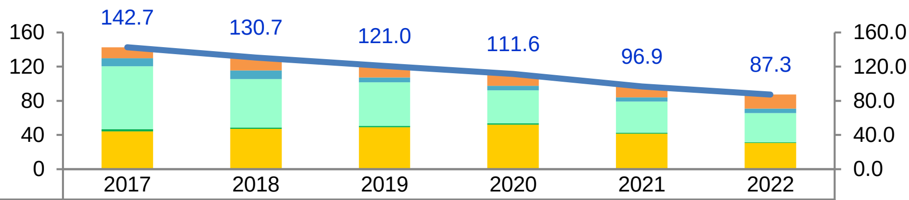
IMPORTANT!

- In this section of the report, other providers of interconnection services (hereinafter in this section of the report - the other providers) are all providers of interconnection services except “Telia Lietuva”, AB, UAB “Tele2”, UAB “Bitė Lietuva”, UAB “Mediafon Carrier Services” and UAB “Ecofon”.

Wholesale public communications network provisioning and wholesale public voice communication services are wholesale services that are necessary to enable the provision of retail public voice communication services. These services include services provided to other service providers, such as call initiation, call transit and call termination on public fixed and/or mobile networks, and roaming services provided to providers of public mobile voice communication services in foreign countries so that their customers can use public mobile voice communication services when they come to Lithuania.

Revenue. Revenue from interconnection services shows a downward trend over the whole period of 2017-2022. In 2022, the revenue generated decreased by 9.9% compared to 2021 and amounted to €87.3 million (see Figure 26). Revenue from interconnection services decreased by 1.8 percentage points in 2022 compared to 2021 and accounted for 10.9% of gross revenue in the electronic communications services market.

Change in interconnection revenue in 2022 compared to 2021: - 9,9 %



	2017	2018	2019	2020	2021	2022
Other revenue	13.0	15.6	13.7	13.9	12.9	16.4
Roaming	9.2	10.3	5.6	5.2	4.8	5.4
Call transit	73.8	56.4	51.1	38.9	36.6	34.1
Termination on fixed networks	2.5	1.6	1.4	1.4	1.1	0.9
Termination on mobile networks	44.2	47.2	49.2	52.1	41.5	30.6
REVENUE FROM INTERCONNECTION SERVICES, IN TOTAL	142.7	130.7	121.0	111.6	96.9	87.3

Figure 26. **Structure of revenue from interconnection services by service group, € million, 2017-2022**
Source: CRA.

When looking at the structure of revenue from interconnection services by service group, the largest share of revenue over the entire 2017-2022 period is from call transit services and termination of calls on mobile networks. In 2022, revenue from call transit accounted for 39.1% of total interconnection revenue, an increase of 1.3

percentage points compared to 2021. Revenue from termination of calls on mobile networks accounted for 35.0% of total interconnection revenue in 2022, a decrease of 7.8 percentage points compared to 2021. Revenue from termination of SMS services increased 2.2-fold in 2022 compared to 2021 and amounted to €9.3 million.

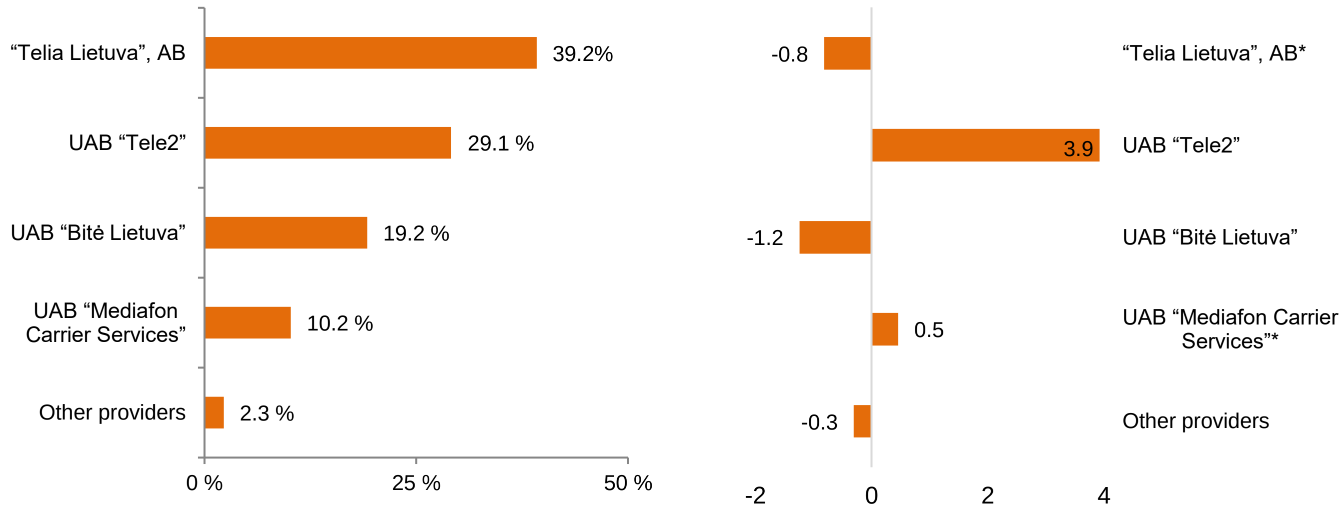
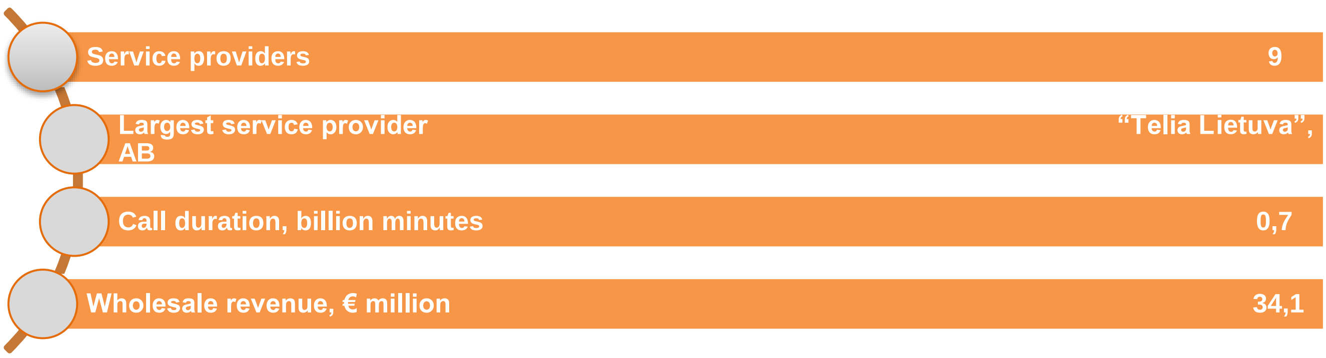


Figure 27. **Market structure of interconnection services in terms of revenue generated by service providers, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

In 2022, compared to 2021, UAB “Tele2” interconnection revenue grew the fastest (increasing by 3.9 percentage points), while UAB “Bitė Lietuva” revenue declined the most (decreasing by 1.2 percentage points) (see Figure 27)

Interconnection revenues show a downward trend over the whole period 2017-2022. The main contributor to the decline in revenue in 2022 was a decrease in termination rates on mobile networks. During the period under review, the largest share of interconnection revenue came from mobile call termination and call transit services.

2.4.2. Call transit services



IMPORTANT!

- Call transit services covered in this section of the report are limited to pure transit, i.e. when calls are initiated or terminated on a network other than the transit service provided.
- In this section of the report, other providers of call transit services (hereinafter in this section of the report - the other providers) are all providers of call transit services, with the exception of UAB “Bitė Lietuva”, UAB “Mediafon Carrier Services”, UAB “Nacionalinis telekomunikacijų tinklas”, UAB “Raystorm”, “Telia Lietuva”, AB, as indicated

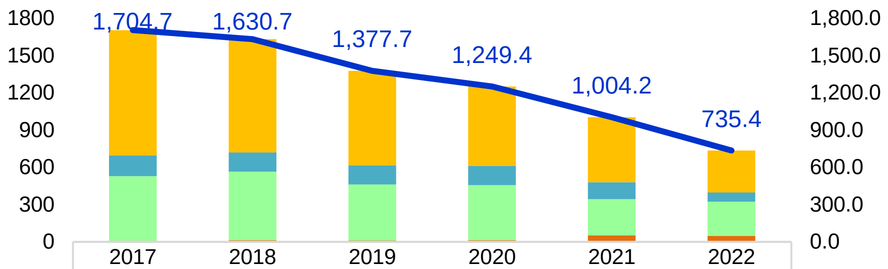
in Figure 29; and UAB "Bitė Lietuva", UAB "Ecofon", UAB "Mediafon Carrier Services", UAB "Mediafon Carrier Services", "Telia Lietuva", AB, as indicated in Figure 31.

Call transit service is an important service for public voice communication service providers seeking to make more efficient use of available network and financial resources and to have alternative paths for sending calls. Call transit services allow calls to be forwarded within a country, calls initiated within a country to be sent abroad, and calls sent from abroad to be forwarded to a specific public communications network in Lithuania. Transit can also carry calls that are neither initiated nor terminated in Lithuania.

Service providers. Call transit services were provided by 9 operators[7] at the end of 2022, one less than at the end of 2021.

Trends in the duration of transferred calls since 2017 are shown in Figure 28. In terms of the duration of calls in transit by destination, a distinction is made between call transit services when calls are forwarded: 1) from the public communications networks of the Republic of Lithuania to other public communications networks of the Republic of Lithuania, 2) from the public communications networks of the Republic of Lithuania to the networks of foreign operators, 3) from the networks of foreign operators to the public communications networks of the Republic of Lithuania, 4) from the networks of foreign operators to the networks of other foreign operators via the territory of the Republic of Lithuania.

Change in transit call durations, 2022 compared to 2021: -26,8 %



	2017	2018	2019	2020	2021	2022
From foreign networks to other foreign networks	1,008.1	911.0	759.8	638.6	522.8	336.9
From Lithuanian networks to foreign networks	168.4	154.9	155.7	153.3	137.9	74.4
From foreign networks to Lithuanian networks	519.0	551.9	451.5	444.4	289.9	275.7
From Lithuanian networks to other Lithuanian networks	9.1	12.9	10.7	13.1	53.5	48.4
DURATION OF TRANSIT CALLS, IN TOTAL	1,704.7	1,630.7	1,377.7	1,249.4	1,004.2	735.4

Figure 28. **Duration of calls in transit to the public communications networks of Lithuania and foreign operators, million minutes, 2017-2022**
Source: CRA.

In 2022, the trend continued with the majority (55.9%) of all transit calls being sent to the networks of foreign operators (65.8% in 2021). (see Figure 28).

[7] "Telia Lietuva", AB, UAB "Bitė Lietuva", UAB "Ecofon", UAB "Mediafon Carrier Services", UAB "Nacionalinis telekomunikacijų tinklas", UAB "Raystorm", UAB "TCG Telecom", UAB "Teleksas", UAB "Moremins Lietuva".

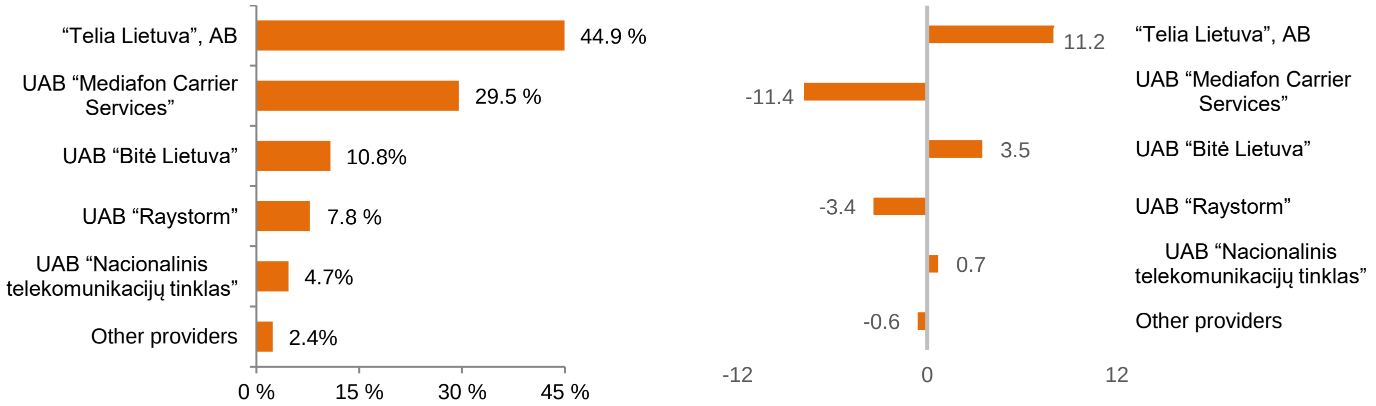
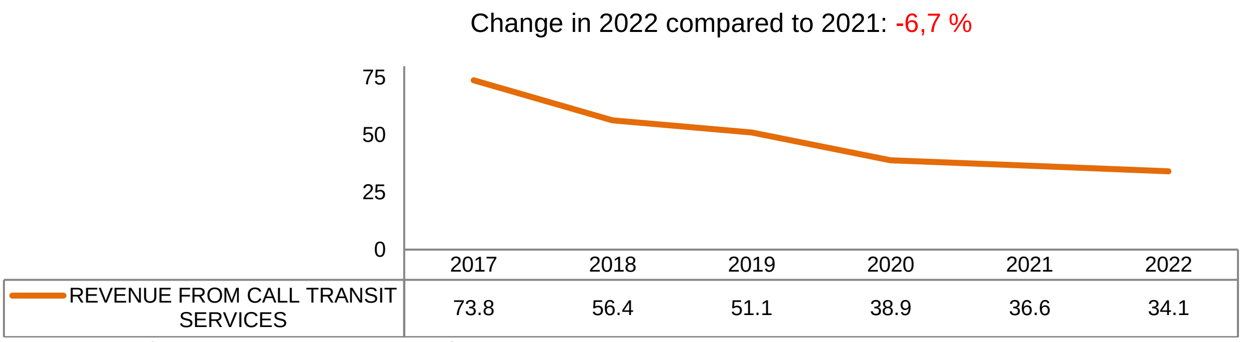


Figure 29. **Market structure of call transit services by duration of calls transferred, in %, and annual percentage point changes in market shares, 2022**
Source: CRA.

“Telia Lietuva”, AB had the largest share in the market for call transit services in 2022 in terms of duration of forwarded calls, with the highest annual growth rate (11.2 percentage points) (see Figure 29).

Revenue. Since 2017, there has been a downward trend in revenue from call transit services (see Figure 30). In 2022, compared to 2021, this revenue decreased by 6.7% or €2.4 million. The decrease in revenue from call transit services is due to a 26.8% reduction in the duration of calls in transit in 2022.



	2017	2018	2019	2020	2021	2022
REVENUE FROM CALL TRANSIT SERVICES	73.8	56.4	51.1	38.9	36.6	34.1

Figure 30. **Revenue from call transit services, € million, 2017-2022**
Source: CRA.

When assessing the market for call transit services by revenue, “Telia Lietuva”, AB accounts for the largest share (65.7%) of revenue in 2022, as it has done for the last few years (see Figure 31). Its market share increased by 4.5 percentage points over the year.

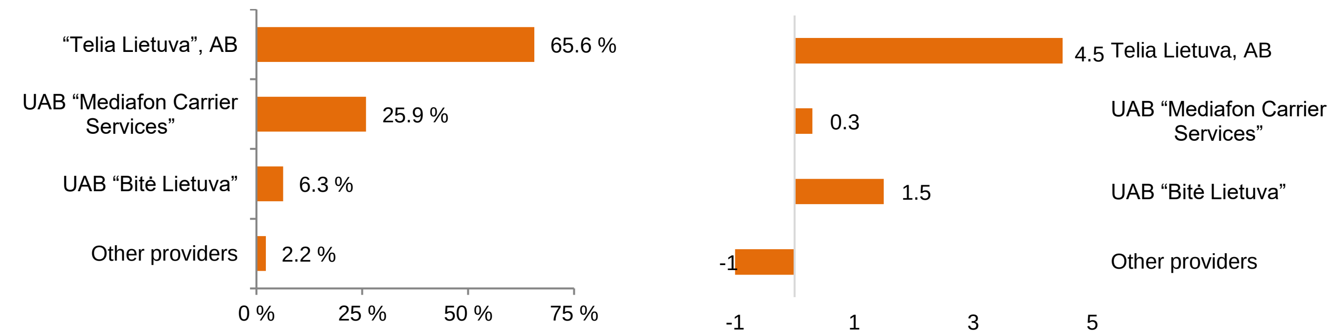


Figure 31. **Market structure of call transit services by revenue, in %, and annual changes in market shares in percentage points in 2022**
Source: CRA.

Since 2018, there has been a downward trend in both the duration of calls in transit and the revenue generated from call transit services. “Telia Lietuva”, AB had the largest market share in terms of revenue (65.6%) and duration of calls in transit (44.9%).

2.4.3. Call termination services

2.4.3.1. Call termination on public mobile networks

Service providers	**9**
Largest service provider	**UAB “Tele2”**
Call duration, billion minutes	**4.7**
Wholesale revenue, € million	**30,6**

IMPORTANT!

- The call termination services on public mobile networks considered in this section of the report only cover the termination of calls initiated on other networks, and calls that were initiated and terminated on the same network are not assessed.
- In this section of the report, other providers of call termination services on the public mobile network (hereinafter in this section of the report - the other providers) are all providers of call termination services on the public mobile network, with the exception of UAB “Bitė Lietuva”, “Telia Lietuva”, AB and UAB “Tele2” (hereinafter in this section of the report - the other providers).

Call termination services on public mobile networks consist of calls initiated on the networks of Lithuanian and foreign operators and terminated on the public mobile networks of Lithuanian operators.

Service providers. At the end of 2022, 9 operators[8] provided call termination services on the public mobile network.

Duration of terminated calls. In 2022, the total duration of calls terminated on public mobile networks decreased by 6.6% compared to 2021 (see Table 20). UAB “Tele2” network accounted for the largest share of call terminations over the entire 2017-2022 period. In 2022, calls terminated on UAB “Tele2” network accounted for 42.7% of all calls terminated on public mobile networks. In 2022, as in 2021, the largest share of calls terminated on public mobile networks (83.8%), in terms of call duration, were initiated on public mobile networks.

[8] “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”.

Table 20. **Duration of terminated calls on public mobile networks by service provider, in millions of minutes, and shares of duration of terminated calls by call initiation network, %, 2017-2022**

	2017	**2018**	**2019**	**2020**	**2021**	**2022**
1. UAB "Tele2"						
Proportions of call durations terminated on public mobile networks by call initiation network, %.						
Initiated on public mobile networks	82.2	79.1	77.3	78.0	81.0	80.0
Initiated on public fixed networks	5.0	4.8	4.0	3.9	5.9	5.3
Initiated in foreign operators' networks	12.7	16.1	18.7	18.1	13.0	14.7
Duration of calls terminated on public mobile networks, million minutes	**1 664.3**	**1 752.7**	**1 844.1**	**2 127.8**	**2 123.8**	**2 002.4**
2. "Telia Lietuva", AB						
Proportions of call durations terminated on public mobile networks by call initiation network, %.						
Initiated on public mobile networks	82.5	82.1	84.8	88.7	88.7	89.1
Initiated on public fixed networks	4.6	4.1	3.9	0.02	0.03	0.04
Initiated in foreign operators' networks	12.9	13.8	11.3	11.3	11.2	10.9
Duration of calls terminated on public mobile networks, million minutes	**1 288.4**	**1 335.2**	**1 317.4**	**1 505.3**	**1 526.3**	**1 409.7**
3. UAB "Bitė Lietuva"						
Proportions of call durations terminated on public mobile networks by call initiation network, %.						
Initiated on public mobile networks	87.8	84.0	84.9	85.7	86.6	85.7
Initiated on public fixed networks	6.5	7.2	6.8	6.7	5.9	4.7
Initiated in foreign operators' networks	5.7	8.8	8.3	7.6	7.5	9.6
Duration of calls terminated on public mobile networks, million minutes	**1 064.3**	**1 135.5**	**1 134.7**	**1 326.0**	**1 334.9**	**1 225.0**
4. Other providers						
Proportions of call durations terminated on public mobile networks by call initiation network, %.						
Initiated on public mobile networks	47.8	58.9	55.6	58.7	56.4	53.4
Initiated on public fixed networks	42.4	28.9	26.2	31.6	38.8	44.2
Initiated in foreign operators' networks	9.9	12.3	18.2	9.7	4.8	2.4
Duration of calls terminated on public mobile networks, million minutes	**11.5**	**17.1**	**28.7**	**35.0**	**37.7**	**55.0**
5. Duration of all calls terminated on public mobile networks, million minutes	**4 028.6**	**4 240.6**	**4 324.9**	**4 994.0**	**5 022.6**	**4 692.1**

Source: CRA.

Revenue. The growth in revenue from call termination on public mobile networks up to 2020 (see Figure 32) declined in 2022 compared to 2021.

Change in 2022 compared to 2021: -26,3 %

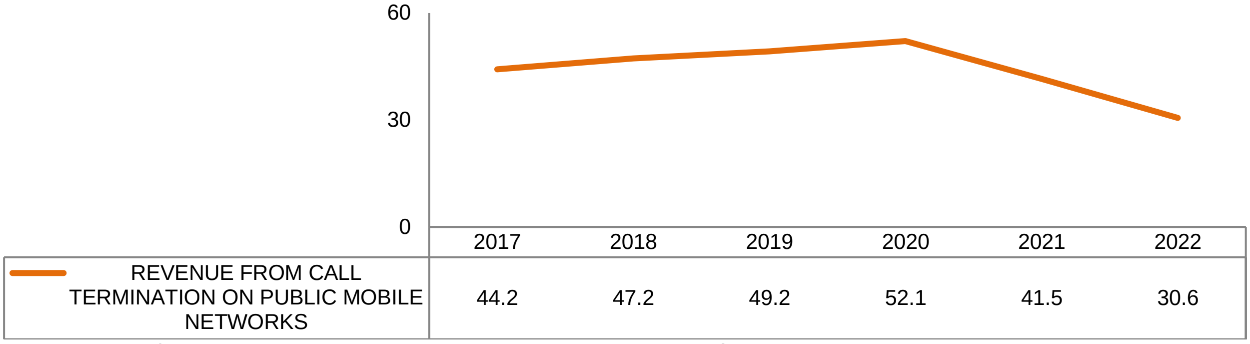


Figure 32. **Revenue from call termination on public mobile networks, € million, 2017-2022**
Source: CRA.

In 2022, UAB "Tele2" accounted for the largest share (44.4%) of call termination revenue on public mobile networks (see Figure 33).

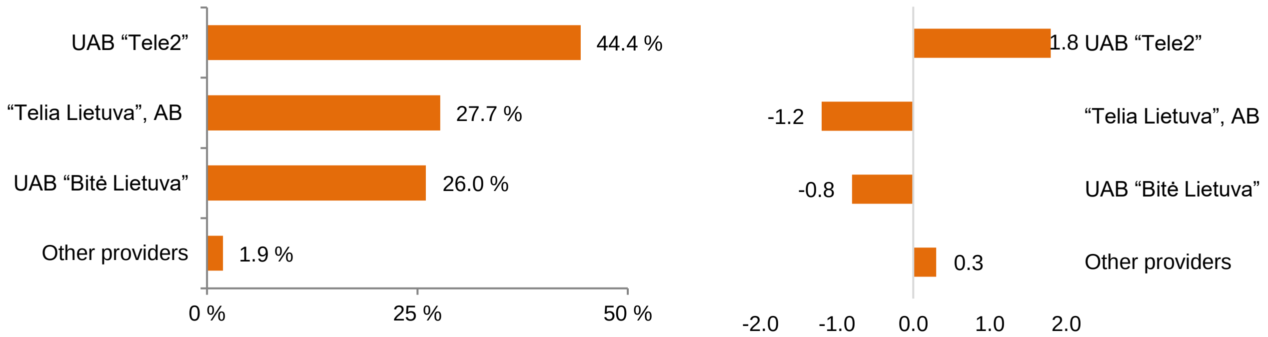


Figure 33. **Structure of revenue from call termination on public mobile networks by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Prices. The European Commission has, by means of a delegated act[9], set common maximum prices for voice call termination on public mobile networks across the European Union for all providers of voice call termination services on public mobile networks in all Member States of the European Union, as well as the procedures and time limits for their application. From 1 January 2022 to 31 December 2022, the price of voice call termination services on public mobile networks could not exceed €0.55 per minute (excluding VAT). This price will decrease annually until it reaches €0.2/min (excluding VAT) in 2024.

[9] Commission Delegated Regulation (EU) 2021/654 of 18 December 2020 supplementing Directive (EU) 2018/1972 of the European Parliament and of the Council with a common Union-wide maximum tariff for mobile voice call termination services and a common Union-wide maximum tariff for fixed voice call termination services.

2.4.3.2. Call termination on public fixed networks

Service providers	**6**
Largest service provider	**“Telia Lietuva”, AB**
Call duration, million min.	**323.1**
Wholesale revenue, € million	**0,9**

IMPORTANT!

- In this section of the report, other providers of call termination services on the public fixed network (hereinafter in this section of the report - the other providers) are all providers of call termination services on the public fixed network, except “Telia Lietuva”, AB.

The call termination service in the public fixed network covers calls initiated in the networks of Lithuanian and foreign operators and terminated in the public fixed networks of Lithuanian operators.

Service providers. In 2022, 6 operators[10] provided call termination services on the public fixed network. This is a decrease of 2 operators compared to 2021.

Duration of terminated calls. In 2022, compared to 2021, the duration of terminated calls on public fixed networks decreased by 19.5% to 323.1 million minutes (see Table 21). In 2022, the largest share (82.9%) of calls terminated on public fixed networks, in terms of call duration, was initiated on public mobile networks, with the duration of these calls decreasing by 16.6% or 53.5 million minutes in 2022.

Table 21. **Duration of terminated calls on individual public fixed networks by call initiation network, million minutes, 2017-2022**

	2017	2018	2019	2020	2021	2022
1. Duration of calls terminated by “Telia Lietuva”, AB in public fixed networks:						
Initiated on public mobile networks	211.0	248.5	186.5	240.4	245.7	201.3
Initiated on public fixed networks	49.6	42.2	29.8	24.1	22.7	14.2
Initiated in foreign operators’ networks	30.1	24.6	21.3	22.4	19.4	13.1
Duration of calls terminated on public fixed networks, in total	**290.7**	**315.3**	**237.7**	**287.0**	**287.8**	**228.5**
2. Duration of calls terminated on other providers’ public fixed networks:						
Initiated on public mobile networks	50.7	61.5	52.5	69.1	75.8	66.7
Initiated on public fixed networks	26.6	25.2	35.9	41.9	35.0	26.2
Initiated in foreign operators’ networks	5.6	4.5	4.1	3.3	2.6	1.6
Duration of calls terminated on public fixed networks, in total	**83.0**	**91.2**	**92.5**	**114.2**	**113.4**	**94.6**
3. Duration of all terminated calls on public fixed networks, in total	**373.6**	**406.5**	**330.1**	**401.2**	**401.2**	**323.1**

Source: CRA.

[10] “Telia Lietuva”, AB, UAB “CSC Telecom”, UAB “Ecofon”, UAB “Mediafon Carrier Services”, UAB “Nacionalinis telekomunikacijų tinklas”, “Voxbone SA”.

When assessing the structure of the market for call termination on public fixed networks by provider, it can be seen that the majority of calls (70.7%) were terminated on the public fixed network of “Telia Lietuva”, AB in 2022 (see Table 22). Calls initiated on public mobile networks accounted for the largest share of terminated calls, both in the network of “Telia Lietuva”, AB (88.1%) and in the networks of other providers (70.6%).

Revenue. In 2022, revenue from call termination on public fixed voice communication networks decreased by 22.1% or €0.2 million (see Figure 34). The downward trend in call termination revenue on public fixed voice communication networks can be observed over the entire period of 2017-2022.

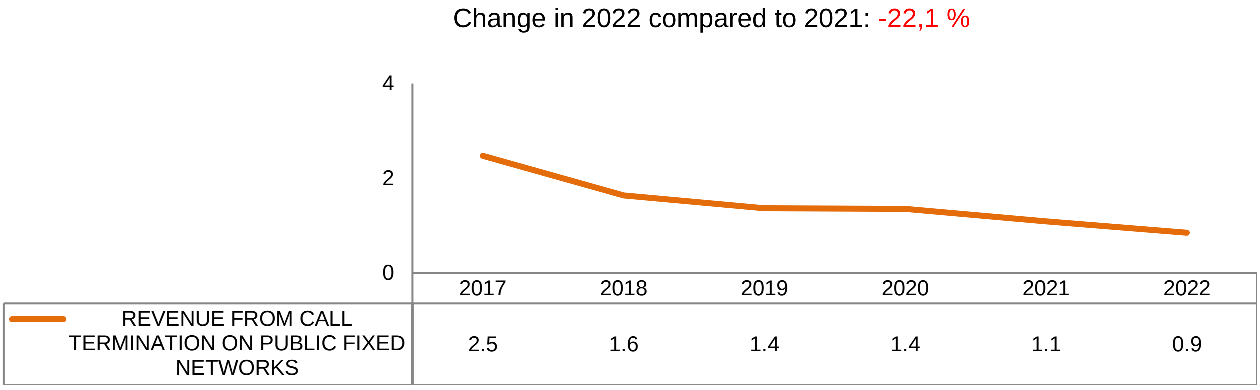


Figure 34. **Revenue from call termination on public fixed networks, € million, 2017-2022**
Source: CRA.

In 2022, “Telia Lietuva”, AB accounted for the largest share (78.1%) of revenue from call termination on public fixed voice communication networks, as it did in 2021 (see Figure 35).

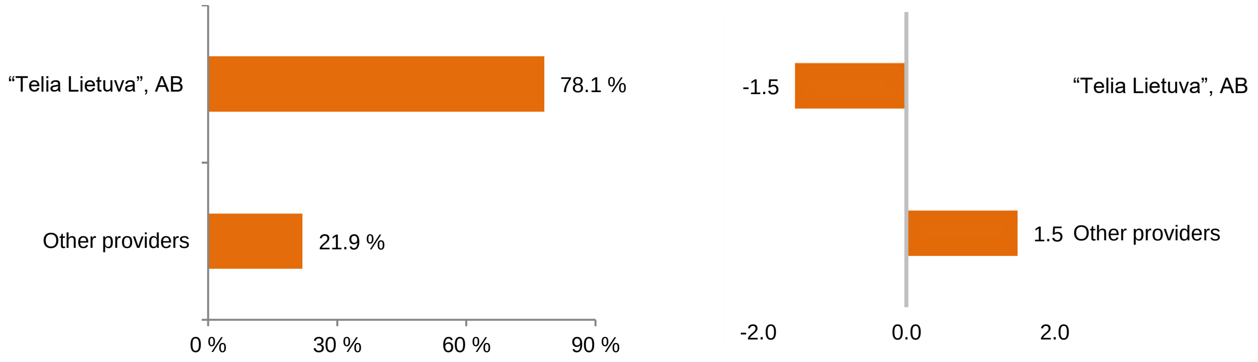


Figure 35. **Structure of revenue from call termination on public fixed networks by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Prices. The European Commission has, by means of a delegated act, set common maximum prices for call termination services on public fixed networks across the European Union for all providers of call termination services on public fixed networks in all Member States of the European Union, as well as the procedures and deadlines for applying them. From 1 January 2022, the price of call termination services on public fixed networks cannot exceed €0.07/minute (excluding VAT).

In 2022, revenue from call termination services accounted for 36.1% of total revenue from interconnection services. The maximum price for voice call termination services on public mobile networks set by the delegated act decreased by 21.4% from 1 January 2022 to €0.55 per minute (excluding VAT). The price of terminating calls on public fixed networks has reached its final limit of €0.07 per minute (excluding VAT).

3. Data transmission

3.1. General overview of the data transmission services market

Service providers	93
Largest service provider	“Telia Lietuva”, AB
Wholesale revenue, € million	14,3
Retail revenue, € million	441,9
Total revenue, € million	456,3

IMPORTANT!

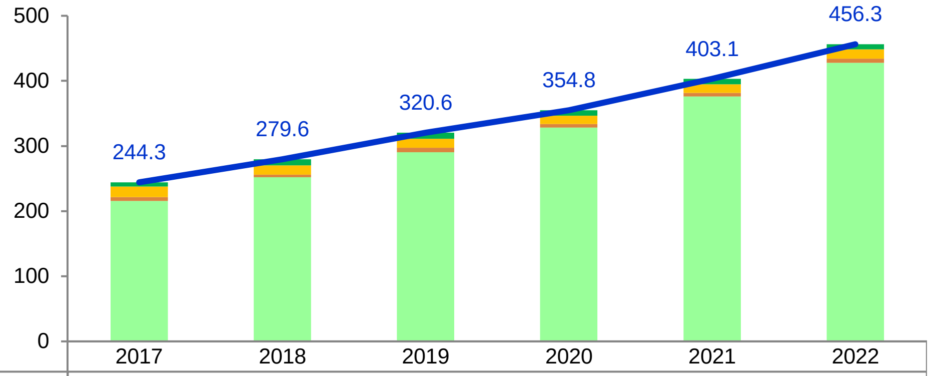
- In this section of the report, other data service providers (hereinafter in this section of the report - the other providers) are all providers of these services, except “Telia Lietuva”, AB, UAB “Tele2”, UAB “Bitė Lietuva”, UAB “Cgates” and UAB “Mezon”, which are listed in Figure 38.

Data transmission services in Lithuania in 2022 include internet access services (retail and wholesale) and other data services (retail and wholesale).

Service providers. The number of data transmission service providers in 2022 has increased by 5 operators compared to 2021. At the end of 2022, 93 operators were providing data transmission services (compared to 88 at the end of 2021). Data transmission services were provided by 67.4% of all undertakings engaged in electronic communications activities (133).

Revenue. Revenue from data transmission services have been increasing over the entire period of 2017-2022. In 2022, this revenue amounted to €456.3 million, an increase of 13.2% or €53.2 million compared to 2021 (see Figure 36). The provision of data transmission services remains one of the most important activities in the electronic communications sector, accounting for 56.8% of total revenue in the electronic communications market.

Revenue from data transmission services in 2022 compared to 2021: +13,2%



	2017	2018	2019	2020	2021	2022
Revenue from other wholesale data transmission services	6.7	9.3	9.5	8.2	8.2	7.8
Revenue from other retail data transmission services	16.2	14.4	13.7	12.8	13.2	14.2
Revenue from wholesale internet access services	5.8	3.7	7.1	5.3	5.9	6.5
Revenue from retail internet access services	215.6	252.2	290.3	328.5	375.9	427.7
REVENUE FROM DATA TRANSMISSION SERVICES, in total	244.3	279.6	320.6	354.8	403.1	456.3

Figure 36. **Structure of revenue from data transmission services by service group, € million, 2017-2022**
Source: CRA.

In 2022, as in the whole period of 2017-2022, the largest share of revenue (93.7%) is from retail internet access services (see Figure 37). In 2022, the share of revenue from retail internet access services in overall data transmission services revenue increased by 0.5 percentage points compared to 2021.

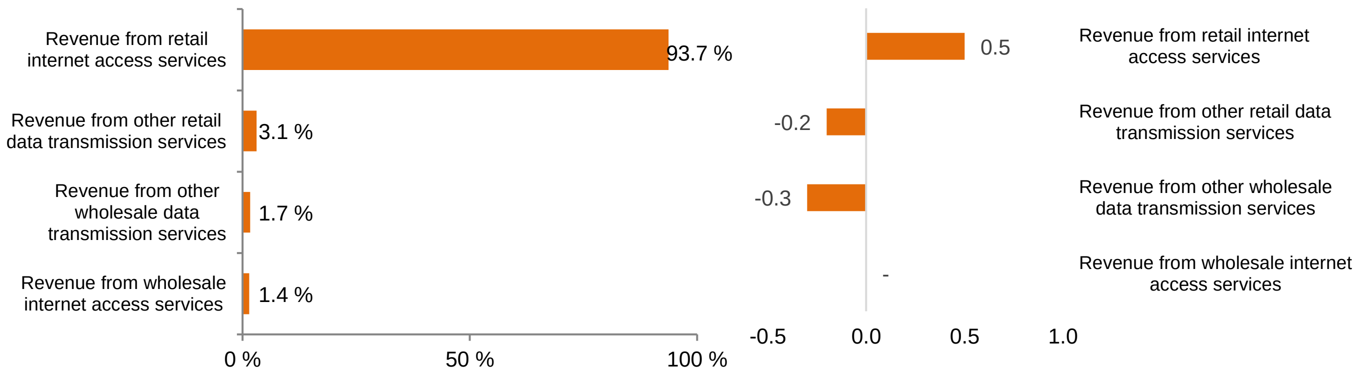


Figure 37. **Structure of revenue from data transmission services by service group, in %, and annual changes in the structure of revenue, in percentage points, 2022**
Source: CRA.

In 2022, as in 2021, “Telia Lietuva”, AB received the largest share of revenue from data transmission services, accounting for 38.0% of total data transmission services revenue (see Figure 38). In 2022, compared to 2021, revenue of other providers increased by the highest percentage point (1.5 percentage points) to 9.6% of total revenue for data transmission services.

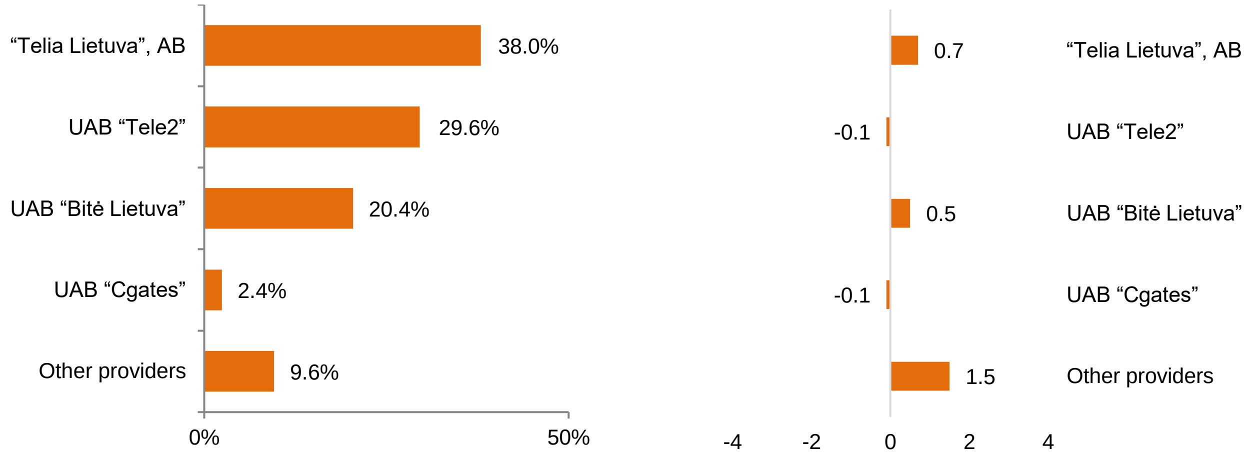


Figure 38. **Structure of revenue from data transmission services by service provider, in %, and annual changes in revenue shares, in percentage points, 2022**
Source: CRA.

In 2022, revenue from data transmission services accounted for more than half of the overall revenue of the electronic communications market (56.8%). The market for data transmission services grew in terms of revenue over the entire period of 2017-2022. In 2022, this market grew by 13.2%. In numerical terms, this was the highest growth over the whole period, amounting to €53.2 million. This strong growth was driven by an increase in revenue from retail internet access services. “Telia Lietuva”, AB remains the largest player in the market for data transmission services, although its market share has been on a downward trend that has continued throughout the period of 2017-2022.

3.2. Retail internet access services

Service providers	85
Service users, thousands	4 518.4
Retail revenue, € million	427,7
ARPU*, €/month	9,6

* home internet service users[11]

Ways of providing services. In 2022, retail internet access services in Lithuania were provided using fixed or mobile communication technologies.

Service providers. In 2022, as in previous periods, the Lithuanian retail internet access services market was characterised by a large number of service providers. At the end of 2022, 85 operators (4 more than in 2021) provided internet access services.

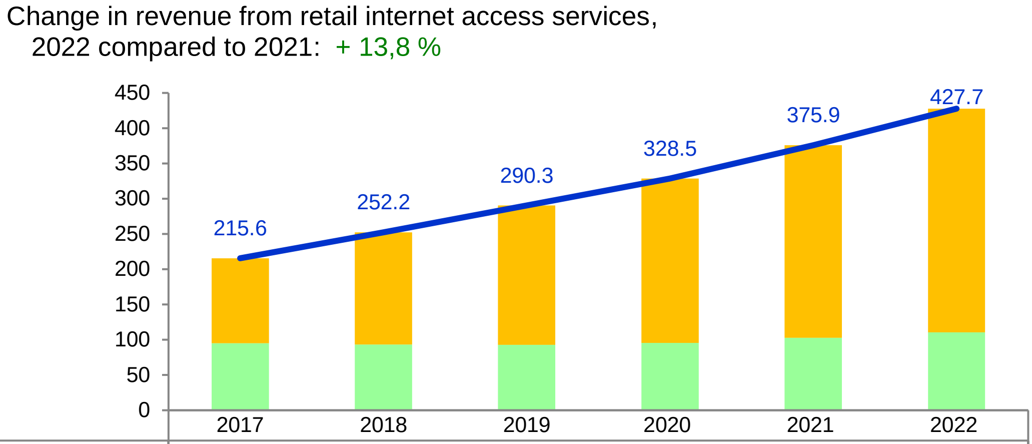
Service users. At the end of 2022, internet access services were used by 4,518.4 thousand users, of which 809.2 thousand were using fixed communication technologies and 3,709.2 thousand were using mobile communication technologies (of which 848.3 thousand were on an internet access service plan instead of a telephony plan).

According to the State Data Agency[12], 87.7% of the population in Lithuania used internet access services in 2022, i.e. 0.8 percentage points more than in 2021. The main uses of internet access services were for information search, communications, leisure, e-commerce and e-banking.

Revenue. Total retail internet access revenue grew throughout the whole period of 2017-2022. In 2022, compared to 2021, this revenue increases by 13.8% to €427.7 million (see Figure 40). In 2022, revenue from retail internet access services provided via mobile technologies accounted for 74.1% of total revenue from retail internet access services, or 1.5 percentage points more than in 2021, while revenue from retail internet access services provided via fixed technologies accounted for 25.9% of total revenues from retail internet access services, or 1.5 percentage points less than in 2021.

[11] Users of retail internet access services provided using fixed communication technologies and SIM cards used to provide internet access services under a plan designed for the provision of internet access services (via a computer) rather than telephony (1 657.5 thousand users in total).

[12] https://osp.stat.gov.lt/statistiniu-rodikliu-analize#/ (table “Persons who used information technology”)



	2017	2018	2019	2020	2021	2022
Revenue from retail internet access services provided via mobile technologies	120.6	159.0	197.8	232.8	273.0	317.0
Revenue from retail internet access services provided via fixed technologies	95.0	93.3	92.6	95.7	102.9	110.7
REVENUE FROM RETAIL INTERNET ACCESS SERVICES, in total	215.6	252.2	290.3	328.5	375.9	427.7

Figure 39. **Structure of revenue from retail internet access services by service provision technology, € million, 2017-2022**
Source: CRA.

In order to determine the intensity of competition in the markets for retail internet access services provided via fixed and mobile communication technologies, the Hirschman-Herfindahl Index[14] (HHI), an indicator of market concentration[13], is analysed. The HHI for the market for retail internet access services provided using fixed communication technologies on a revenue basis is 3,846.3, while the HHI for the market for retail internet access services provided using mobile communication technologies on a revenue basis is 3,306.6. These high values reflect the fact that, despite the relatively large number of active retail internet access providers, both markets are concentrated and structured in an oligopolistic manner, with a few providers having the largest and most dominant market shares.

In 2022, as in every year since 2017, revenue from the provision of retail internet access services continued to grow, increasing by 13.8%. The largest share of revenue - 74.1% - came from retail internet access services provided using mobile communication technologies. This revenue has shown a strong annual increase over the whole period analysed between 2017 and 2022, while revenue from retail fixed internet access services have remained stable, with a slight downward or upward trend.

[13] Concentration - a market situation in which the control of economic activity is concentrated in one or a few companies, i.e. where a small number of companies hold a majority share of a given market.
[14] The HHI reflects the uneven distribution of capacity across all market participants and is the best known and most important index of the intensity of competition in a market. The HHI is directly proportional to concentration (i.e. it increases with increasing concentration and decreases with decreasing concentration). The lower the HHI, the greater the competition, and vice versa - an increase in the HHI indicates a decrease in competition and an increase in market power. HHI values:

- HHI < 1 000 – non-concentrated market;
- HHI between 1 000 and 2 000 - average concentration index;
- HHI above 2 000 - high level of concentration.

3.2.1. Retail internet access services provided using fixed communication technologies

Service providers	**83**
Service users, thousands	**809,2**
Retail revenue, € million	**110,7**
ARPU, €/month	**11,4**

IMPORTANT!

- In this section of the report, other providers of retail Internet access services provided using fixed communication technologies (hereinafter in this section of the report - the other providers) are all providers of these services, with the exception of "Telia Lietuva", AB, UAB "Cgates", UAB "Init", UAB "Splius", UAB "Balticum TV", UAB "Penkių kontinentų komunikacijų centras", UAB "Mezon" as listed in Figure 41; "Telia Lietuva", AB, UAB "Cgates", UAB "Init", UAB "Splius", UAB "Balticum TV", UAB "Penkių kontinentų komunikacijų centras", UAB "Kauno interneta sistemos", as indicated in Figure 42; "Telia Lietuva", AB, UAB "Cgates", UAB "Splius", UAB "Balticum TV", UAB "Init", UAB "Penkių kontinentų komunikacijų centras", UAB "Kauno interneto sistemos", UAB "Mezon", UAB "Baltnetos komunikacijos", UAB "Besmegeniai", UAB "Bitė Lietuva", UAB "Kvartalo tinklas", UAB "Magnetukas", UAB "Etanetas", as listed in table 24; "Telia Lietuva", AB, UAB "Cgates", UAB "Splius", UAB "Mezon", UAB "Balticum TV", UAB "Baltnetos komunikacijos", UAB "Init", UAB "Bitė Lietuva", UAB "Penkių kontinentų komunikacijų centras", as indicated in Figure 45; "Telia Lietuva", AB, UAB "Cgates", UAB "Init", UAB "Splius", UAB "Balticum TV", UAB "Penkių kontinentų komunikacijų centras", UAB "Kauno interneta sistemos", UAB "Baltnetos komunikacijos", as indicated in Figure 46.

Ways of providing services. In 2022, retail internet access services provided using fixed communication technologies in Lithuania were provided in the following ways:

- metallic twisted pair loops using xDSL technology (hereinafter - xDSL lines);
- wireless communication lines using Wi-Fi (Wireless Fidelity) and other wireless communication technologies (hereinafter - wireless lines);
- coaxial cable lines (hereinafter - KTV networks);
- fibre optic lines using Fibre to the Building[15] (FTTB) and Fibre to the Home[16] (FTTH) technologies (hereafter - FTTH lines and FTTB lines, and collectively referred to as FTTx lines);
- using other technologies (shielded twisted pair (STP) and unshielded twisted pair (UTP) lines in Local Area Network (LAN) networks (hereafter - LAN lines), leased lines, etc).

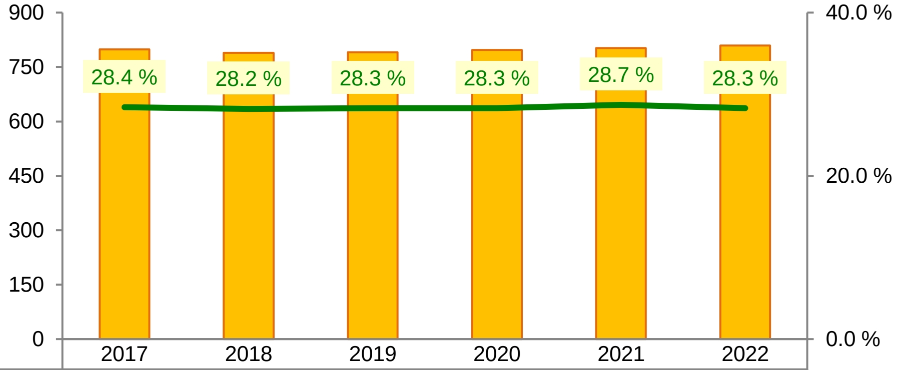
Service providers. In 2022, 83 undertakings (4 more than in 2021) provided retail internet access services in Lithuania using fixed communication technologies.

Service users. At the end of 2022, the number of users to retail internet access services using fixed communication technologies increased by 6.8 thousand or 0.8% to 809.2 thousand users compared to the end of 2021 (see Figure 40). The penetration of retail internet access services using fixed communication technologies (number of users per 100 residents) decreased by 0.4 percentage points to 28.3% in 2022.

[15] Fibre optic lines to the building.

[16] Fibre optic lines to home.

Change in the number of users using retail fixed internet access services through fixed communication technologies in 2022 compared to 2021: +0,8 %



	2017	2018	2019	2020	2021	2022
Number of users using retail fixed internet access services through fixed communication technologies	798.8	788.7	790.4	796.8	802.4	809.2
Penetration of retail internet access services provided via fixed communication technologies	28.4 %	28.2 %	28.3 %	28.3 %	28.7 %	28.3 %

Figure 40. **Number of users of retail internet access services provided via fixed communication technologies, in thousands, and penetration rate, in %, 2017-2022**
Source: CRA.

In the period of 2017-2022, natural persons accounted for the largest share (around 94%) of the total number of users of retail internet access services provided using fixed communication technologies. In 2022, 93.7% of users were natural persons, of whom 79.4% received services via FTTx lines, 14.4% via xDSL lines and 6.2% via other technologies (see Table 22).

Table 22. **Number of service users by fixed communication technology used for retail internet access services, thousands, 2017-2022**

	2017	2018	2019	2020	2021	2022
1. **Number of users of retail internet access services via fixed communication technologies, in total**	**798.8**	**788.7**	**790.4**	**796.8**	**802.4**	**809.2**
Natural persons	*750.9*	*742.0*	*743.3*	*750.9*	*751.3*	*758.4*
Legal persons	*47.9*	*46.8*	*47.1*	*45.9*	*51.1*	*50.8*
2. Number of users of retail internet access services provided via fixed communication technologies, by type of technology used:						
2.1. The service is provided over FTTx lines	565.6	580.2	597.7	610.1	624.9	640.4
Natural persons	*534.1*	*547.9*	*564.1*	*576.6*	*586.2*	*602.1*
Legal persons	*31.4*	*32.3*	*33.6*	*33.5*	*38.6*	*38.3*
2.2. The service is provided over xDSL lines	143.2	132.5	124.5	120.2	116.6	114.6
Natural persons	*133.1*	*124.0*	*117.1*	*113.9*	*111.1*	*109.4*
Legal persons	*10.0*	*8.5*	*7.4*	*6.3*	*5.6*	*5.1*
2.3. The service is provided over wireless lines	57.2	47.7	43.4	43.0	38.8	33.4
2. 4. The service is provided over the CTV network	25.0	22.6	20.6	19.9	18.8	17.4
2.5. The service is provided over other technologies (UTP, STP, leased line, etc.)	7.9	5.7	4.3	3.7	3.3	3.5

	2017	**2018**	**2019**	**2020**	**2021**	**2022**

Source: CRA.

The structure of the retail market for internet access services by fixed line technology used by users in 2022 maintained similar proportions as in previous periods (see Table 24), with FTTx lines being the most commonly used technology (79.1% or 640.4 thousand users).

In 2022, as in previous periods, the number of users to retail internet access services over xDSL lines, wireless lines and KTV networks continued to decline (see Table 23).

The number of user of retail internet access services provided over KTV networks decreased by 1.4 thousand over 2022 to 17.4 thousand at the end of the year. This decline is a consequence of continued investment in FTTx networks, with a significant number of users switching from retail internet access services over KTV networks to services over FTTx lines.

Table 23. **Share of users by fixed communication technology used for retail internet access services, %, 2017-2022**

	2017	2018	2019	2020	2021	2022
FTTx	70.8	73.6	75.6	76.6	77.9	79.1
xDSL	17.9	16.8	15.7	15.1	14.5	14.2
Using wireless lines	7.2	6.0	5.5	5.4	4.8	4.1
Using KTV network	3.1	2.9	2.6	2.5	2.3	2.1
Other technologies (UTP, STP, leased line, etc.)	1.0	0.7	0.5	0.5	0.4	0.4

Source: CRA.

52.8% of all users of retail internet access services provided using fixed communication technologies chose services provided by “Telia Lietuva”, AB (see Figure 41). 14.0% of these users chose UAB “Cgates”, 5.4% - UAB “Init”, 5.4% - UAB “Splius”. “Telia Lietuva”, AB market share increased by 0.3 percentage points over the year. UAB “Cgates” market share changed the most, with a decrease of 0.3 percentage points.

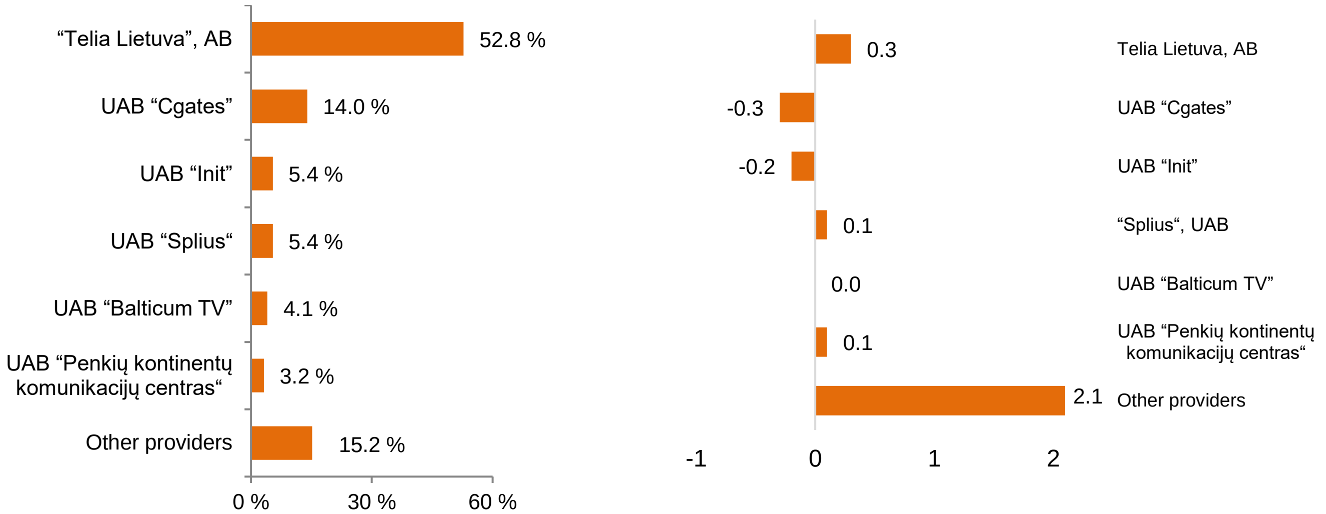


Figure 41. Distribution of users of retail internet access services via fixed communication technologies by service provider, in %, and annual changes in market shares, in percentage points, 2022
Source: CRA.

When looking at the distribution of the number of users of retail internet access services provided by service providers via the fixed communication technologies used to provide these services, it can be seen that in 2022, as in previous years, "Telia Lietuva", AB was the largest provider of retail internet access services over FTTx lines and xDSL lines (see Table 24). In 2022, 48.9% and 99.6% of all Internet access users used the services of "Telia Lietuva", AB for FTTx and xDSL services respectively. In 2022, UAB "Mezon" had the largest market share (29.7%) of the market for retail internet access services provided over wireless lines. UAB "Init" had the largest market share (78.5%) of internet access services provided over KTV networks.

Table 24. **Share of service users using fixed communication technologies by service provider, %, 2022**

	FTTx	Wireless network	KTV network	xDSL
"Telia Lietuva", AB	48.9	-	-	99.6
UAB "Cgates"	17.4	3.8	-	-
UAB "Splius"	6.2	3.4	16.1	-
UAB "Balticum TV"	4.7	8.5	-	-
UAB "Init"	4.7	-	78.5	-
UAB "Penkių kontinentų komunikacijų centras"	4.0	-	-	-
UAB "Kauno interneto sistemos"	2.0	-	-	-
UAB "Mezon"	-	29.7	-	-
UAB "Baltnetos komunikacijos"	-	3.7	-	-
UAB "Besmegeniai"	-	3.8	-	-
UAB "Bitė Lietuva"	-	10.6	-	
UAB "Kvartalo tinklas"	-	3.6	-	-
UAB "Magnetukas"	-	7.1	-	-
UAB "Etanetas"	-	4.7	-	-
Other providers	12.2	21.1	5.4	0.4

Source: CRA.

An analysis of the market shares by the distribution of users of retail internet access services provided over FTTx lines shows that "Telia Lietuva", AB had the largest share (48.9%) (see Figure 42). 17.4% of these users chose

UAB “Cgates”, 6.2% - UAB “Splius”, 4.7% - UAB “Init”. Over the year, the market shares of all providers, except “Telia Lietuva”, AB, grew slightly, while those of other providers grew by 0.7 percentage points.

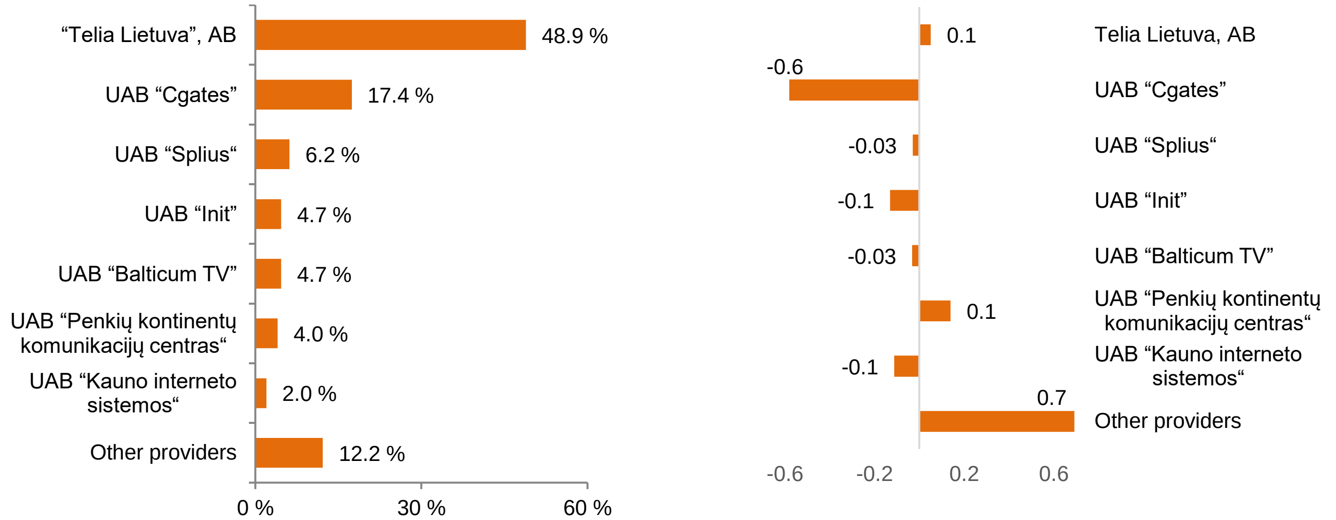


Figure 42. Distribution of users of retail internet access services over FTTx lines by service provider, in %, and annual changes in market shares, in percentage points, 2022
Source: CRA.

High-speed. The number of service users using high-speed internet access services is growing every year. The number of users choosing speeds above 100 Mbps in 2022 was 6.3 percentage points higher than in 2021 (Table 25), i.e. 62.7% (507,100) of the total number of users using fixed communication technologies.

In 2022, compared to 2021, the number of users of speeds between 30 Mbps and 100 Mbps decreased by 3.2 percentage points, while the number of users of speeds between 10 Mbps and 30 Mbps decreased by 3.0 percentage points.

Table 25. **Share of the number of users of retail internet access services provided via fixed communication technologies by speed, %, 2017-2022**

	2017	2018	2019	2020	2021	2022
Up to 2 Mb/s	0.6	0.3	0.2	-	-	-
From 2 Mb/s to 10 Mb/s	14.7	5.1	3.3	-	-	-
From 10 Mb/s to 30 Mb/s	12.7	19.4	18.4	18.2*	15.7*	12.7*
From 30 Mb/s to 100 Mb/s	27.9	28.7	29.4	31.8	27.8	24.7
More than 100 Mb/s	44.0	46.5	48.7	50.0	56.4	62.7

* For the period of 2020-2022, this includes all users with up to 30 Mbps download speeds.
Source: CRA.

The number of households using fixed broadband internet connections faster than 100 Mbps is growing rapidly, reaching 37.2% in 2022.

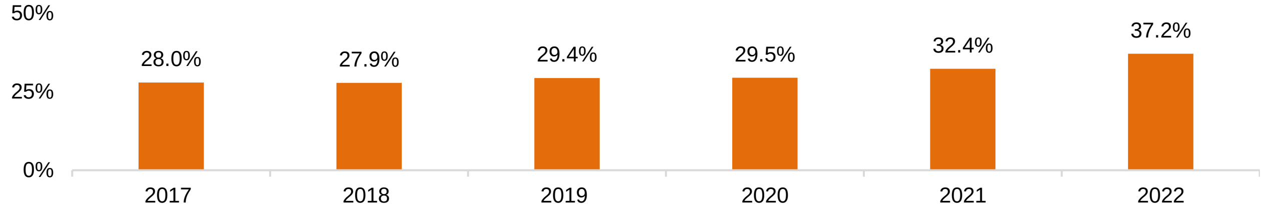
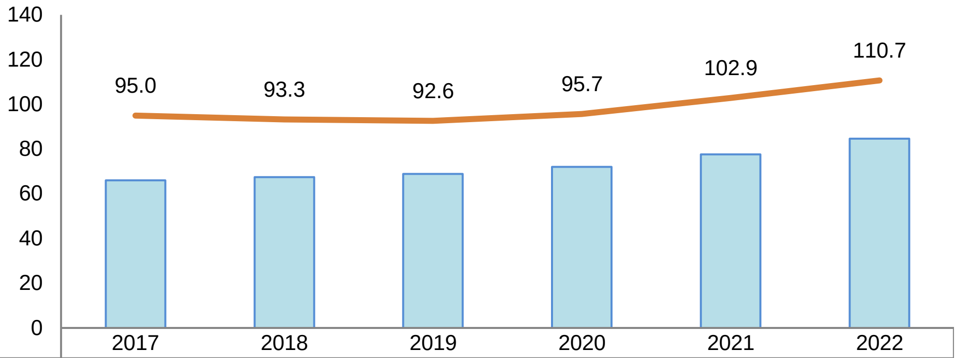


Figure 43. **Percentage of households in Lithuania with internet speeds of at least 100 Mbps in 2017-2022**
Source: CRA.

Revenue. In 2022, compared to 2021, service providers' revenue from retail internet access services provided using fixed communication technologies increased by 7.6% or €7.8 million. In 2022, this revenue amounted to €110.7 million (see Figure 44).

Change in revenue from retail internet access services provided using fixed communication technologies in 2022 compared to 2021: +7,6 %



	2017	2018	2019	2020	2021	2022
Revenue from services provided over fibre optic lines	66.0	67.4	68.8	72.0	77.6	84.6
Revenue from retail internet access services provided via fixed communication technologies	95.0	93.3	92.6	95.7	102.9	110.7

Figure 44. **Revenue from retail internet access services provided via fixed communication technologies, in total and using FTTx, € million, 2017-2022**
Source: CRA.

The market structure of revenue from retail internet access services provided using fixed communication technologies, according to fixed communication technology used by the users of the service, has maintained similar proportions in 2022 as in previous periods (see Table 26). In 2022, 66.2% (€56.0 million) of the total revenue from retail internet access services provided over FTTx lines were generated over FTTH lines and 33.8% (€28.6 million) over FTTB lines. Revenue from retail internet access services over xDSL lines accounted for 14.6% of total revenue in 2022.

Table 26. **Structure of revenue from retail internet access services provided via fixed communication technologies, by technology, %, 2017-2022**

	2017	2018	2019	2020	2021	2022
Revenue from services provided over FTTx fibre optic lines	69.5	72.3	74.3	75.3	75.5	76.4
Revenue from services provided over xDSL lines	17.7	16.1	13.9	14.8	14.8	14.6
Revenue from services provided over wireless lines	8.6	7.5	7.2	8.0	7.7	6.8
Revenue from services provided over	1.9	1.7	1.5	1.4	1.2	1.1

the KTV network						
Revenue from services provided over other technologies (UTP, STP, leased line, etc.)	2.4	2.4	3.0	0.6	0.8	1.1

Source: CRA.

During the whole period from 2017 to 2022, the largest share of revenue from retail internet access services provided using fixed communication technologies comes from natural persons. In terms of total revenue, the share of revenue from natural persons ranged from 77.5% to 79.5%, reaching 79.5% in 2022 (€88.0 million). The share of FTTx revenues from natural persons fluctuated between 77.2% and 80.0% between 2017 and 2022, reaching 80.0% in 2022 (€67.7 million). While revenue from retail internet access services provided over xDSL lines have fluctuated, the share of revenue from xDSL by individuals has been growing slowly year on year, from 84.5% in 2017 to 92.7% in 2021 (€15.0 million) (see Table 27).

Table 27. **Structure of revenue from retail internet access services provided via fixed communication technologies, by technology and type of user, € million, 2017-2022**

	2017	2018	2019	2020	2021	2022
1. Total revenue from retail internet access services provided using fixed communication technologies	**95.0**	**93.3**	**92.6**	**95.7**	**102.9**	**110.7**
Natural persons	74.7	72.8	71.8	74.7	80.9	88.0
Legal persons	20.3	20.5	20.8	21.0	21.9	22.7
2. Revenue from retail internet access services provided via fixed communication technologies, by type of user						
2.1. The service is provided over FTTx fibre optic lines	66.0	67.4	68.8	72.0	77.6	84.6
Natural persons	51.7	52.2	53.4	55.6	61.0	67.7
Legal persons	14.3	15.2	15.4	16.4	16.6	16.9
2.2. The service is provided over xDSL lines	16.8	15.0	12.9	14.2	15.2	16.2
Natural persons	14.2	13.1	11.6	13.1	14.1	15.0
Legal persons	2.6	1.8	1.2	1.1	1.1	1.2
2.3. The service is provided over wireless lines	8.1	7.0	6.7	7.6	7.9	7.5
2.4. The service is provided over the KTV network	1.8	1.6	1.4	1.3	1.2	1.3
2.5. The service is provided over other technologies (UTP, STP, leased line, etc.)	2.3	2.2	2.8	0.6	0.8	1.2

Source: CRA.

The analysis of service providers by revenue (see Figure 45) shows that the market structure of revenue from retail internet access services provided via fixed communication technologies in 2022 as well as in 2021 did not show any significant changes, with “Telia Lietuva”, AB retaining its leading position and generating the most revenue. Its market share was 60.7%, an increase of 0.2 percentage points compared to 2021. In 2022, the market share of other providers increased the most (2.2 percentage points).

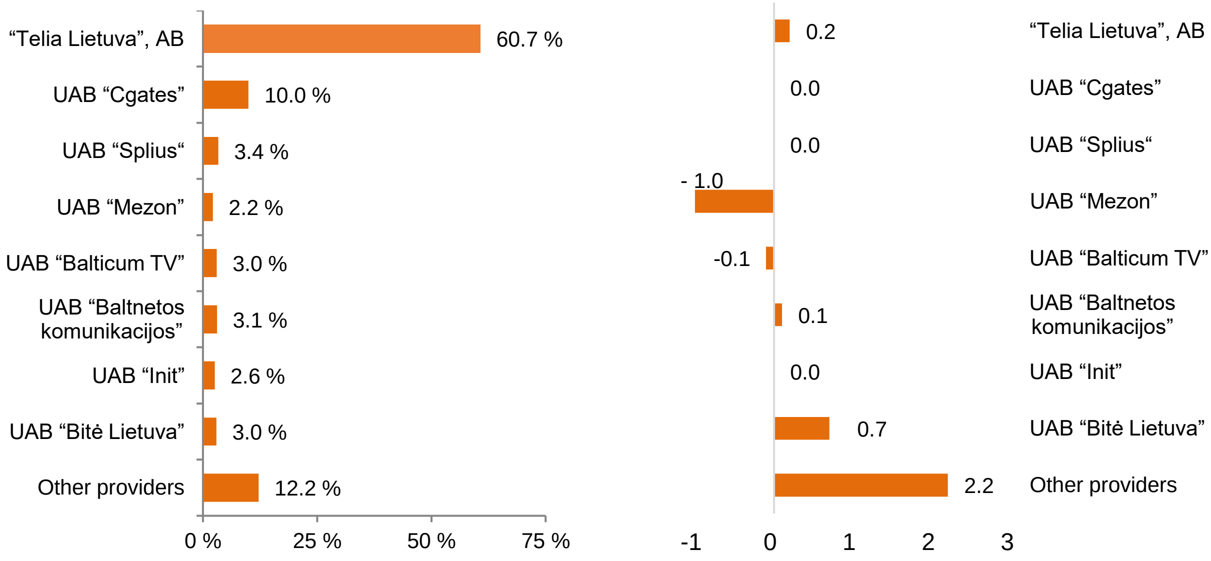


Figure 45. **Structure of revenue from retail internet access services provided via fixed communication technologies, by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

When assessing service providers in terms of revenue from retail internet access services provided using fixed communication technologies over FTTx fibre optic lines (see Figure 46), the three largest shares are the same as for retail internet access services provided via fixed communication technologies. “Telia Lietuva”, AB received the largest share (59.7%) of revenue from retail Internet access services provided using fixed communication technologies over FTTx fibre optic lines. Its market share decreased by 0.3 percentage points compared to 2021. UAB “Cgates” was in second place with a market share of 12.8%, decreased by 0.1 percentage points in the year.

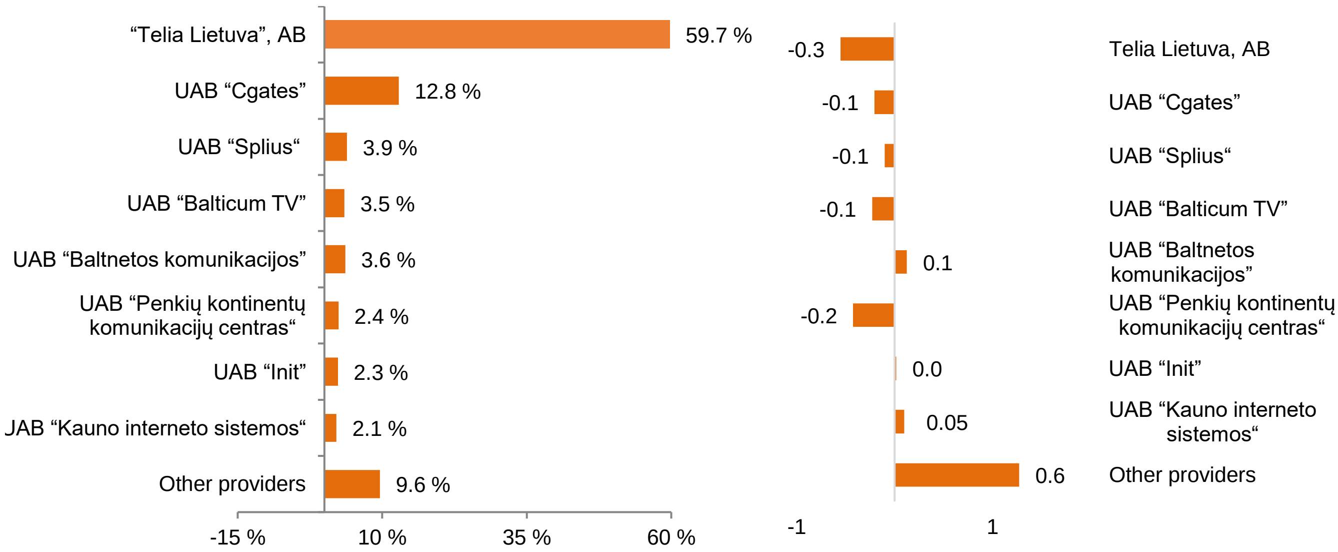


Figure 46. **Structure of revenue from retail internet access services provided via fixed communication technologies over FTTx fibre optic lines, by service provider, in %, and annual changes in market shares in percentage points, 2022**
Source: CRA.

ARPU. As in previous periods, some of the highest ARPU was obtained from users connecting to the internet using other technologies (leased lines, UTP, STP). The ARPU for this service has the highest growth rate in 2022 compared to 2021 - 46.4% or €9.4 per month (see Figure 47).

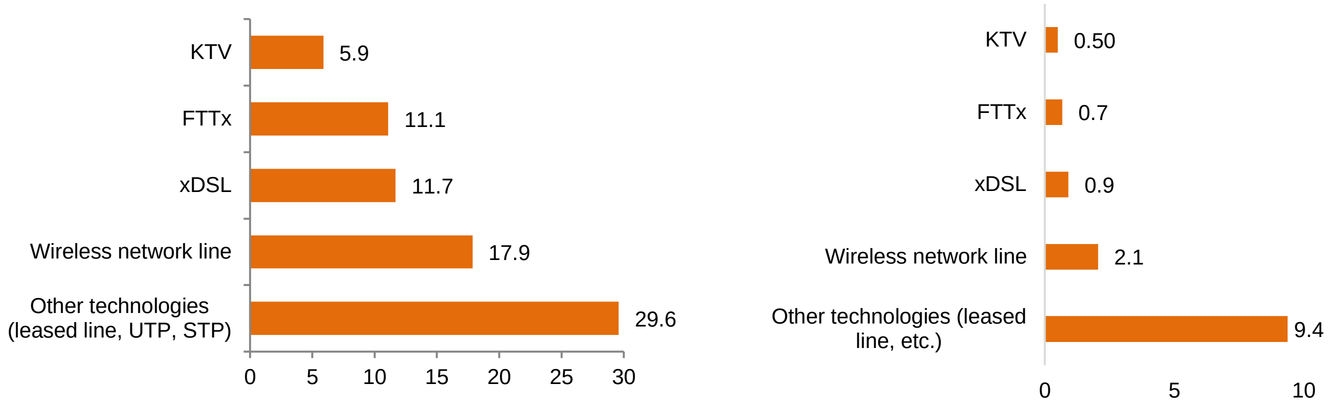


Figure 47. **ARPU by technology used, €/month, and annual changes in ARPU, €/month, 2022.**
Source: CRA.

The lowest revenue per subscriber per month (€5.9) in 2022, as in 2021, was generated by retail internet access services provided via KTV networks. The ARPU of the most popular retail internet access services delivered over FTTx lines increased by €0.7 to €11.1 per month in 2022. The ARPU of retail internet access services provided over xDSL lines increased by €0.9 in 2022 compared to 2021, while the ARPU of retail internet access services provided over wireless lines increased by € 2.1.

In 2022, as in 2021, retail internet access services via fixed communication technologies were mainly provided over FTTx lines. The number of retail users of FTTx-based internet access services increased by 2.5% in 2022 compared to 2021 and by 13.2% compared to 2017. Service users are enjoying ever higher speeds. In 2022, 6.3 percentage points more users chose speeds above 100 Mbps than in 2021 (i.e. 62.7% of all users of fixed communication technologies).

3.2.2. Retail internet access services provided using mobile communication technologies

Service providers	**10**
Number of active SIM cards, thousands	**3 709.2**
Retail revenue, € million	**317,0**
ARPU, €/month	**6,8**

IMPORTANT!

- In this section of the report, other providers of retail internet access services provided using mobile communication technologies (hereafter in this section of the report - the other providers) are all providers of these services, except for UAB “Bitė Lietuva”, “Telia Lietuva”, AB, UAB “Tele2”, AB “Lietuvos radijo ir televizijos centrs”, UAB “Mezon”, as listed in Table 29 and in Table 30, and for UAB “Bitė Lietuva”, “Telia Lietuva”, AB, UAB “Tele2” and UAB “Mezon”, as listed in Figure 51, 52, 53 and 54.

Ways of providing services. Retail internet access services were provided using GPRS, EDGE, UMTS, UMTS HSDPA, UMTS HSUPA, LTE[17] and other higher speed mobile communication technologies.

Service providers. Retail internet access services using mobile communication technologies were provided by 10 providers in 2022, an increase of one provider compared to 2021[18].

Service users. The number of active SIM cards used to provide internet access services is growing rapidly every year. The number of active SIM cards used to provide internet access services increased by 258,0 thousand, or 7.5%, to 3,709.2 thousand at the end of 2022 compared to 2021 (see Figure 51). Analysing the number of active SIM cards by payment method shows that in 2022, 82.7% of service users (natural and legal persons) paid for services according to post-paid invoices, while 17.3% opted for pre-paid payment.

The number of active SIM cards grew for all service groups in 2022. The highest growth is seen in the group of active SIM cards used to provide internet access services where payment is made for the amount of data sent and received (hereinafter - SIM cards where payment is made for the amount of data). In 2022, the number of these SIM cards increased by 32.2% compared to 2021 to 252.7 thousand. The number of active SIM cards used to provide internet access services under a plan for internet access services instead of telephony (hereinafter - internet-only SIM cards) increased by 11.0% during a year to 848,300 in 2022, while the number of active SIM cards used to provide internet access services under a plan that adds an additional plan to a telephony plan for the provision of internet access services, or under service packages (hereinafter - SIM cards for an additional plan), rose by 4.3% to 2,563,600 in 2022. SIM cards for an additional plan account for the largest share of SIM cards used to provide internet access services (69.1%).

Table 28. **Number of active SIM cards used to provide internet access services, by service group and payment method, thousands, 2017-2022**

	2017	2018	2019	2020	2021	2022
Number of SIM cards	**2 444.3**	**2 818.2**	**3 064.2**	**3 236.4**	**3 451.2**	**3 709.2**
Pre-paid	569.3	536.7	558.6	547.0	560.9	642.8
Post-paid	1 875.0	2 281.5	2 505.5	2 689.3	2 890.3	3 066.5
SIM cards when paying for the amount of data	230.9	192.8	313.7	174.1	191.1	252.7
SIM cards for internet only	410.1	532.2	630.3	700.1	764.1	848.3
SIM cards for an additional plan	1 704.6	2 035.7	2 067.6	2 316.4	2 457.3	2 563.6

Source: CRA.

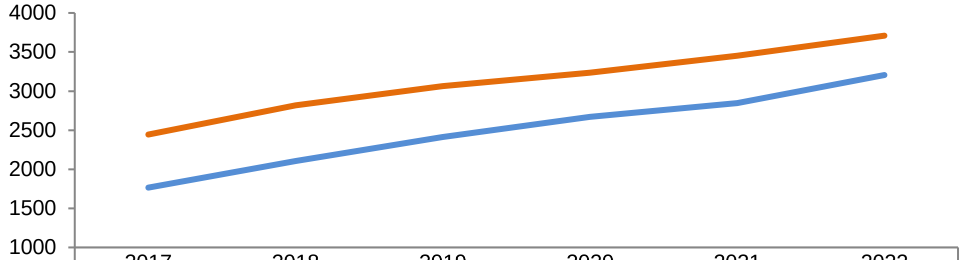
Since 2017, the penetration[19] of active SIM cards used to provide internet access services has increased every year, reaching more than 100% in 2018 (i.e. more than one SIM card per person). At the end of 2022, this penetration rate was 129.7%, 6.2 percentage points higher than in 2021. In 2022, compared to 2021, LTE penetration increased by 10.3 percentage points to 112.1%. The number of active LTE technology SIM cards grew by 12.7% per year to 3,205.5 thousand in 2022. The number of 5G SIM cards at the end of 2022 was 46.7 thousand.

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

[18] “Telia Lietuva”, AB, UAB “Bitė Lietuva”, UAB “Tele2”, UAB “CSC Telecom”, UAB “Teledema”, UAB “Televizijos komunikacijos”, UAB “Mezon” ir Cubic Telecom Limited, UAB “Etanetas”, UAB “Ukmergės IT”.

[19] Penetration - the total number of active SIM cards used to provide internet access services per 100 residents.

Change in the number of SIM cards used to provide internet access services over mobile communication technologies in 2022 compared to 2021: +7,5 %

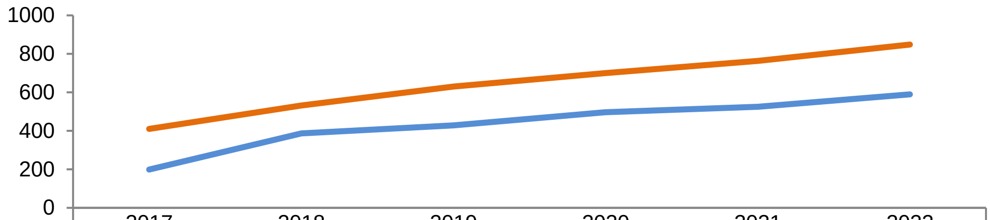


	2017	2018	2019	2020	2021	2022
Number of SIM cards	2,444.3	2,818.2	3,064.2	3,236.4	3,451.2	3,709.2
Penetration	87.0 %	100.9 %	109.7 %	115.1 %	123.5 %	129.7 %
Over LTE technology	1,765.2	2,107.2	2,410.9	2,672.1	2,845.3	3,205.5
LTE penetration	62.8 %	75.4 %	86.3 %	95.1 %	101.8 %	112.1 %

Figure 48. **Number of SIM cards used to provide internet access services, in thousands, and penetration rate, in %, 2017-2022**
Source: CRA.

The number of active SIM cards for retail internet access services provided using mobile communication technologies under an internet access service plan other than a telephony service plan increased by 11.0% in 2022 compared to 2021, reaching 848.3 thousand (see Figure 49).

Change in the number of active SIM cards for retail internet access services provided using mobile communication technologies under an internet access service plan instead of a telephony plan in 2022 compared to 2021: +11,0 %



	2017	2018	2019	2020	2021	2022
Number of SIM cards	410.1	532.2	630.3	700.1	764.1	848.3
Over LTE technology	199.0	386.7	428.6	497.3	524.7	589.6

Figure 49. **Number of SIM cards used to provide internet access services under an internet access service plan instead of a telephony plan, thousands, 2017-2022**
Source: CRA.

In Lithuania, the three largest players were the most active competitors in the market for retail internet access services provided using mobile communication technologies in 2022: “Telia Lietuva”, AB, UAB “Bitė Lietuva” and UAB “Tele2” (see Table 30). UAB “Tele2” has the largest market share (36.7%) in terms of the number of SIM cards used to provide internet access services in 2022. During the period of 2017-2022, the shares of service providers in terms of the number of SIM cards used to provide internet access services varied only slightly.

Table 29. **Share of SIM cards used for internet access services by service provider, %, 2017-2022**

	2017	2018	2019	2020	2021	2022
UAB “Tele2”	35.8	37.8	38.2	37.6	37.7	36.7
UAB “Bitė Lietuva”	28.4	28.3	29.3	30.0	30.9	32.0
“Telia Lietuva”, AB	31.2	29.6	28.5	28.6	28.2	28.6
AB Lietuvos radijo ir televizijos centras	2.6	2.6	2.4	2.3	-	-
Other providers	1.9	1.7	1.5	1.6	3.2	2.7

Source: CRA.

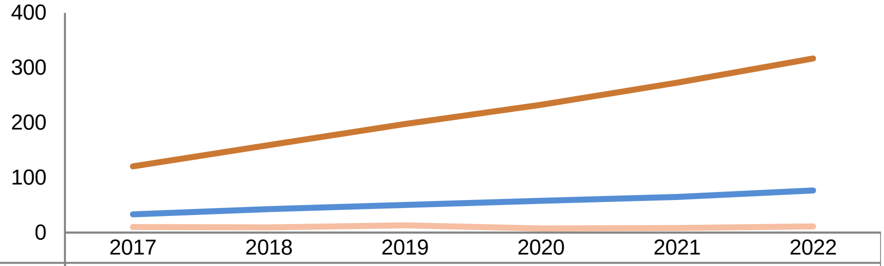
When looking at market shares in terms of the number of SIM cards used exclusively for internet, the same players were present as for SIM cards used to provide internet access services. In 2022, UAB “Bitė Lietuva” had a market share of 46.3%, while UAB “Tele2” remained in second place with 28.8% and “Telia Lietuva”, AB in third place with 18.7% (see Table 30).

Table 30. **Share of SIM cards for internet only by service provider, %, 2017-2022**

	2018	2019	2020	2021	2022
UAB “Bitė Lietuva”	35.1	39.1	40.7	43.2	46.3
UAB “Tele2”	27.4	27.1	27.6	29.5	28.8
“Telia Lietuva”, AB	23.3	21.4	20.3	19.0	18.7
AB Lietuvos radijo ir televizijos centras	13.5	11.7	10.6	-	-
UAB “Mezon”	-	-	-	8.2	6.1
Other providers	0.7	0.6	0.7	0.2	0.2

Revenue. As regards revenue from retail internet access services using mobile communication technologies, there was strong growth throughout the analysis period of 2017-2022. Total revenue from retail internet access services using mobile communication technologies were 2.6 times higher in 2022 than in 2017, amounting to €317.0 million. Compared to 2021, the increase is 16.1% or €44.0 million (see Figure 50). In 2022, 24.2% (€76.7 million) of total revenue came from internet access services provided using SIM cards only for the internet and 3.6% (€11.3 million) from roaming internet access services.

Change in revenue from retail internet access services provided using mobile communication technologies in 2022 compared to 2021: +16,1 %



	2017	2018	2019	2020	2021	2022
Revenue	120.6	159.0	197.8	232.8	273.0	317.0
of which from internet access services using SIM cards only for the internet	33.2	42.6	50.3	57.9	64.7	76.7
of which from roaming internet access services	10.3	9.3	13.2	7.5	8.5	11.3

Figure 50. **Revenue from retail internet access services via mobile communication technologies, € million, 2017-2022**

Source: CRA.

In 2022, as in previous periods, the largest share of revenue came from users of services who paid according to post-paid invoices (89.6% or €283.9 million). The share of revenue from pre-paid services was 10.4% or €33.1 million (see Table 31).

Table 31. **Revenue from retail internet access services provided via mobile communication technologies, by payment method, € million, 2017-2022**

	2017	2018	2019	2020	2021	2022
Total revenue	**120.6**	**159.0**	**197.8**	**232.8**	**273.0**	**317.0**
Pre-paid	15.6	17.4	19.4	22.3	28.3	33.1
Post-paid	104.9	141.6	178.3	210.5	244.7	283.9

Source: CRA.

In the structure of the market for retail internet access services provided using mobile communication technologies, UAB “Tele2” had the largest market share (42,0 %) in 2022 in terms of revenue generated by individual undertakings, i.e. 1,3 percentage points less than in 2021 (see Figure 51).

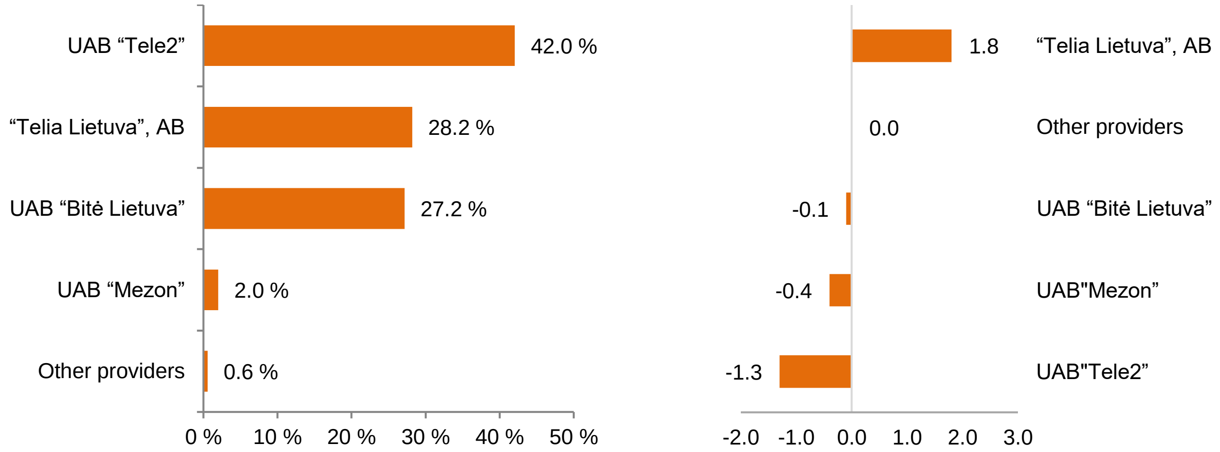


Figure 51. **Structure of revenue from retail internet access services provided via mobile communication technologies, by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

When looking at the market structure in terms of revenue from retail internet access services provided using SIM cards for internet use only, the largest market share in 2022 was held by UAB “Bitė Lietuva” - 40.3%. Its share grew the most (2.3 percentage points) over the year (see Figure 52).

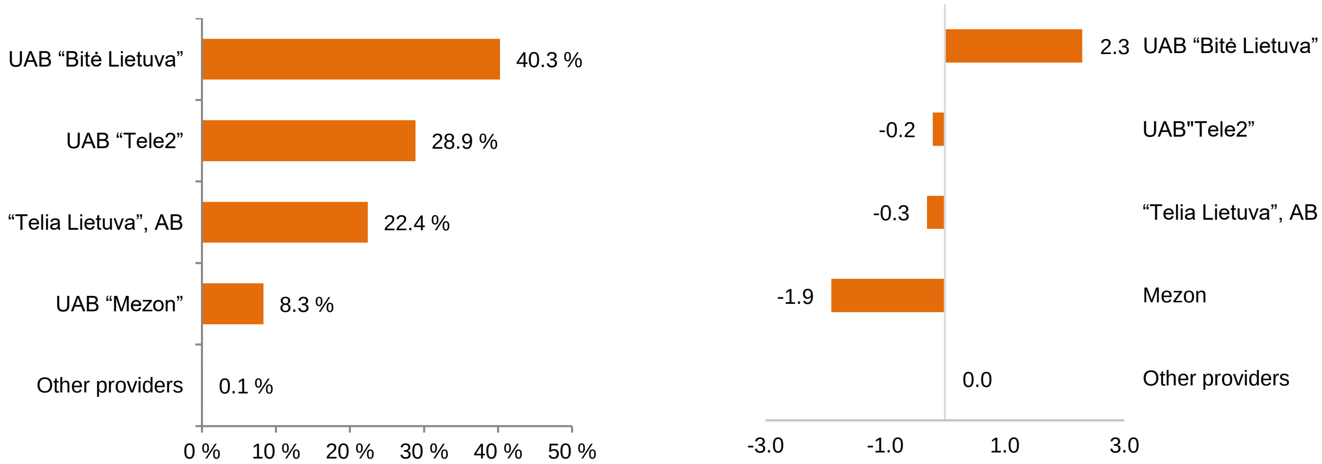


Figure 52. **Structure of revenue from retail internet access services using SIM cards for internet only, by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

ARPU. The average revenue per SIM card user of retail mobile internet access services per month in 2022 was €7.3, an increase of €0.5 compared to 2021 (see Figure 53). In 2022, the highest ARPU was recorded by UAB “Mezon” - €9.4.

A comparison of the ARPU for retail internet access services provided using fixed and mobile communication technologies shows that the average ARPU for services provided using fixed technologies in Figure 47 is €4,1 higher than the average ARPU for services provided using mobile technologies in Figure 53.

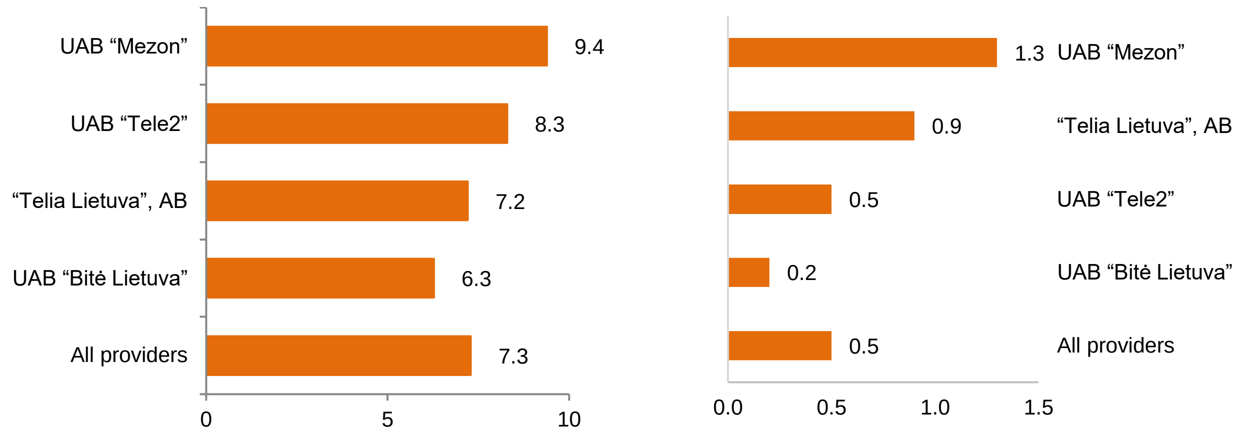


Figure 53. **ARPU for all providers and the largest providers, in €/month, and annual changes in ARPU, in €/month, 2022**
Source: CRA.

The ARPU from a single user of a SIM card for internet only per month in 2022 was €7.8, an increase of 0.5 percentage points compared to 2021 (see Figure 54). In 2022, the highest ARPU was held by UAB “Mezon” - €9.4 per month and the lowest by UAB “Bitė Lietuva” - €7.0 per month.

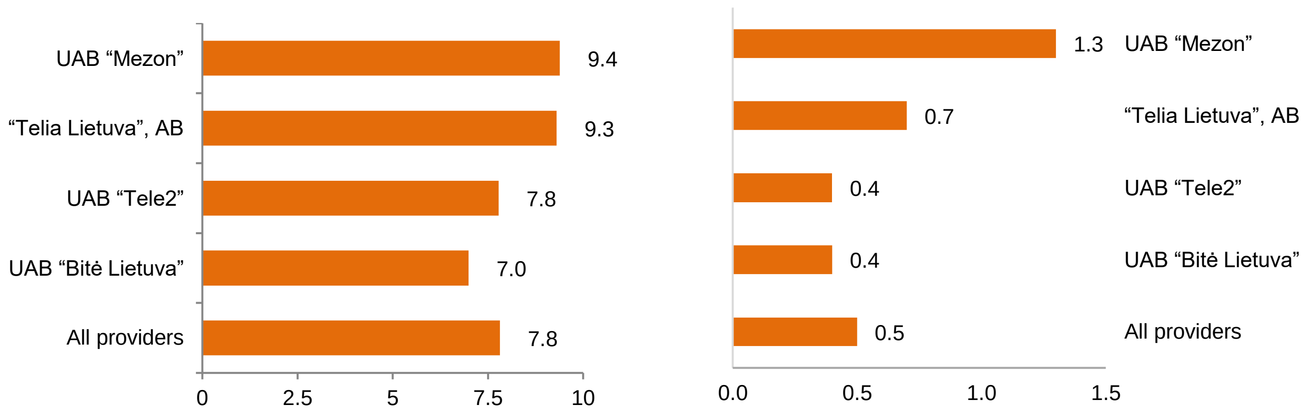
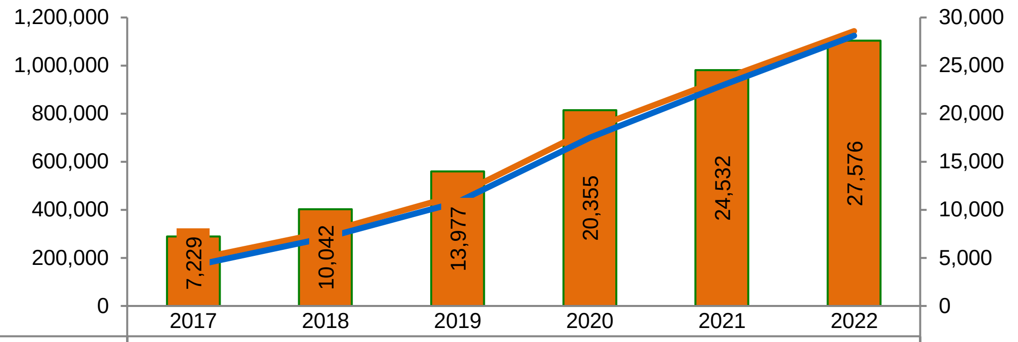


Figure 54. **ARPU for SIM cards for internet only, €/month for all providers and the largest providers, and annual changes in ARPU, €/month, 2022.**
***** *Data from 1 January 2021*
Source: CRA.

The amount of data. The total amount of data sent and received per year in Lithuania grew rapidly over the entire analysis period of 2017-2022. In 2022, it was almost 6 times higher than in 2017 at 1,143,445 TB (see Figure 55). Most of this data (98.3% in 2022) was sent using LTE and faster technologies. 2,530 TB of data were transmitted using 5G technology. Of the total data, 741 510 TB (64.8%) was sent using SIM cards for internet only.

Change in the total amount of data sent and received in Lithuania in 2022 compared to 2021:
+21,3 %



	2017	2018	2019	2020	2021	2022
Data per user per month	7,229	10,042	13,977	20,355	24,532	27,576
Total data sent and received per user in Lithuania	192,665	306,183	460,767	734,972	942,858	1,143,445
By using SIM cards only for the internet	94,646	142,225	330,923	526,920	653,657	741,510
By using LTE and higher speed technologies	167,353	283,161	431,508	699,056	917,444	1,124,347

Figure 55. **Total data sent and received in Lithuania per year, TB, and data sent and received per user per month, MB, 2017-2022**
Source: CRA.

In 2022, the amount of data sent and received per user per month increased by 12.4% compared to 2021 to 27 576.29 MB (see Table 32). The largest amount of data (165 259.0 MB) per month in 2022 was transferred by a single service user using the internet access services of UAB “Mezon”.

Table 32. **Data sent and received per user per month, MB, and change in %, 2022**

Service provider	**Data amount per month in 2021**	**Data amount per month in 2022**	**Annual change, in %**
UAB “Mezon”*	159 856.5	165 259.0	3.4%
“Telia Lietuva”, AB	24 716.8	28 684.8	16.1%
UAB “Tele2”	22 395.4	26 296.4	17.4%
UAB “Bitė Lietuva”	18 978.2	22 250.4	17.2%
Other providers	3 463.9	4 234.4	22.2%
All providers	**24 531.5**	**27 576.3**	**12.4%**

Source: CRA.

Quality. High-speed. The measurements carried out by the Authority help to assess how the level of quality of service in operators’ networks is evolving. As technology advances, the average data reception rate values are also increasing. Throughout 2022, data reception rate measurements were carried out for all mobile operators (UAB “Bitė Lietuva”, “Telia Lietuva”, AB and UAB “Tele2” services) in Lithuanian cities and roads. Figure 56 shows a comparison of the average data reception rates recorded by these measurements in 2021 and 2022, in Mb/s. The most significant change was in the data download speed of “Telia Lietuva”, AB mobile internet access service, which increased by 53.0%. The result of UAB “Bitė Lietuva” also increased by 43.3% (24.6%).[20] In 2022, mobile network capacity was being optimised in preparation for the introduction of 5G technology, and the launch of 5G in the second half of the year enabled even higher peak data speeds.

[20] The data and maps showing these measurements carried out by the Authority are available on the website http://matavimai.rrt.lt/.

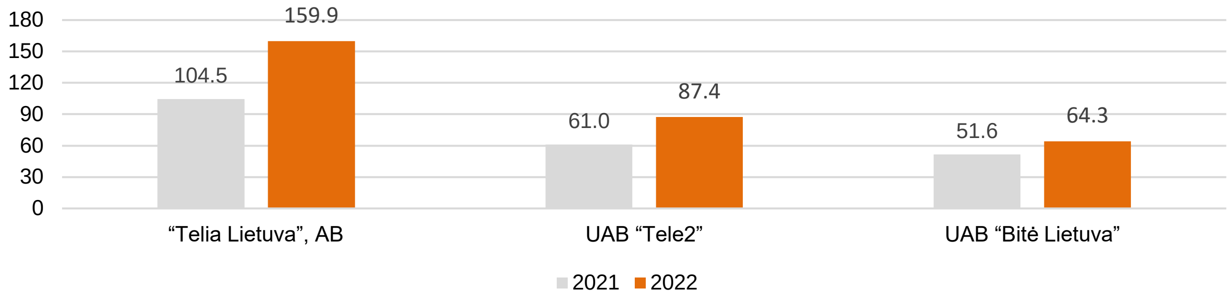


Figure 56. **Comparison of average data reception speeds in urban and road areas, in 2021 and 2022, Mbps**
Source: CRA.

In October 2022, the Authority carried out calculations of the coverage areas and speeds of mobile networks in order to determine the proportion of the population that has access to high-speed (30 Mbps and 100 Mbps) LTE technology data services[21]. Calculations to assess and compare the ability of operators' networks to download data were carried out at 10% network load, i.e. when the network is lightly loaded, and at 50% network load, when downloading under normal load conditions. The results of the calculations are shown in Table 33.

Table 33. **Share of the population with access to LTE data services in %, 2022**

	2022	
	Data transfer speed 30 Mbps	Data transfer speed 100 Mbps
Share of the population with access to LTE data services		
At 10% network load	97,40%	86,30%
At 50% network load	88,60%	50,80%

Source: CRA.

In 2022, the market for retail internet access services using mobile communication technologies grew at a very fast pace. The number of active SIM cards used to provide internet access services increased by 7.5% per year to 3 709.2 thousand at the end of 2022. The penetration rate of these SIM cards was 129.7%. LTE penetration increased by 10.3 percentage points in 2022 compared to 2021, surpassing 100% to 112.1% in 2022. The total amount of data sent and received in Lithuania during the year grew rapidly. In 2022, it was almost 6 times higher than in 2017 and increased by 21.3% compared to 2021 to 1,124,347 TB.

[21] The data and maps showing these calculations carried out by the Authority are available on the website https://www.rrt.lt/judriojo-rysio-tinklu-teoriniai-spartos-skaiciavimai/.

3.3. Wholesale internet access services

Service providers **8**

Largest service provider **“Telia Lietuva”, AB**

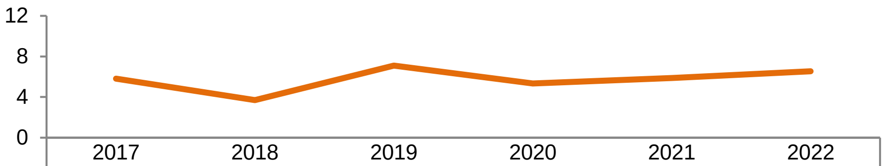
Wholesale revenue, € million **6,5**

IMPORTANT!

- In this section of the report, other providers of wholesale internet access services are all providers of these services, with the exception of “Telia Lietuva”, AB, UAB “Bitė Lietuva” and UAB “Nacionalinis telekomunikacijų tinklas” (hereafter in this section of the report - the other providers).

Revenue. In 2022, revenue from wholesale internet access services increased by 11.6% to €6.5 million compared to 2021.

Change in revenue from wholesale internet access services in 2022 compared to 2021: 11,6 %



	2017	2018	2019	2020	2021	2022
Revenue	5.8	3.7	7.1	5.3	5.9	6.5
of which revenue from wholesale roaming internet access	1.0	1.1	5.0	3.7	4.3	4.7

Figure 57. **Revenue from wholesale internet access services, € million, 2017-2022**
Source: CRA.

In 2022, 8 providers offered wholesale internet access services. “Telia Lietuva”, AB had the largest market share in terms of revenue from the provision of wholesale internet access services (74.9 %) (see Figure 58). In 2022, the market share of UAB “Nacionalinis telekomunikacijų tinklas” increased the most (1.7 percentage points) compared to 2021.

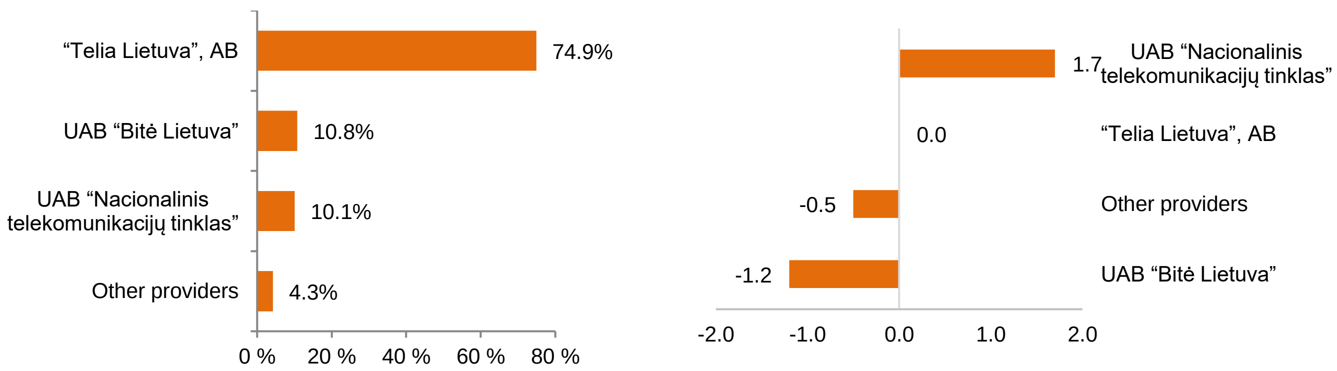
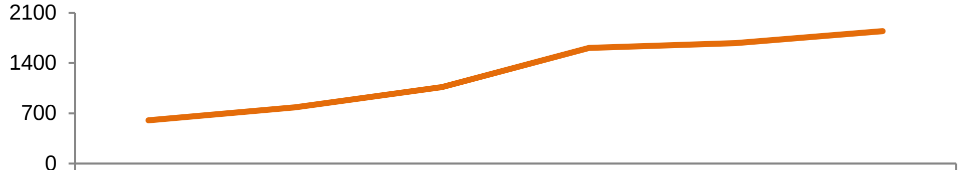


Figure 58. **Structure of revenue from wholesale internet access services by service provider, share, in %, and annual changes in market shares in percentage points, 2022**
Source: CRA.

With the rapid growth in internet data consumption, internet access service providers have been increasing the speed of direct international internet connections. The total speed of direct international internet connections increased by 9.9% to 1 846.0 Gbps in 2022 (see Figure 59).

Change in the total speed of direct international internet connection in 2022 compared to 2021: +9,9 %



	2017	2018	2019	2020	2021	2022
International internet connection channel speed	602.6	782.5	1,068.1	1,611.2	1,679.9	1,846.0

Figure 59. **Total direct international internet connection channel speed, Gbps, 2017-2022**
Source: CRA.

In 2022, the total speed of direct international internet connection channels increased by 9.9%. “Telia Lietuva”, AB had the largest international internet connection channel, with 54.6% of the total channel.

3.4. Other data transmission services

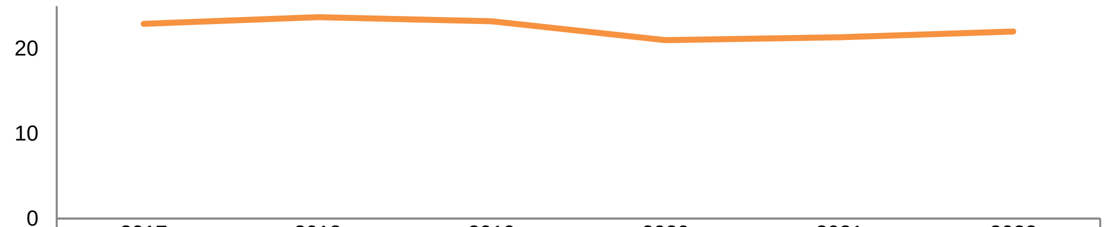
Service providers	19
Service users, thousands*	15,6
Revenue, € million	22,1

* Active SIM cards used for M2M services are not included.

Ways of providing services. Other data services - services typically based on Internet Protocol (IP) technologies that provide data transmission between geographically distant points, interconnection of geographically distant points, data traffic transfer and other data functions. Examples of such services include Virtual Private Network (VPN) services, Ethernet services, and Multiprotocol Label Switching (MPLS) technology for data traffic services.

Revenue. In 2022, revenue from other data transmission services amounted to a total of €22.0 million or 3.1% more than in 2021 (see Figure 60). Over the whole period of 2017-2022, revenue from other data services have shown little change.

Change in 2022 compared to 2021: +3,1 %



	2017	2018	2019	2020	2021	2022
Revenue	22.9	23.7	23.2	21.0	21.3	22.0

Figure 60. **Revenue from other data transmission services, € million, 2017-2022**
Source: CRA.

3.4.1. Other retail data transmission services

Service providers	14
Service users, thousands	15,6
Number of M2M SIM cards, thousands	743,9
Retail revenue excluding M2M, € million	9,7
Revenue from M2M services, € million	4,5

IMPORTANT!

- In this section of the report, other providers of other retail data transmission services are all providers of these services except “Telia Lietuva”, AB, UAB “Bitė Lietuva”, UAB “Dekbera”, as indicated in Figure 62; “Telia Lietuva”, AB, UAB “Bitė Lietuva”, UAB “Tele2”, as indicated in Figures 64 and 67; “Telia Lietuva”, AB, UAB “Bitė Lietuva”, UAB “Tele2”, AB “Lietuvos radijo ir televizijos centras”, UAB “Dekbera”, as indicated in Figure 71 (hereafter in this section of the report - the other providers).

Service users. The number of users in 2022 increased by 8.7% to 15.6 thousand compared to 2021[22] (see Figure 61).

Change in the number of users of other retail data transmission services in 2022 compared to 2021: -8,7 %

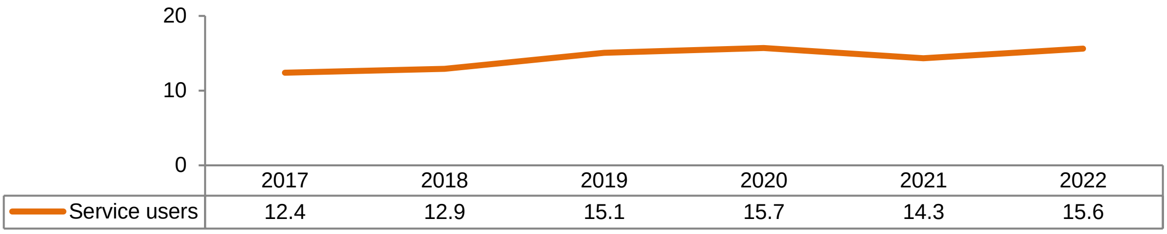


Figure 61. **Number of users of other retail data transmission services, thousands, 2017-2022**
Source: CRA.

The majority of users of other retail data transmission services used services provided by “Telia Lietuva”, AB. At the end of 2022, 72.9% of “Telia Lietuva”, AB provided other retail data transmission services to 72.9% of the users of these services, which is 4.8 percentage points lower than in 2021 (see Figure 62).

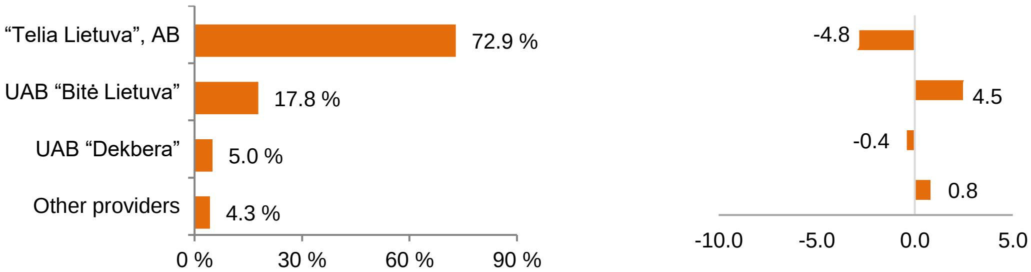


Figure 62. **Share of service users by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Number of M2M SIM cards. The number of active SIM cards used for M2M (Machine to Machine, Man to Machine, Machine to Man) services grew at a significant annual rate between 2017 and 2022. In 2022, there were 743.9 thousand SIM cards used to provide M2M services, an increase of 52.2% or 255.0 thousand compared to 2021 (see Figure 63).

405.0 thousand or 54.4% of all M2M services were provided between devices.

Change in 2022 compared to 2021: +52,2 %

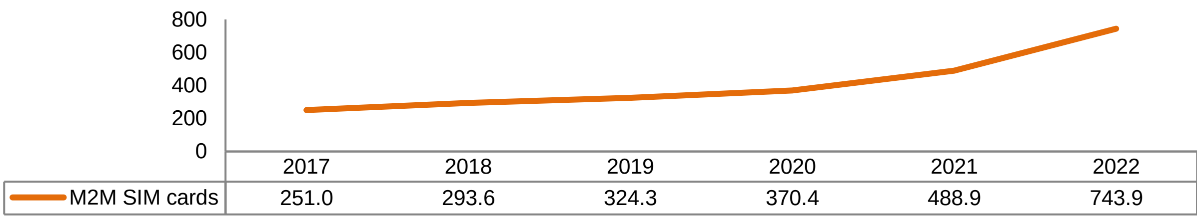


Figure 63. **Number of SIM cards used for M2M services, thousands, 2017-2022**
Source: CRA.

[22] SIM cards used for M2M services are not included.

In 2022, in terms of the number of SIM cards used to provide M2M services, "Telia Lietuva", AB had a market share of 43.3% (19.9 percentage points less than in 2021), UAB "Bitė Lietuva" had a market share of 41.3%, and UAB "Tele2" had a market share of 13.0% (see Figure 64). In 2022, UAB "Bitė Lietuva" market share increased the most (23.9 percentage points) compared to 2021.

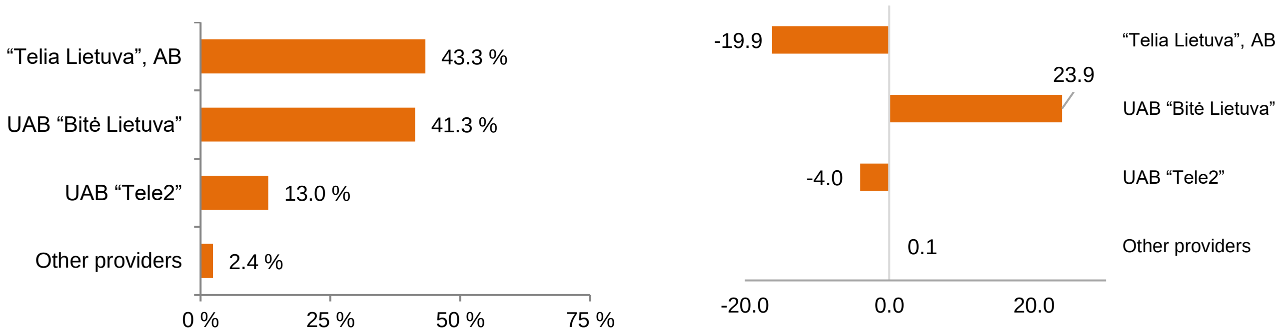
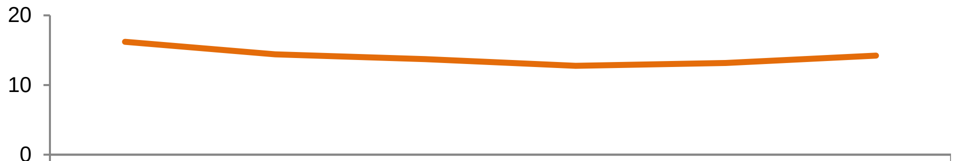


Figure 64. **Share of SIM cards used for M2M services by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Revenue. In 2022, compared to 2021, revenue from retail other data services increased by 7.9% to €14.2 million (see Figure 65). In 2022, 32.0% (€4.5 million) of this revenue came from the provision of M2M services.

Change in revenue from other retail data transmission services, 2022 compared to 2021: 7,9 %



	2017	2018	2019	2020	2021	2022
Revenue	16.2	14.4	13.7	12.8	13.2	14.2
of which for M2M services	2.9	3.4	3.4	3.3	3.8	4.5

Figure 65. **Revenue from other retail data transmission services, € million, 2017-2022**
Source: CRA.

In 2022, "Telia Lietuva", AB had the largest market share in terms of revenue from the provision of other retail data transmission services (58.8%) (see Figure 66). In 2022, UAB "Tele2" market share grew the most (3.2 percentage points), accounting for 11.9% of the market.

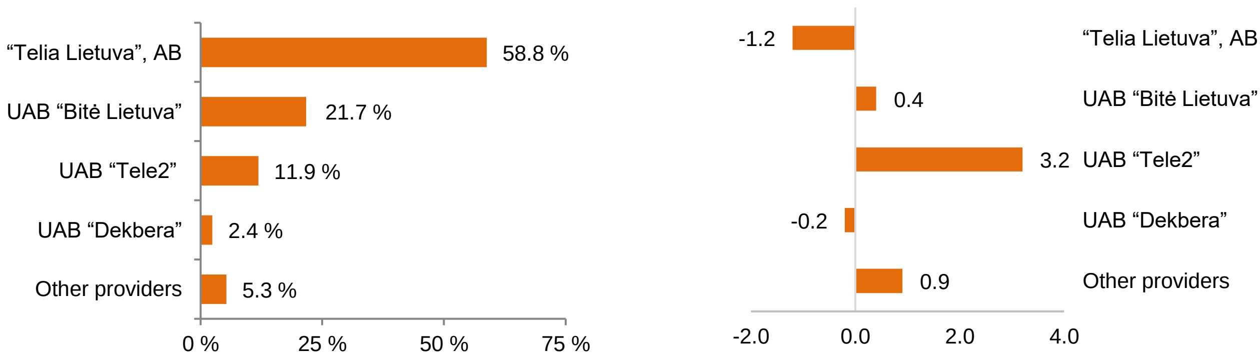


Figure 66. **Structure of revenue from other retail data transmission services by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

In terms of revenue generated from M2M services, the same three players share the market in 2022 as in 2021. "Telia Lietuva", AB had the largest market share (39.1%). Revenue generated by UAB "Tele2" accounted for

37.0% of the market and revenue generated by UAB “Bitė Lietuva” accounted for 23.0% of the market (see Figure 67).

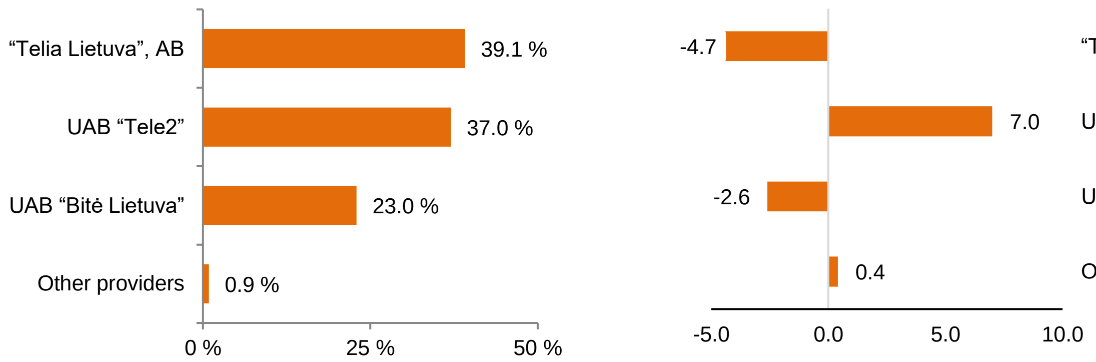


Figure 67. **Structure of revenue from M2M services by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

The number of active SIM cards used to provide M2M services grew rapidly between 2017 and 2022. In 2022, there were 743.9 thousand SIM cards used to provide M2M services, an increase of 52.2% or 255.0 thousand compared to 2021. Revenue from M2M services also grew, but at a lower rate than the number of M2M SIM cards. In 2022, revenue from M2M services increased by 19.9% to €4.5 million.

3.4.2. Other retail data transmission services

Service providers	**6**
Wholesale central access provided at a fixed location, thousands	**17 042**
Wholesale revenue, € million	**7,8**

IMPORTANT!

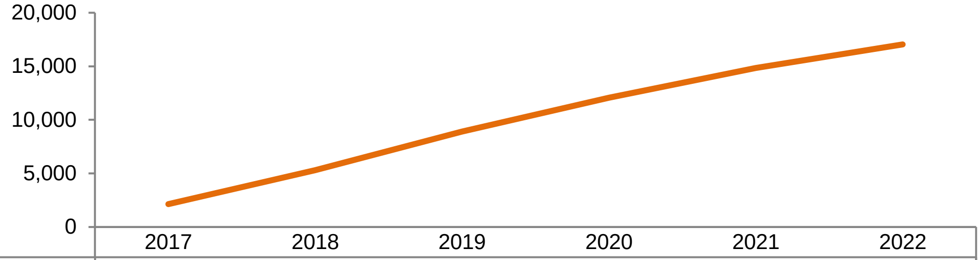
- In this section of the report, other providers of wholesale other data transmission services are all providers of these services except Telia Lietuva, AB, VšĮ Plačiajuostis internetas, UAB Duomenų logistikos centras (hereinafter in this section of the report - the other providers) as disclosed in Figure 70.

Service providers. In 2022, other wholesale data transmission services were provided by 6 undertakings.

Wholesale central access at a fixed location for mass market products (hereinafter - the wholesale central access) – a wholesale data transmission service through which an electronic communications service provider can provide retail services (Internet access, pay television and fixed voice communication) to an end-user using fixed communications technologies.

At the end of 2022, the wholesale central access service was provided by 1 undertaking - “Telia Lietuva”, AB. At the end of 2022, “Telia Lietuva”, AB had provided a total of 17,042 wholesale central accesses. The number of such accesses increased by 14.8% over the year. 96.7% or 16,473 wholesale central accesses were provided using FTTx technology and 3.3% or 569 wholesale accesses were provided using xDSL technology (see Figure 68). Demand for services delivered over FTTx technology is growing steadily: In 2022, the number of wholesale central accesses using FTTx technology increased by 15.9% compared to 2021, while the number of accesses using xDSL technology decreased by 9.1%.

Change in the number of wholesale central accesses provided, 2022 compared to 2021: +14,8 %

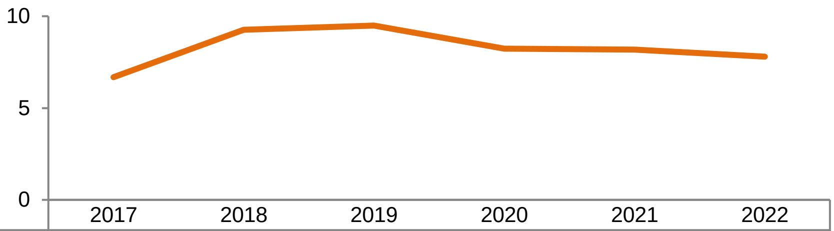


	2017	2018	2019	2020	2021	2022
Wholesale central accesses	2,138	5,300	8,917	12,078	14,845	17,042
of which using xDSL technology	1,223	1,127	1,052	651	626	569
of which using FTTx technology	915	4,173	7,865	11,427	14,219	16,473

Figure 68. **Number of wholesale central accesses provided, 2017-2022**
Source: CRA.

Revenue. Revenue from the provision of other wholesale data transmission services decreased by €0.38 million or 4.7% to €7.8 million in 2022 compared to 2021 (see Figure 69). In 2022, revenue from the provision of wholesale central access services amounted to €1.6 million, or 20.1% of total revenue from the provision of wholesale other data services.

Change in revenue from the provision of wholesale other data services, 2022 compared to 2021: -4,7%



	2017	2018	2019	2020	2021	2022
Revenue from other wholesale data transmission services	6.68	9.26	9.49	8.24	8.18	7.79
of which for wholesale central access services	0.23	0.35	0.65	0.99	1.33	1.60
using xDSL technology	0.17	0.11	0.07	0.07	0.04	0.03
using FTTx technology	0.06	0.23	0.58	0.92	1.29	1.57

Figure 69. **Revenue from other wholesale data transmission services, € million, 2017-2022**
Source: CRA.

In 2022, "Telia Lietuva", AB had the largest market share in terms of revenue from the provision of other wholesale data services (42.9%) (see Figure 70), but its market share declined by 2.3 percentage points in 2022 compared to 2021. The largest increase in market share in 2022 compared to 2021 was achieved by UAB "Duomenų Logikos centras" (2.4 percentage points).

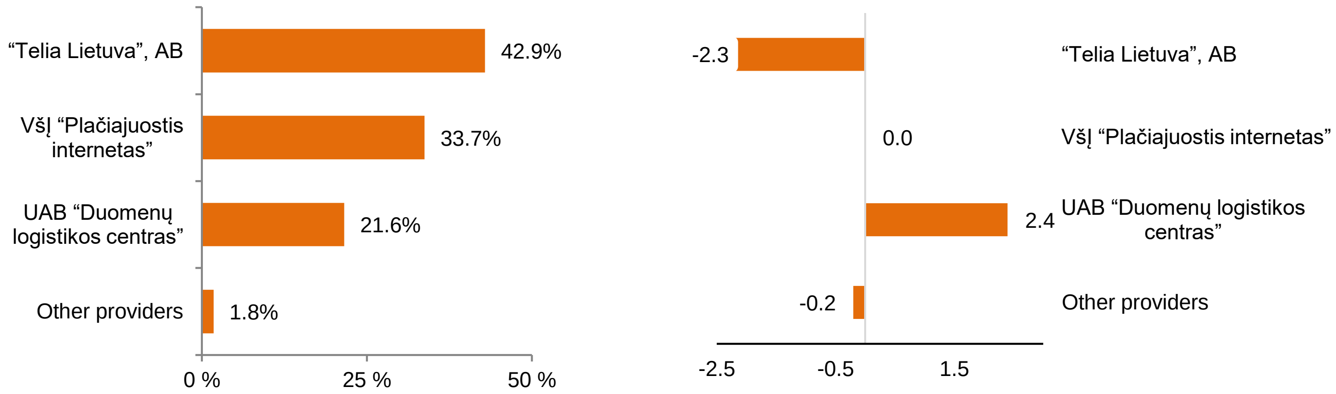


Figure 70. **Structure of revenue from other wholesale data services by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

In 2022, as in the whole period of 2017-2022, the number of wholesale central accesses at a fixed location for mass market products grew rapidly, increasing by 14.8% to 17,042. Revenue from the provision of other wholesale data services fell by 4.7% to €7.8 million.

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4. Television and radio

4.1. General overview of the market for television and radio services

Service providers	**41**
Largest service provider	**“Telia Lietuva”, AB**
Wholesale revenue, € million	**5,2**
Retail revenue, € million	**78,5**
Total revenue, € million	**83,7**

IMPORTANT!

- In this section of the report, other television and radio service providers are all television and radio service providers except UAB “Balticum TV”, UAB “Cgates”, UAB “Init”, AB Lietuvos radijo ir televizijos centras, UAB “Splius”, UAB “Bite Lietuva”, UAB and “Telia Lietuva”, AB (hereafter in this section of the report - the other service providers).

In this report, the market for television and radio services includes retail pay television services and wholesale television and radio programme transmission services (via DVB-T networks), which are used to provide retail radio and television services.

Service providers. At the end of 2022, 41 undertakings were active in television and radio activities related to electronic communications (see Table 34).

There were 40 retail pay television service providers in 2022 (41 in 2021). At the end of 2022, wholesale radio and television programme transmission services were provided by a total of 1 undertaking, AB Lietuvos radijo ir televizijos centras, which provided radio and television transmission services.

Table 34. **Number of television and radio service providers according to the services they provide, 2017-2022**

	2017	2018	2019	2020	2021	2022
Transmission of radio and television programmes	3	3	3	1	1	1
Pay television services	39	40	39	42	41	40
In total	**40**	**41**	**40**	**42**	**42**	**41**

Source: CRA.

Revenue. In 2022, compared to 2021, revenue from retail pay and wholesale television and radio services decreased by 3.1% to €83.7 million (see Figure 71).

In 2022, as in previous periods, the largest share of revenue came from retail pay television services. Revenue from these activities amounted to €78.5 million or 93.8% of total revenue from television and radio services (94.8% of total revenue from television and radio services in 2021). In 2022, wholesale television and radio broadcasting services accounted for €5.2 million or 6.2% of total revenue (1.0 percentage point more than in 2021), of which 4.3% derived from television broadcasting services, 1.5% from radio broadcasting services, and 0.4% from other services related to television and radio broadcasting.

Change in revenue from television and radio services, 2022 compared to 2021: -3,1 %

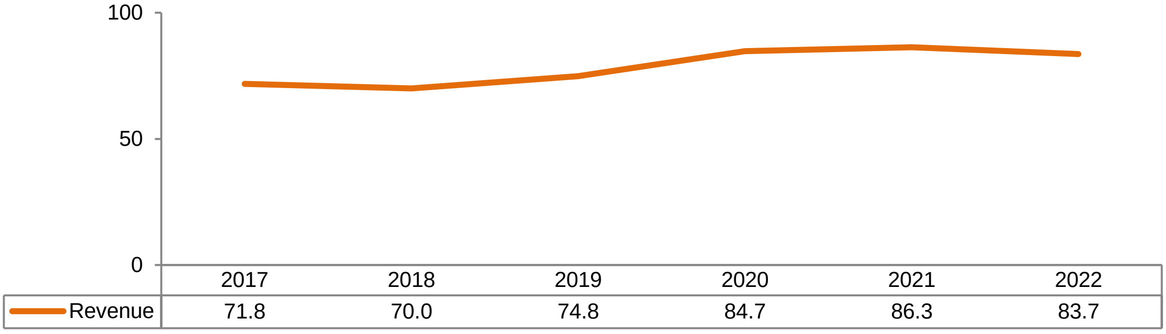


Figure 71. **Revenue from television and radio services, € million, 2017-2022**
Source: CRA.

An assessment of the structure of the television and radio services market in 2022 in terms of service providers' revenue shows that "Telia Lietuva", AB remained the largest service provider with a market share of 44.8%, or 0.4 percentage point less than in 2021 (see Figure 72). UAB "Cgates" was in second place in terms of service providers' revenue, with a market share of 16.3%, or 0.2 percentage points less than in 2021. UAB "Bitė Lietuva" was in third place.

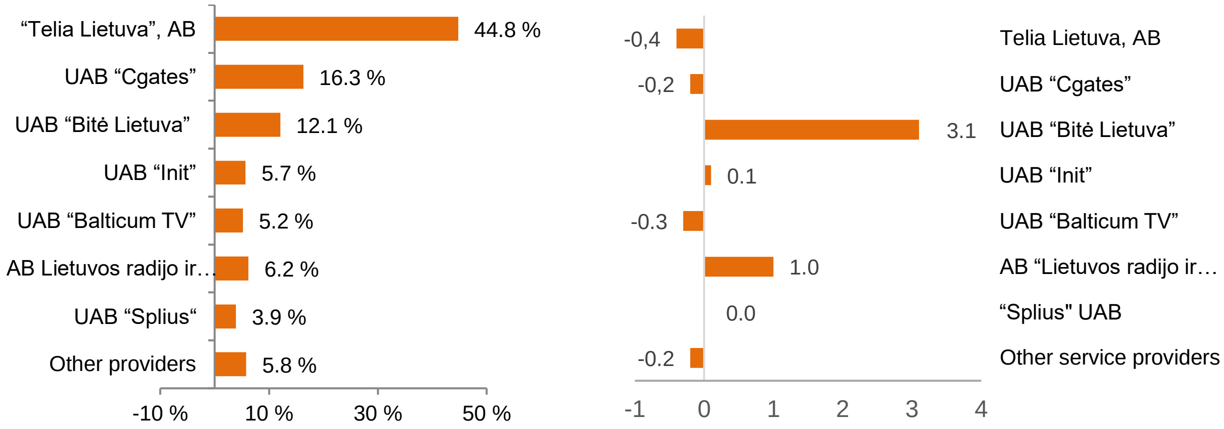


Figure 72. **Structure of revenue from television and radio services by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Over the period of 2017-2022, revenue from television and radio services grew, reaching €83.7 million in 2022. The market share of the top 7 providers was 94.2% in 2022 (94.0% in 2021).

4.2. Retail pay television services

Service providers	**40**
Service users, thousands	**627,2**
Retail revenue, € million	**78,5**
ARPU, €/month	**10,27**

IMPORTANT!

- In this section of the report, other retail pay television service providers are all retail pay television service providers except UAB "Balticum TV", UAB "Cgates", UAB "Init", UAB "Splius", "Telia Lietuva", AB, UAB "Bitė Lietuva" (hereafter in this section of the report - the other providers)

Ways of provision. In 2022, pay television services in Lithuania were provided in 4 different ways:

- over broadband networks using Internet Protocol technologies (hereinafter - IPTV);
- cable television networks (hereinafter – KTV);
- satellite networks (hereinafter - satellite TV);
- microwave multichannel television networks (hereinafter - MDTV).

Service providers. The number of pay television providers in 2022 has changed only slightly compared to 2021. There were 27 undertakings providing services using fixed network technologies (25 using FTTx, 2 using xDSL and 8 using other technologies) and 1 using mobile communications technologies. Satellite TV services were provided by one company (UAB "Bitė Lietuva"). Following the discontinuation of DVB-T retail pay television services by UAB "Balticum TV", these services are no longer available from 2021.

Table 36. **Number of pay television service providers by way of service provision, pcs., end of 2017-2022**

	2017	2018	2019	2020	2021	2022
IPTV	18	20	22	26	27	27
KTV	26	25	24	26	25	25
- Digital KTV	14	15	16	20	20	20
MDTV	2	2	2	2	2	2
Satellite TV	1	1	1	1	1	1
DVB-T	2	2	2	1	-	-

Source: CRA.

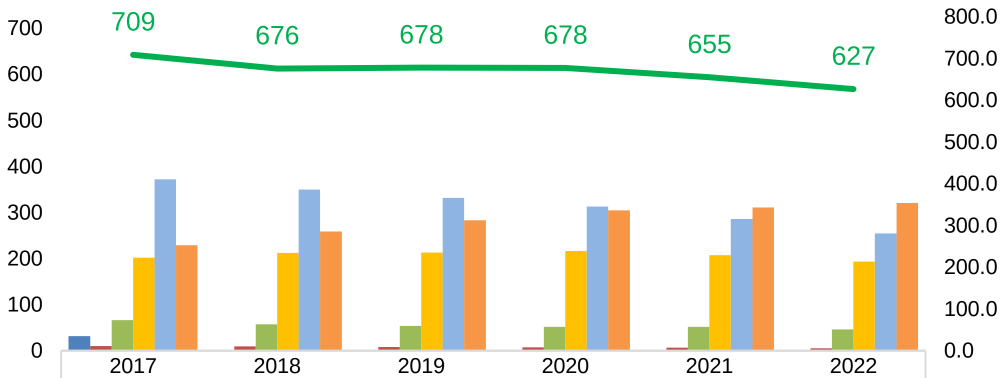
Service users. At the end of 2022, the number of pay television service users was the lowest in the whole period of 2017-2022, at 627.2 thousand or 4.3% less than in 2020 (see Figure 73). This decline is likely to be influenced by the growth in the supply of non-electronic communications services, i.e. online television[23].

In 2022, the majority (51.2%) of television customers chose IPTV services. An analysis of the structure of pay television service users by way of television service provision shows that in 2022, as in 2021, only the number of IPTV service users grew. In 2022, the number of IPTV service users increased by 3.1%

[23] The service of distribution of television programmes and/or individual programmes on the internet is defined in Article 2(65) of the Law on the Provision of Information to the Public of the Republic of Lithuania: "the selection, provision for dissemination and simultaneous unaltered dissemination to the public on the internet of broadcast television programmes or individual programmes, including such dissemination to the public by means of a video-sharing platform service, and the dissemination to the public on the internet of protected television programmes or individual programmes by means of conditional access."

or 9.6 thousand compared to 2021. The steady increase in demand for IPTV services can be attributed to the fact that end-users continue to appreciate the added value of these services, which are conveniently bundled together with internet access services, and that IPTV services offer a high level of video quality. In 2022, 40.7% and 7.4% of all pay television users used KTV and satellite TV services respectively. Over 2022, the number of KTV users decreased by 10.9% and digital KTV by 6.6%.

Change in the number of pay television service users, 2022 compared to 2021: -4,3 %

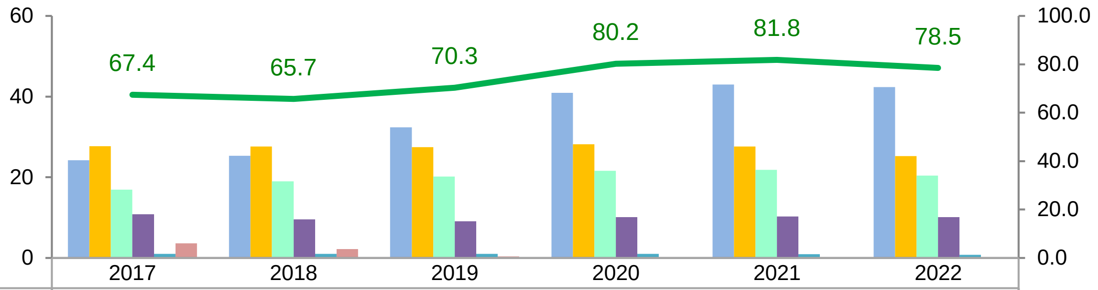


	2017	2018	2019	2020	2021	2022
DVB-T	31.8	0.4	0.4	0.3	-	-
MDTV	9.9	9.2	8.3	7.4	6.5	5.2
Satellite TV	66.2	57.6	54.1	52.0	51.7	46.2
- Digital KTV	202.0	212.3	213.3	216.9	207.4	193.7
KTV	372.1	350.2	332.2	313.0	286.2	255.0
IPTV	229.4	258.8	283.4	304.9	311.2	320.8
SERVICE USERS, IN TOTAL	709.4	676.2	678.4	677.6	655.4	627.2

Figure 73. **Number of pay television service users by way of service provision, thousands, 2017-2022**
Source: CRA.

Revenue. In 2022, revenue from provision of pay television services decreased by 4.0% to €78.5 million compared to 2021. In 2022, the decline in pay television revenue is mainly driven by the decline in revenue from KTV services. Compared to 2021, it decreased by 8.8% to €25.2 million. Revenue from IPTV services accounted for 53.9% of total revenue from pay television services (see Figure 74). In 2022, compared to 2021, revenue from MDTV services decreased by 13.9%.

Change in revenue from pay television services, in 2022 compared to 2021: -4,0 %



	2017	2018	2019	2020	2021	2022
IPTV	24.2	25.3	32.4	40.9	43.0	42.3
KTV	27.7	27.6	27.5	28.2	27.6	25.2
- Digital KTV	16.9	19.0	20.2	21.6	21.9	20.4
Satellite TV	10.8	9.6	9.1	10.1	10.3	10.1
MDTV	1.0	1.0	1.0	1.0	0.9	0.8
DVB-T	3.6	2.2	0.4	0.03	-	-
REVENUE, IN TOTAL	67.4	65.7	70.3	80.2	81.8	78.5

Figure 74. **Structure of pay television revenue by type of provision of the service, € million, 2017-2022**
Source: CRA.

In terms of revenue generated by service providers, “Telia Lietuva”, AB remained the market leader in the pay television service market in 2022, with 47.8% of the market, followed by UAB “Cgates” with 17.4% and UAB “Bitė Lietuva” with 12.9% (see Figure 75).

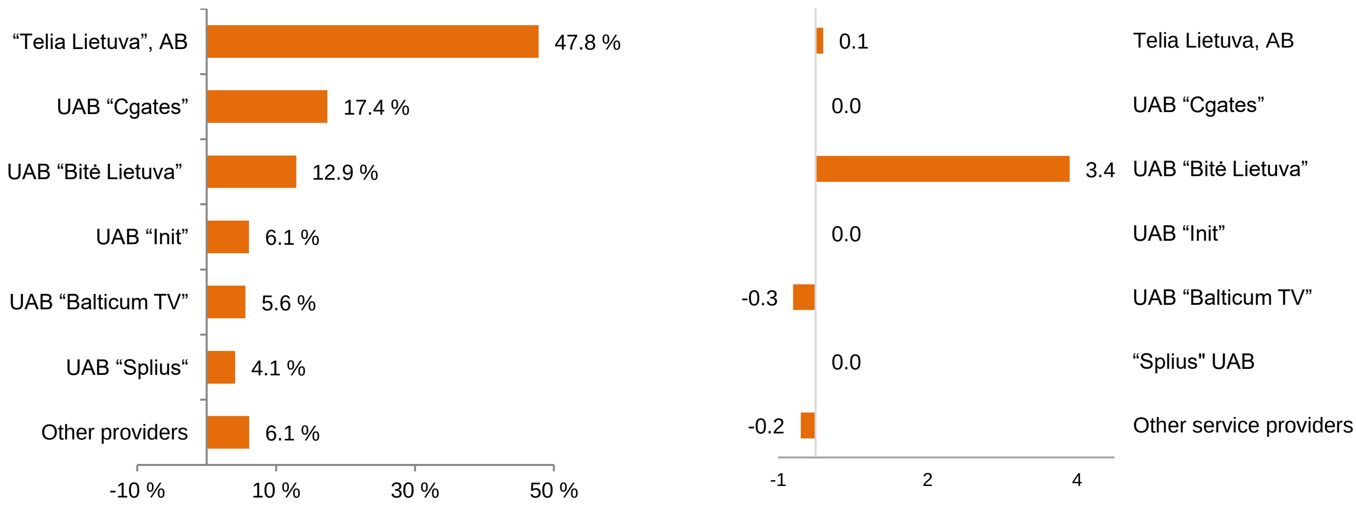
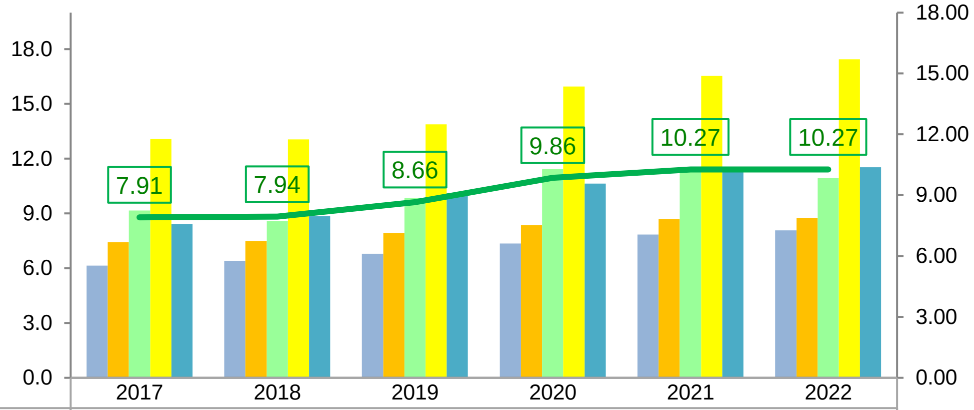


Figure 75. **Structure of pay television revenue by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

ARPU. Revenue per pay television subscriber per month grew over the entire period of 2017-2021. In 2022, as in 2021, it was €10.27 (see Figure 76). In 2022, as in previous periods, satellite TV providers earned the highest ARPU. The lowest ARPU in 2022, as in 2021, were for KTV service providers. In 2022, IPTV ARPU were 24.9% higher than digital KTV ARPU.

In 2022, the ARPU for IPTV over fixed communication technologies was €10.90 and €14.45 for mobile communication technologies.



	2017	2018	2019	2020	2021	2022
KTV	6.14	6.41	6.80	7.36	7.85	8.07
- Digital KTV	7.42	7.50	7.93	8.35	8.69	8.76
IPTV	9.16	8.58	9.84	11.42	11.48	10.94
Satellite TV	13.07	13.06	13.88	15.95	16.53	17.44
MDTV	8.43	8.85	10.13	10.64	11.27	11.54
ARPU FOR ALL PAY-TV SERVICES	7.91	7.94	8.66	9.86	10.27	10.27

Figure 76. **ARPU for pay television services by type of service provision, €/month, 2017-2022**
Source: CRA.

In 2022, revenue from pay television services decreased by 4.0% to €78.5 million. The number of pay television users has been declining throughout the period, with only IPTV users increasing. This is likely to be influenced by the content available online. The ARPU of television services provided in different ways increased in 2022.

4.3. Wholesale television and radio programme transmission services

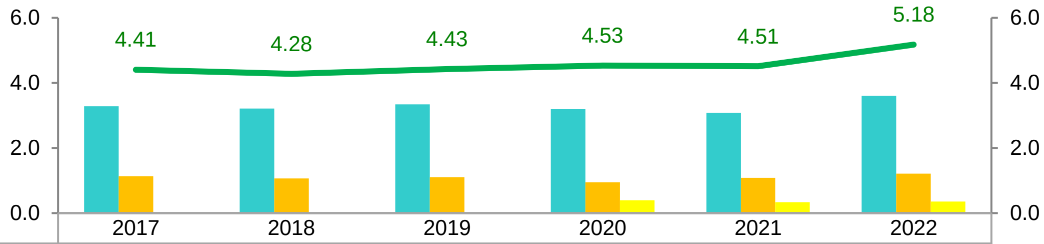
Service providers	**1**
Largest service provider	**AB Lietuvos radijo ir televizijos centras**
Wholesale revenue, € million	**5,18**

Service providers. In 2022, wholesale television programme transmission services over the DVB-T network were provided by 1 undertaking - AB Lietuvos radijo ir televizijos centras, which provided these services over national networks.

In 2022, as before, wholesale radio programme transmission services were provided by only 1 undertaking - AB Lietuvos radijo ir televizijos centras.

Revenue. In 2022, compared to 2021, revenue from the provision of television and radio broadcasting services increased by 14.7% to €5.18 million (see Figure 77). From 2020 onwards, it excludes revenue from other services related to the transmission of television and radio programmes, which decreased by 11.7% in 2022 compared to 2020 and amounted to €0.35 million.

Change in revenue from television and radio programme transmission services, in 2022 compared to 2021: +14,7 %



	2017	2018	2019	2020	2021	2022
Digital terrestrial TV	3.28	3.21	3.34	3.19	3.09	3.61
Radio	1.13	1.07	1.10	0.95	1.08	1.22
Other related revenue	-	-	-	0.40	0.34	0.35
REVENUE, IN TOTAL	4.41	4.28	4.43	4.53	4.51	5.18

Figure 77. **Revenue from television and radio broadcasting services, by service group, € million, 2017-2022**
Source: CRA.

Transmission stations for digital terrestrial television broadcasting. At the end of 2022, Lithuania had 100 digital terrestrial television stations: 18 of them were used to transmit television programmes of local and regional broadcasters, while the remaining 82 were used to transmit programmes of the two national coverage networks (VšĮ Lietuvos nacionalinis radijas ir televizija network ir AB Lietuvos radijo ir televizijos centras first network).

In 2022, revenue from wholesale broadcasting services increased by 14.7% to 6.2% of the total television and radio market revenue. All the revenue generated by these services was earned by AB Lietuvos radijo ir televizijos centras.

5. Physical infrastructure access

Service providers	17
Largest service provider	“Telia Lietuva”, AB
Wholesale revenue, € million	11,3
Retail revenue, € million	0,6
Total revenue, € million	12,0

IMPORTANT!

- In this section of the report, other providers of access to physical infrastructure services are all providers of access to physical infrastructure services, with the exception of UAB “Skaidula”, VšĮ “Plačiajuostis internetas” and “Telia Lietuva”, AB, as identified in Figure 79, and UAB “Duomenų logistikos centras”, VšĮ “Plačiajuostis internetas”, UAB “Skaidula” and “Telia Lietuva”, AB, as identified in Figure 81 (hereafter in this section of the report - the other providers).

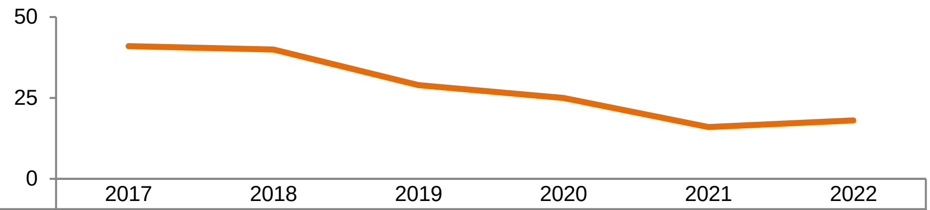
In 2022, the following wholesale physical infrastructure access services were provided in Lithuania:

- Wholesale Line Rental (WLR), a service for access to a wholesale local line for the provision of public fixed line voice communication services by means of an operator's pre-selection;
- access to fibre optic line service;
- access to fully unbundled and partially unbundled local line services (local metallic twisted pair, local fibre optic lines);
- access service to the communications duct system;
- access to other physical infrastructure services.

Providers. At the end of 2022, 17 operators provided wholesale access services to physical infrastructure in Lithuania. In 2022, as in 2021, “Telia Lietuva”, AB was the sole provider of wholesale local line services for the provision of public fixed line voice communication services by way of operator pre-selection. In 2022, access to the local metallic twisted loop line was provided by “Telia Lietuva”, AB and AB “LTG Infra”, while access to the local fibre optic line was provided by AB Lietuvos radijo ir televizijos centras and AB “LTG Infra”. At the end of 2022, 14 undertakings were active in the provision of fibre optic line access services. Access to the communications duct system was provided by 3 undertakings in 2022: “Telia Lietuva”, AB, AB “LTG Infra” and UAB “Balticum TV”.

Number of accesses granted. Demand for access to fully unbundled and partially unbundled local line services has been gradually decreasing over the period of 2017-2022 (see Figure 78). The total number of local line accesses granted at the end of 2022 was 18, or 12.5% more than in 2021: of these, 8 accesses were granted to the local metallic twisted loop line and 10 to the local fibre optic line. The decline in the popularity of fully and partially unbundled local line access is likely to be driven by the increase in the number of fibre optic line accesses granted, as shown in Figure 79.

Change in the number of fully and partially unbundled local line accesses granted in 2022 compared to 2021: +12,5%

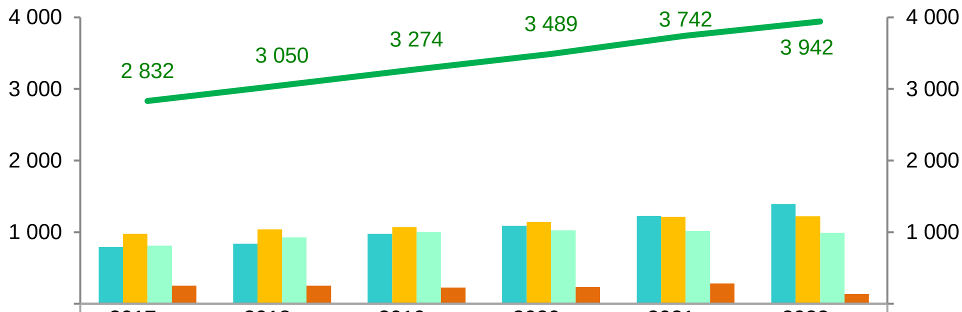


	2017	2018	2019	2020	2021	2022
Fully and partially unbundled access	41	40	29	25	16	18

Figure 78. **Number of fully and partially unbundled local line accesses granted, pcs., 2017-2022**
Source: CRA.

At the end of 2022, 3.9 thousand fibre optic line accesses had been granted by service providers (see Figure 79). The number of fibre optic line accesses granted has been increasing since 2017. At the end of 2022, 5.3% or 200 more fibres optic line accesses were provided than at the end of 2021. The number of retail fibre optic line accesses at the end of 2022 was 604. In 2021, the market for fibre optic line access services was led by VšĮ "Plačiajuostis internetas" in terms of the number of accesses provided. In 2022, the market share of VšĮ "Plačiajuostis internetas" increased by 2.6 percentage points compared to 2021 and amounted to 35.3 %.

Change in the number of fibre optic line accesses granted in 2022 compared to 2021: +5,3 %



	2017 m.	2018 m.	2019 m.	2020 m.	2021 m.	2022 m.
VĮ „Plačiajuostis internetas“	792	838	977	1 090	1 225	1 391
UAB „Skaidula“	978	1 037	1 068	1 140	1 215	1 223
„Telia Lietuva“, AB	810	925	1 002	1 027	1 017	989
Other providers	252	250	227	232	285	138
PROVIDED ACCESSES, IN TOTAL	2 832	3 050	3 274	3 489	3 742	3 942

Figure 79. **Number of fibre optic line accesses granted, pcs., 2017-2022**
Source: CRA.

At the end of 2022, 762 wholesale local lines were made available for the provision of public fixed voice communication services through operator pre-selection (42 fewer lines than in 2021), and access to a 9,316 km long system of communications ducts.

Revenue. Total revenue from the provision of physical infrastructure access services amounted to €12.0 million in 2022, or 8.7% more than in 2021. 49.0% of the revenue from the provision of physical infrastructure access services, or €5.9 million (see Figure 80), came from the provision of fibre optic line access services. Revenue from the provision of retail fibre optic line access services amounted to €0.6 million. €3.2 million was received for the provision of access services to the communication duct system. "Telia Lietuva", AB received the largest share of revenue from the provision of physical infrastructure access services, i.e. 58.1% of overall revenue from the provision of physical infrastructure access services.

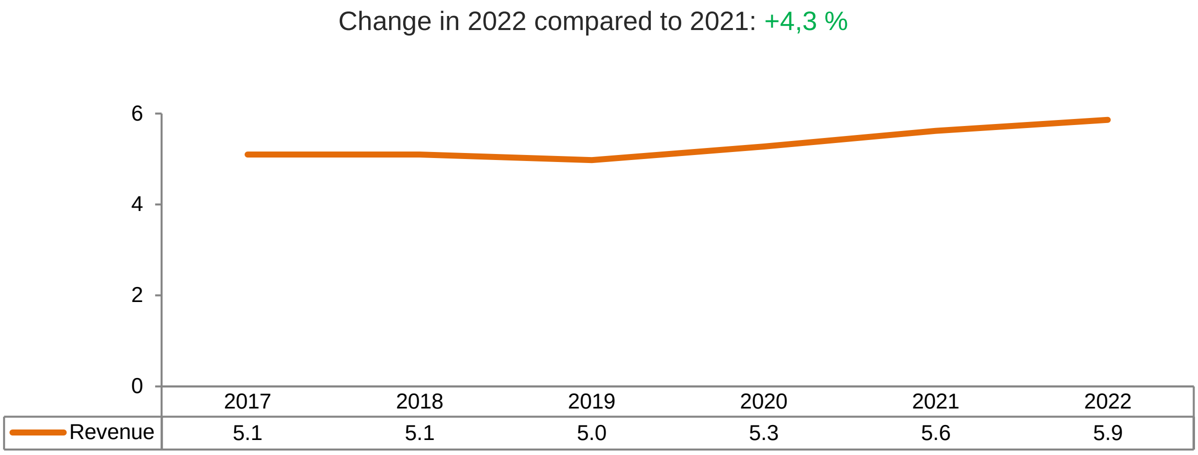


Figure 80. **Revenue from fibre optic line access services, € million, 2017-2022**
Source: CRA.

In 2022, UAB "Skaidula" remained the market leader in the provision of fibre optic line access services in terms of revenue, although its market share decreased by 0.8 percentage points. In 2022, compared to 2021, the market share of VšĮ "Plačiajuostis internetas" increased the most (by 1.9 percentage points), reaching 23.0%, while the market share of "Telia Lietuva", AB decreased the most (by 1.6 percentage points), with a decrease in the market share of 27.9% (Figure 81).

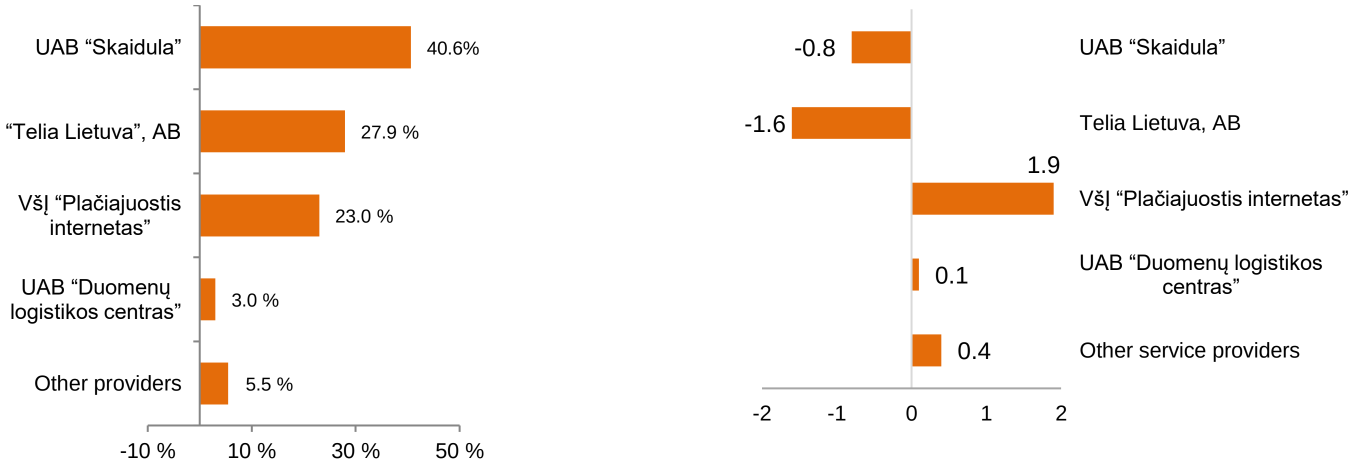


Figure 81. **Structure of revenue from fibre optic line access services by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Revenue from the provision of physical infrastructure access services amounted to €12.0 million in 2022, 8.7% higher than in 2021.

At the end of 2022, the number of fibre optic line accesses provided by service providers stood at 3,942, an increase of 5.3% compared to 2021.

POSTAL SERVICE MARKET

1. General overview of the postal services market

Service providers	44
Largest service provider	AB Lietuvos paštas
Amount of parcels, million	85,3
Wholesale revenue, € million	1,5
Retail revenue, € million	255,6
Total revenue, € million	257,2

IMPORTANT!

- In this section of the report, other postal service providers are all postal service providers, except for AB Lietuvos paštas, UAB “DPD Lietuva”, UAB “Omniva LT”, UAB “Venipak Lietuva”, UAB “Pašto paslaugos”, UAB “Itella logistic”, UAB “DHL Lietuva”, UAB “Skubios siuntos”, UAB “Šiaulių naujienos” as indicated in Figure 83, AB Lietuvos paštas, UAB “DPD Lietuva”, UAB “Omniva LT”, UAB “Venipak Lietuva”, UAB “DHL Lietuva”, a branch of “Federal Express Corporation”, UAB “TNT”, UAB “Skubios siuntos”, UAB “Itella logistic”, UAB “Nėgė” as indicated in Figure 85 (hereinafter in this section of the report - the other providers).

Postal service - the collection, sorting, transport and delivery of postal items remains an important part of a country’s economic and social development. Significant changes in the postal sector are being driven by the development of new technologies, in particular the increasing use of electronic tools and automation. The significant increase in e-commerce, both domestically and globally, is leading to an increase in mail volumes. In 2022, revenue from the provision of postal services amounted to €257.2 million or 24.2% of the total revenue of the Lithuanian communications sector.

The postal service is subdivided according to the nature of its activities into the sending of items of correspondence[24] (letters and small packages), the sending of parcels (up to 50 kg), and the provision of other postal and postal-related services (the sending of advertising information, newspapers, magazines, other periodicals, etc.). The postal service is also divided into universal postal service and non-universal postal service.

Service providers. At the end of 2022, a total of 73 undertakings had notified about the provision of the postal service, i.e. 4 more than at the end of 2021 (see Table 36). However, 44 out of 73 operators were actually providing the postal service at the end of 2022, i.e. 5 fewer than in 2021.

[24] An item of correspondence - a postal item to be sent and delivered which bears the addressee’s address and consists of a message written on any physical material, including small packages (books, catalogues, newspapers and other periodicals are not considered correspondence items).

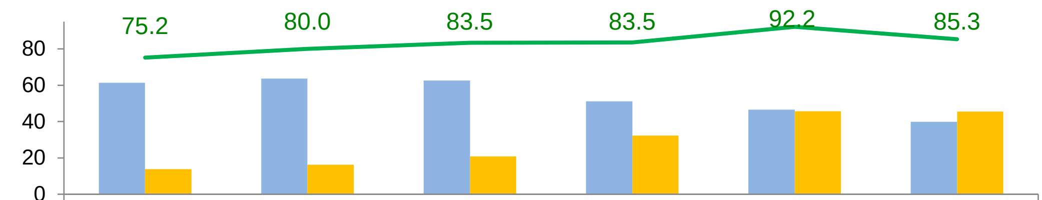
Table 36. **Number of postal service providers, pcs., 2017-2022**

	2017	2018	2019	2020	2021	2022
Number of providers actually providing the postal service	46	45	48	51	49	44
Total number of postal service providers	65	57	55	62	69	73

Source: CRA.

Total number of items. In 2022, 85.3 million postal items were sent, which is 7.4% (or 6.9 million) less than in 2021 (see Figure 82). Over the whole period of 2017-2022, total parcel numbers increased by 10.1 million or 13.4%. By 2021, items of correspondence accounted for the majority of postal items (81.6% in 2017 and 50.4% in 2021), and in 2022 postal parcels accounted for 53.3% of all postal items.

Change in the number of postal items in 2022 compared to 2021: -7,4 %



	2017	2018	2019	2020	2021	2022
Correspondence items	61.4	63.7	62.6	51.1	46.5	39.8
Postal parcels	13.8	16.3	20.8	32.3	45.6	45.5
ALL POSTAL ITEMS	75.2	80.0	83.5	83.5	92.2	85.3

Figure 82. **Dynamics of the total number of postal items, million, 2017-2022**
Source: CRA.

In 2022, AB Lietuvos paštas had the largest market share in terms of numbers of parcels sent (46.7%) (see Figure 83), but its market share in 2022 has fallen the most, by 6.1 percentage points compared to 2021.

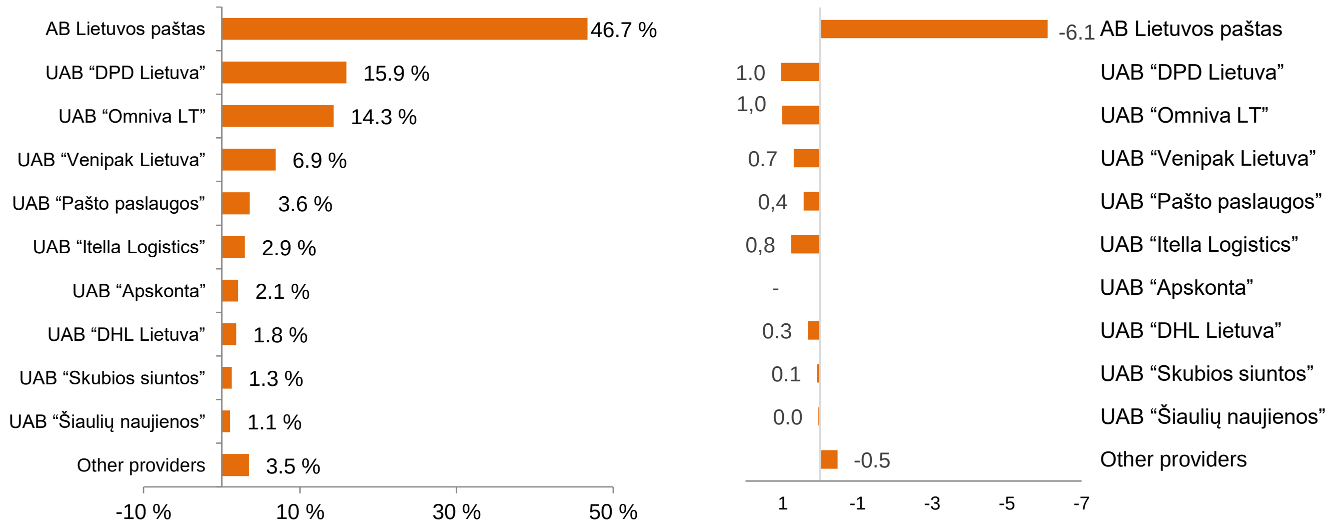


Figure 83. **Structure of market shares of postal service providers in terms of numbers of postal items sent, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Revenue. In 2022, all postal service providers generated revenue of €257.2 million, an increase of 7.6% (or €18.2 million) compared to 2021 (see Figure 84).

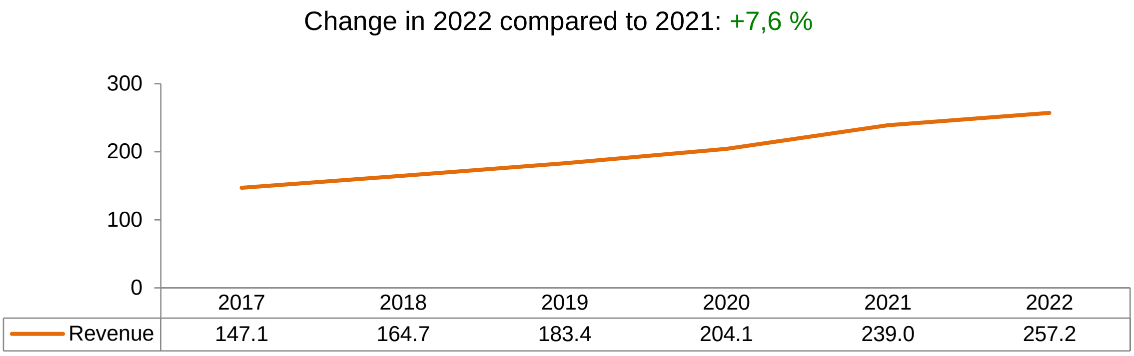


Figure 84. **Revenue from the provision of postal services, € million, 2017-2022**
Source: CRA.

In 2022, 76.4% of the total revenue of the postal service market came from parcels, 21.5% from correspondence, 1.5% from other postal services[25] and 0.6% from the wholesale postal service[26] (see Table 37). Notably, the share of revenue from parcels has risen, reaching 56.5% in 2017.

Revenue from the non-universal postal service continued to account for the largest share of the revenue of the postal service in 2022 (91.3%), with an increase of 0.8 percentage points compared to 2021 (see Table 37). Revenue from the universal postal services[27], which grew annually between 2017 and 2019, started to decline in 2020. In 2022, it decreased by 2.3% compared with 2021 to €20.8 million.

Table 37. **Structure of revenue from postal services by type of parcels and services, € million, 2017-2022**

	2017	2018	2019	2020	2021	2022
By type of parcel:						
correspondence items	55.4	67.8	68.9	59.1	51.1	55.2
postal parcels	83.1	90.4	106.4	135.1	183.0	196.6
Other	8.6	6.5	8.0	8.7	3.4	3.8
wholesale postal service*	-	-	-	1.1	1.5	1.5
By type of service:						
universal	24.1	30.6	32.7	30.3	21.3	20.8
non-universal	123.0	134.1	150.7	172.7	216.2	234.8
wholesale postal service*	-	-	-	1.1	1.5	1.5
IN TOTAL	**147.1**	**164.7**	**183.4**	**204.1**	**239.0**	**257.2**

** Data since 2020.*
Source: CRA.

In 2022, AB Lietuvos paštas remained the market leader in the postal service market in terms of number of postal items and in terms of revenue, although its market share in terms of revenue declined by 0.9 percentage points in comparison to 2021 and amounted to 27.6% of the total revenue of the postal service market (see Figure 85). In 2022, the market share of UAB "Venipak Lietuva" (1.2 percentage points) and UAB "DHL Lietuva" (1.0 percentage points) increased the most.

[25] Revenue from other postal services - this may include sales of postage stamps, envelopes, packaging, etc. This revenue does not include revenue from the delivery of periodicals.
[26] Revenue from the wholesale postal service - the revenue received for the delivery to the user of postal items received by the postal service provider from another postal service provider operating in the Republic of Lithuania.
[27] Universal postal service - a postal service of the quality prescribed by the legislation, which shall be provided at an affordable price throughout the territory of the Republic of Lithuania to all users who wish to receive such a service. The provision of this universal postal service must be ensured on the territory of the Republic of Lithuania: 1) collection, sorting, carriage and delivery of postal items up to 2 kg; 2) collection, sorting, carriage and delivery of postal items up to 10 kg; 3) collection, sorting, carriage and delivery of registered and insured postal items; and 4) collection, sorting, carriage and delivery of postal items up to 20 kg, received from other Member States.

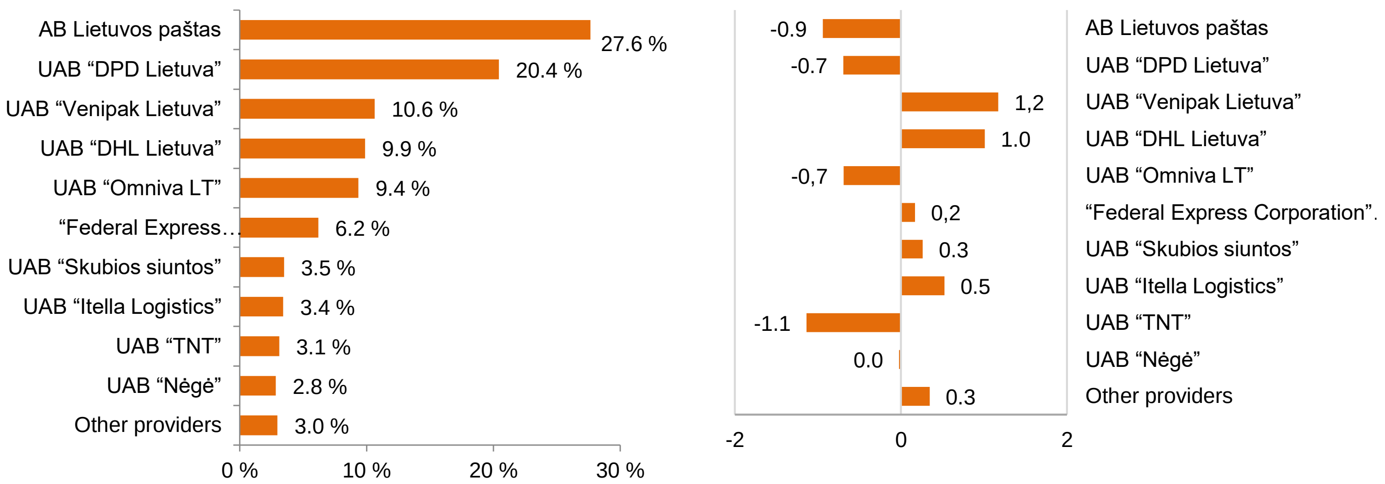
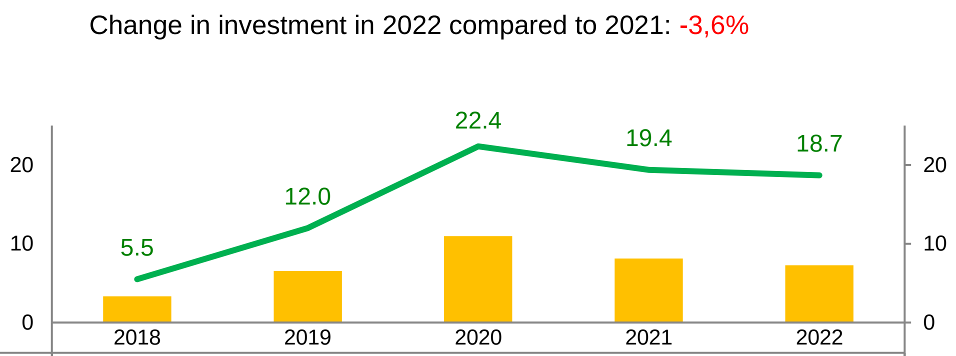


Figure 85. **Structure of postal service market revenue by service provider, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Investments. In order to provide users with the fastest and highest quality services possible, postal service providers have invested in the development and modernisation of the postal network, in particular in the development of self-service terminals and innovative logistics solutions between 2018 and 2022. Investments in 2022 decreased by 3.6% compared to 2021. In 2022, the ratio of these investments to the total market revenue of the postal service was 7.3%.



	2018	2019	2020	2021	2022
Ratio of investment to total market revenue of the postal service	3.3	6.5	11.0	8.1	7.3
INVESTMENTS	5.5	12.0	22.4	19.4	18.7

Figure 86. **Investments related to the provision of the postal service, € million, and the ratio of these investments to the total revenue of the postal service market, %, 2018-2022**
Source: CRA.

The largest share of investments was accounted for by investments of UAB “Omniva LT” (23.5% or €4.4 million) and AB Lietuvos paštas (23.3% or €4.4 million).

Postal network. In 2022, the trend towards a decrease in the number of traditional post offices (fixed location post offices and mailboxes) and an increase in the number of innovative places of provision of the postal service (self-service parcel terminals) will continue. At the end of 2022, UAB “Omniva LT” had the largest share of self-service parcel terminals - 27.6% (420), as in the previous year. AB Lietuvos paštas had 23.3% (354), UAB “DPD Lietuva” - 19.9% (303), UAB “Venipak Lietuva” - 16.5% (251), UAB “Itella Logistics” - 12.4% (189) of self-service parcel terminals. The number of self-service parcel terminals in rural areas increased by 18 to 90 in 2022 compared to 2021.

The increasing share of postal service revenue in the Lithuanian communications sector shows that the population is very active in sending and receiving a wide range of postal items.

2. Correspondence items

Service providers	**29**
Amount of parcels, million	**39,8**
Retail revenue, € million	**55,2**

IMPORTANT!

- In this section of the report, other providers of correspondence services are all providers of correspondence services, except for AB Lietuvos paštas, UAB "Pašto paslaugos", UAB "Venipak Lietuva", UAB "Šiaulių naujienos" as indicated in Figure 87 and AB "Lietuvos paštas", UAB "Venipak Lietuva", UAB "DHL Lietuva", UAB "TNT", as indicated in Figure 91 (hereafter in this section of the report - the other providers).

Service providers. In 2022, 29 undertakings provided correspondence services.

Total number of items. In 2022, 39.8 million postal items were sent. This is 14.4% less than in 2021. Over the whole period of 2017-2022, the total number of correspondence items decreased by 21.6 million or 35.1%. The decline in correspondence items is due to the use of various e-services by consumers, which are replacing the traditional sending of letters by post. Throughout the period under consideration, non-universal correspondence items accounted for the majority of all correspondence items, reaching 80.0% in 2022. It should be noted that since 2017, the number of correspondence items in the non-universal segment has been steadily decreasing (except for a slight increase in 2018). The number of universal correspondence items grew annually from 2017 to 2019, but started to decline from 2020 onwards, dropping by 48.8% over 2 years (see Table 38).

Table 38. **Number of correspondence items, million, 2017-2022**

	2017	2018	2019	2020	2021	2022
Universal correspondence items	18.8	19.7	20.7	15.6	11.3	8.0
Non-universal correspondence items	42.6	44.0	42.0	35.5	35.2	31.8
In total	**61.4**	**63.7**	**62.7**	**51.1**	**46.5**	**39.8**

Source: CRA.

The largest share of all correspondence items (78.2%) was sent and received via AB Lietuvos paštas, which is 7.1 percentage points less than in 2021 (see Figure 87). The market share of UAB "Pašto paslaugos" has grown, with an increase of 1.5 percentage points to 7.6% in 2022 in terms of number of items of correspondence sent.

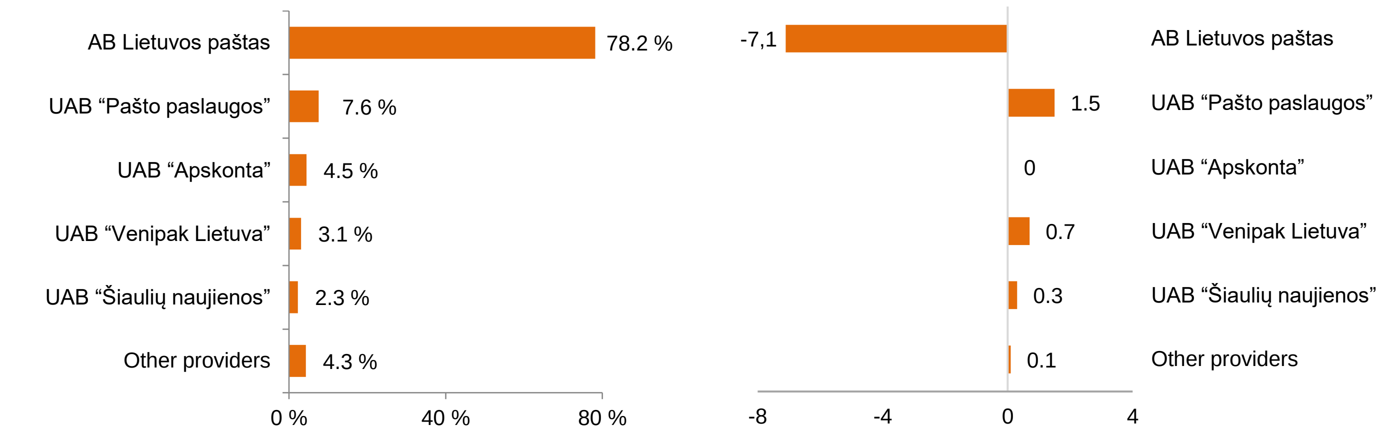


Figure 87. **Structure of market shares of postal service providers in terms of numbers of postal items sent, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Number of items by destination. Correspondence items are divided into domestic outgoing, international outgoing and international incoming correspondence items, according to their destination. In 2022, 29.4 million of domestic correspondence items were sent, which is 6.1% less than in 2021 (see Figure 88). Over the whole period of 2017-2022, there has been a downward trend in the number of outgoing domestic correspondence items (14.6 million or 33.2% of the total).

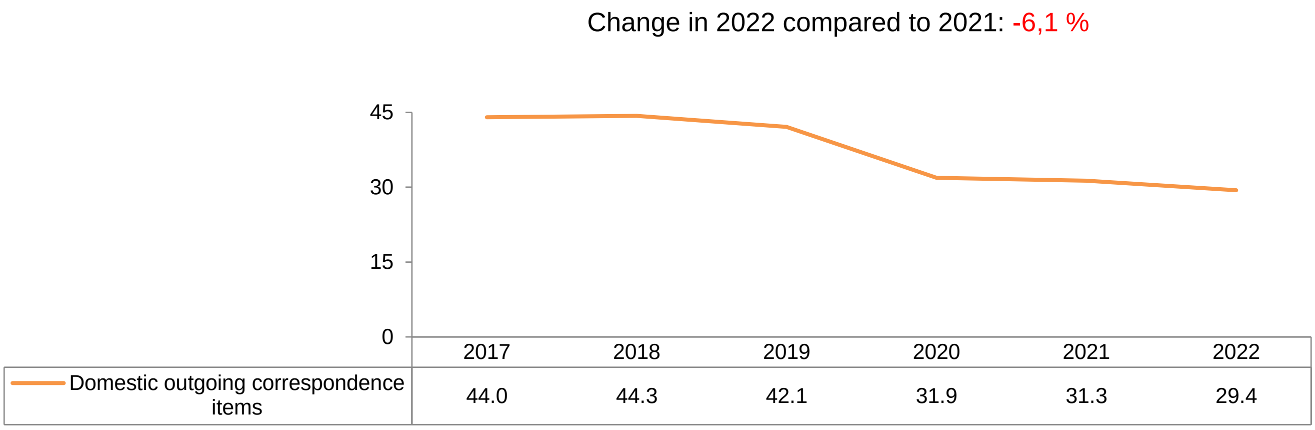
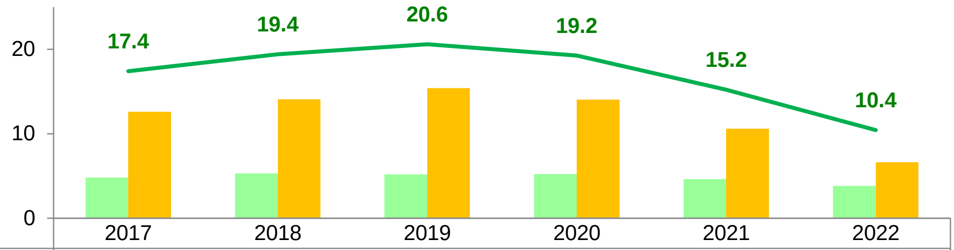


Figure 88. **Dynamics of the number of domestic outgoing correspondence items, million, 2017-2022**
Source: CRA.

AB Lietuvos paštas had the largest market share (72.7%) in terms of the number of domestic correspondence items in 2022. UAB “Pašto paslaugos” had a market share of 10.3% and UAB “Apskonta” 6.1%.

The number of international correspondence items decreased by 7.0 million or 40.0% between 2017 and 2022. In 2022, 10.4 million international correspondence items were sent and received (31.5% less than in 2021): 36.5% (3.8 million) of international outgoing correspondence items and 63.5% (6.6 million) of international incoming correspondence items (see Figure 89). In 2022, 70.3% (7.3 million) of all international correspondence items were sent to and/or received from EU Member States.

Change in total international correspondence items in 2022 compared to 2021: -31,5 %



	2017	2018	2019	2020	2021	2022
International outgoing correspondence items	4.8	5.3	5.2	5.2	4.6	3.8
International incoming correspondence items	12.6	14.1	15.4	14.0	10.6	6.6
ALL INTERNATIONAL CORRESPONDENCE ITEMS	17.4	19.4	20.6	19.2	15.2	10.4

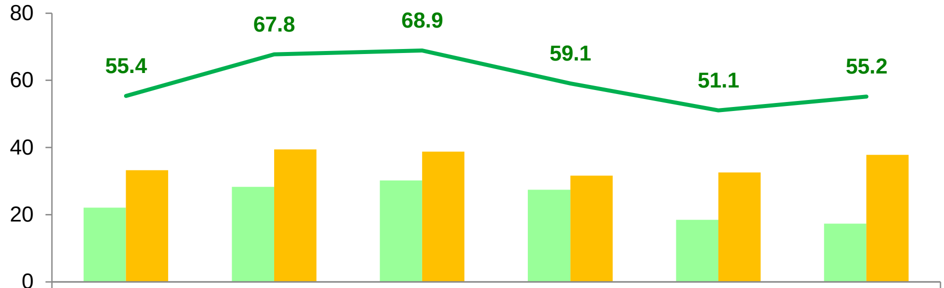
Figure 89. **Dynamics of the number of international correspondence items, million, 2017-2022**
Source: CRA.

AB Lietuvos paštas had the largest market share (93.7%) in terms of the number of international correspondence items in 2022.

Correspondence items are usually delivered by placing them in inboxes. In 2022, 46.3% of the correspondence items delivered in the territory of Lithuania were placed in inboxes, 27.1% were collected at a post office and 25.5% were delivered to the users at his/her place of residence or office. There is a trend towards fewer and fewer correspondence items being collected at the post office each year. In 2022, compared to 2021, there was a 2.9 percentage point decrease in the number of correspondence items collected at the post office.

Revenue received from sending of correspondence items. Total revenue from correspondence services increased by 8.1% in 2022 compared to 2021 to €55.2 million (see Figure 90). In 2022, the majority of revenue (68.5%) came from non-universal correspondence items delivery services. Revenue from the provision of these services increased by 16.0% over the year. Meanwhile, revenue from the sending of universal correspondence items fell by 6.0%.

Change in correspondence items in 2022 compared to 2021: +8,1 %



	2017	2018	2019	2020	2021	2022
for universal correspondence items	22.1	28.3	30.2	27.4	18.5	17.4
for non-universal correspondence items	33.3	39.5	38.8	31.7	32.6	37.8
FOR ALL CORRESPONDENCE ITEMS	55.4	67.8	68.9	59.1	51.1	55.2

Figure 90. **Revenue received from sending correspondence items, € million, 2017-2022**
Source: CRA.

The largest share (81.6%) of revenue from correspondence services was generated by AB Lietuvos paštas (see Figure 91). The market share of this company decreased by 2.4 percentage points in 2022 compared to 2021.

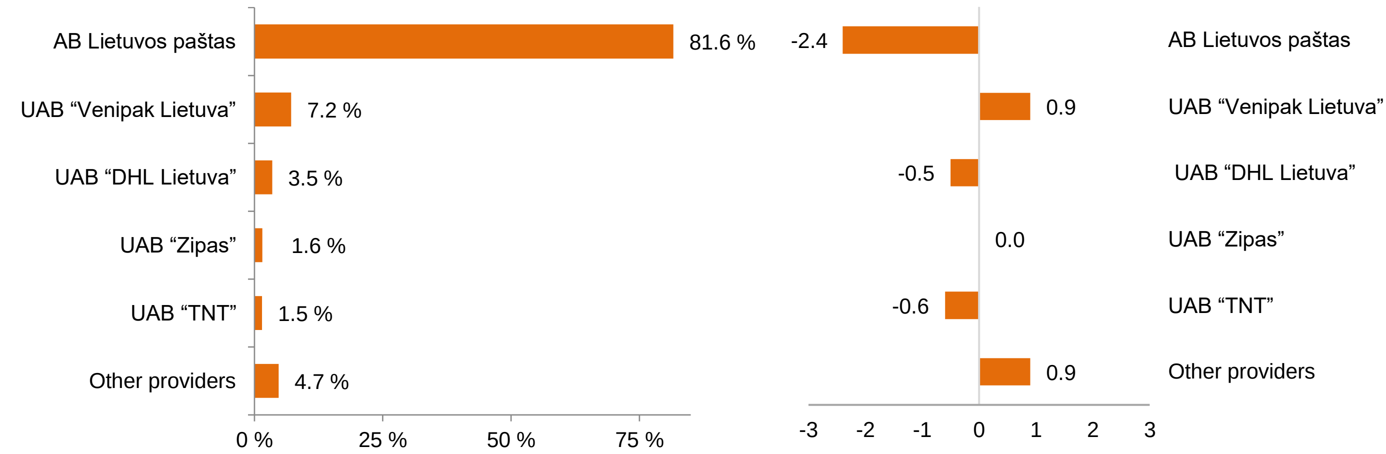


Figure 91. **Structure of market shares of postal service providers in terms of revenue from sending correspondence items, in %, and annual changes in market shares, in percentage points, in 2022**
Source: CRA.

Revenue from international outgoing correspondence items is the largest contributor to revenue from correspondence items in 2022 (43.5%), amounting to €24.0 million (see Table 39). Revenue from outgoing correspondence items increased by 17.3% in 2022 compared to 2021, but revenue from international incoming correspondence items decreased by 24.7%. This decrease in revenue may be due to a significant drop in parcel volumes from China as a result of the deterioration of political relations between Lithuania and China on the Taiwan issue in 2022.

Table 39. **Revenue from correspondence services by destination, € million, 2020-2022***

	2020	2021	2022
Domestic outgoing correspondence items	18.7	18.2	22.7
International outgoing correspondence items	22.7	21.6	24.0
International incoming correspondence items	17.7	11.2	8.5
IN TOTAL	**59.1**	**51.1**	**55.2**

** Data since 2020.*
Source: CRA.

In 2022, 56.0% (€18.2 million) of the total revenue from international correspondence came from correspondence items sent to and/or received from EU Member States.

Between 2017 and 2022, the importance of correspondence items in the postal market continued to decline. In 2022, 39.8 million of correspondence items were sent, a decrease of 14.4% compared to 2021 and 35.1% compared to 2017. The decrease is observed in both the universal and non-universal services segments. Revenue from sending correspondence items increased by 8.1% in 2022 compared to 2021. This is likely to be due to the introduction of heavier and more expensive parcels, as well as higher tariffs of postal service providers.

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3. Postal parcels

Service providers	**30**
Number of parcels, million	**45,5**
Retail revenue, € million	**196,6**

IMPORTANT!

- In this section of the report, other postal parcel service providers are all postal parcel service providers, except for UAB “DPD Lietuva”, UAB “Omniva LT”, AB “Lietuvos paštas”, UAB “Venipak Lietuva”, UAB “Itella logistic”, UAB “DHL Lietuva”, as indicated in Figure 92, UAB “Skubios siuntos”, UAB “DPD Lietuva”, UAB “Omniva LT”, AB “Lietuvos paštas”, UAB “Venipak Lietuva”, UAB “DHL Lietuva”, a branch of “Federal Express Corporation”, UAB “TNT”, UAB “Skubios siuntos”, UAB “Itella logistic”, UAB “Nėgė” (hereinafter referred in this section of the report - the other providers), as indicated in Figure 96.

Service providers. Postal parcel services were provided by 30 undertakings in 2022, 8 fewer than in 2021.

Number of parcels. Over the whole period of 2017-2022, the number of postal parcels increased more than 3.3 times. In 2022, 45.46 million postal parcels were forwarded, a decrease of 0.4% compared to 2021. In 2022, 45.32 million non-universal parcels were sent and received, a decrease of 0.2% compared to 2021, and 0.15 million universal parcels were sent and received, a decrease of 33.3% compared to the previous year (see Table 40).

Table 40. **Number of universal and non-universal postal parcels, million, 2017-2022**

	2017	2018	2019	2020	2021	2022
Universal postal parcels	0.17	0.19	0.21	0.23	0.22	0.15
Non-universal postal parcels	13.65	16.14	20.63	32.10	45.40	45.32
In total	**13.82**	**16.33**	**20.84**	**32.33**	**45.62**	**45.46**

Source: CRA.

In 2022, the largest market share (29.8%) in terms of the number of postal parcels was held by UAB “DPD Lietuva” (0.2 percentage points less than in 2021). The market share of UAB “Omniva LT” remained stable at 26.8%. UAB “Itella Logistics” market share grew the most in 2022 by 1.2 percentage points, while AB Lietuvos paštas market share decreased the most by 0.6 percentage points (see Figure 92).

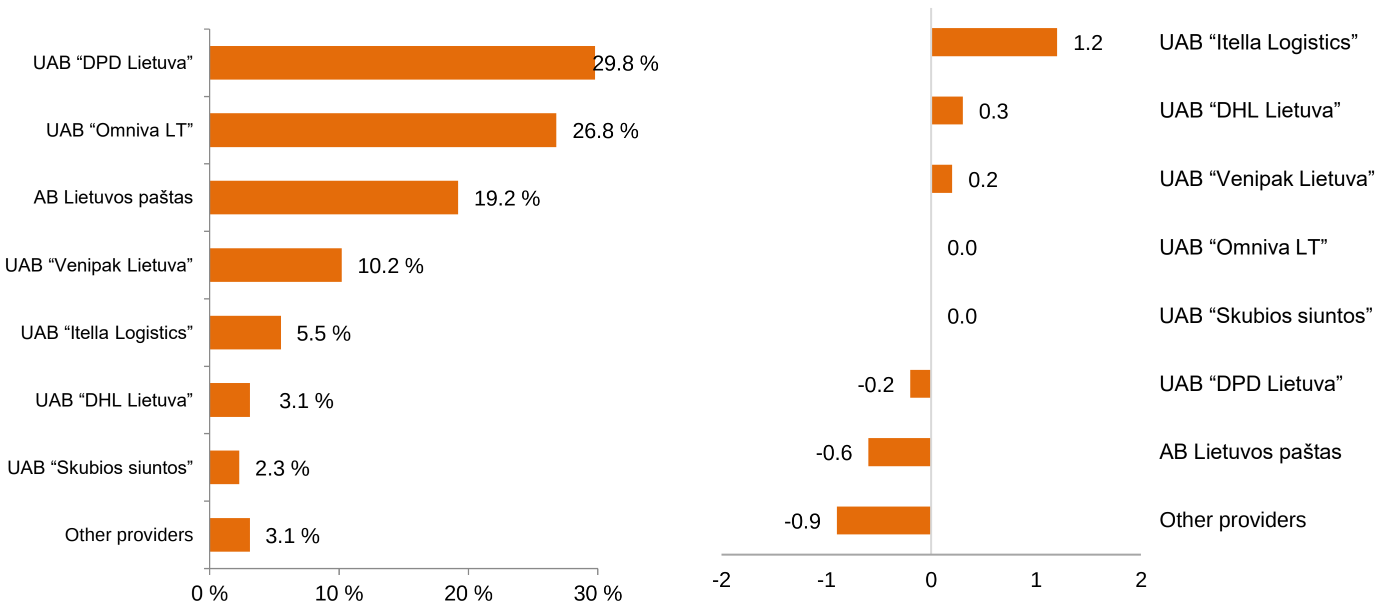


Figure 92. **Structure of market shares of postal service providers in terms of numbers of postal parcels sent, in %, and annual changes in market shares in percentage points in 2022**
Source: CRA.

Number of postal parcels by destination. Postal parcels are divided into domestic outgoing, international outgoing and international incoming parcels. In 2022, 30.0 million of domestic parcels were sent, 2.8% less than in 2021 (see Figure 93). The number of domestic parcels almost tripled between 2017 and 2022 to 19.5 million. The majority (97.9%) of the market in terms of domestic parcels in 2022 was held by 4 providers: UAB “DPD Lietuva” (31.0%), AB Lietuvos paštas (28.1%), UAB “Omniva LT” (25.8%) and UAB “Venipak Lietuva” (12.8%).

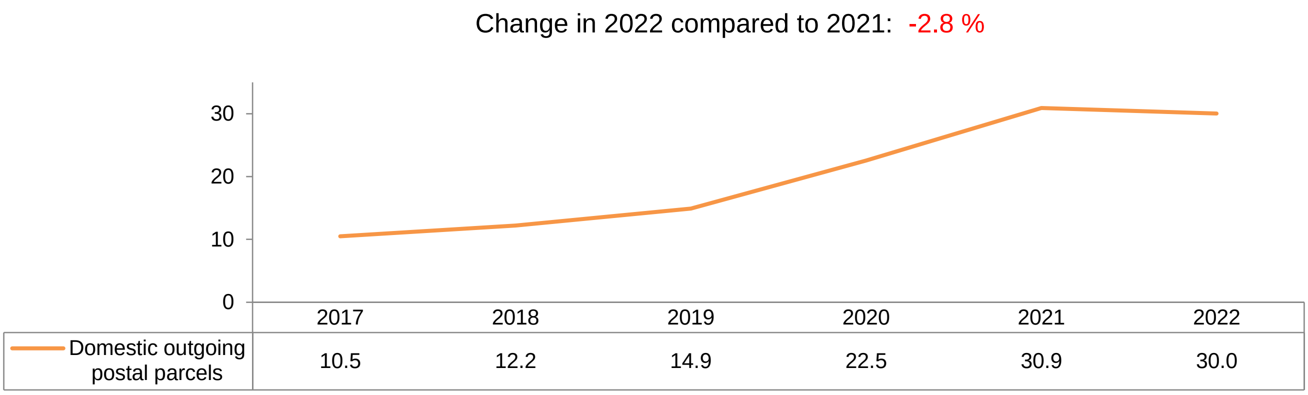
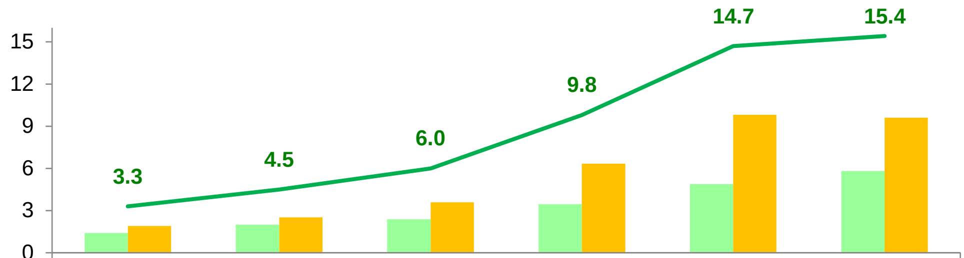


Figure 93. **Dynamics of the number of domestic postal parcels, million, 2017-2022**
Source: CRA.

In 2022, 15.4 million of international postal parcels were sent and received (4.8% more than in 2021) (see Figure 94). 62.3% of all international postal parcels were incoming parcels and 37.7% were outgoing parcels. The vast majority of international parcels (14.1 million or 91.5%) were sent to and/or received from EU Member States.

In 2022, as in 2021, UAB “DPD Lietuva” had the largest market share in terms of the number of international parcels, amounting to 27.4%. However, this provider’s market share has decreased the most, by 3.3 percentage points compared to 2021. UAB “Omniva LT” was the second largest provider in this category, with 28.7% of the market.

Change in international parcels in 2022 compared to 2021: +4,8 %



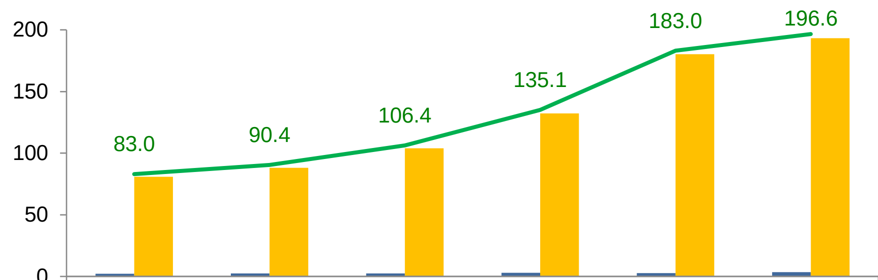
	2017	2018	2019	2020	2021	2022
International outgoing postal parcels	1.4	2.0	2.4	3.5	4.9	5.8
International incoming postal parcels	1.9	2.5	3.6	6.3	9.8	9.6
ALL INTERNATIONAL POSTAL PARCELS	3.3	4.5	6.0	9.8	14.7	15.4

Figure 94. **Dynamics of the number of international postal parcels, million, 2017-2022**
Source: CRA.

The most popular way of sending postal parcels in 2022 was via self-service parcel terminals. In 2022, 55.2% or 22.1 million parcels were delivered to self-service parcel terminals. The number of these parcels increases by 5.5 percentage points in 2022 compared to 2021. 44.0% of parcels delivered in Lithuania were delivered to the users at his/her place of residence or registered office.

Revenue from services of sending postal parcels. In the period of 2017-2022, revenue from sending parcels increased by a factor of 2.4. In 2022, revenue from sending of postal parcels amounted to €196.6 million, an increase of €13.6 million or 7.4% compared to 2021 (see Figure 95).

Change in revenue from postal parcels in 2022 compared to 2021: +7,4 %



	2017	2018	2019	2020	2021	2022
Universal postal parcels	2.1	2.3	2.5	2.9	2.8	3.4
Non-universal postal parcels	80.9	88.1	103.9	132.3	180.2	193.2
REVENUE FROM POSTAL PARCELS	83.0	90.4	106.4	135.1	183.0	196.6

Figure 95. **Revenue from postal parcel services, € million, 2017-2022**
Source: CRA.

In 2022, 98.3% of revenue was generated from non-universal and 1.7% from universal postal parcels. Revenue from non-universal postal parcels increased by 7.2% or €12.9 million in 2022 compared to 2021. Revenue from universal postal parcel services decreased by 22.9% or €0.6 million in a year (see Figure 95).

When looking at the market structure of postal service providers in 2022 in terms of revenue from postal parcels, the same 5 undertakings remain the largest providers, together accounting for 73.3% of the market (73.1% in 2021) (see Figure 96). As last year, UAB "DPD Lietuva" generated the most revenue in this segment, with 26.7%

of the market, or 0.8 percentage points less than in 2021. The largest increase (1.5 percentage points) was recorded by UAB “DHL Lietuva”, which in 2022 had a market share of 11.9%.

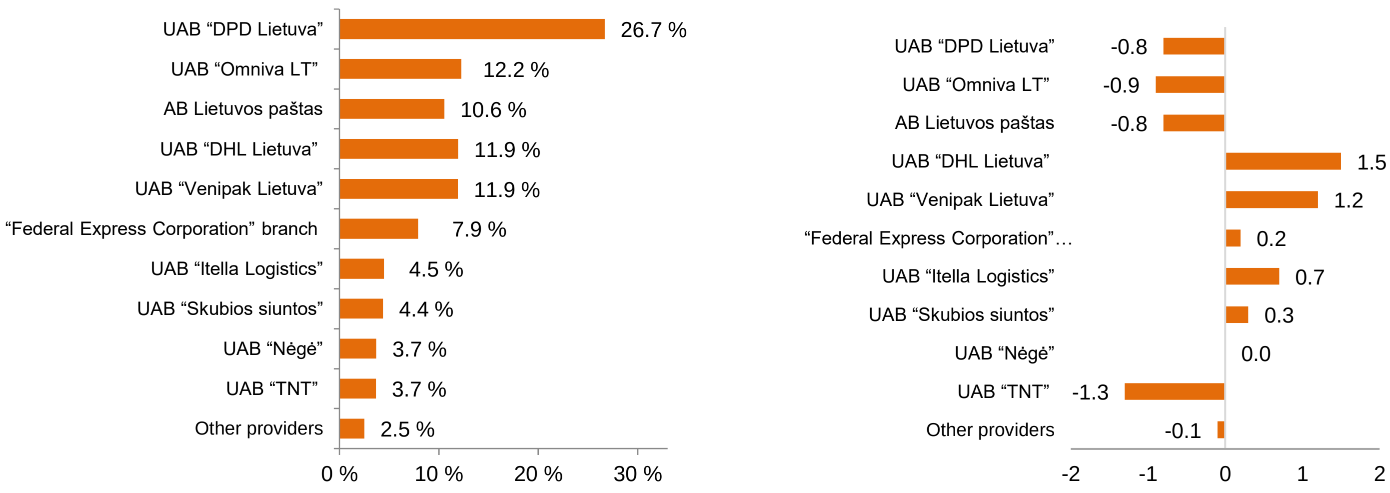


Figure 96. **Market shares of postal service providers in terms of revenue from sending postal parcels, in %, and annual changes in market shares, in percentage points, 2022**
Source: CRA.

Revenue from the sending of domestic parcels accounted for the largest share (44.1%) of revenue from postal parcels in 2022, amounting to €86.7 million (see Table 41). Revenue from postal parcels in 2022 compared to 2021 grew in all segments, but the highest growth, both in percentage terms (15.1%) and in monetary terms (€8.9 million), was seen in international outgoing postal parcels.

	2020	2021	2022
Domestic outgoing postal parcels	62	83.1	86.7
International outgoing postal parcels	49	58.9	67.8
International incoming postal parcels	24.2	41.1	42.0
In total	**135.1**	**183.0**	**196.6**

Table 41. **Revenue received from postal parcel services by destination, € million, 2020-2022**

** Data since 2020.*
Source: CRA.

In 2022, 61.1% (€67.1 million) of the total revenue from international postal parcels came from parcels sent to and/or received from EU Member States.

Over the whole period of 2017-2022, the number of postal parcels increased by 3.3 times and the revenue generated by sending them by 2.4 times. In terms of revenue, postal parcels accounted for the largest share (76.4%) of the postal market.

4. Universal postal service

- **Service provider** — **AB Lietuvos paštas**
- **Places of provision, pcs.,** — **292**
- **Amount of parcels, million** — **8,1**
- **Retail revenue, € million** — **20,8**

Provision of the service. In 2022, as in previous periods, AB Lietuvos paštas was the only universal postal service provider in Lithuania. This service was provided in 292 places, 270 fewer than in 2021 (see Table 42).

Table 42. **Number of universal postal service provision places, pcs, 2017-2022**

	2017	2018	2019	2020	2021	2022
Places of provision of the mobile postal service	156	187	323	323	326	121
Places of provision of the fixed postal service	564	545	349	253	236	171
In total	**720**	**732**	**672**	**576**	**562**	**292**

Source: CRA.

In 2022, there were 581 outgoing mailboxes in Lithuania, i.e. 38.1% (357 mailboxes) less than in 2021 (see Table 43). The number of outgoing mailboxes has been decreasing over the whole period of 2017-2022.

Table 43. **Number of outgoing mailboxes, pcs, 2017-2022**

	2017	2018	2019	2020	2021	2022
Outgoing mailboxes	1 606	1 583	1 376	1 228	938	581

Source: CRA.

Quality of the service. In 2022, 8.1 million universal postal service parcels were sent and received, 29.3% less than in 2021 (see Figure 97).

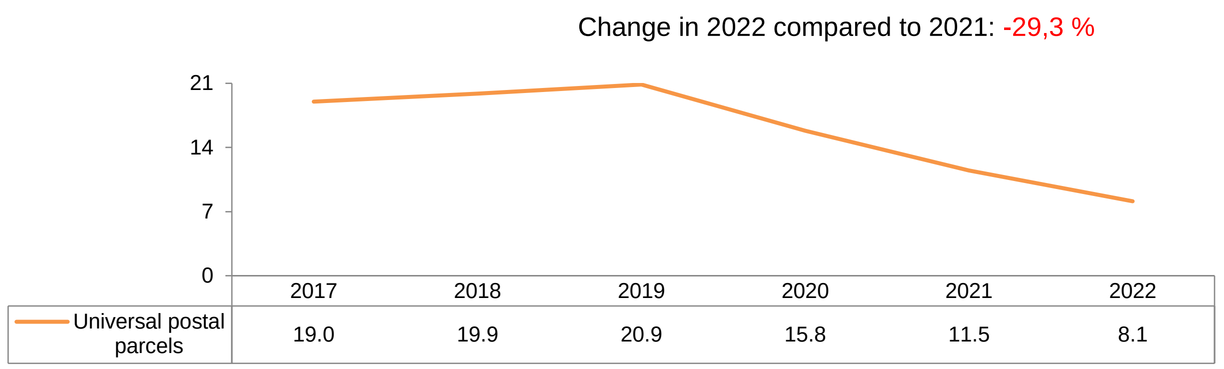


Figure 97. **Scope of provided universal postal service, million, 2017-2022**
Source: CRA.

Revenue. After three consecutive years of growth, revenue from the provision of universal postal service started to decline in 2020, decreasing by 31.4% to €20.8 million in 2022 compared to 2020. The highest increase was recorded in 2018, mainly due to higher tariffs for the universal postal service (see Figure 98).

Change in 2022 compared to 2021: -2,3%

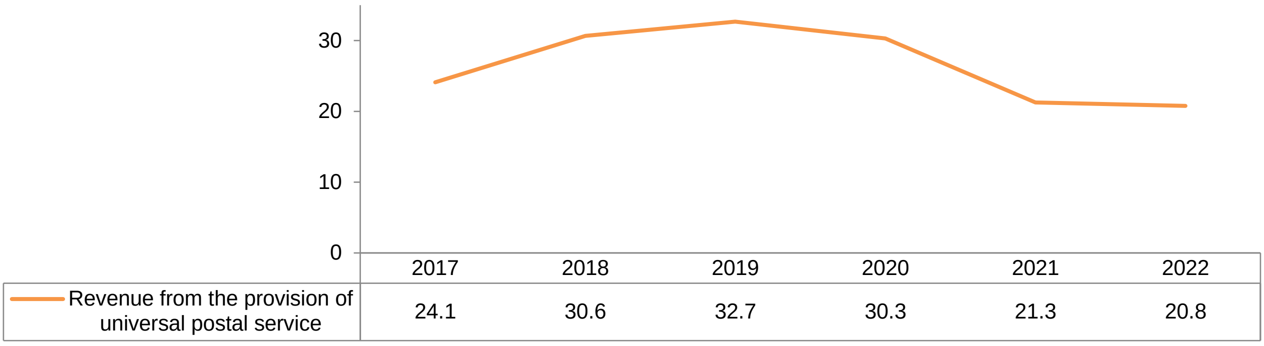


Figure 98. **Revenue from the provision of universal postal service, € million, 2017-2022**
Source: CRA.

The universal postal service in Lithuania is provided by AB Lietuvos paštas. This service is particularly important for people living in remote areas, who are provided with a possibility to send and receive a wide range of parcels or correspondence. However, with the decline in the number of correspondence items, the annual growth of the universal postal service over the period of 2017-2019 has started to decline from 2020.

5. Competition in the postal market

HHI by number of postal items	**6204,4**
HHI by number of postal items	**2 126,1**
HHI by revenue	**1 561,6**

In order to determine the intensity of competition in the postal market, the following indicators of market concentration are analysed: the market structure indicators CR_4[28] and CR_8[29] and the Hirschman-Herfindahl index HHI.

Concentration by number of postal items. When looking at the concentration of the postal market in terms of number of postal items, the CR_4 and CR_8 indicators show that the market had a high level of concentration during the period of 2017-2022, which remained stable (see Table 44). These high values of the indicators show that, despite the relatively large number of active postal service providers, the correspondence items market is concentrated and its structure resembles that of an oligopoly, with a few postal service providers having the largest and most dominant share.

A look at the dynamics of the CR_4 market share of the four largest providers shows that the values of this indicator are fairly stable, ranging between 93.2% and 95.8%. In 2022, the indicator decreased by 2.4 percentage points compared to 2021. Compared to 2017, CR_4 decreased by only 0.2 percentage points.

The dynamics of the CR_8 market share of the top eight providers over the period of 2017-2022 shows that the highest market concentration was in 2021, when the top eight providers accounted for 98.2% (97.6% in 2022) of the correspondence market. In 2022, this indicator decreased by 0.6 percentage points compared to 2021. As the values of CR_4 and CR_8 are not significantly different, it can be said that the correspondence items market is shared by four market players.

Table 44. **Market concentration indexes by number of correspondence items, 2017-2022**

Index	2017	2018	2019	2020	2021	2022
CR_4, per cent	93.2	94.4	94.3	95.1	95.8	93.4
CR_8, per cent	97.2	97.7	97.8	97.9	98.2	97.6
HHI	7 645.1	8 169.4	7 811.7	7 554.8	7 314.4	6 204.4

Source: CRA.

By 2018, the HHI was on an upward trend, crossing the 8,000 mark in 2018 at 8,169.4, before starting to decline in 2019 to 6,204.4 in 2022. This high, albeit significantly reduced, value of the HHI reflects the high degree of unevenness in the distribution of capacities of the players active in the correspondence items market and the concentration of the correspondence items service in a single company.

Concentration by number of postal parcels. When assessing the concentration of the postal market in terms of the number of parcels, it can be seen that the parcel market in Lithuania is less

[28] The concentration level indicator CR4 shows the market share as a percentage of the four largest players.
[29] The concentration level indicator CR8 shows the market share as a percentage of the eight largest market players. CR values:

- Around 0% means that there is perfect competition in the market, perfect conditions for competition or very little monopolistic competition, i.e. the four largest companies do not have any significant market power.
- Less than 40% means that there is effective competition in the market and a low level of concentration.
- Less than 70% means that the market is moderately concentrated, similar to an oligopoly.
- More than 70% means that there is a high level of concentration in the market, between oligopoly and monopoly.
- 100% means a highly concentrated oligopoly: if, for example, CR1 = 100%, the market is a monopoly.

concentrated than the correspondence market (see Table 45). The indicator CR_4 for the market share of the four largest service providers shows a concentration level above average but not exceeding 90%.

The indicator CR_8 of the market share of the top eight providers remained stable between 2017 and 2022 at around 96-98%. While the value of CR_4 was on the borderline between medium and high concentration, the other measure of competitive intensity, CR_8, showed a highly concentrated parcels market, with the eight largest postal service providers accounting for 97.7% of the parcels market in 2022.

It should be noted that the HHI increased by 11.3 points between 2017 and 2022, while the HHI decreased by only 17.5 points in 2022 compared to 2021.

Table 45. **Market concentration indexes by number of parcels, 2017-2022**

Index	2017	2018	2019	2020	2021	2022
CR_4, per cent	82.4	81.3	77.0	87.2	86.6	86.0
CR_8, per cent	96.4	96.3	96.8	97.5	96.9	97.7
HHI	2 114.8	1 870.1	1 912.5	2 130.4	2 143.7	2 126.1

Source: CRA.

Concentration by revenue of postal service providers. In terms of market concentration based on the revenue of postal service providers, CR_4 and CR_8 also show a high level of concentration. The market share of the top four postal service providers decreased by 0.6 percentage points in 2022 compared to 2021, while the market share of the top eight decreases by 0.5 percentage points (see Table 46). Between 2017 and 2022, CR_4 decreased by 6.0 percentage points and CR_8 increased by 0.1 percentage points. Taking into account the values of indicators CR_4 and CR_8, it is possible to see some positive developments in the postal market, with revenue becoming less concentrated in the hands of the four largest postal service providers, and with the most intense competition and market sharing taking place among the eight largest providers.

The HHI assessment of competition in the postal market shows a decrease of 230.5 points over the 2017-2022 period. The declining rate reflects the decreasing concentration of postal service providers and increasing competition in the postal market. In 2022, the HHI declined by 53.4 points compared to 2021. As the HHI index based on the revenue of postal service providers is below 1 800, it can be argued that the market is characterised by medium to moderate concentration.

Table 46. **Market concentration indexes by revenue, 2017-2022**

Index	2017	2018	2019	2020	2021	2022
CR_4, per cent	74.6	72.9	76.3	73.9	69.2	68.6
CR_8, per cent	91.0	91.3	91.9	93.2	91.6	91.1
HHI	1 793.1	1 861.5	2 051.5	2 033.0	1 615.1	1 561.6

Source: CRA.

Of the markets analysed, the correspondence market is the most concentrated in Lithuania. The postal parcel market is less concentrated than the correspondence market. The HHI of the postal parcels market suggests that there is a high level of concentration, but taking into account the revenue of the postal service providers, it can be concluded that the market is moderately concentrated. This situation in the postal market reflects a significant degree of competition, which promotes the provision of a value for money postal service to users.

Annex 1

Electronic communications service providers providing services in 2022

No.	Service provider	Data transmission	Voice communication	Radio and television	Physical infrastructure access
1	“Telia Lietuva”, AB	•	•	•	•
2	A. Judicko IĮ	•	•		
3	A. Zaicos IĮ | VIPI	•			
4	AB “LTG Infra”				•
5	AB “Ogmios centras”	•	•		
6	AB Lietuvos radijo ir televizijos centras	•		•	•
7	Dainius Kamarauskas company “Davgita”	•			
8	“DIDWW Ireland Ltd”		•		
9	G. Pečiulis company	•			
10	H. Abramavičius company	•			
11	IĮ “IT Kubas”	•			
12	IĮ “Satinet”	•			
13	“Inmarsat Global Limited”	•			
14	UAB “Inetas LT”	•			
15	Ivanchikas IĮ “Žaibas”	•		•	
16	UAB “0G Baltics”	•			
17	J. Jasiulionis IĮ			•	
18	UAB “Vilniaus radijo studija”	•		•	
19	UAB “Besmegeniai”	•	•	•	
20	VŠĮ Kauno technologijos universitetas	•			
21	L. Bulovas company “Elektromedija”	•			
22	“SIA Tet” branch	•			
23	UAB “Splius“	•	•	•	•
24	UAB “Teleline LT”		•		

No.	Service provider	Data transmission	Voice communication	Radio and television	Physical infrastructure access
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 “Belaidės technologijos”	•			
34	UAB “Bitė Lietuva”	•	•	•	
35	UAB “Bitosis”	•			
36	UAB “Cgates”	•	•	•	•
37	UAB “Consilium Optimum”	•	•	•	
38	UAB “CSC Telecom”	•	•		
39	UAB “Data Business”	•		•	
40	UAB “Dekbera”	•			
41	UAB “Definė”	•			
42	UAB “Dicto Citius”	•			
43	UAB “Metameda”		•		
44	UAB “Mediafon Technology”		•		
45	UAB “Duomenų logistikos centras”	•			•
46	UAB “Dzūkijos internetas”	•			
47	UAB “EcoFon”	•	•	•	•
48	UAB “Ektra”	•			•
49	UAB “Elneta”	•			
50	UAB “Eltida”	•			
51	UAB “Etanetas”	•		•	•

No.	Service provider	Data transmission	Voice communication	Radio and television	Physical infrastructure access
52	UAB “Eteris”	•		•	
53	UAB “Funaris”			•	
54	Garmin (Europe) Limited		•		
55	UAB “Horda”			•	
56	UAB “Ignalinos televizija”	•		•	
57	UAB “Ilora”	•		•	
58	UAB “Informacijos labirintas”	•			
59	UAB “Init”	•	•	•	
60	UAB “Kalbu Lt”		•		
61	UAB “Kalvanet”	•			
62	UAB “Kauno interneto sistemos“	•		•	
63	UAB “Kednetas”	•			
64	UAB “Krėna”	•		•	
65	UAB “Kvartalo tinklas”	•		•	
66	UAB “Lema”	•			
67	UAB “Linaspas”	•			
68	UAB “CITIC Telecom CPC Lithuania”	•			
69	UAB “Magnetukas”	•		•	
70	UAB “Marsatas”	•		•	
71	UAB “Mavy studija”		•		
72	UAB “Mediafon Carrier Services”		•		
73	UAB “Metameda ir ko”		•		
74	UAB Molėtų radijas ir televizija	•		•	
75	UAB “N plius”	•			
76	UAB “Nacionalinis telekomunikacijų tinklas”	•	•	•	
77	UAB “Netas”	•			
78	UAB “Netsis”	•			

No.	Service provider	Data transmission	Voice communication	Radio and television	Physical infrastructure access
79	UAB “NNT”	•			
80	UAB “Pakeleivis”	•			
81	UAB “Parabolė”	•		•	
82	UAB “Patrimpas”	•		•	
83	UAB “Penkių kontinentų komunikacijų centras“	•	•	•	•
84	UAB “Peoplefone”		•		
85	UAB “Progmera”	•		•	
86	UAB “Proitas”		•		
87	UAB “Radijo elektroninės sistemos”	•	•	•	
88	UAB “Raystorm”		•		
89	UAB “Roventa”	•	•	•	
90	UAB “Arcus Novus”	•			
91	UAB “SauleNet”	•			
92	UAB “Skaidula”				•
93	UAB “Socius”	•		•	•
94	VšĮ “Skaitmeniniai labirintai”	•			•
95	UAB “Sugardas”	•		•	•
96	UAB “Šilutės internetas”	•			
97	UAB “TCG Telecom”		•		
98	UAB “Tele2”	•	•		
99	UAB “Teledema SIP”		•		
100	UAB “Teledema”	•	•		
101	UAB “Telekomunikaciniai projektai”	•	•		
102	UAB “Teleksas”		•		
103	UAB “Telemeta”		•		
104	UAB “Taiklu”		•		
105	UAB “Televizijos komunikacijos”	•	•	•	

No.	Service provider	Data transmission	Voice communication	Radio and television	Physical infrastructure access
106	UAB “Verslo tiltas”	•			
107	UAB “Viltuva”	•		•	
108	UAB “Vinetika”	•			
109	MB “VIP sprendimai”	•			
110	UAB “Zirzilė”	•		•	
111	VšĮ “Plačiajuostis internetas”	•			•
112	UAB “Blue Bridge”	•			
113	Vytautas Ričkauskas company	•			
114	“Voxbone SA”		•		
115	UAB “Ukmergės IT”	•			
116	UAB “Moremins Lietuva”		•		
117	UAB “Altic IT”		•		
118	“Onoffapp OÜ”		•		
119	“Nord Connect OU”		•		
120	“Compatel Limited”		•		
121	“Cubic Telecom Limited”	•			
122	“Telvox Global B. V.”		•		
123	TELNYX IRELAND LIMITED		•		
124	“IP Telecom Bulgaria”		•		
125	“Belgacom international carrier services SA”		•		
126	“Zoom Voice Communications, Inc.”		•		
127	UAB “Mezon”	•			
128	“Pure IP Europe BV”		•		
129	“Sinch Sweden AB”		•		
130	“Viber Media S.a.r.l.”		•		
131	MB “Kasluta”		•		
132	“Starlink Internet Services Limited”	•			

No.	Service provider	Data transmission	Voice communication	Radio and television	Physical infrastructure access
133	“BSG Estonia OÜ”		•		
134	UAB “M-Connectus”		•		
135	“Microsoft Ireland Operations Limited”		•		
136	Individual activity of Mantas Andrišiūnas	•	•		
137	“Retarus GmbH”		•		
138	“Vonage B. V.”		•		
		93	**62**	**41**	**17**

Annex 2

Postal service providers in 2022

No.	Service provider	Correspondence items	Postal parcels
1	AB Lietuvos paštas	•	•
2	UAB “Apskonta”	•	
3	UAB “Autopašto terminalas”	•	•
4	UAB “Avaneta” (Sends only non-addressed advertising)		
5	IĮ “Britlita”		•
6	UAB “DHL Lietuva”	•	•
7	UAB “DPD Lietuva”	•	•
8	UAB “Drusvilma”	•	
9	Edvin Mironovič	•	•
10	UAB “Emduva”	•	
11	UAB “EU Broker”		•
12	“Federal Express Corporation” branch	•	•
13	UAB “GLG WAY”		•
14	UAB “Gintvila”	•	
15	UAB “HRES”		•
16	UAB “Investbaltija”	•	
17	UAB “Itella Logistics”		•
18	UAB “Jurbarko mažieji autobusai”		•
19	UAB “Kaišiadorių butų ūkis”	•	
20	UAB “Kastinida”		•
21	UAB “Kautra”	•	•
22	UAB “Kodas”	•	
23	UAB “Linkera group”		•
24	UAB “Litera”	•	
25	UAB “Litgina”	•	•
26	UAB “LTG Link”		•
27	UAB “Nėgė”		•
28	UAB “Omniva LT”		•
29	UAB “Pajūrio naujienos”	•	
30	UAB “Pašto paslaugos”	•	
31	UAB “Prima line”		•
32	UAB “RECARAS”		•
33	UAB “Rusko”	•	•
34	UAB “Samus”	•	•
35	UAB “Skubios siuntos”	•	•
36	UAB “Šiaulių naujienos”	•	
37	UAB “Šiaurės siunta”		•
38	UAB “TNT”	•	•
39	UAB “Utenos diena”	•	
40	UAB “Venipak Lietuva”	•	•
41	UAB “Verslo spaudos centras”	•	•
42	UAB “VIM Agentūra”	•	•
43	UAB “Zenesa”	•	
44	UAB “Zipas”	•	•
	In total	**29**	**30**

Annex 3

Population and households in Lithuania, 2017-2022

	2017	2018	2019	2020	2021	2022
Number of residents	2 849 317	2 794 184	2 794 090	2 810 761	2 794 961	2 860 000
Number of households	1 272 017	1 318 011	1 308 286	1 347 898	1 395 689	1 361 906

Source: State Data Agency.

Annex 4

Maximum tariffs for the universal postal service in 2022[30]

I. Maximum tariffs for the universal postal service in Lithuania

Correspondence item[1] up to 500 grams

No.	Universal postal service	Tariff for sending one postal item, € (excluding VAT)	
		non-priority postal items	priority postal items
1.	Up to 20 grams	0.55	0.60
2.	Heavier than 20 grams, up to 50 grams	0.65	0.70
3.	Heavier than 50 grams, up to 100 grams	0.75	0.80
4.	Heavier than 100 grams, up to 500 grams	0.90	0.95

Large correspondence item[2] up to 2 kilograms

No.	Universal postal service	Tariff for sending one postal item, € (excluding VAT)	
		non-priority postal items	priority postal items
1.	Up to 100 grams	0.90	0.95
2.	Heavier than 100 grams, up to 500 grams	1.10	1.15
3.	Heavier than 500 grams, up to 1000 grams	1.30	1.35
4.	Heavier than 1000 grams, up to 2000 grams	1.75	1.80

Postal parcel[3, 4, 5] up to 10 kilograms (with registration service)

No.	Universal postal service	Tariff for sending one postal parcel, € (excluding VAT)
1.	For each postal parcel	2.65
2.	For every full or part of a kilogram	0.15

Insurance of a registered item of correspondence[1], a registered large-size correspondence item[2] or a postal parcel[3, 4]

No.	Universal postal service	Tariff for the assessment of one postal parcel, € (excluding VAT)
1.	Insurance of a registered item of correspondence, a large-size registered item of correspondence or a postal parcel	0.30

[30] Approved by Order of the Director of the Communications Regulation Authority of the Republic of Lithuania No. 1V-1025 of 29 July 2014 "On Approval of the Maximum Tariffs for the Universal Postal Service".

II. Maximum tariffs for the universal international postal service

Correspondence items[1] up to 500 grams

No.	Universal postal service	Tariff for sending one postal item, € (excluding VAT)			
		non-priority postal items		priority postal items	
		to the Member States of the European Union (hereinafter - EU)	to other countries	to EU Member States	to other countries
1.	Up to 20 grams	0.95	0.70	1.00	0.85
2.	Heavier than 20 grams, up to 50 grams	1.05	0.75	1.20	0.95
3.	Heavier than 50 grams, up to 100 grams	1.35	1.05	1.55	1.25
4.	Heavier than 100 grams, up to 500 grams	2.40	2.50	2.85	3.40

Large-size correspondence item[2] up to 2 kilograms

No.	Universal postal service	Tariff for sending one postal item, € (excluding VAT)			
		non-priority postal items		priority postal items	
		to EU Member States	to other countries	to EU Member States	to other countries
1.	Up to 100 grams	1.80	1.55	2.30	1.65
2.	Heavier than 100 grams, up to 500 grams	3.10	3.40	3.60	4.45
3.	Heavier than 500 grams, up to 1000 grams	5.00	7.40	5.15	8.00
4.	Heavier than 1000 grams, up to 2000 grams	8.25	12.80	8.30	13.90

Postal parcel[3, 4, 5] up to 10 kilograms (with registration service)

No.	Universal postal service	Tariff for sending one postal parcel, € (excluding VAT)	
		to EU Member States	to other countries
	Sending a postal parcel is charged according to the international postage rates. Part of postal parcels' processing in Lithuania:		
1.	For each postal parcel	2.65	2.65
2.	For every full or part of a kilogram	0.15	0.15

Insurance of a registered item of correspondence[1, 6], a registered large-size item of correspondence[2, 6] or a postal parcel[3, 4]

No.	Universal postal service	Tariff for sending one postal parcel, € (excluding VAT)
1.	Insurance of a registered item of correspondence, a registered large-size item of correspondence or a postal parcel	1.00

Notes:

1. The maximum dimensions of a correspondence item shall be 381 mm in length, 305 mm in width and 20 mm in height.

2. The maximum dimensions of a large-size correspondence item shall not exceed 600 mm in any one dimension and the sum of the length, width and height of the parcel shall not exceed 900 mm; for a parcel in the form of a roll, the maximum dimension shall not exceed 900 mm in any one dimension and the sum of the length and the double diameter of the parcel shall not exceed 1040 mm.

3. Maximum dimensions of the postal parcel: any dimension must not exceed 1,05 m and the sum of the length and the maximum circumference measured in any direction other than length must not exceed 2 m.

4. The maximum dimensions of a parcel marked “Encombrant” (“Large-size”): any dimension shall not exceed 1,50 m and the sum of the length and the maximum circumference measured in any direction other than length shall not exceed 3 m.

5. For a parcel marked “Encombrant” (“Large-size”), 50 % of the rates shown in Table 3 or Table 7 apply in addition.

6. Only priority correspondence items or priority large-size correspondence items may be registered or registered and assessed.

7. Correspondence items marked “Cécogrammes”, correspondence items addressed to prisoners of war marked “Service des prisonniers de guerre”, and correspondence items addressed to or sent by civilian internees marked “Service des internés civils” shall be sent free of charge.