'20 Market Review

of Electronic Communications & Postal Services

HELLENIC TELECOMMUNICATIONS & POST COMMISSION

Market Review

of Electronic Communications & Postal Services

2020

JANUARY 2022

EETT
HELLENIC TELECOMMUNICATIONS & POST COMMISSION

Table of Contents

Summary

a) Electronic communications

In 2020, the special circumstances due to the Covid-19 pandemic and the restrictive measures that were subsequently adopted affected negatively the entire Greek economy, with the electronic communications' sector registering smaller losses compared to the other economic sectors. Throughout the year, the electronic communications sector's demands in terms of network quality and capacity were particularly high since it was called upon to meet the growing communication needs (voice and data) of consumers and businesses. Additionally, the electronic communications operators laid emphasis upon increasing the resiliency of their networks as well as in encountering the effects of the pandemic on their scheduled business plans such as the 5th generation (5G) mobile networks.

Furthermore, competition was particularly intense in bundled offers, driven by high-speed broadband access, mobile broadband and pay-TV services. The contribution of the industry's turnover to Greece's Gross Domestic Product (GDP) was 2.9% in 2020, having increased compared to 2019, given that the GDP showed a larger annual decline compared to that of the telecommunications sector (9.6% compared to 3.4% respectively).

Financial data

The industry's turnover decreased to 4.8 billion euros, with telecommunications services accounting for its largest segment (86.8%). Total investments made by the electronic communications operators ranged at 22.6% of their total turnover, significantly improved compared to 2019 due to the considerable increase of investments (38%) versus the turnover's fall by 3.4%. This increase is attributed to the granting of the radio frequency rights of use in the 700 MHz, 2 GHz, 3400-3800 MHz and 26 GHz bands for developing the 5th generation (5G) mobile networks.

Fixed communications

In December 2020, the number of fixed telephony access lines amounted to 4,859,182, with the respective penetration in the population reaching 45.3%. The fixed telephony traffic grew by 8.7%, mainly due to the increasing traffic duration of national fixed and mobile calls (1.1 billion minutes and 106 million minutes more than 2019 respectively) and is attributed to both the alternative operators (a 4.5% increase of their total traffic compared to 2019) and OTE (a 13.4% increase of its total traffic compared to 2019). OTE remains the incumbent operator with 55.2% share of the fixed telephony lines and 48.7% share in terms of traffic (versus 46.6% in 2019). The fixed telephony lines of the other operators gained a 44.8% share having increased by 14,983 lines (0.7%) compared to the previous year.

Retail revenues from telephony and Internet services at a fixed location amounted to 1.42 billion euros, registering a small increase (1%) compared to 2019. The revenues from Internet services continued to grow (5.9% increase compared to 2019), counterbalancing the ongoing decline of the retail fixed telephony revenues.

Mobile communications

In 2020, the number of mobile telephony connections amounted to 13.7 million registering a decrease of 5.9% compared to 2019, while active connections declined less by 4.1% amounting to approximately 11.4 million. As regards mobile operators' market shares in terms of total connections, VODAFONE's and WIND's shares increased to 29.2% and 24.8% respectively, whereas COSMOTE's share decreased to 46%. In terms of active connections, COSMOTE's share lies in the range of [45%-55%], followed by VODAFONE with a share in the range of [25%-35%] and WIND with a share in the range of [15%-25%].

The use of mobile communications networks in 2020 was characterized by the 6.3% growth in the domestic voice traffic and the remarkable increase by 68% in the volume of data services, which reached 379 million GB compared to 225 million GB in 2019. On the contrary, the SMS volume decreased by 6.1% (2.2 billion SMS versus 2.4 billion SMS in 2019). 53% of the calls' volume was made to mobile phones within the same mobile network (on-net). Finally, the retail revenues from mobile communications services (post-paid and pre-paid) fell by 4.1% amounting to 1.6 bil-

lion euros. The average annual revenue per post-paid and pre-paid user (connection) stood at 254 and 69 euros respectively.

Broadband

At the end of 2020, fixed broadband connections amounted to 4,270,473 registering an annual increase of 4%, with the fixed broadband penetration in the population (connections per 100 people) reaching 39.8%. In June 2020, the average EU broadband penetration rate was 35.9%, while the Greek corresponding one was 38.9%. VDSL lines amounted to 1,264,437 compared to 995,816 in December 2019 (annual increase of 27%), accounting for 29.6% of all fixed broadband lines.

In contrast to the fixed broadband penetration, mobile penetration rate in June 2020 was 85.3%, thus ranking Greece among the last ten EU member states and enlarging the gap to the EU average penetration rate (103.8%) since the annual increase for Greece was 1.9 units compared to that of the EU which was 3.9 units.

The broadband coverage for Next Generation Access Networks (NGA) in Greece, increased by 6 percentage points in 2020 (a 86.7% household coverage compared to 80.6% as of end of June 2019), thus nearing the European average (87.2%). This increase is attributed to the development of access networks via VDSL vectoring. However, the penetration rate for households with fast fixed broadband connection was still low (25.7%) far away from the respective European average (50.3%).

Finally and in relation to the capacity of Very High Capacity Networks (VHCN), Greece recorded an increase of 3.1 percentage points (a 10.2% household coverage in 2020 compared to 7.1% in 2019). Nevertheless, it still lags behind the respective European average in terms of both network coverage (59.3%) and household penetration (2.7% compared to 32.9% of the European average).

Bundled offers

The penetration of bundled offers continued to increase in 2020, with their number exceeding 4.28 million at the end of the year. The most popular type of bundled offer remained that of fixed telephony and fixed broadband access (approximately 2.2 million), followed by the triple play combination of fixed telephony, fixed broadband access and mobile service(s) (1.55 million), the triple play of fixed telephony, fixed broadband access and pay-TV (~325 thousand) and finally, the 4-play (~161 thousand). It is worth mentioning that by the end of 2020, the bundled offers that included mobile services amounted to 1.8 million accounting for 41% of the total bundled offers and having almost doubled compared to 2015 (21%).

Price Observatory (Pricescope)

Based on the data submitted by the telecommunications operators to the Price Observatory (Pricescope) at the end of 2020, the majority of products concerned fixed communications (~53%). The operators WIND and COSMOTE focused mainly on add-on programs (56% and 51% respectively), while FORTHNET, OTE and VODAFONE laid emphasis on basic programs (93%, 75% and 65% respectively). The programs of COSMOTE, FORTHNET and WIND targeted mainly residential customers, whereas a great percentage of VODAFONE's programs was addressed to business customers. The greatest percentage of OTE's programs was addressed to all customers.

Most of the mobile postpaid telephony programs with voice and data services (~63%) entailed monthly fees up to 60 euros, with an average monthly price of 41 euros and around 6 GB of free data.

b) Postal services

In 2020, the turnover of Greek postal market moved upwards, reaching 645 million euros, compared to 637 million euros in 2019. The Covid-19 pandemic caused a huge increase in courier services demand, which resulted to 17% increase in the turnover of the companies under General Authorization compared to the previous year. In the contrary, the turnover of the Universal Service Provider (USP) moved downwards by 15%, which was caused mainly from the restrictions regarding in person transactions and international transportations due to the pandemic.

Regarding the revenues, the Greek postal market moved slightly upwards, while the volume of postal items fell for another year, due to the de-

cline in letter mail. More specifically, the revenues increased by 5.8% compared to 2019, reaching the 596.5 million euros, derived from the handling of 328.7 million postal items, decreased by 5.1% compared to the previous year.

In 2020, the USP's revenues share dropped to 25.1% from 30.9% in 2019, while the share of courier companies increased to 71.8% from 65.4% in the previous year. The share of companies with Individual License had an decrease to 3.1% from 3.7% in 2019. The share of parcels-small packages grew in 2020 in terms of volume as well as revenues, reaching 21.9% and 56.8%, respectively.

Domestic postal items delivery (89% of total volume) was the largest share of Greek postal market revenues (67%). It's worth noting that the majority of postal items was delivered from Attica (72%) and Macedonia (12%) to domestic and international destinations. Regarding international activities, the largest volume of postal items delivered in Greece was originating from the European Union (EU) (61%) and Asia (28%), while the deliveries of postal items to international destinations were mainly concerned the EU (58%) and the USA-Canada (16%).

More specifically, in 2020, in terms of the Universal Service sector (US), besides the USP, nine companies with Individual License operated, which held 21% of volume and 11% of revenues of the US sector. Letters were undoubtedly the dominant postal item of the US sector, since they represented 91.4% of handled postal items, accounting for 82.7% of the sector's revenues.

In 2020, 75 new companies entered the courier services sector, thus increasing the total number of companies under General Authorization to 591. Letters constituted 34% of postal items handled by courier companies and parcels-small packages constituted 66%. Letters generated significantly less revenues (26%) than parcels-small packages (74%).

01

Electronic communications

Electronic communications

1.1. The Greek electronic communications market

In 2020, the number of licensed operators (active or non active) in the electronic communications market remained stable compared to 2019 (592). The number of Mobile Network Operators (MNOs) and the main fixed telephony and broadband operators (i.e. OTE and the main alternative operators), at the end of 2020, remained at four[1], namely three in mobile telephony and four in fixed telephony (Table 1.1).

47.5% of the licensed services was related with the provision of broadband access/Internet access services and telephony services. Chart 1.1 shows the number of providers that were licensed for each service in 2020[2]. The sector's turnover was decreased to 4.8 billion euros (fall by 3.4%), while its contribution to Greece's Gross Domestic Product (GDP) was 2.9% in 2020, having increased compared to 2019, since the GDP registered an even bigger annually decline by 9.6% (Chart 1.2). It is noted that for the period 2011-2020, the weighted average GDP reduction was 2.2%, while for the telecommunications turnover was 3.4%.

The number of employees in the electronic communications sector was roughly 14.6 thousand, increased by 1.6% compared to 2019 (approximately 14.4 thousand) (Chart 1.3).

The Consumer Price Index (CPI) fell by almost 1% compared to last year, whereas the Communications Sub-index declined by 2% compared to 2019. According to the Hellenic Statistical Authority (ELSTAT[3]), the communications weight coefficient in the total household expenditure used for calculating the CPI increased further from 42.41 in 2019 to 44.20. The general cost trend for electronic communications services is reflected in the evolution of the CPI over time, as presented in Charts 1.4 and 1.5.

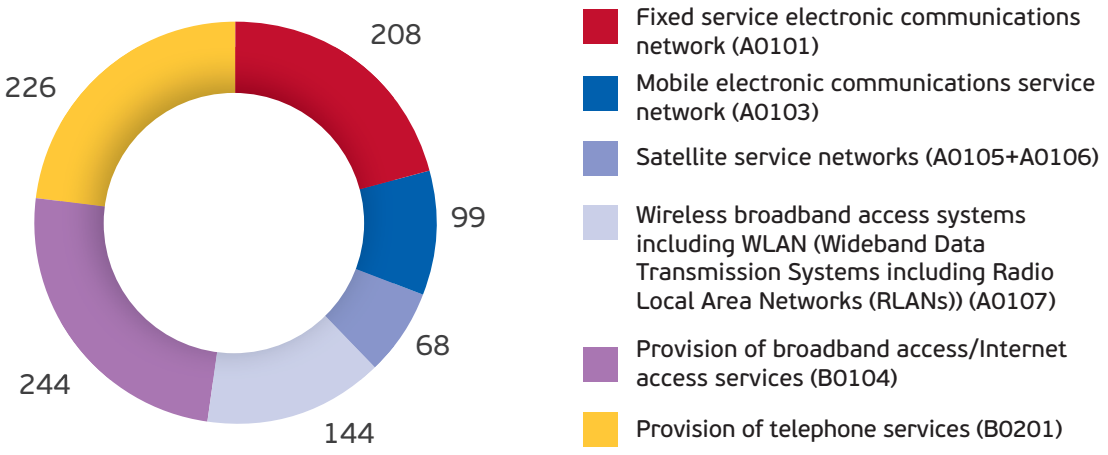
Table 1.1: Mobile Network Operators (MNOs) and main fixed telephony and broadband operators

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Mobile telephony	3	3	3	4	4	4	4	4	3	3
Fixed telephony	11	9	8	8	6	5	5	5	4	4

Source: EETT

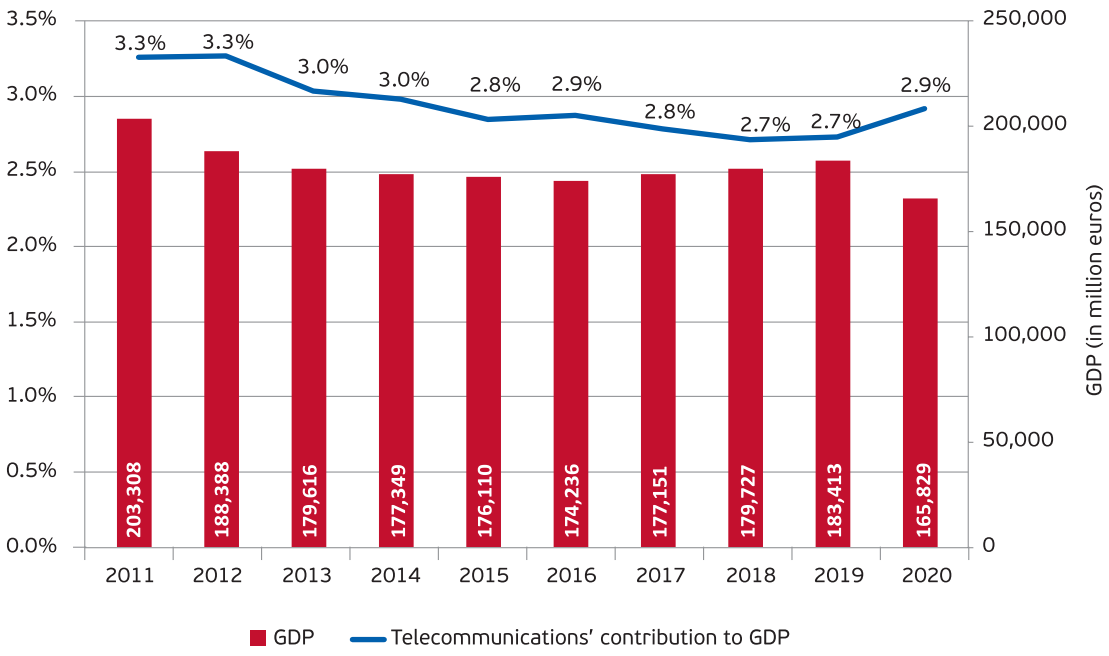
1. Since 2009, WIND (after acquiring TELLAS) operates in the fields of both fixed and mobile communications and consequently is listed under both categories. As of 2014, the same applies for CYTA which operated also as a Mobile Virtual Network Operator (MVNO) and for VODAFONE which acquired HOL (HELLAS ON LINE) on 01/04/2016.
2. It is noted that an operator can be licensed for more than one services.
3. Single Integrated Metadata Structure (SIMS v2.0) (January 2021- January 2099) https://www.statistics.gr/el/statistics/-/publication/DKT87/-

Chart 1.1: Licensed operators per service, 2020



Source: EETT (based on providers' statements in EETT's registry)

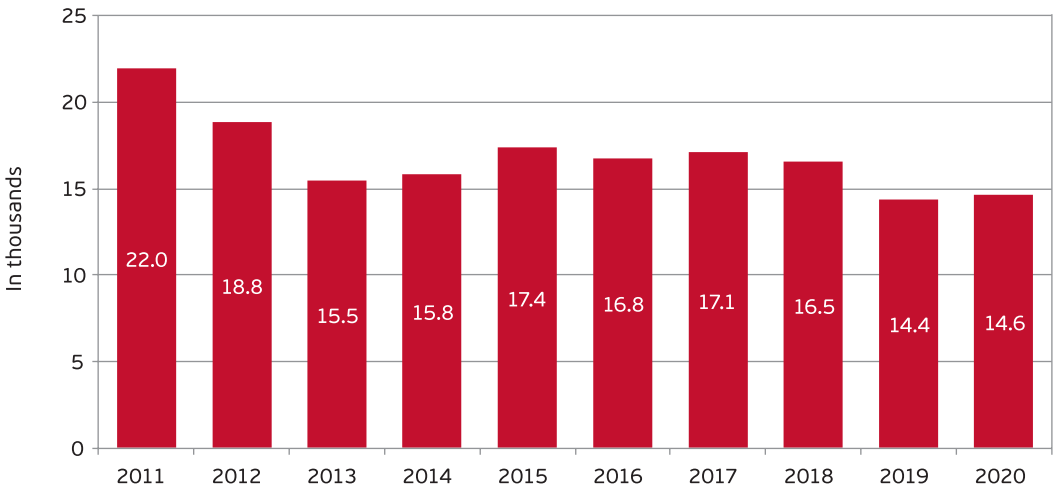
Chart 1.2: Telecommunications' contribution to GDP



Source: EETT (based on questionnaires) and ELSTAT

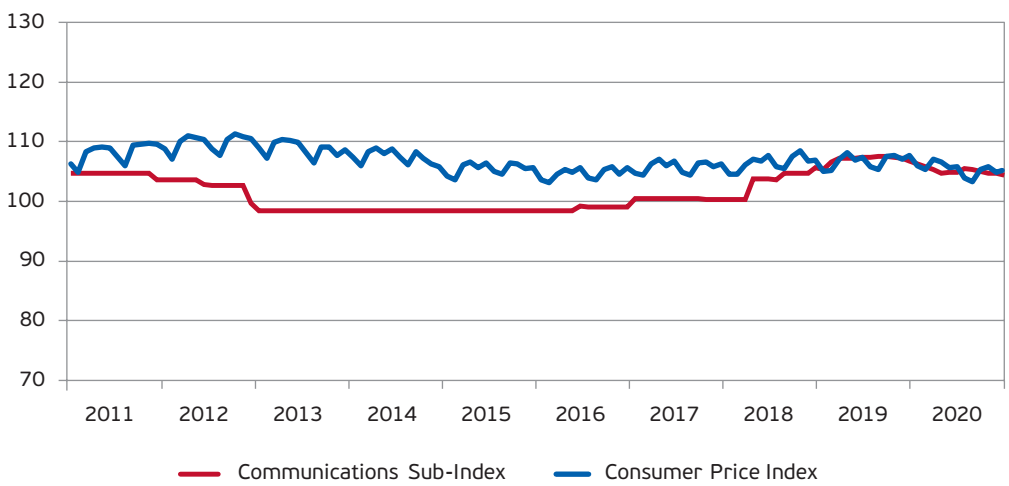
Note: The GDP data and its components for the period 2010 onwards have been revised with 2015 as the base year, in accordance with the Regulation EU 549/2013 of the European Union (ESA 2010). The data revision work with the new base year for the period 1995-2009 is ongoing and thus implementing a timeseries break in 2010 between the non-revised data for the period 1995-2009 and the revised one for the period 2010-2020.

Chart 1.3: Number of employees of electronic communications operators



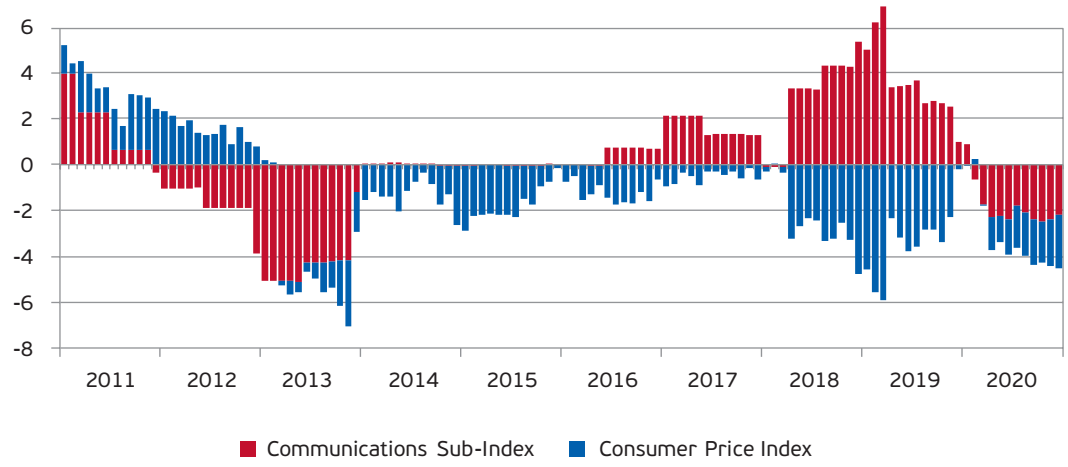
Source: EETT (based on data provided by the active licensed operators)

Chart 1.4: Evolution of the monthly Consumer Price Index (General Index-Communications Sub-Index)



Source: EETT (based on ELSTAT data)

Chart 1.5: Variation of the monthly Consumer Price Index over time



Source: EETT (based on ELSTAT data)

1.2. Electronic communications market key figures

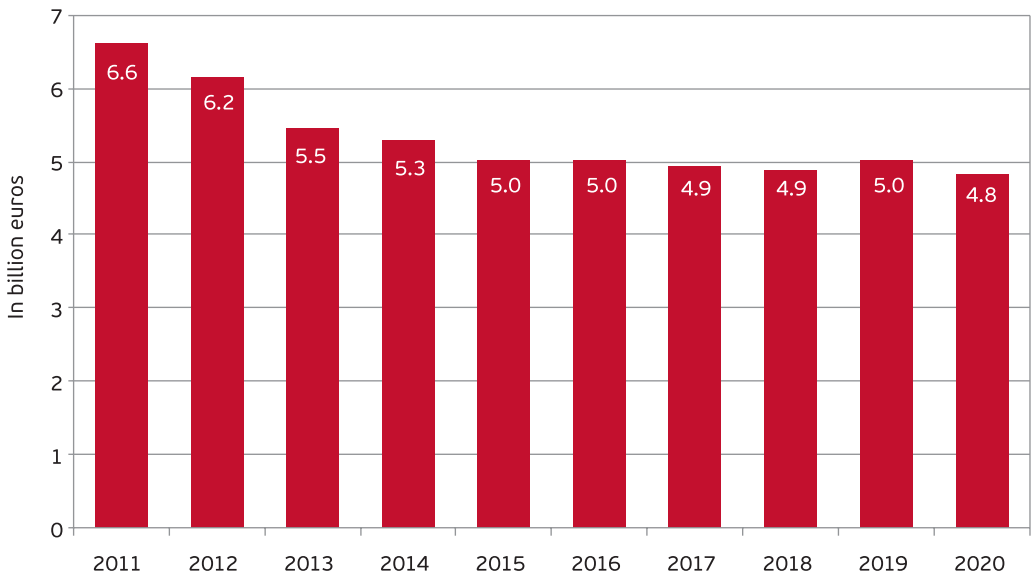
1.2.1. Financial data

This section presents the key financials of the electronic communications market, taking into account the data (turnover, investments, etc.) collected by EETT, from the licensed operators, on a semi-annual basis. In this context, the revenues listed concern those from fixed and mobile communications, telecommunications equipment and pay-TV of active licensed operators with an annual turnover above 150 thousand euros.

- The telecommunications' sector turnover in 2020, registered a 3.4% fall, amounting to 4.8 billion euros (Chart 1.6). The turnover for OTE increased marginally by 0.1%, whereas the decline for the MNOs and the alternative operators of fixed telephony and fixed broadband services was 5.4% and 3.4% respectively (Chart 1.7).
- The telecommunications services revenues were the predominant part of the turnover (86.8%) (Chart 1.8)
- The fixed communications services revenues constituted 53.9% of the telecommunications services revenues (Chart 1.9). Those include both retail revenues from telecommunications services (telephony and Internet including access to the phone network, leased lines etc.) and wholesale revenues [e.g. interconnection, wholesale access-Local Loop Unbundling (LLU)]. Respectively, the revenues from mobile communications services include retail revenues from voice and mobile phone data services, as well as wholesale interconnection revenues, roaming etc.
- The retail revenues from telephony and Internet services accounted for approximately 60.6% of the total revenues from fixed networks, followed by the fixed interconnection services revenues with 15.9% (Chart 1.10). As far as the mobile networks and services are concerned, the retail revenues from voice and data services had an overwhelming share of 65.3% and 25.9% respectively (Chart 1.11).
- Total investments made by the electronic communications operators ranged at 22.6% of their total turnover, significantly improved compared to 2019 due to the considerable increase of investments (38%) versus the turnover's fall by 3.4% (Chart 1.12). This increase is attributed to the granting of the radio frequency rights of use in the 700 MHz, 2 GHz, 3400-3800 MHz and 26 GHz bands for developing the 5th generation (5G) mobile networks.

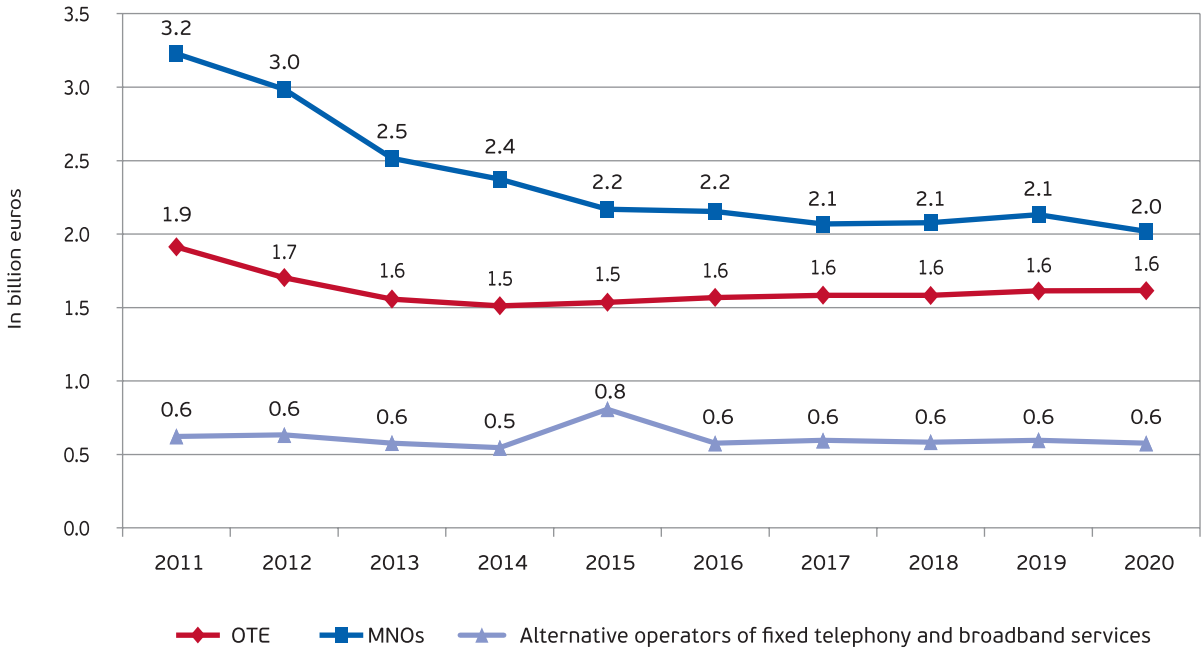
- In 2020, the electronic communications operators invested mostly in licensing services/rights of use granted by EETT, as well as in telecommunications infrastructure (Chart 1.13).
- The investments made by the largest operators ranged approximately between 7% and 40% of their total turnover from electronic communications services (Chart 1.14).

Chart 1.6: Electronic communications operators' turnover



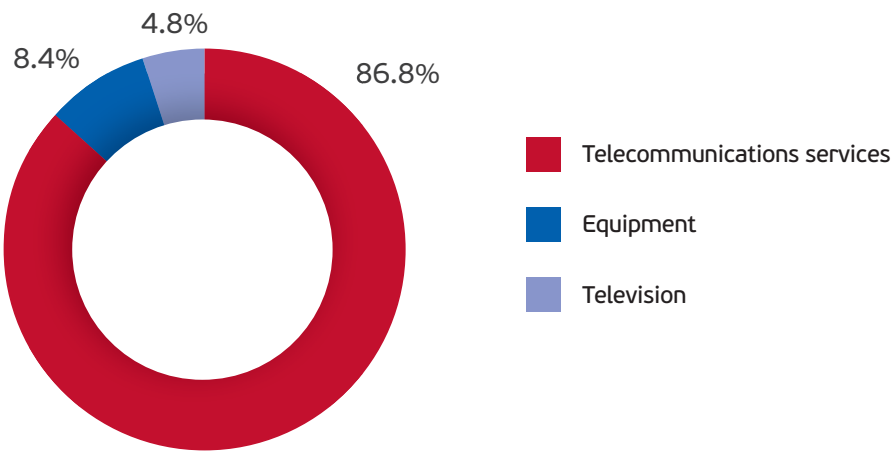
Source: EETT (based on data provided by the active licensed operators)

Chart 1.7: Fixed and mobile telephony operators' turnover



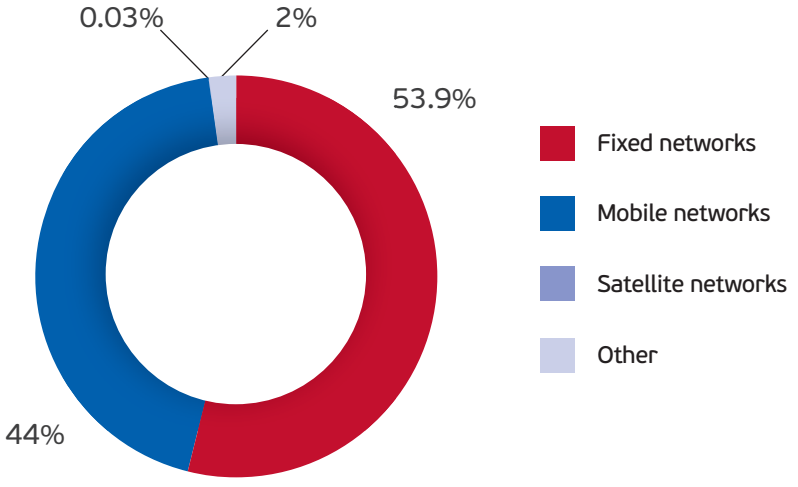
Source: EETT (based on data provided by the active licensed operators)

Chart 1.8: Breakdown of electronic communications operators' turnover, 2020



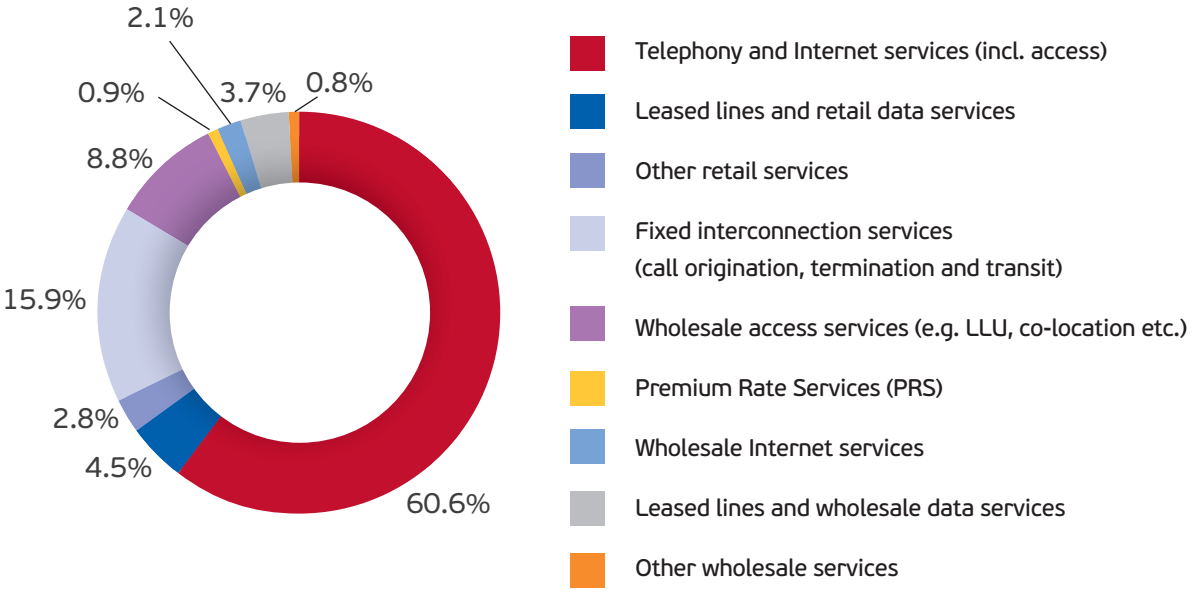
Source: EETT (based on data provided by the active licensed operators)

Chart 1.9: Breakdown of revenues from telecommunications services, 2020



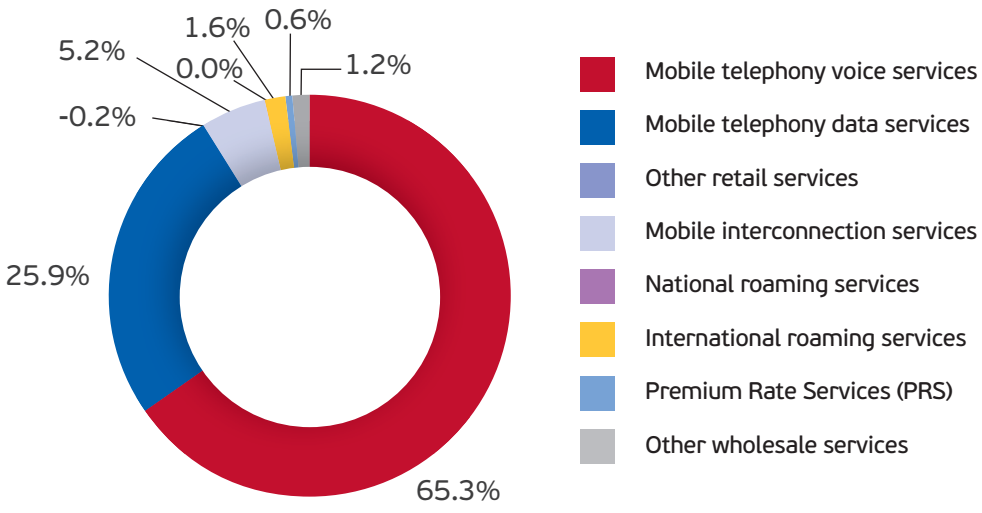
Source: EETT (based on data provided by the active licensed operators)

Chart 1.10: Breakdown of revenues from fixed networks, 2020



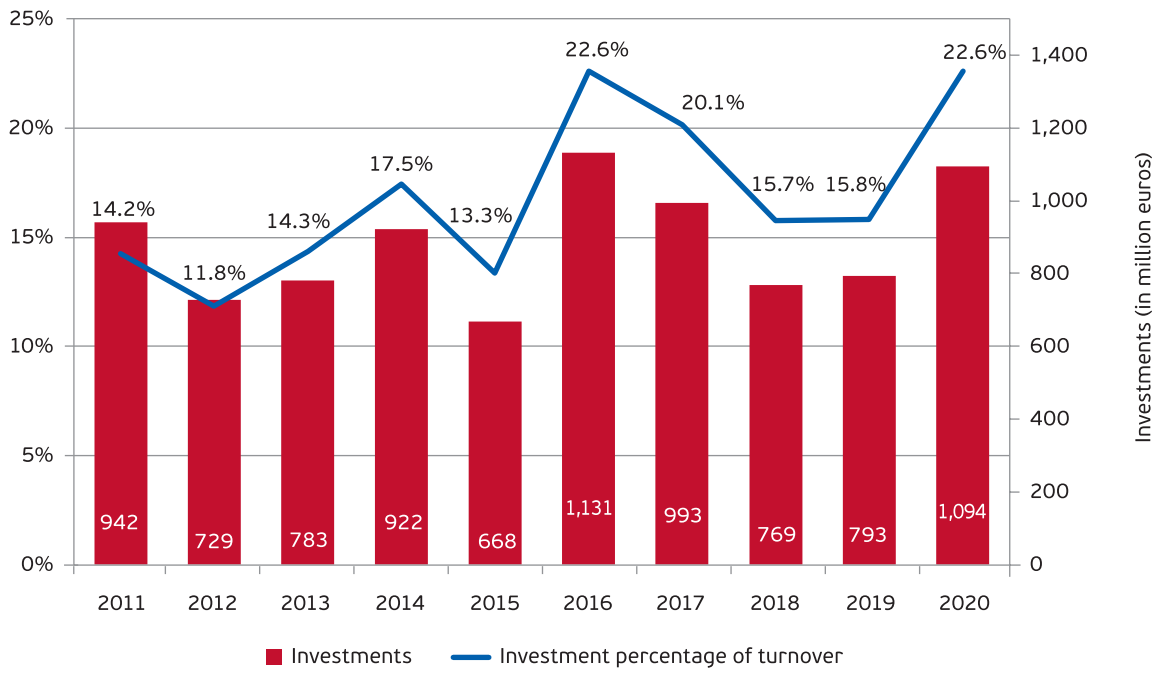
Source: EETT (based on data provided by the active licensed operators)

Chart 1.11: Breakdown of revenues from mobile networks, 2020



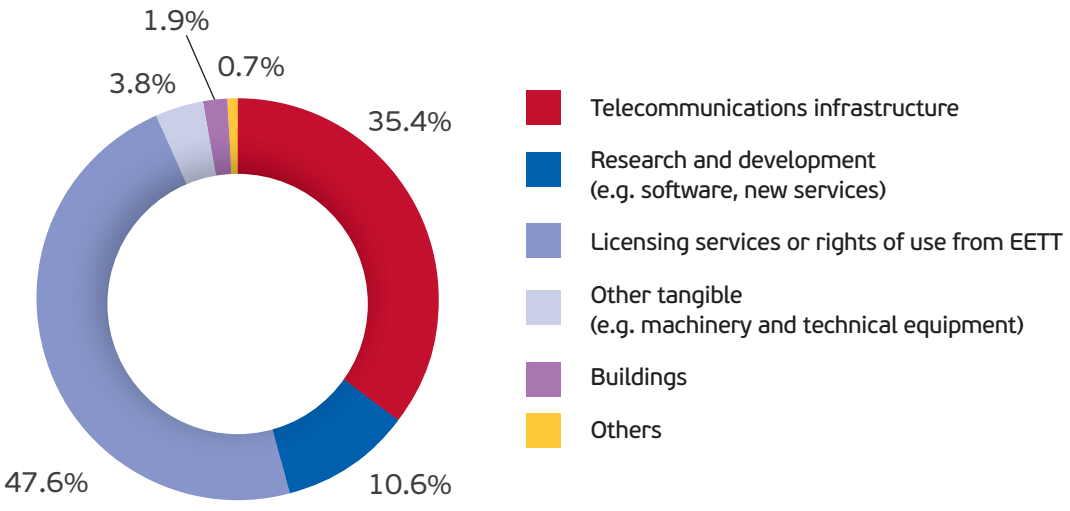
Source: EETT (based on data provided by the active licensed operators)

Chart 1.12: Electronic communications operators' investments



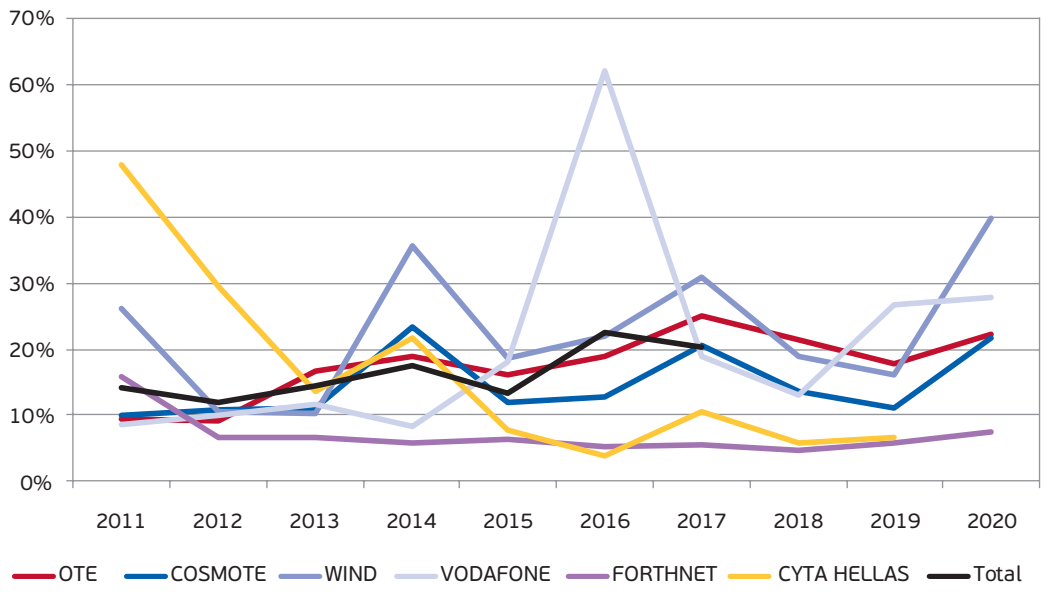
Source: EETT (based on data provided by the active licensed operators)

Chart 1.13: Breakdown of electronic communications operators' investments, 2020



Source: EETT (based on data provided by the active licensed operators)

Chart 1.14: Investments/turnover ratio



Source: EETT (based on data provided by the active licensed operators)

1.2.2. Communications services provided at a fixed location

Fixed telephony access lines[4]

In December 2020, the telephone access lines to a fixed public network of electronic communications amounted to 4,859,182 lines, namely a 45.3% penetration in the population, versus 4,806,633 lines at the end of 2019[5], registering a 1.1% increase compared to the previous year (Chart 1.15 and Table 1.2).

OTE's telephone lines increased by 1.4% (37,611 lines) compared to 2019. Its share at the end of 2020 was roughly the same (55.2%) as in 2019 (55.1%) (Chart 1.16).

The telephone lines of the alternative operators had a 44.8% share having increased by 14,983 lines (0.7%) compared to the previous year.

Retail outgoing traffic

Total traffic, at the end of 2020, amounted to 14.5 billion minutes versus 13.3 billion minutes at the end of 2019, registering an annual increase of 8.7% that is attributed to the rise of the traffic of national fixed calls (1.1 billion minutes more than in 2019, as well as of the mobile calls (106 million minutes more than 2019). International calls traffic fell again by 11.6% which is though lower than the one of 2019 (20.6%). The traffic of the basic call types steadily amounts up to 98% of all call types' traffic over the last years (Charts 1.17, 1.18 and 1.19).

Regarding the percentage breakdown of the basic call types' traffic, it is slightly different than the one of 2019 since 81.6% is related to national fixed calls (80.6% in 2019), while 17% refers to calls to mobiles (17.7% in 2019) and the remaining 1.36% to international calls (1.6% in 2019). The evolution of traffic per call type is presented in Table 1.3.

OTE's share in terms of both traffic and basic call types exceeded 48% (48.7% and 48.4% respectively versus 46.6% and 46.3% in 2019). This increase compared to 2019 is due to the traffic growth of national fixed calls (15.6% compared to 2019) and mobile calls (3.7% compared to 2019). At the same time, the alternative operators registered a 4.9% increase of the national fixed calls and a 5.1% rise of the mobile calls (Charts 1.20 and 1.21).

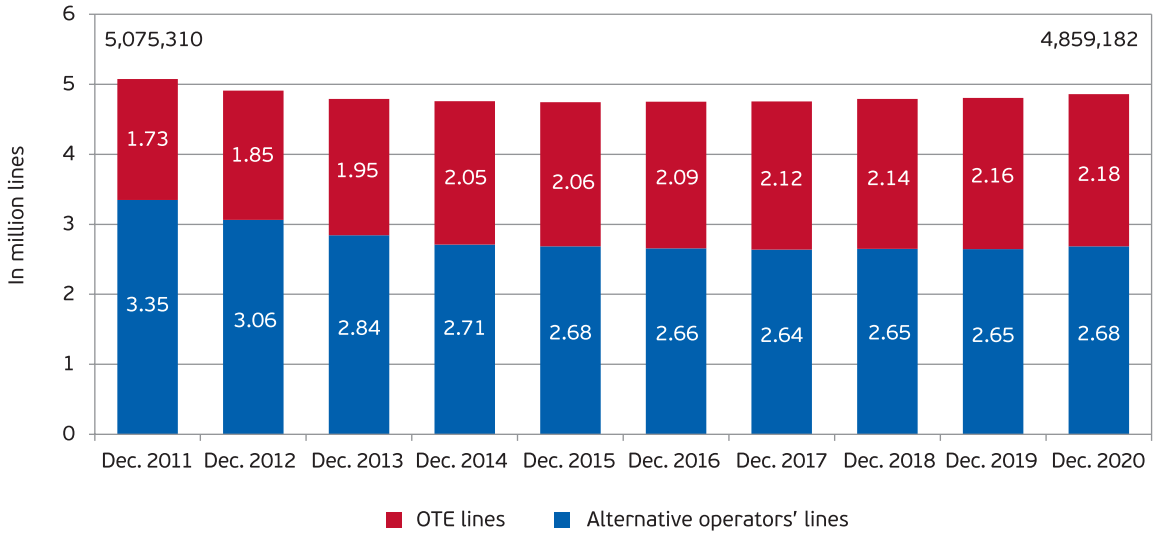
The breakdown of the operators' annual shares of the total basic call types over time is presented in Chart 1.22. It is observed that an accumulative 99.6% market share is attributed to OTE and three alternative operators, namely in alphabetical order: FORTHNET, VODAFONE and WIND.

Chart 1.23 presents the breakdown of total traffic over time between OTE and the alternative operators. It is noted that the increase by 8.7% in fixed telephony traffic in 2020 compared to 2019, is attributed to both the alternative operators (growth of their total traffic by 4.5% compared to 2019) and OTE (its total traffic increased by 13.4% compared to 2019).

The average outgoing traffic (of the basic call types) per connection, in 2020, is estimated at 244.26 minutes per month, compared to 226.95 minutes per month in 2019.

4. Data for 2019 has been revised due to the addition of the Virtual Local Unbundling (VLU) lines.
5. It is noted that the revised numbers for 2018 and 2019 include the lines offered after introducing the VDSL Vectoring technology in the access network.

Chart 1.15: Evolution of fixed telephony access lines



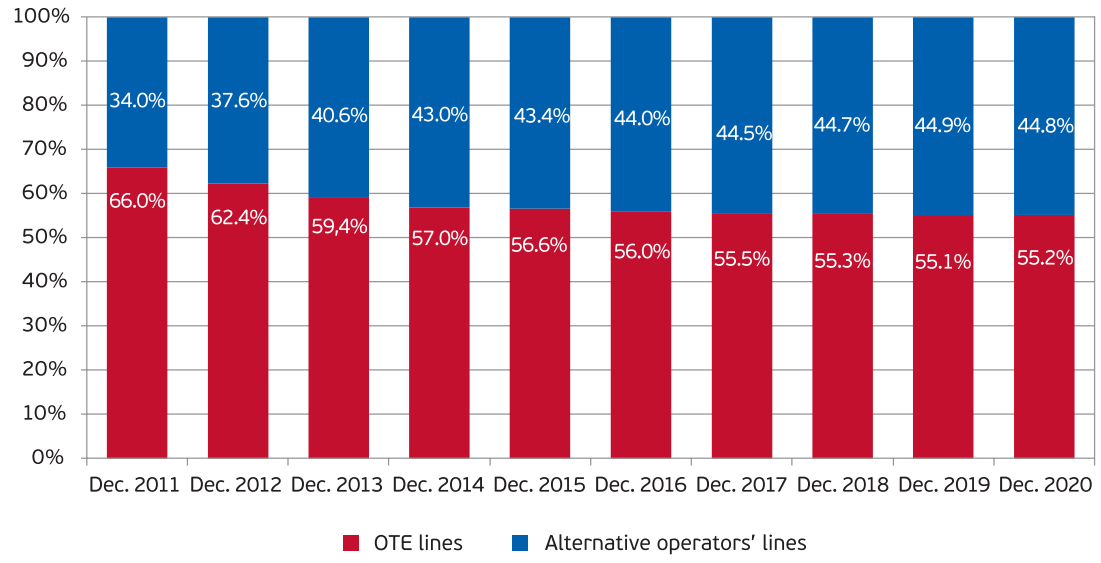
Source: EETT (based on data provided by the active licensed operators)

Table 1.2: Evolution of fixed telephony access lines

	OTE lines					Alternative operators' lines						Total lines
	PSTN	ISDN BRA	Managed VoIP	ISDN PRA	Total	PSTN &and ISDN BRA- excl. WLR	VLU (FTTC, FTTH)	Managed VoIP	ISDN PRA	Other technology	Total	
Dec. 2011	2,917,578	426,830	-	4,808	3,349,216	1,395,486	-	246,697	1,820	-	1,726,094	5,075,310
Dec. 2012	2,670,296	387,692	-	4,320	3,062,308	1,415,564	-	364,288	2,791	-	1,846,607	4,908,915
Dec. 2013	2,484,926	354,655	-	3,791	2,843,372	1,516,775	-	380,420	3,025	-	1,947,302	4,790,674
Dec. 2014	2,377,849	330,034	-	3,499	2,711,382	1,612,296	-	396,306	2,962	-	2,046,889	4,758,271
Dec. 2015	2,298,569	303,791	78,789	3,242	2,684,391	1,651,635	-	390,189	2,799	-	2,058,967	4,743,358
Dec. 2016	1,782,963	262,449	609,443	3,069	2,657,924	1,706,449	-	374,609	2,120	-	2,092,564	4,750,488
Dec. 2017	1,244,008	230,309	1,161,912	2,903	2,639,132	1,754,020	-	353,490	2,306	-	2,117,562	4,756,694
Dec. 2018	1,048,244	146,459	1,453,662	2,630	2,650,995	1,702,803	36,652	382,051	2,353	2,979	2,139,136	4,790,131
Dec. 2019	491	109	2,643,064	2,475	2,646,139	1,528,983	161,323	455,104	2,476	2,565	2,160,494	4,806,633
Dec. 2020	101	45	2,681,400	2,204	2,683,750	1,071,718	405,791	686,561	2,589	309	2,175,432	4,859,182

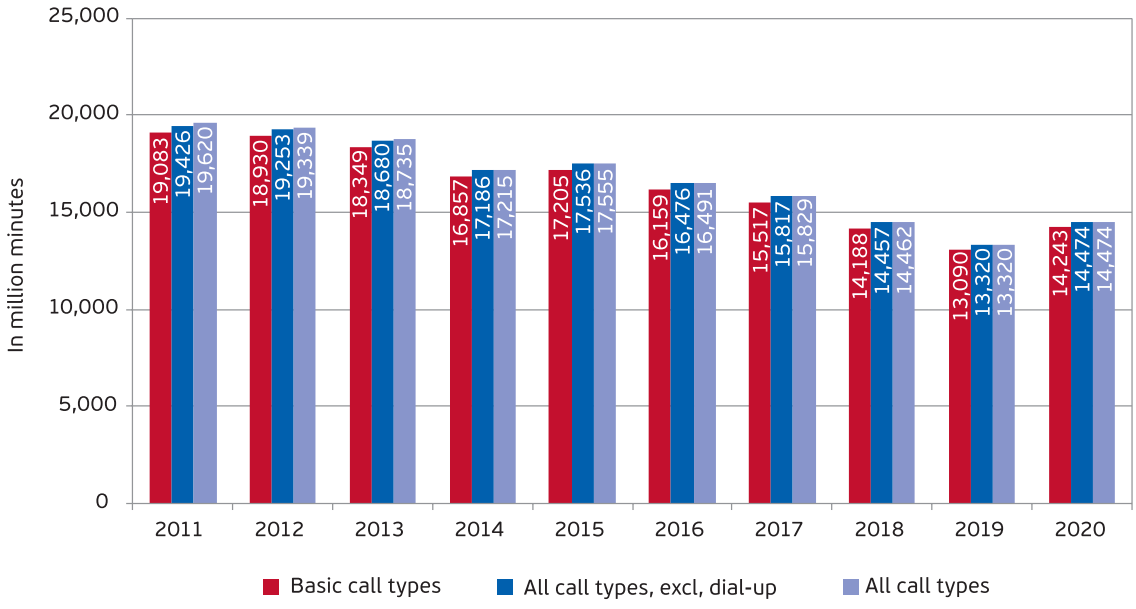
Source: EETT

Chart 1.16: Market shares based on fixed telephony access lines



Source: EETT (based on data provided by the active licensed operators)

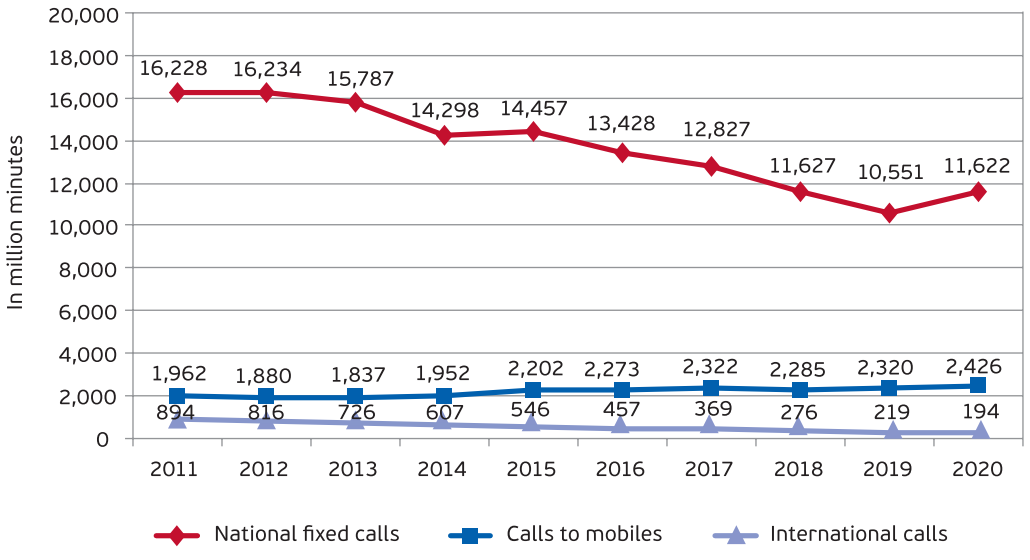
Chart 1.17: Evolution of fixed outgoing traffic



Source: EETT (based on data provided by the active licensed operators)

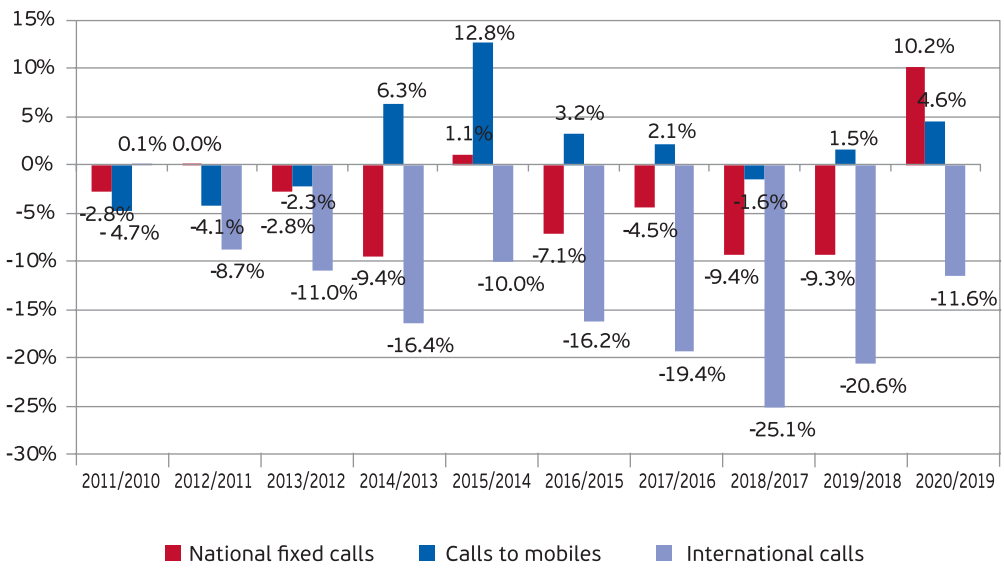
Note: The basic call types include national fixed calls (i.e. local and long-distance), calls to mobiles and international calls.

Chart 1.18: Fixed outgoing traffic per basic call type



Source: EETT (based on data provided by the active licensed operators)

Chart 1.19: Annual change of fixed outgoing traffic



Source: EETT (based on data provided by the active licensed operators)

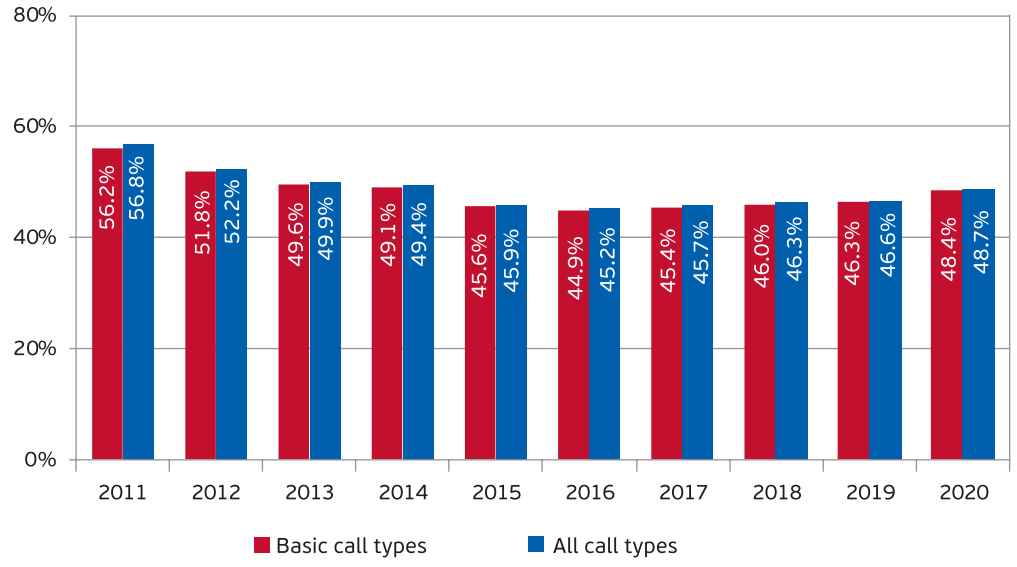
Table 1.3: Fixed outgoing traffic per call type (in million minutes)

	Call type	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Basic call types	National fixed calls	16,228	16,234	15,787	14,298	14,457	13,428	12,827	11,627	10,551	11,622
	Calls to mobiles	1,962	1,880	1,837	1,952	2,202	2,273	2,322	2,285	2,320	2,426
	International calls	894	816	726	607	546	457	369	276	219	194
Other call types	Dial-up calls	194	86	55	29	19	15	11	5	-	
	Calls to personal numbers (series 70)	0.13	0.13	0.14	0.14	n/a	n/a	n/a	n/a	n/a	n/a
	Calls to FreePhone numbers (series 800)	23	23	26	31	58	54	51	40	31	37
	Calls to shared cost services (Shared cost- 801)	52	35	33	31						
	Calls to short code services (3-digits, 4-digits, 5-digits) See Note 1	225	220	219	229	238	230	221	206	178	174
	Calls to value added services See Note 2	43	45	53	37	35	34	28	23	21	20
Basic call types		19,083	18,930	18,349	16,857	17,205	16,159	15,517	14,188	13,090	14,243
All call types, excl. dial-up		19,426	19,253	18,680	17,186	17,536	16,476	15,817	14,457	13,320	14,474
All call types		19,620	19,339	18,735	17,215	17,555	16,491	15,829	14,462	13,320	14,474

Source: EETT

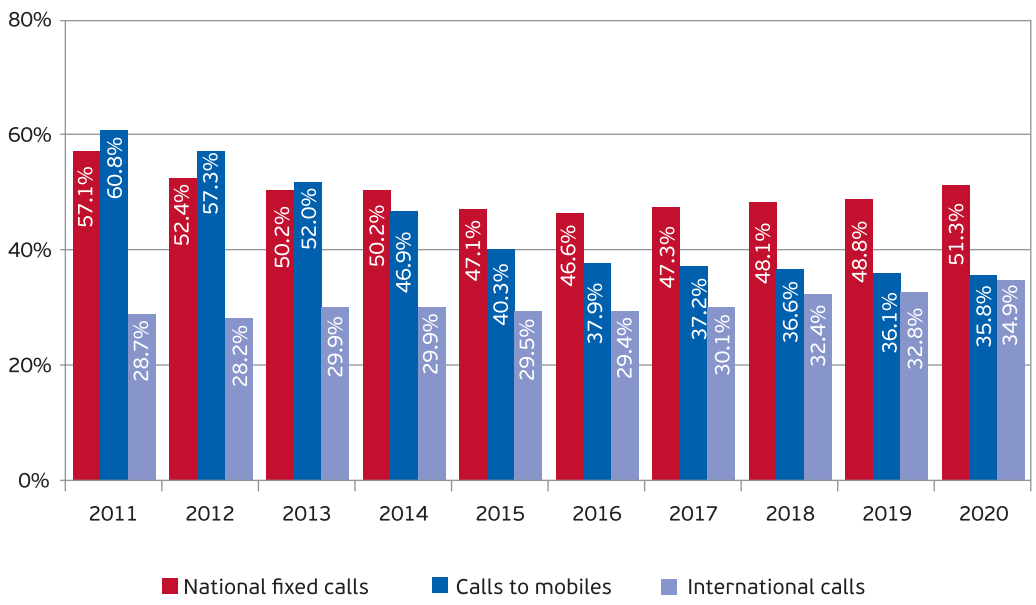
Notes:
(1) Up to 2009, calls to short code services include short codes for value added services. Since 2010, they do not include them.
(2) Up to 2009, calls to value added services refer only to the code 90 calls. Since 2010, they refer to all the value added services, including short codes for value added services.

Chart 1.20: OTE's market shares (based on outgoing traffic)



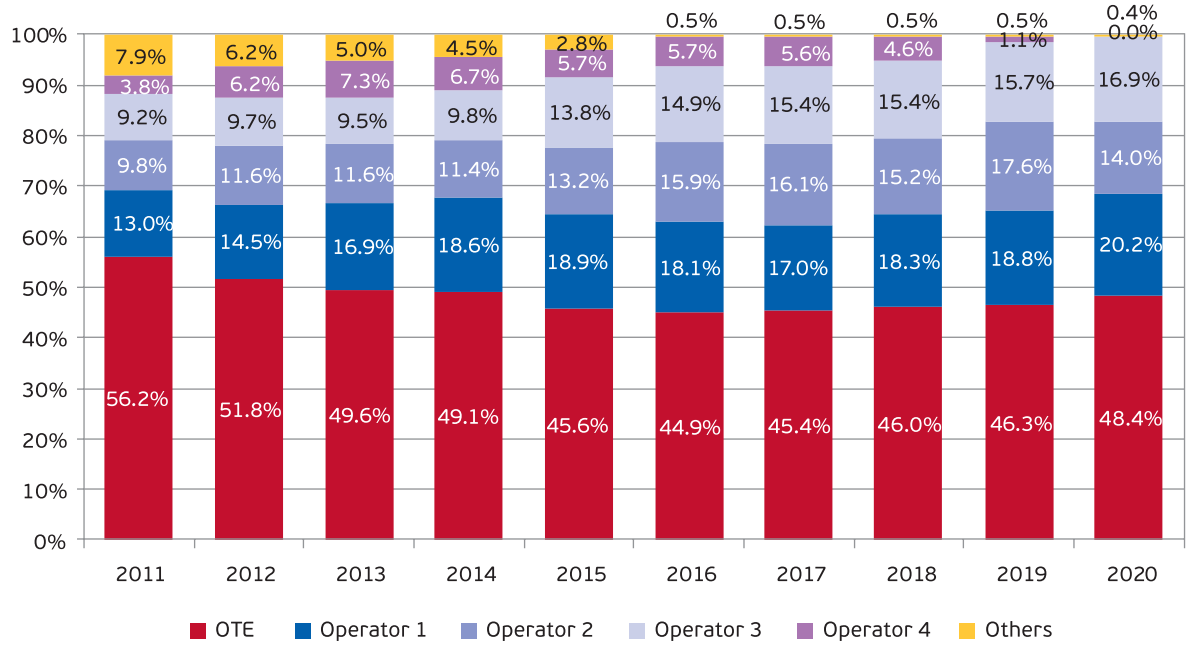
Source: EETT (based on data provided by the active licensed operators)

Chart 1.21: OTE's market shares per basic call type (based on outgoing traffic)



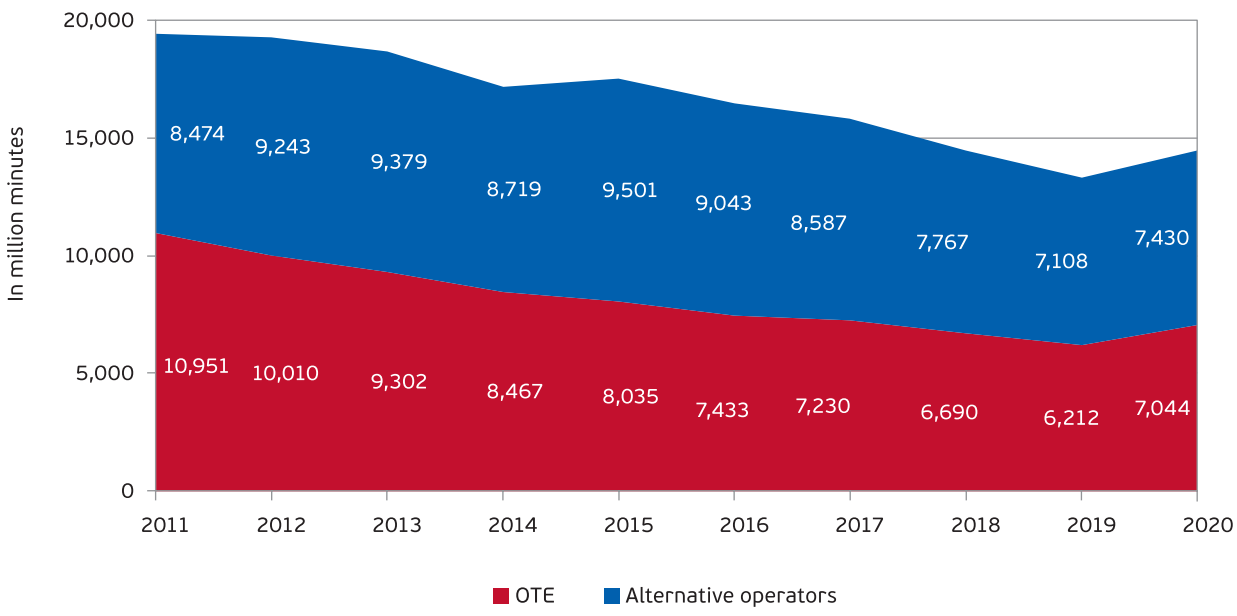
Source: EETT (based on data provided by the active licensed operators)

Chart 1.22: Market shares of the basic call types (based on outgoing traffic)



Source: EETT (based on data provided by the active licensed operators)

Chart 1.23: OTE's and alternative operators' outgoing traffic



Source: EETT (based on data provided by the active licensed operators)

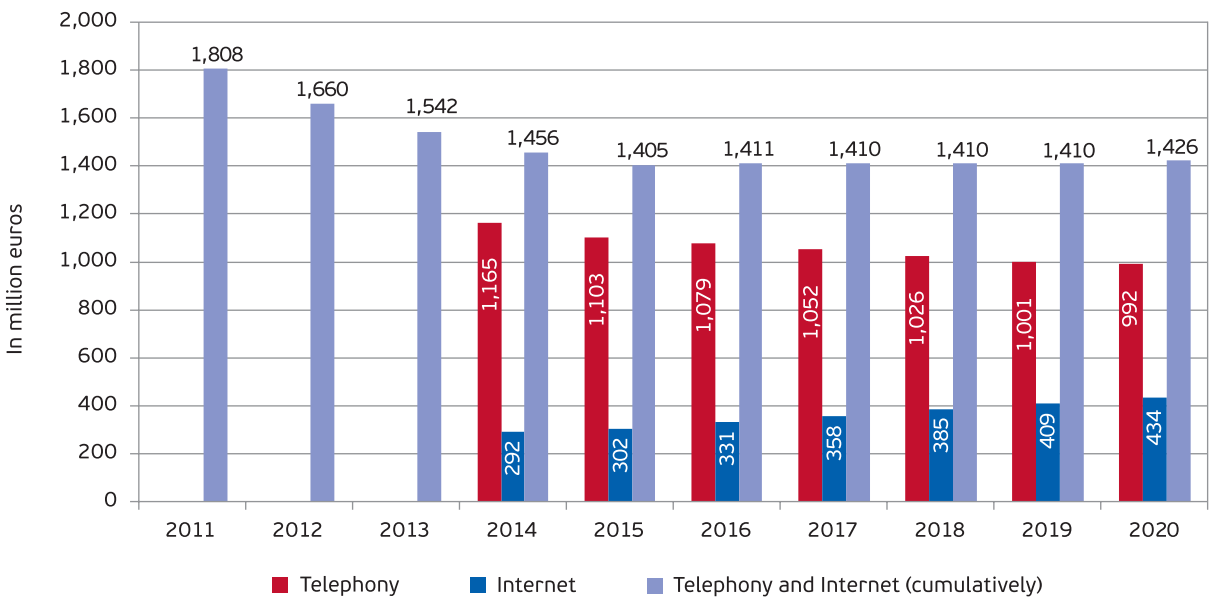
Retail revenues from the provision of telephony and Internet services at a fixed location[6]

In 2020, total retail revenues from the provision of telephony and Internet services at a fixed location amounted to 1.42 billion euros, having slightly increased by 1% compared to 2019 (Chart 1.24). More specifically, the retail telephony revenues declined by 10.2 million euros, i.e. a decrease by 1% compared to the previous year, whereas the revenues from Internet services rose by 5.9% compared to 2019 and amounted to 433 million euros (an increase of 24.3 million euros). It is clarified that the presented revenues are prior to any returns to third parties and that the telephony revenues include revenues both from access[7] as well as from all call types[8].

The average monthly revenue per connection from the provision of telephony and Internet services at a fixed location was about 24.45 euros, roughly at the same level as in 2019, whereas the respective figure solely from the provision of telephony services at a fixed location was 17.01 euros (versus 17.37 euros in 2019). The average revenue per minute of outgoing traffic, taking into account all call types, decreased by 8.9% at 0.069 euros in 2020 versus 0.075 euros in 2019.

OTE's market share based on the retail telephony and Internet revenues remained stable compared to 2019, accounting for approximately 63% of the total market (Chart 1.25). In particular, OTE's retail Internet revenues increased by 6.6% compared to 2019, while its retail telephony revenues fell by 1.35% compared to the previous year. Table 1.4 presents the market shares based on the retail revenues of the operators that provide telephony and Internet services at a fixed location, at the end of 2020.

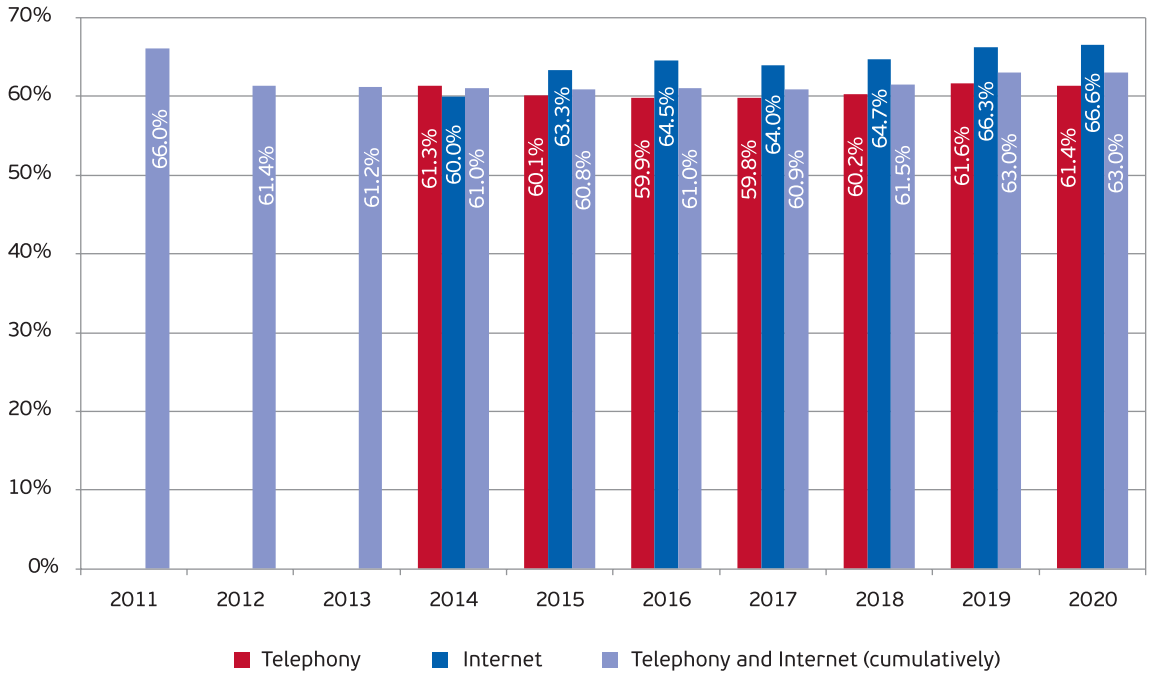
Chart 1.24: Retail revenues from the provision of telephony and Internet services at a fixed location



Source: EETT (based on data provided by the active licensed operators)

6. It shall be clarified that all the data presented refers to services provided to subscribers; therefore the pre-paid telephony services are exempted.
7. Such as the initial connection/installation fee etc., the monthly rental for accessing telephony services and revenues from additional facilities.
8. It is noted that the presented data and more specifically the breakdown of the revenues among telephony and Internet is based on assumptions made by most of the operators.

Chart 1.25: OTE's market shares (based on retail revenues from telephony and Internet services at a fixed location)



Source: EETT (based on data provided by the active licensed operators)

Table 1.4: Market shares of operators that provide telephony and Internet services at a fixed location

	Dec. 2017	Dec. 2018	Dec. 2019	Dec. 2020
OTE	~61%	~62%	~63%	~63%
VODAFONE	10%-15%	10%-15%	10%-15%	15%-20%
WIND	10%-15%	10%-15%	10%-15%	10%-15%
FORTHNET	5%-10%	5%-10%	5%-10%	5%-10%
CYTA *	5%-10%	0%-5%	0%-5%	-
Others	0%-5%	0%-5%	0%-5%	0%-5%

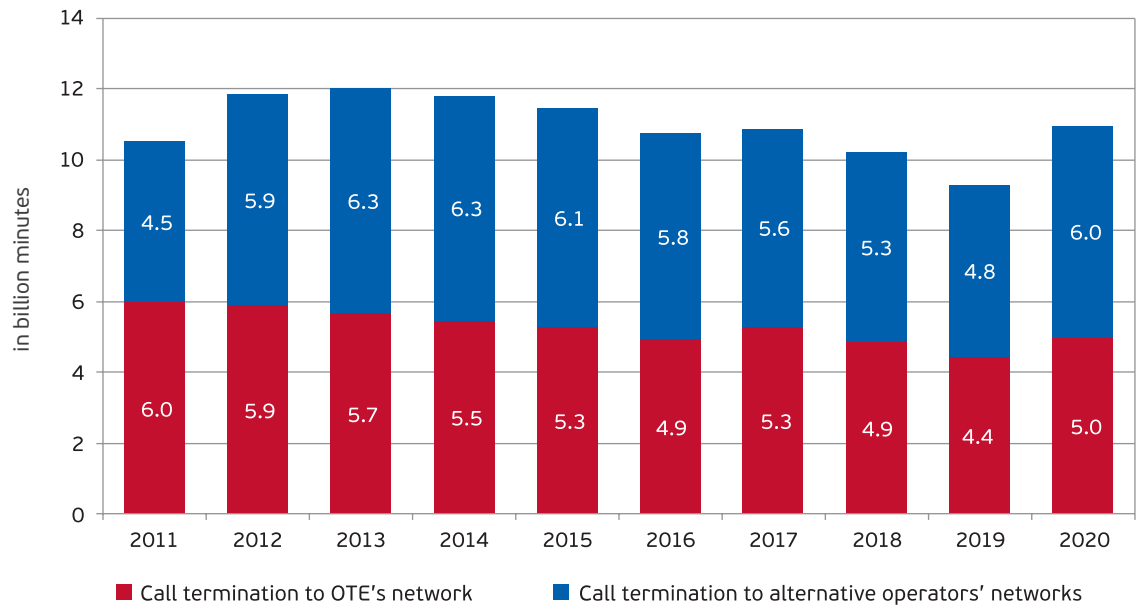
**Up till the first quarter of 2019.*

Source: EETT (based on data provided by the active licensed operators)

Fixed telephony interconnection

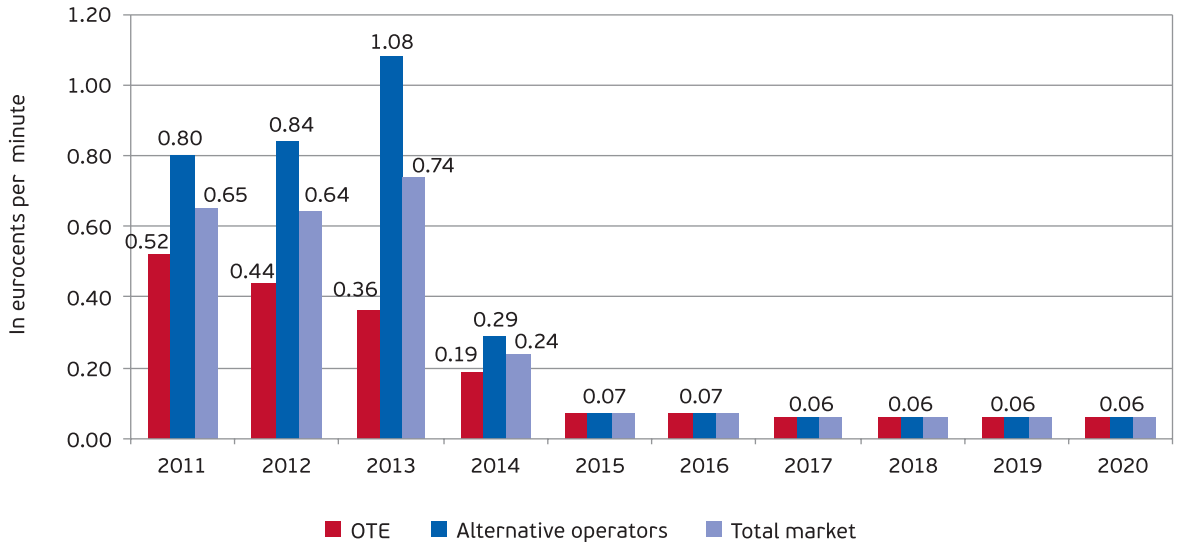
In 2020, call termination to fixed networks (Chart 1.26) amounted to 10.9 billion minutes, registering a significant increase by 18% compared to 2019 (9.3 billion minutes). More specifically, call termination to OTE's network grew by 12.2% in 2020 (5 billion minutes versus 4.4 billion minutes in 2019), accounting for 46% of the total terminating traffic. Similarly, the respective traffic of the alternative operators rose considerably by 23% (6 billion minutes versus 4.9 billion minutes in 2019), accounting for the remaining 54% of the total terminating traffic. Over the last six years, the call termination rates for all fixed network operators are symmetrical (Chart 1.27).

Chart 1.26: Call termination traffic to fixed networks (OTE-alternative operators)



Source: EETT (based on data provided by the active licensed operators)

Chart 1.27: Evolution of call termination rates to fixed networks

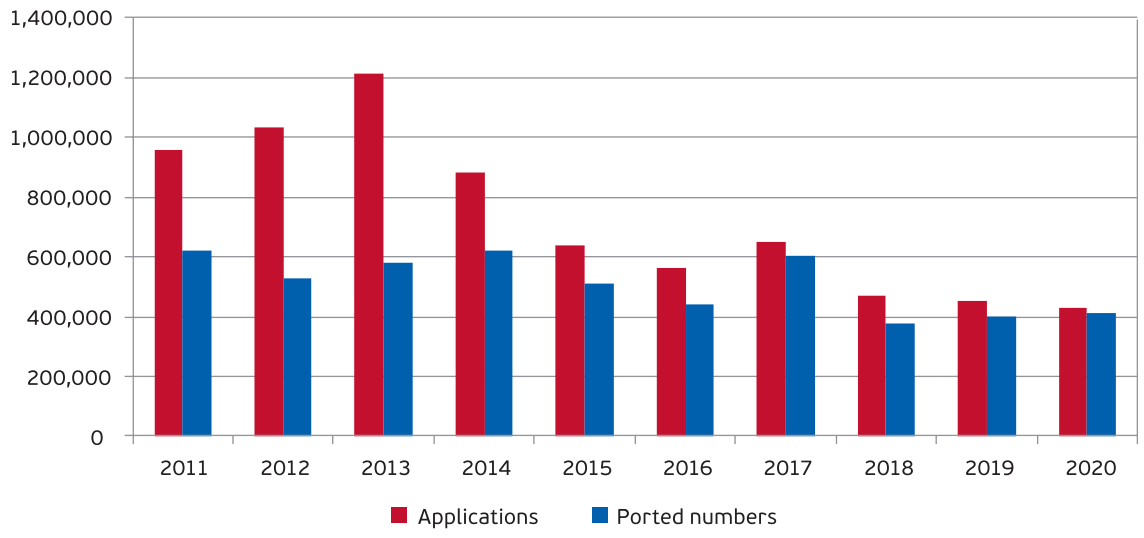


Source: EETT

Number portability in fixed telephony

In 2020, the applications for number portability registered a 5.1% decrease since 430,058 applications were submitted compared to 453,165 in 2019. Furthermore, 409,358 numbers were ported, namely a 2.2% increase compared to 2019 (Chart 1.28). That indicates that approximately 95% of the initial portability applications were seen through.

Chart 1.28: Number portability in fixed telephony



Source: EETT

1.2.3. Mobile communications

Connections

Mobile telephony connections[9] at the end of 2020 decreased both in terms of total connections (i.e. the registered ones) and active connections[10] (drop by 4.1%), compared to 2019. At the end of 2020, the total number of connections stood at 13.7 versus 14.5 million at the end of 2019, decreased by 5.9% (Table 1.5 and Chart 1.29).

More specifically, the post-paid connections amounted to 4.4 million, registering an increase by 1% compared to 2019, while the registered prepaid connections were 9.2 million, registering a decrease by 8.4% compared to 2019 (Table 1.6 and Chart 1.30).

Both the residential and business users' connections decreased by 6% and 1.2% respectively compared to 2019, amounting to 12.4 million and 1.2 million (Table 1.7 and Chart 1.31).

MNO's market shares in terms of total connections varied enough at the end of 2020. VODAFONE's and WIND's shares increased to 29.2% and 24.8% respectively versus 28.9% and 24.5% at the end of 2019. In contrast, COSMOTE's share decreased to 46% from 46.6% in 2019 (Chart 1.32 and Table 1.8). In terms of active connections[11], COSMOTE's share is in the range of [45%-55%], followed by VODAFONE in the range of [25%-35%] (Table 1.9).

The penetration rate of active mobile telephony connections on Greece's population, at the end of 2020, stood at 106%, reduced by 4.4 percentage points compared to 2019 (penetration 111%). Respectively, in terms of total connections, the penetration rate was 127% versus 135% in 2019 (Table 1.10).

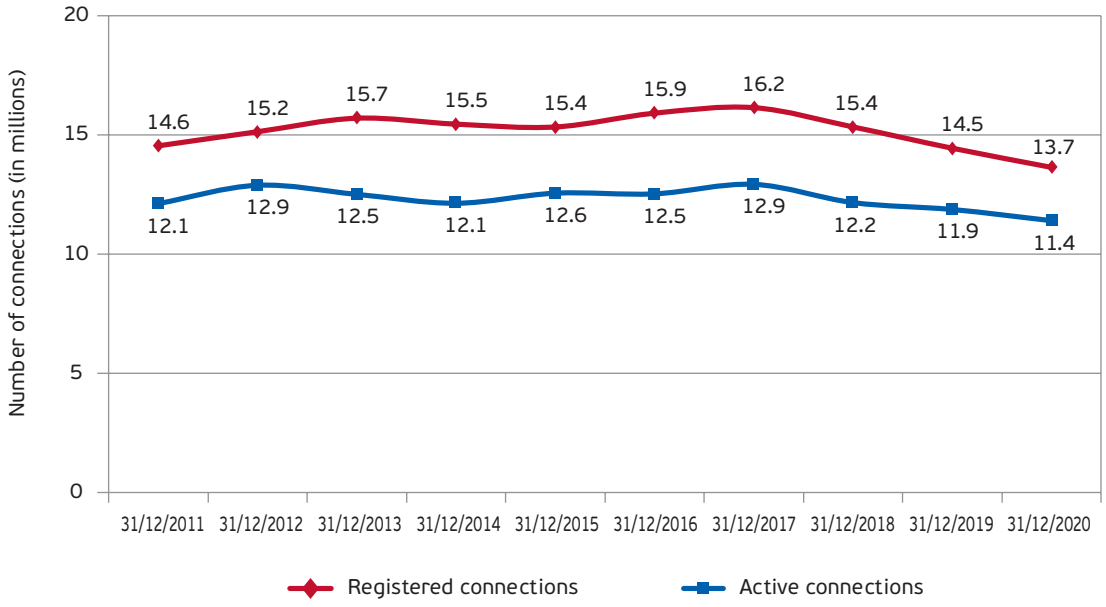
Table 1.5: Total and active mobile telephony connections (excl. datacards)

	Registered connections	Active connections
Dec. 2011	14,557,672	12,127,985
Dec. 2012	15,151,742	12,897,306
Dec. 2013	15,722,476	12,518,645
Dec. 2014	15,473,683	12,144,598
Dec. 2015	15,353,553	12,566,650
Dec. 2016	15,934,294	12,538,927
Dec. 2017	16,167,273	12,937,106
Dec. 2018	15,354,388	12,170,757
Dec. 2019	14,458,145	11,882,081
Dec. 2020	13,650,884	11,412,995

Source: EETT (based on data provided by the licensed operators)

9. The term used is "connection" or "subscription" instead of "subscriber". It is not the number of subscribers as individuals or legal entities that is recorded, but the total connections/subscriptions, since one subscriber may have more than one connections/subscriptions.
10. Active connections" or "active subscriptions" are defined as connections/subscriptions that have generated retail or wholesale revenues within the last quarter.
11. The number of active connections and the resulting market shares are confidential data and for this reason the market shares are presented in the form of ranges.

Chart 1.29: Connections/subscriptions of mobile telephony



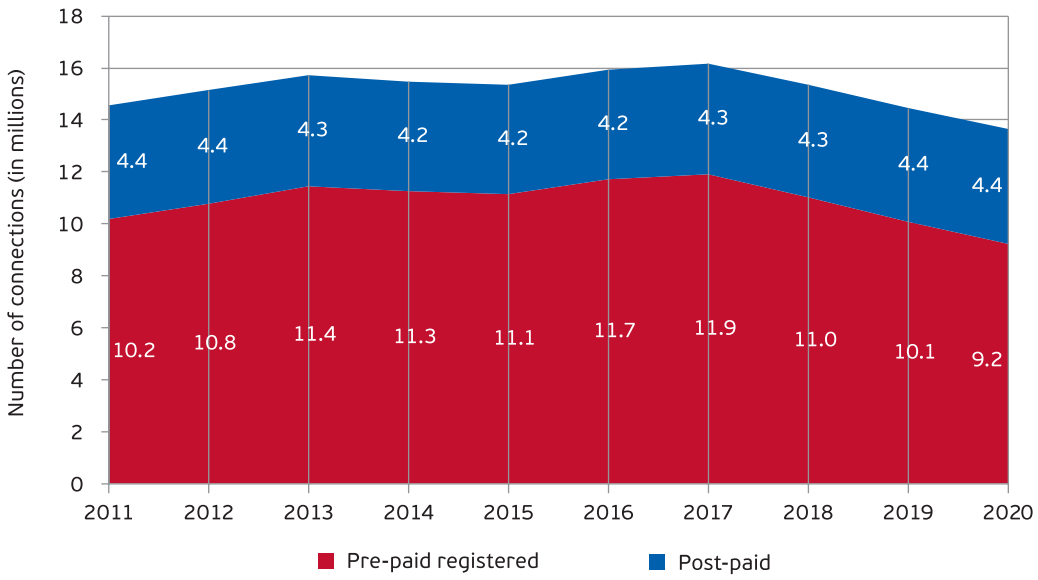
Source: EETT (based on data provided by the licensed operators)

Table 1.6: Total post-paid and pre-paid connections

	Post-paid connections	Pre-paid (registered) connections
Dec. 2011	4,375,606	10,182,066
Dec. 2012	4,381,879	10,769,863
Dec. 2013	4,278,843	11,443,633
Dec. 2014	4,216,579	11,257,104
Dec. 2015	4,211,675	11,141,878
Dec. 2016	4,219,022	11,715,272
Dec. 2017	4,261,140	11,906,133
Dec. 2018	4,336,465	11,017,923
Dec. 2019	4,383,959	10,074,186
Dec. 2020	4,426,244	9,224,640

Source: EETT (based on data provided by the licensed operators)

Chart 1.30: Evolution of total mobile telephony connections (pre-paid and post-paid)



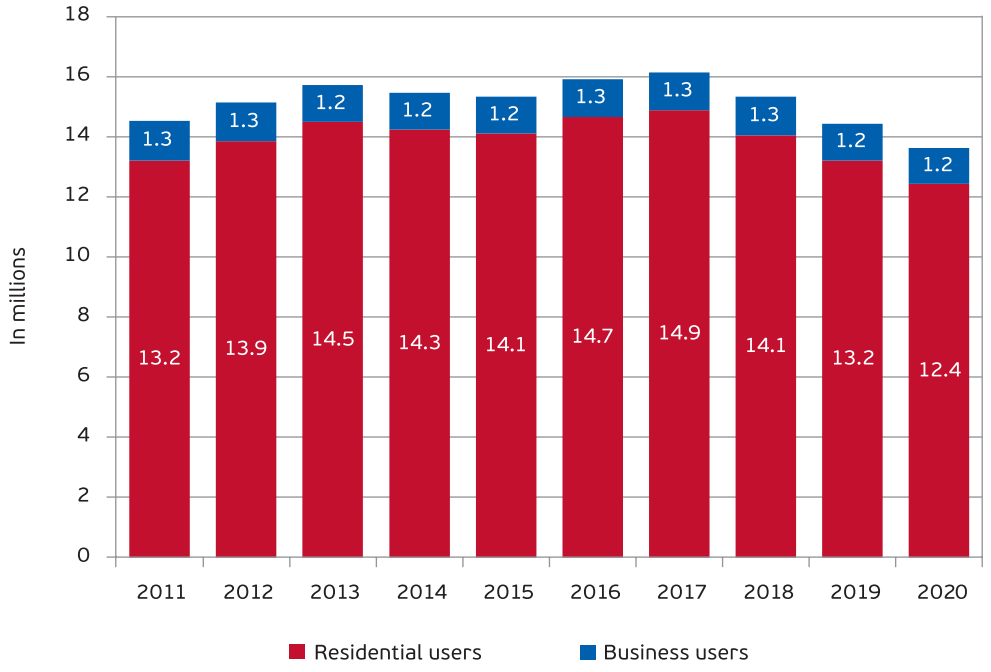
Source: EETT (based on data provided by the licensed operators)

Table 1.7: Total connections of residential and business post-paid and pre-paid users

	Residential	Business
Dec. 2011	13,233,823	1,323,849
Dec. 2012	13,876,910	1,274,537
Dec. 2013	14,497,186	1,225,290
Dec. 2014	14,254,880	1,218,803
Dec. 2015	14,118,156	1,235,397
Dec. 2016	14,682,583	1,251,711
Dec. 2017	14,902,753	1,264,520
Dec. 2018	14,063,618	1,290,770
Dec. 2019	13,234,616	1,223,529
Dec. 2020	12,441,461	1,209,423

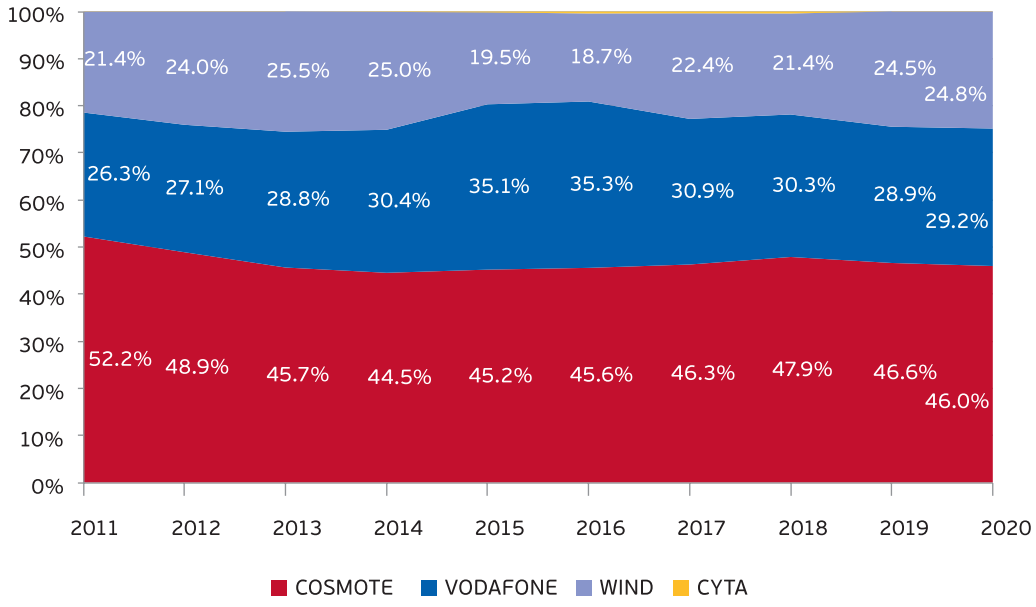
Source: EETT (based on data provided by the licensed operators)

Chart 1.31: Evolution of total mobile telephony connections (residential-business)



Source: EETT (based on data provided by the licensed operators)

Chart 1.32: MNOs' market shares based on registered connections



Source: EETT (based on data provided by the licensed operators)

Table 1.8: MNOs' market shares based on registered connections

	Dec. 2011	Dec. 2012	Dec. 2013	Dec. 2014	Dec. 2015	Dec. 2016	Dec. 2017	Dec. 2018	Dec. 2019	Dec. 2020
COSMOTE	52.2%	48.9%	45.7%	44.5%	45.2%	45.6%	46.3%	47.9%	46.6%	46%
CYTA	0%	0%	0%	0.1%	0.2%	0.4%	0.4%	0.4%	0%	-
VODAFONE	26.3%	27.1%	28.8%	30.4%	35.1%	35.3%	30.9%	30.3%	28.9%	29.2%
WIND	21.4%	24.0%	25.5%	25.0%	19.5%	18.7%	22.4%	21.4%	24.5%	24.8%

Source: EETT (based on data provided by the licensed operators)

Table 1.9: MNOs' market shares based on active connections

	Dec. 2011	Dec. 2012	Dec. 2013	Dec. 2014	Dec. 2015	Dec. 2016	Dec. 2017	Dec. 2018	Dec. 2019	Dec. 2020
COSMOTE	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%
CYTA	-	-	-	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	-
VODAFONE	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%
WIND	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%

Source: EETT (based on data provided by the licensed operators)

Table 1.10: Penetration rate of connections on the population

	Dec. 2011	Dec. 2012	Dec. 2013	Dec. 2014	Dec. 2015	Dec. 2016	Dec. 2017	Dec. 2018	Dec. 2019	Dec. 2020
Registered connections	131%	137%	143%	142%	141%	148%	150%	143%	135%	127%
Active connections	109%	116%	114%	111%	116%	116%	120%	113%	111%	106%

Source: EETT (based on data provided by the licensed operators)

Use of mobile communications networks

In 2020, the use of mobile communications networks was characterized by the increase of the domestic voice traffic, the remarkable growth in the use of data services and the decrease in the use of Short Text Messages (SMS).

Voice calls

- The volume of voice calls in 2020 amounted to 30.5 billion minutes, registering a 6.3% increase compared to 2019 (28.7 billion minutes) (Chart 1.33).
- The largest part of this volume was the on-net calls, amounting to 15.9 billion minutes having increased by 1.7% compared to 2019, (Chart 1.34). On-net calls accounted also for 53% of the basic call types' volume (i.e. on-net, off-net, mobile to fixed and international calls) versus 56% in 2019 (Chart 1.35).
- The volume of the off-net calls increased again considerably by 13.5% compared to 2019 (from 9.1 to 10.3 billion minutes), while the volume of the mobile to fixed calls grew also significantly by 24.6% (from 2.6 to 3.2 billion minutes).
- International calls from mobile phones dropped by 26.3%.

The largest volume continued to be made by pre-paid users (47.7% of all voice calls' volume), followed by post-paid residential users (42.1%) and post-paid business users (16.5%) (Chart 1.36). Based on the actual traffic, the average monthly call duration for a post-paid residential user was approximately 266 minutes to mobile numbers (versus 243 in 2019) and 37 minutes to fixed numbers. For a business user the duration was 272 minutes to mobile numbers (versus 233 in 2019) and 46 minutes to fixed numbers, while lastly, for a pre-paid user the average monthly call duration was 143 minutes to mobile numbers (versus 134 in 2019) and 13 minutes to fixed numbers.

Short Text Messages (SMS)

- The total number of SMS decreased by 6.1% (2.2 versus 2.4 billion messages in 2019) (Chart 1.37).
- Most of the SMS in 2020 were on-net (44.9% compared to 52.3% in 2019), while the percentage of the off-net SMS has also declined (30% versus 34.9% in 2019).
- SMS from pre-paid users fell by 7.5%, amounting to 1 billion messages in 2020 compared to 1.1 billion in 2019, while the SMS from post-paid residential users fell again by 6.2% amounting to 0.9 billion messages versus to 1 billion messages in 2019 (Chart 1.38).
- A post-paid residential user sent on average 24 SMS per month (versus 26 SMS in 2019), followed by a business user with 21 SMS and a pre-paid user with 12 SMS roughly at the same level as in 2019.

Multimedia Messages (MMS)

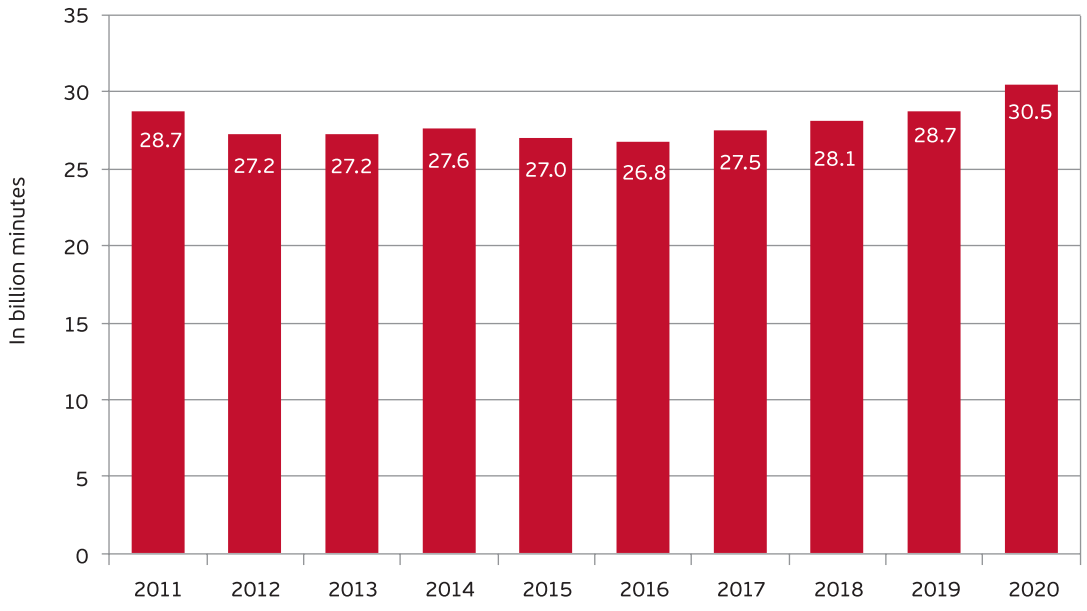
The number of MMS dropped by 9.5%, amounting to 9.6 million in 2020 from 10.7 million in 2019 (Chart 1.39).

Data services[12]

- In 2020, the volume of data services over mobile communications networks increased impressively by 68%, reaching 379 million GB compared to 225 million GB in 2019 (Chart 1.40).
- During 2020, the majority of data traffic was transferred via mobile phone devices (95%), while the remaining 5% via other portable devices using datacards and M2M.
- All user categories increased significantly their use of data services during 2020. A post-paid residential user used on average 3.5 GB per month (versus 1.9 GB in 2019), followed by a pre-paid user with 2.6 GB (versus 1.5 GB in 2019) and finally, a business user with 1.7 GB (versus 1.1 GB in 2019).

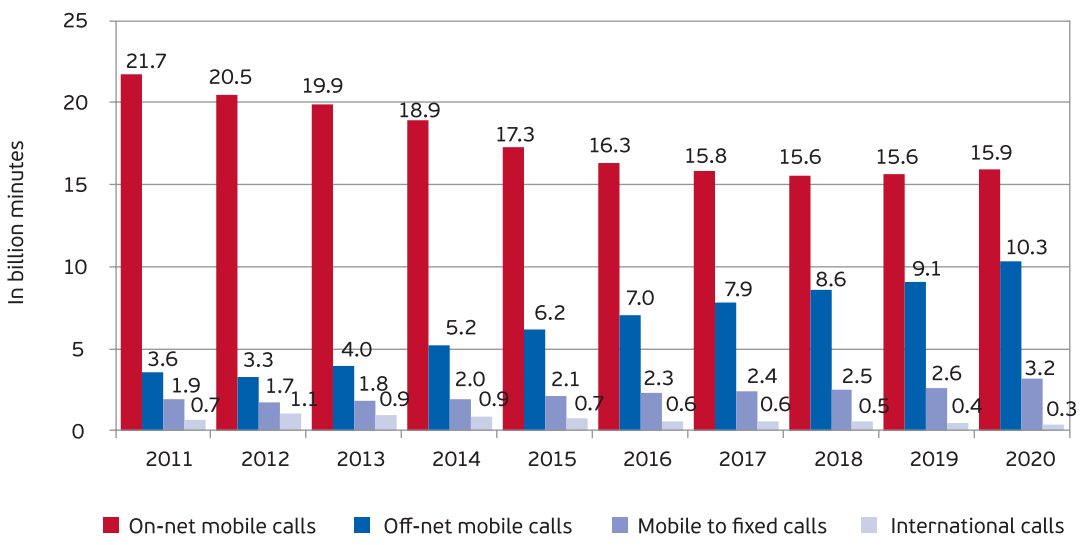
12. It is noted that up till 2012, reporting data use via mobile phones or datacards separately was not feasible.

Chart 1.33: Volume of voice calls originating from mobile



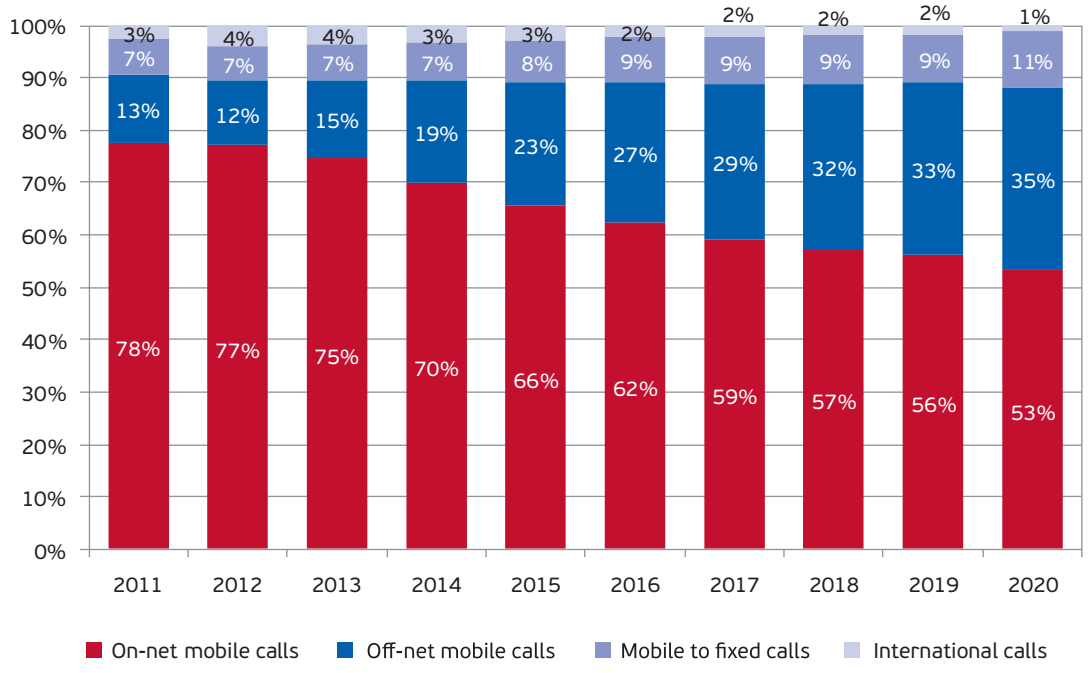
Source: EETT (based on data provided by the licensed operators)

Chart 1.34: Volume of voice calls per basic call type



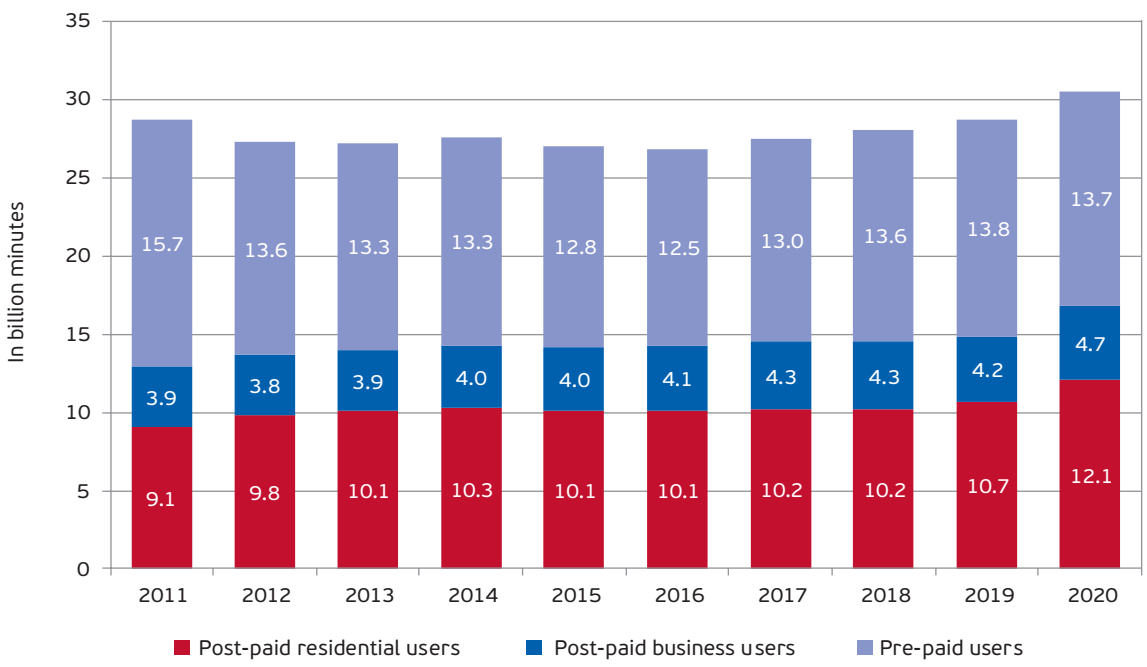
Source: EETT (based on data provided by the licensed operators)

Chart 1.35: Breakdown of the basic call types' volume



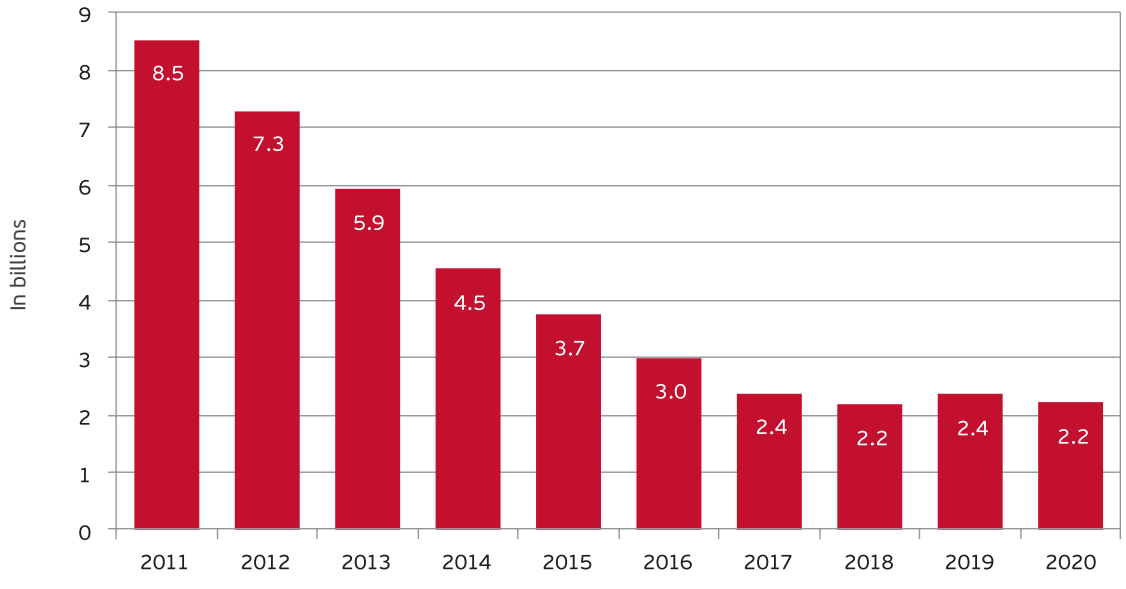
Source: EETT (based on data provided by the licensed operators)

Chart 1.36: Volume of voice calls per user category



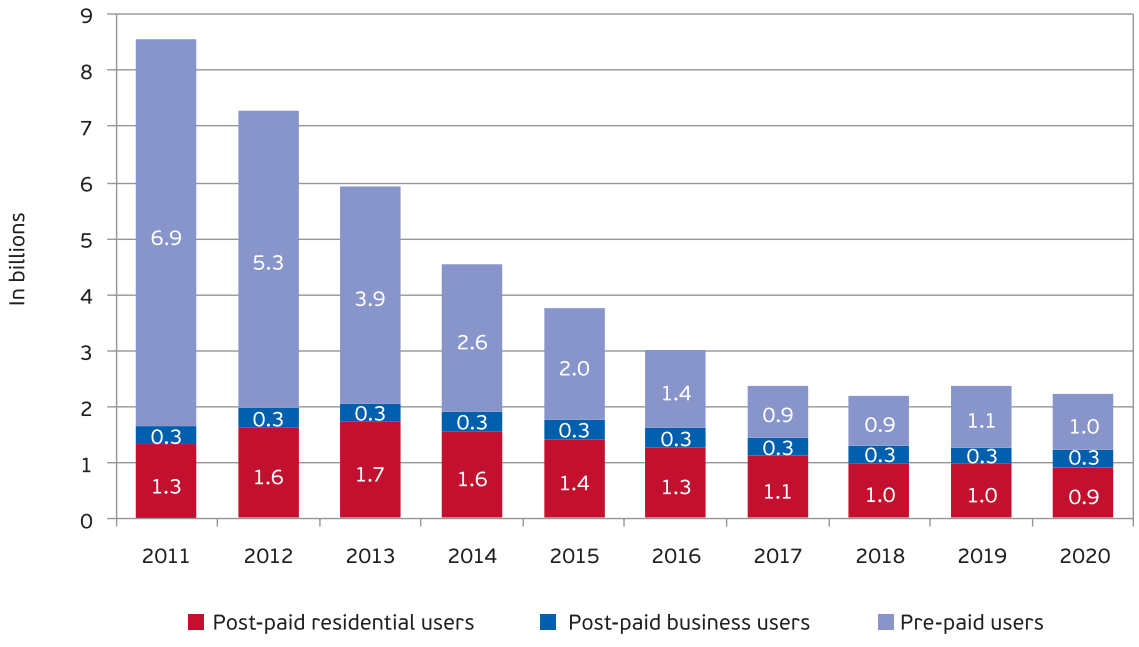
Source: EETT (based on data provided by the licensed operators)

Chart 1.37: Total number of SMS



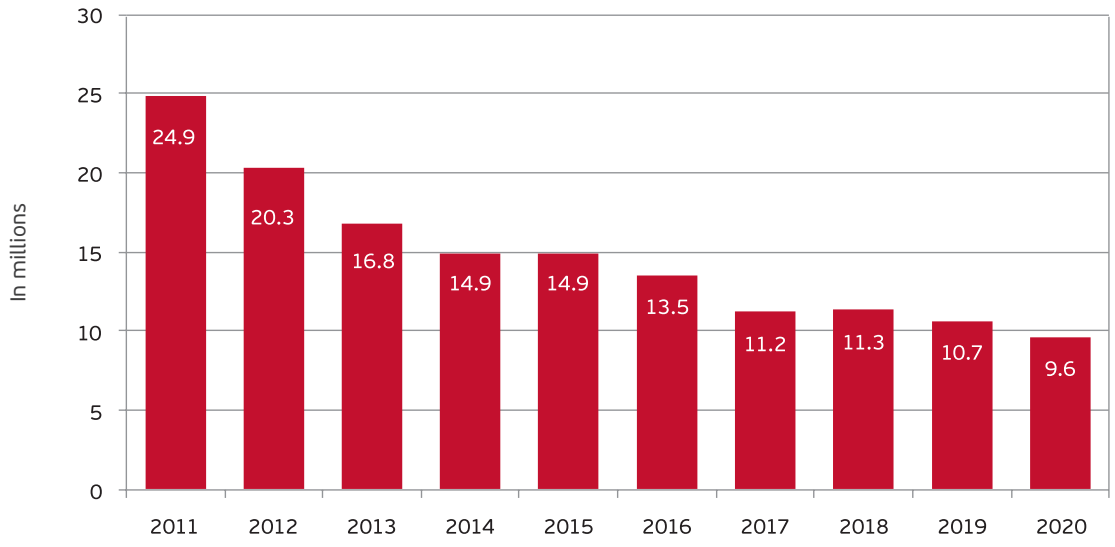
Source: EETT (based on data provided by the licensed operators)

Chart 1.38: Number of SMS per user category



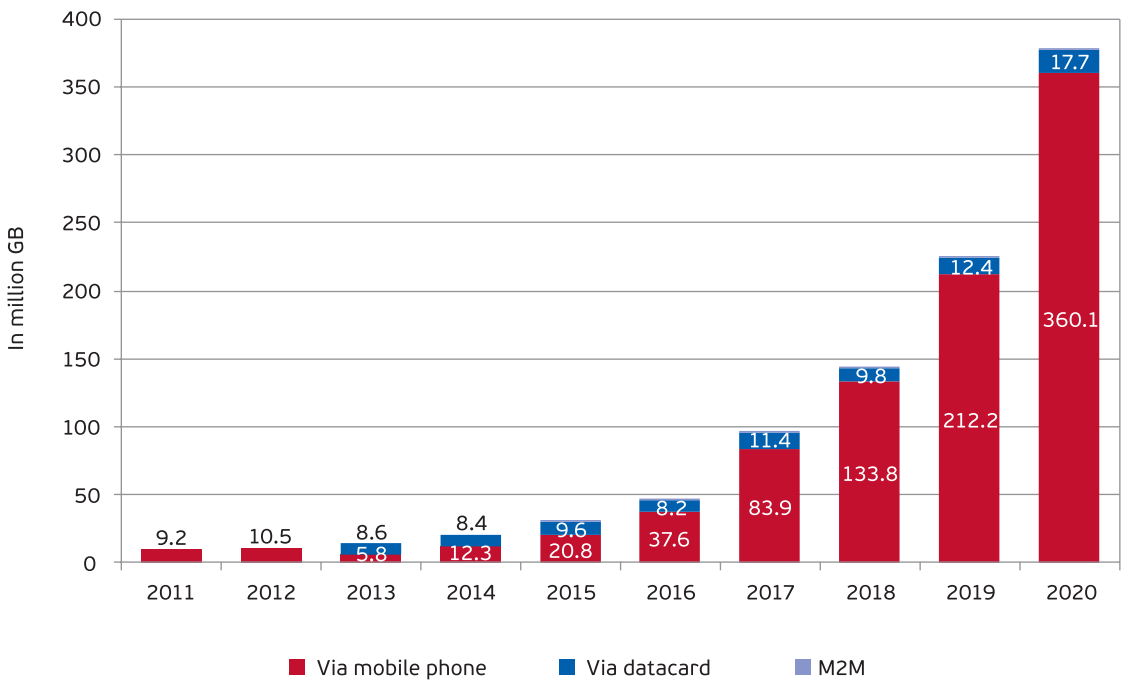
Source: EETT (based on data provided by the licensed operators)

Chart 1.39: Total number of MMS



Source: EETT (based on data provided by the licensed operators)

Chart 1.40: Total volume of data services via mobile phones, datacards and M2M

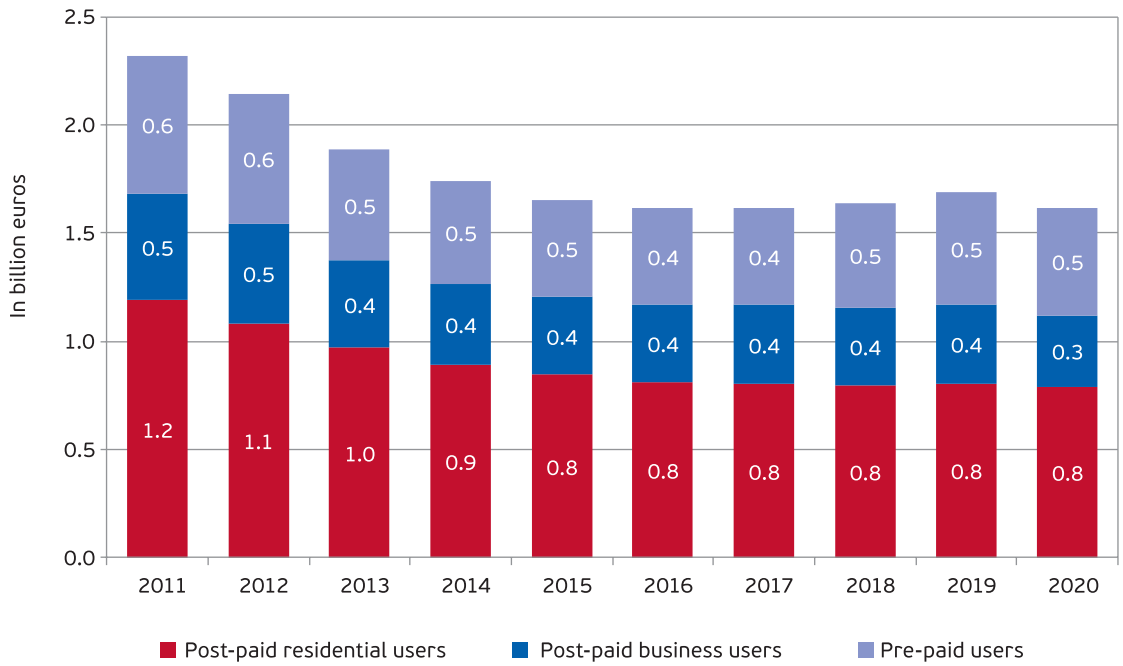


Source: EETT (based on data provided by the licensed operators)

Retail revenues from mobile services

In 2020, the retail revenues from voice and data services[13] (post-paid and pre-paid) decreased by 4.1% amounting to 1.6 billion euros (Chart 1.41). Tables 1.11-1.13 present the market shares based on the MNOs' retail revenues, both aggregately and per subscriber category (post-paid and pre-paid)[14]. The revenues from business users registered the biggest drop by 9% followed by the decrease of 4.1% for the pre-paid users and 1.9% for the post-paid users. The majority of voice and data retail revenues (62.9%) stemmed from voice calls (Chart 1.42). The average annual revenue per postpaid and pre-paid user (connection) was 254 euros (a 5.6% drop) and 69 euros (a 1.4% increase) respectively (Chart 1.43).

Chart 1.41: Retail revenues from users of voice and data services of mobile communications networks



Source: EETT (based on data provided by the licensed operators)

13. Revenues from the sale of handsets, wholesale or other services are not included.
14. Retail revenues and the resulting market shares are confidential data and for this reason the market shares are presented in the form of ranges.

Table 1.11: MNOs' shares based on retail revenues

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
COSMOTE	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%
CYTA	-	-	-	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	-
VODAFONE	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%
WIND	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%

Source: EETT (based on data provided by the licensed operators)

Table 1.12: MNOs' shares based on post-paid retail revenues

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
COSMOTE	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%
CYTA	-	-	-	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	-
VODAFONE	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%
WIND	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%

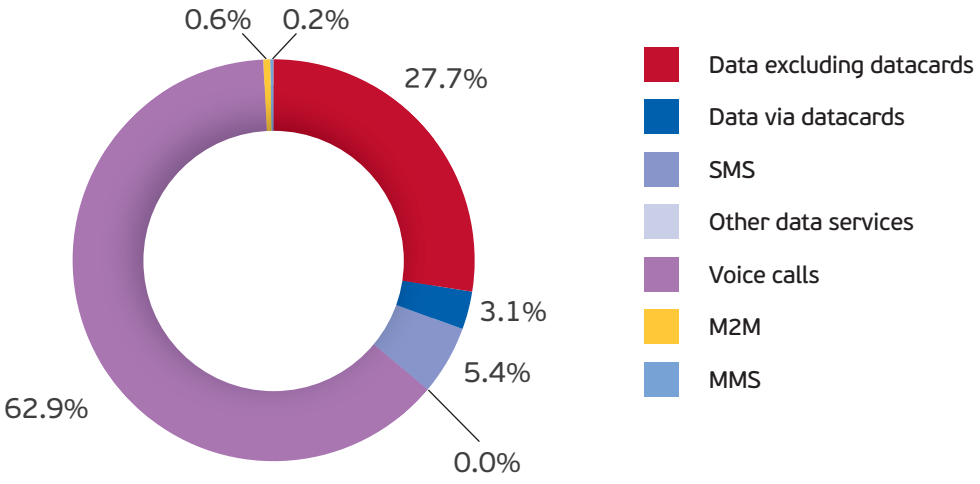
Source: EETT (based on data provided by the licensed operators)

Table 1.13: MNOs' shares based on pre-paid retail revenues

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
COSMOTE	55%-65%	55%-65%	55%-65%	55%-65%	55%-65%	55%-65%	45%-55%	45%-55%	55%-65%	55%-65%
CYTA	-	-	-	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	0%-5%	-
VODAFONE	15%-25%	15%-25%	15%-25%	15%-25%	25%-35%	25%-35%	25%-35%	25%-35%	25%-35%	15%-25%
WIND	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%	15%-25%

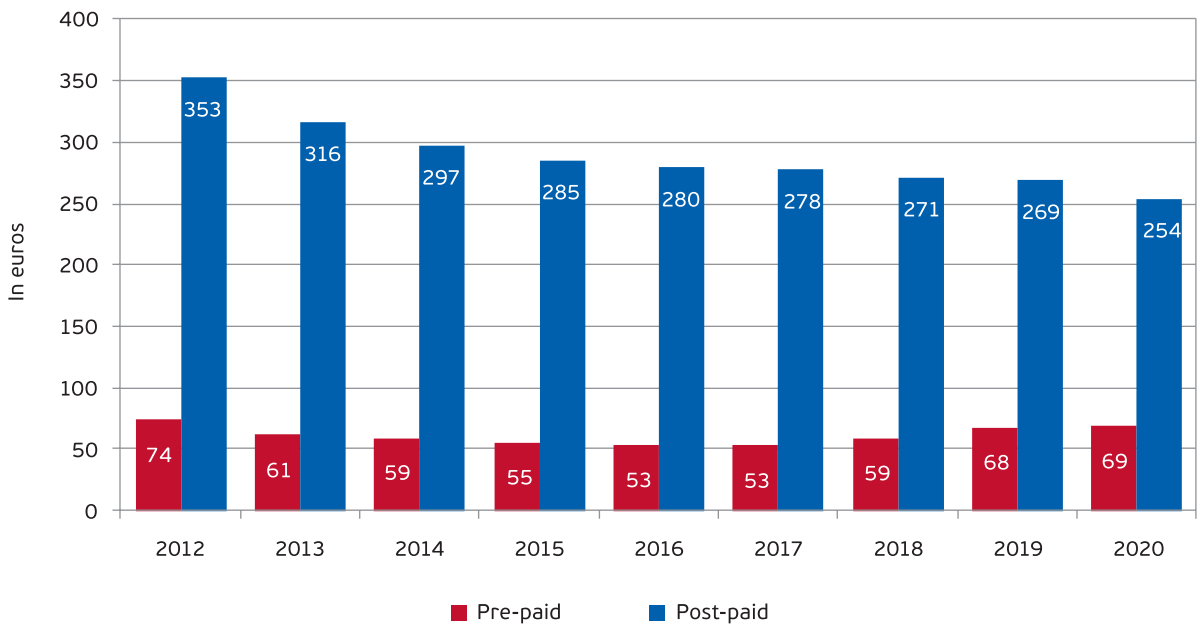
Source: EETT (based on data provided by the licensed operators)

Chart 1.42: Retail revenues from voice and data services of mobile communications networks, 2020



Source: EETT (based on data provided by the licensed operators)

Chart 1.43: Average annual revenue per mobile telephony connection



Source: EETT (based on data provided by the licensed operators)

Mobile telephony interconnection

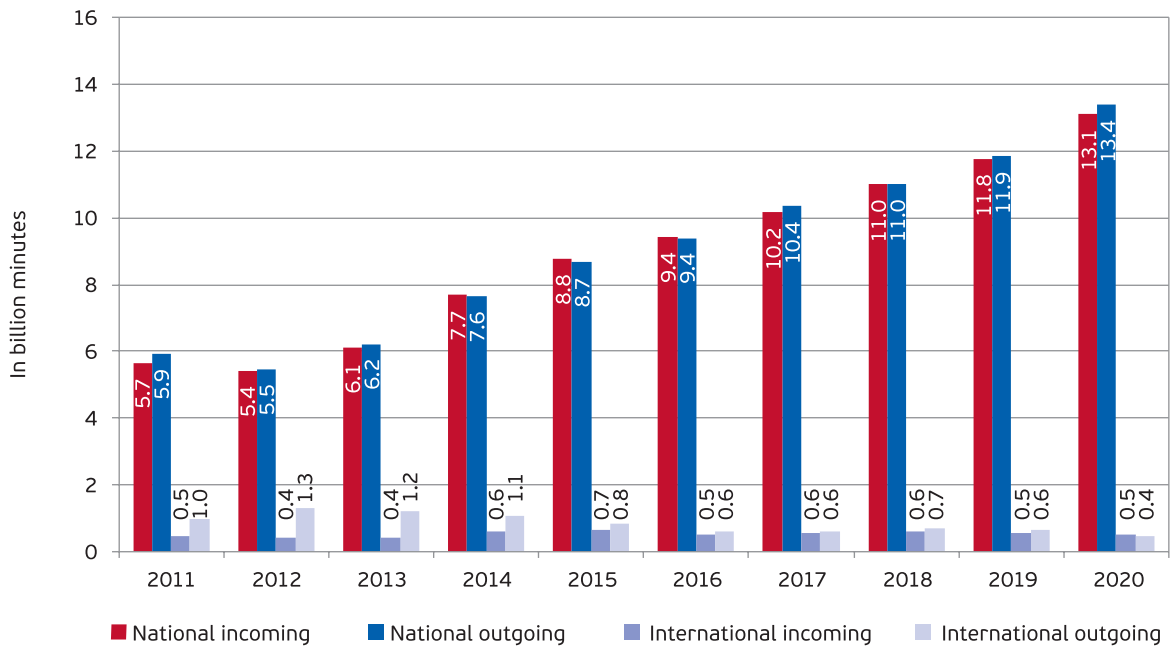
The interconnection traffic of the MNOs in 2020 increased by 10.6% compared to 2019, which constitutes an annual growth of approximately 2.6 billion minutes (Chart 1.44). More specifically, both the national incoming and outgoing traffic increased by 11.7% and 13% respectively, whereas both the international incoming and outgoing traffic fell by 11.4% and 32.3% respectively.

The MNOs' on-net traffic amounted to 15.1 billion minutes approximately for 2020, increased by 11.5% compared to 2019 (about 1.6 billion minutes), thus accounting for 35.4% of the total interconnection traffic, which also includes the incoming and the outgoing traffic (Chart 1.45).

At the same time, the national traffic terminating to mobile networks improved remarkably. In particular, the national calls to mobile phones increased by 12.6%, amounting to 28.5 billion minutes versus 25.3 billion minutes in 2019 (Chart 1.46). On the contrary, the revenues from the national incoming traffic to mobile networks in 2020 amounted to 87.3 million euros (a 22.6% drop) due to the considerable decrease by 34% of the call termination rates that took place in February 2020 (Chart 1.47).

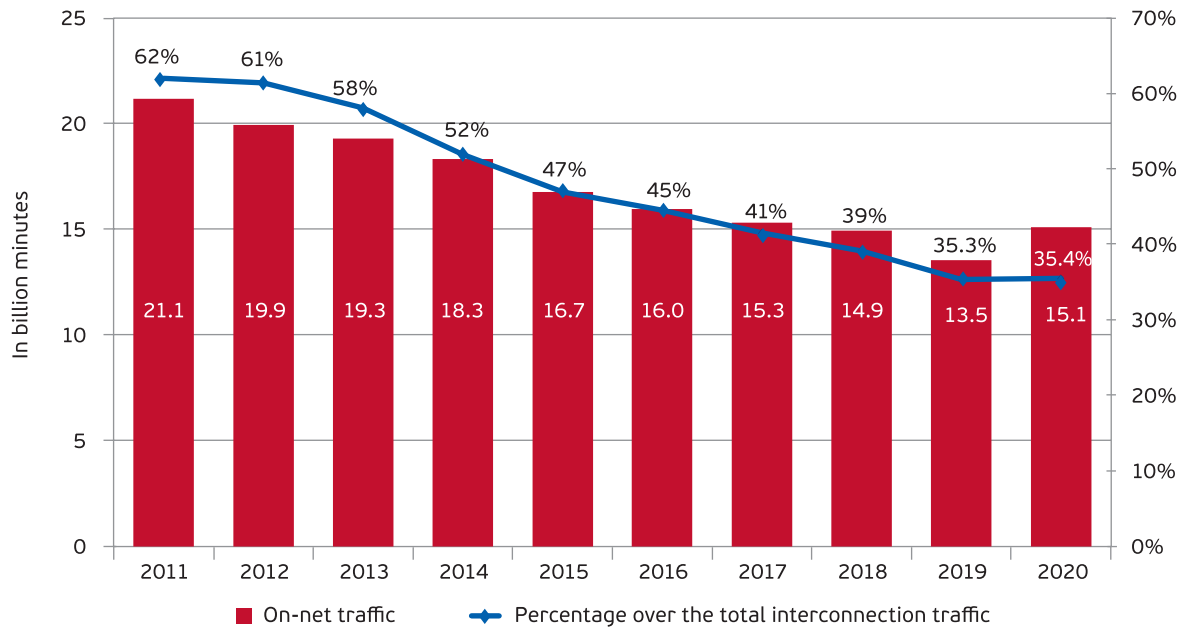
In particular, as of February 11, 2020, the call termination rates to mobile networks stood at 0.622 eurocents per minute, due to the revision of the relative calculative bottom-up model (Chart 1.48). The next scheduled reduction of the call termination rates to 0.55 eurocents per minute will take place in 2022.

Chart 1.44: MNOs' interconnection traffic



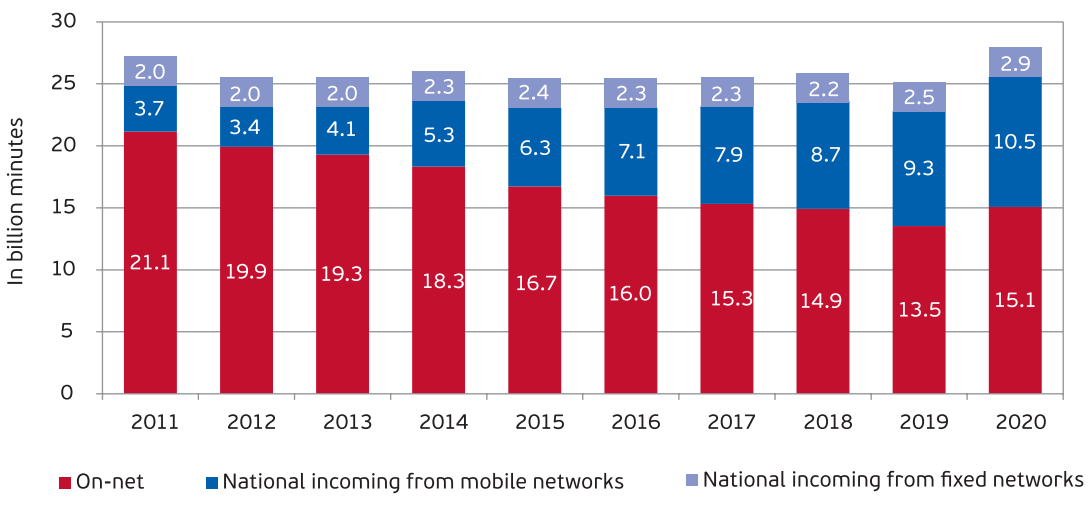
Source: EETT (based on data provided by the MNOs)

Chart 1.45: MNOs' on-net traffic



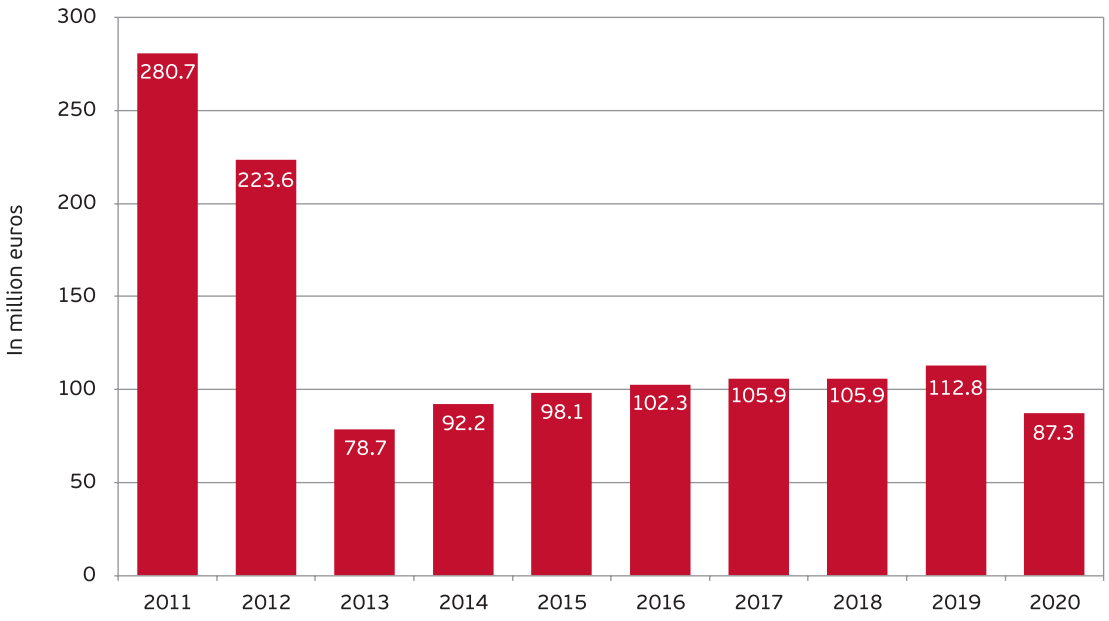
Source: EETT (based on data provided by the MNOs)

Chart 1.46: Voice calls terminating to mobiles in Greece



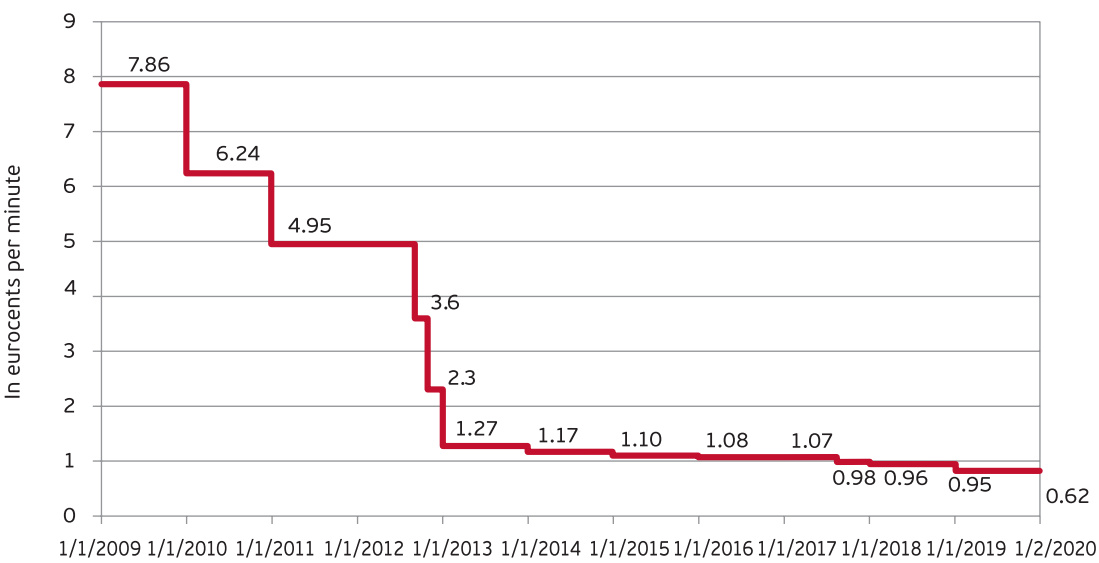
Source: EETT (based on data provided by the MNOs)

Chart 1.47: Revenues from fixed and mobile voice calls termination to mobiles in Greece



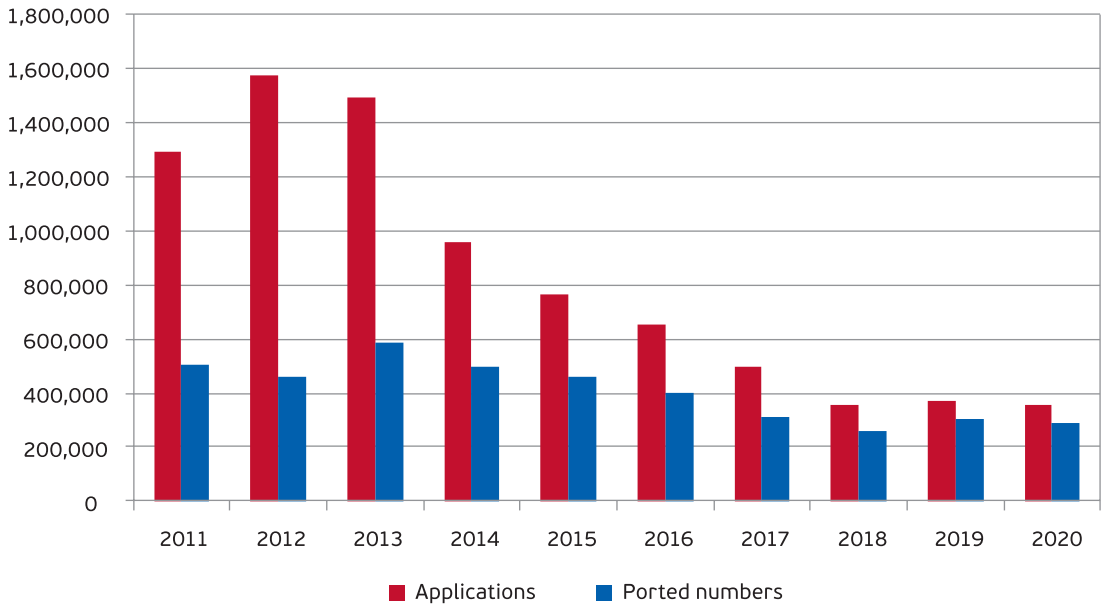
Source: EETT (based on data provided by the MNOs)

Chart 1.48: Evolution of call termination rates to mobile networks



Source: EETT

Chart 1.49: Number portability in mobile telephony



Source: EETT

Number portability in mobile telephony

The applications submitted during 2020 for porting mobile telephony numbers amounted to 358,359 versus 372,522 in 2019, registering a 3.8% drop compared to the previous year. During the same period, 291,740 numbers were ported, having decreased by 3.7% compared to 2019 (Chart 1.49). In conclusion, approximately 81% of the initial portability applications were seen through.

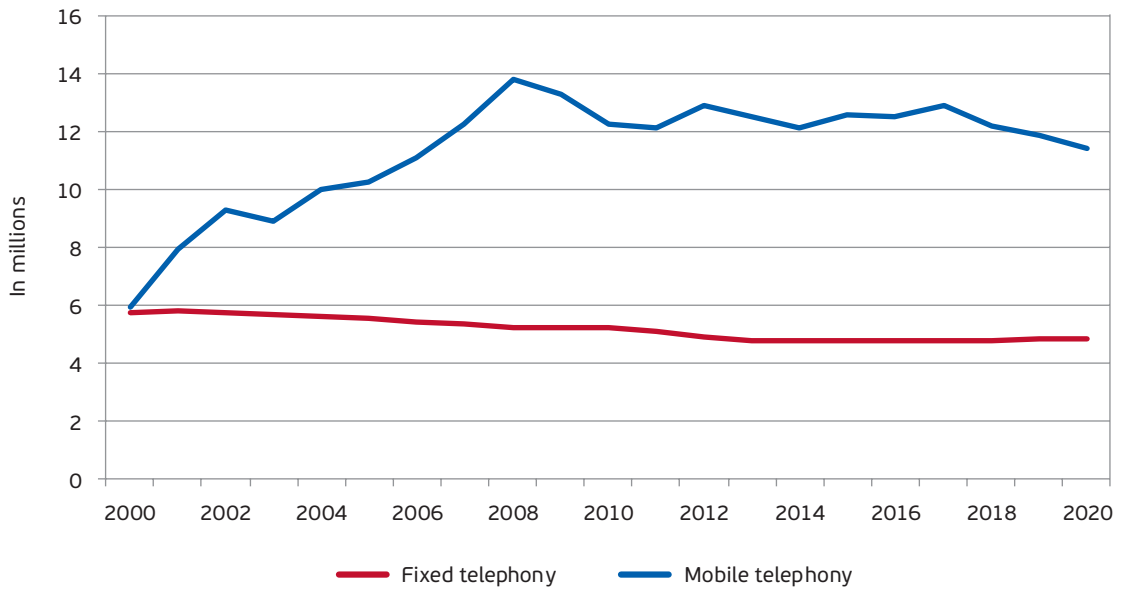
1.2.4. Comparison between fixed and mobile telephony

Fixed telephony connections (lines) grew by 1.1% to 4.9 million in 2020, whereas active mobile telephony connections/subscriptions declined by 3.9% amounting to 11.4 million (Chart 1.50).

Chart 1.51 shows the evolution of the fixed telephony and Internet retail revenues compared to the retail voice and data (SMS, MMS, data) revenues of mobile communications networks[15], for the period 2012-2020. The mobile retail revenues fell by 4.1% compared to 2019, reaching 1.6 billion euros, while the fixed services' retail revenues grew by 1% compared to 2019, amounting to 1.4 billion euros.

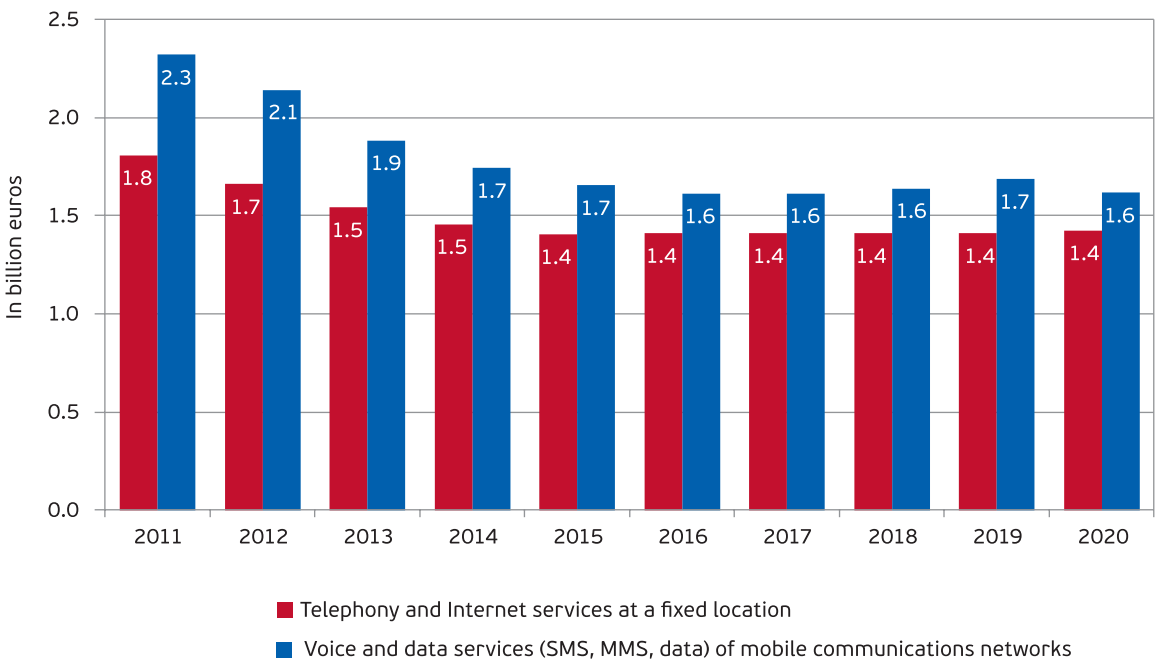
15. Revenues from handsets and other services are excluded.

Chart 1.50: Evolution of fixed and mobile telephony connections



Source: EETT (based on data provided by the licensed operators)

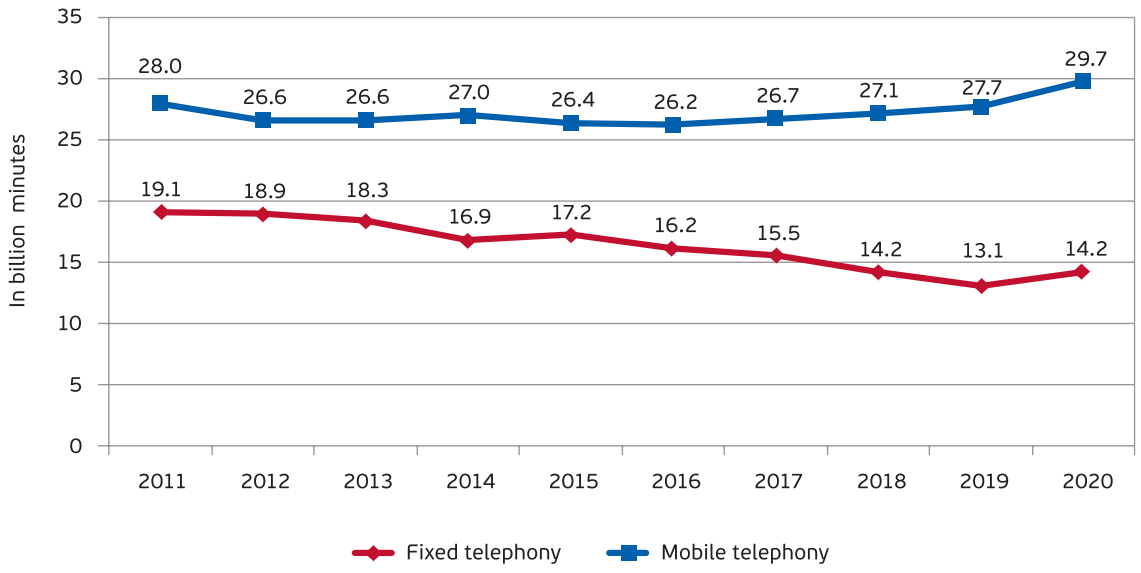
Chart 1.51: Evolution of retail revenues



Source: EETT (based on data provided by the licensed operators)

Chart 1.52 presents the evolution of the volume of calls from fixed and mobile phones, taking into account the basic call types, i.e. the national fixed calls, the calls to mobiles and the international calls[16]. The volume of calls from fixed phones rose by 7.2%, amounting to 14.2 billion minutes versus 13.1 billion in 2019, mainly due to the large growth by 1.1 billion minutes of the national fixed calls. Similarly, the volume of the basic call types made from mobiles increased by 8.8% compared to 2019 (off-net mobile calls increased by 1.2 billion minutes) and accounts for 68% of the respective total outgoing traffic (i.e. from fixed and mobile) (Chart 1.53).

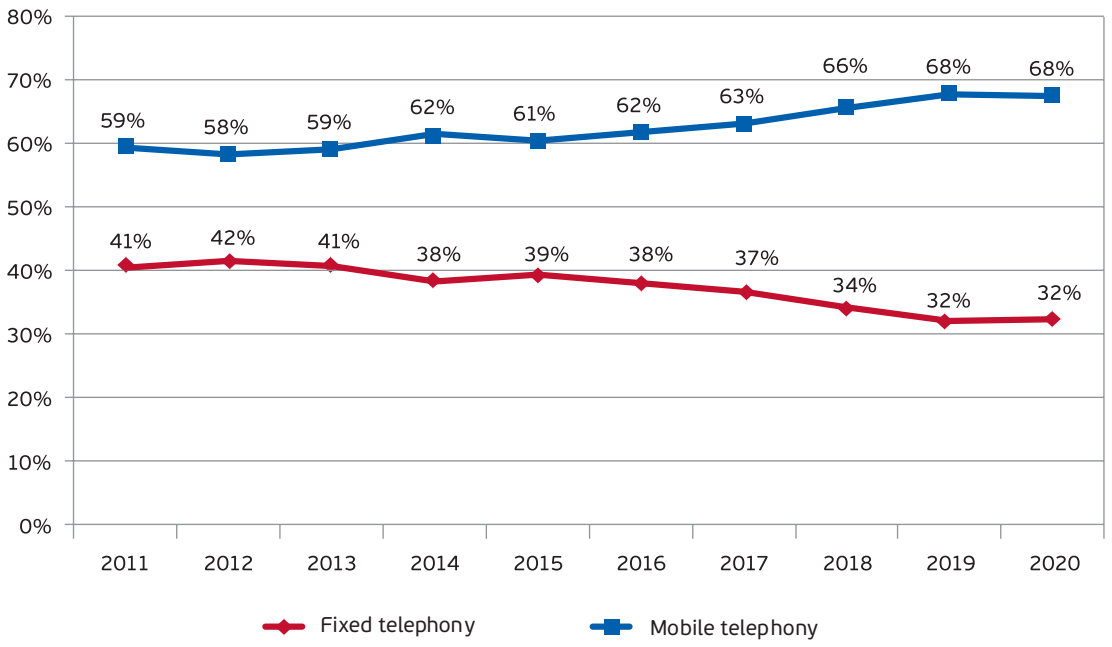
Chart 1.52: Volume of the basic call types from fixed and mobile phones



Source: EETT (based on data provided by the licensed operators)

16. Mobile calls entail on-net, off-net, mobile to fixed and mobile to international destinations calls.

Chart 1.53: Fixed and mobile telephony shares
(based on the outgoing volume of the basic call types)



Source: EETT (based on data provided by the licensed operators)

1.2.5. Broadband

Fixed broadband

At the end of 2020, fixed broadband connections amounted to 4,270,473 versus 4,105,561 at the end of 2019, registering an annual increase of 4% (versus 3.7% in 2019) and a 39.8% penetration rate in the population (Chart 1.54).

Chart 1.55 presents the evolution of the full and shared Local Loop Unbundling (LLU) lines, as well as of the full access subloops lines[17]. Particularly, the full LLU lines were further reduced at the end of 2020 to 1,785,279 (versus 1,984,087 at the end of 2019). On the contrary, the full access subloop lines amounted to 219,897 (versus 103,044 at the end of 2019), 85% of which (185,835) is allocated to the operators for developing Next Generation Access Networks (NGA) and the remaining 15% (34,062) for the development of broadband products in rural areas.

At the end of 2020, the access lines to NGA deployed by the alternative operators more than doubled due to the development of NGA by implementing the VDSL Vectoring technology in the access network. The number of the Virtual Local Unbundling (VLU) products that they provide increased by 142% by the end of 2020 compared to the corresponding number at the end of 2019.

Specifically, the three operators, OTE, VODAFONE and WIND, kept on upgrading the access network to NGA by implementing the VDSL vectoring technology. Analytically, the NGA that was deployed during 2020 covered the area for 1,124

17. Local Sub-loop: the section of local loop that connects the termination point of OTE's network at the subscriber's premises to the Local Distribution Frame (LDF or Optical Network Unit-ONU).

of OTE's street cabins. The majority of those cabins was upgraded to Fiber to the Cabinet (FTCC) and VDSL vectoring, whereas in a few cases (408) to Fiber to the Home (FTTH) and Gigabit Passive Optical Networks (GPON). By the end of 2020, the accumulated number of the upgraded cabins amounted to 19,779 (Charts 1.56 and 1.57).

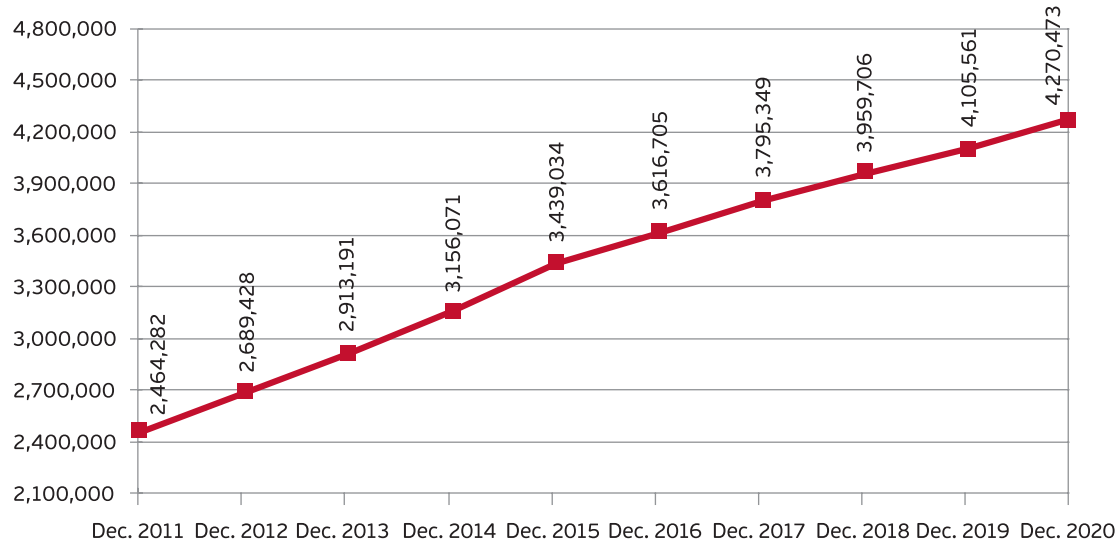
The VDSL lines at the end of 2020 amounted to 1,264,437, compared to 995,816 in December 2019 (an annual increase of 27%), accounting for 29.6% of the total broadband lines (Chart 1.58). Their penetration in the population is still low (11.8% versus 9.3% at the end of 2019).

The individual shares of broadband lines per technology were as follows:

- The xDSL lines via LLU were further reduced to 1,573,758, compared to 1,770,702 at the end of 2019, with their share over the total broadband lines declining to 36.85% versus 43.13% at the end of 2019. The above number excludes 143,658 Virtual Partially Unbundling (VPU) lines that are included only in the total V-A.RY.S lines, because of the co-existence of two technologies in their provision (voice services via local loop and VDSL services via V-A.RY.S) (Charts 1.59 and 1.60).
- The access lines to NGA reached 472,613 compared to 195,427 at the end of 2019, with their share over the total broadband lines rising to 11.07% in 2020, versus 4.76% at the end of 2019. The majority of the wholesale VLU services deployed by the access operators was over FTTC lines.
- OTE's xDSL retail lines amounted to 2,133,598 versus 1,994,068 at the end of 2019, with their respective share over the total broadband lines reaching 48.26% versus 47.72% at the end of 2019. From the total number of OTE's xDSL lines, 961,007 were VLU lines, which overwhelmingly (888,363) are based on OTE's own infrastructure and the rest 72,644 are being rendered by other operators[18]. Additionally, 33,383 retail lines (versus 22,109 at the end of 2019) pertain to sub-loops that are being supplied to OTE in order to develop broadband products in rural areas.
- The wholesale A.RY.S and V-A.RY.S[19] lines dropped to 149,313 versus 166,853 in December 2019 (3.5% of the total broadband lines versus 4% at the end of 2019), due to the decrease of the number of the VPU products (143,658 versus 160,151 at the end of 2019).
- The broadband lines of other technologies remained at very low levels with a percentage estimated at 0.32%.
- Almost all broadband lines (over 99%) corresponded to nominal download access speeds of 10 Mbps and above. At the same time, there was a significant increase in the percentage of highspeed broadband lines with nominal download access speeds of 30 Mbps and above, which constituted 30.5% of the total broadband lines (versus 25.7% at the end of 2019) (Charts 1.61 and 1.62). Lastly, a percentage of 5.8% of these lines corresponded to access speeds of 100 Mbps and above (compared to 1.8% at the end of 2019).
- The Internet traffic of the fixed broadband access users during 2020, reached on average 1.6 TB per subscriber (versus 1.1 TB per subscriber in 2019).
- As far as the operators' shares are concerned, based on the number of their broadband lines, COSMOTE is ahead (45%-55%) followed by VODAFONE (15%-25%) (Table 1.14).

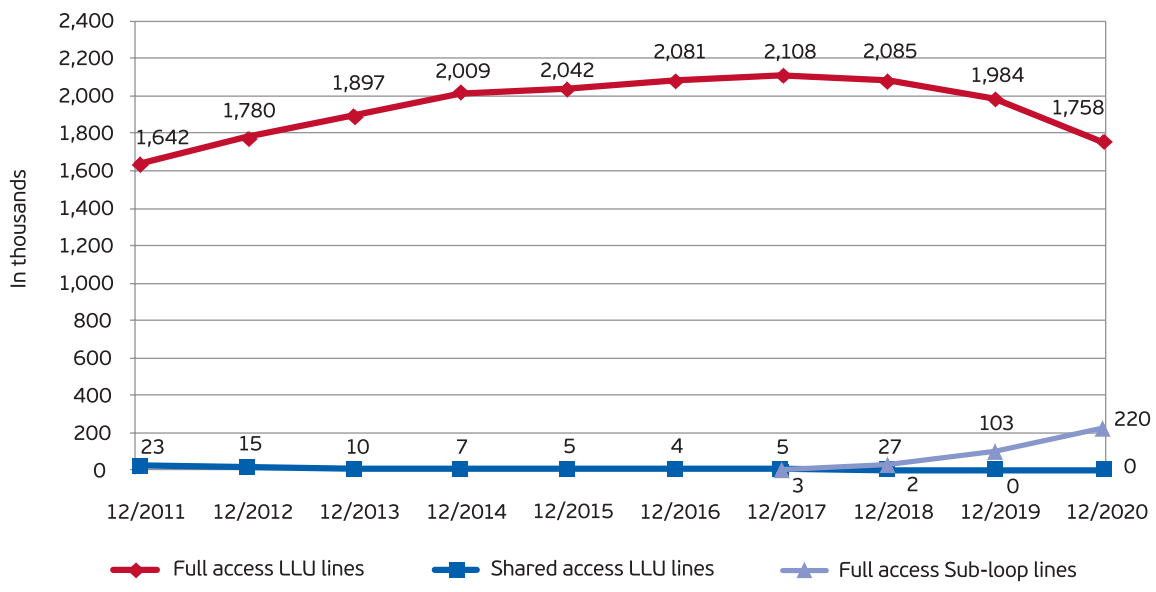
18. Those lines are included in the NGA access lines when calculating the individual shares.
19. OTE supplies those lines to the alternative operators so they can offer VPU products.

Chart 1.54: Evolution of broadband lines



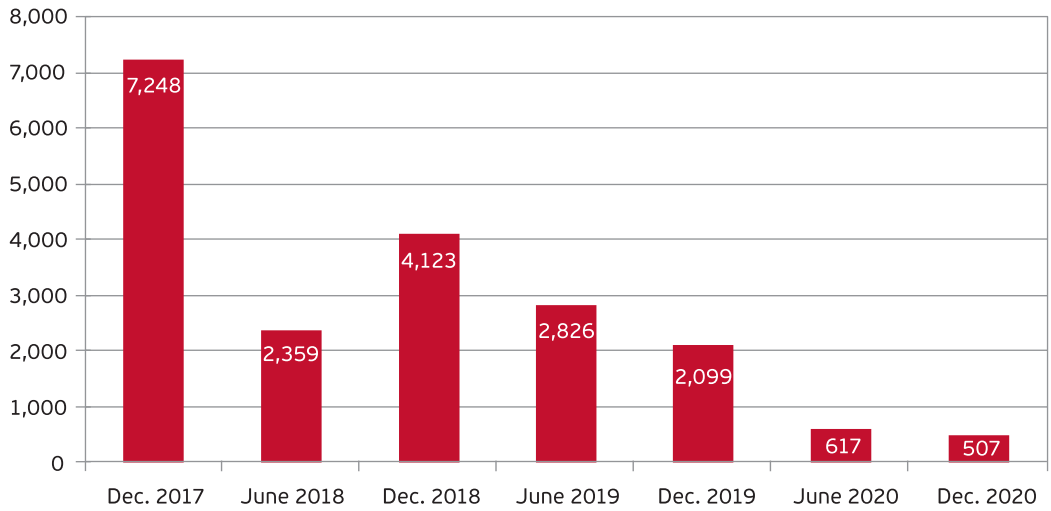
Source: EETT (based on data provided by the licensed operators)

Chart 1.55: Evolution of LLU lines



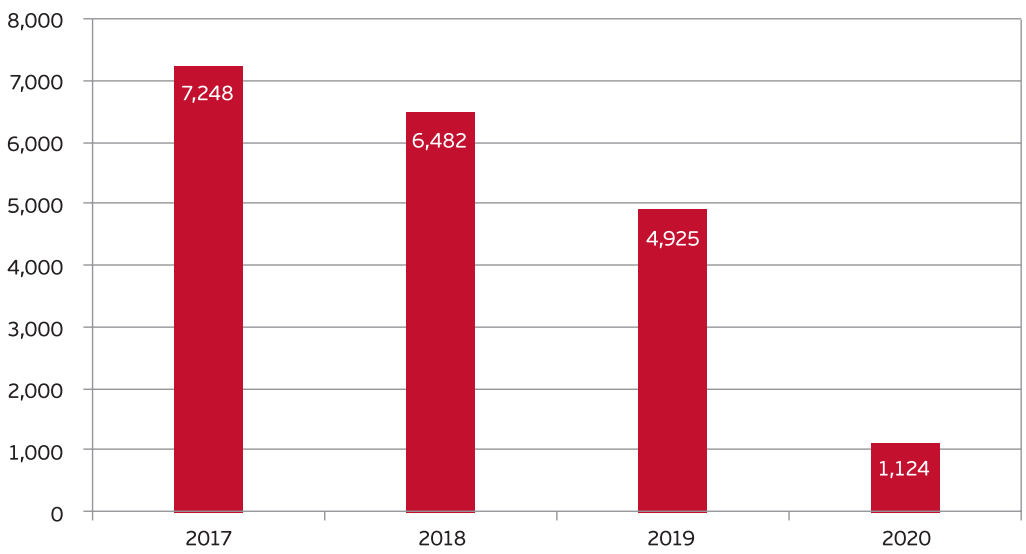
Source: EETT (based on data provided by the licensed operators)

Chart 1.56: Upgrades of street cabins per semester



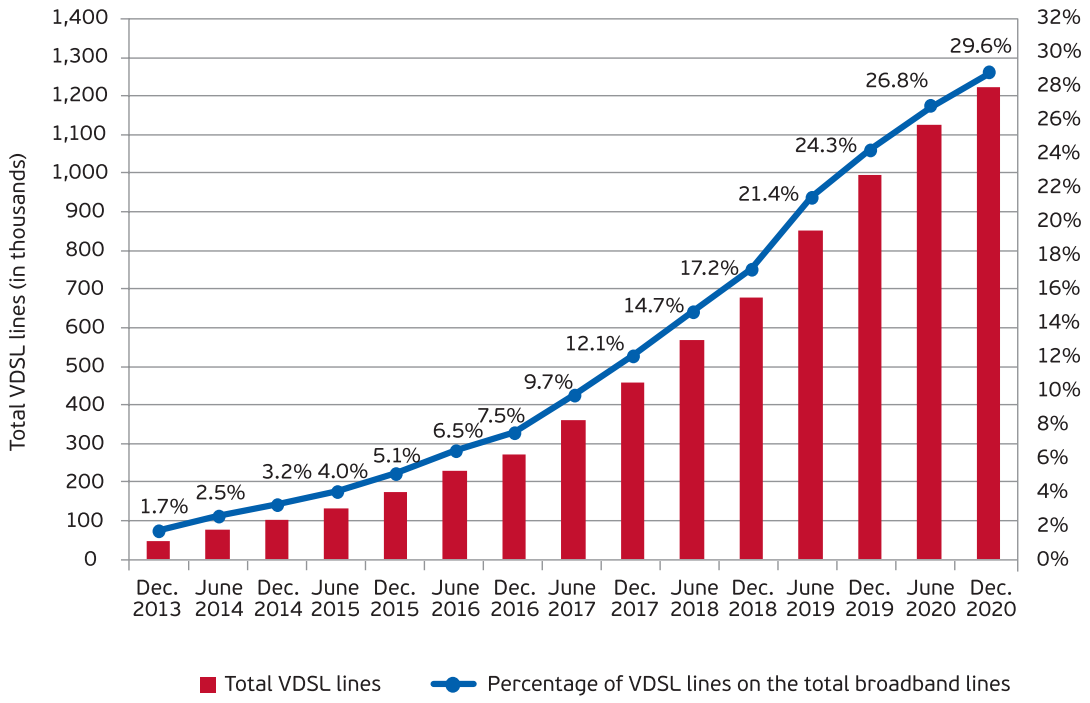
Source: EETT (based on data provided by the licensed operators)

Chart 1.57: Upgrades of street cabins per year



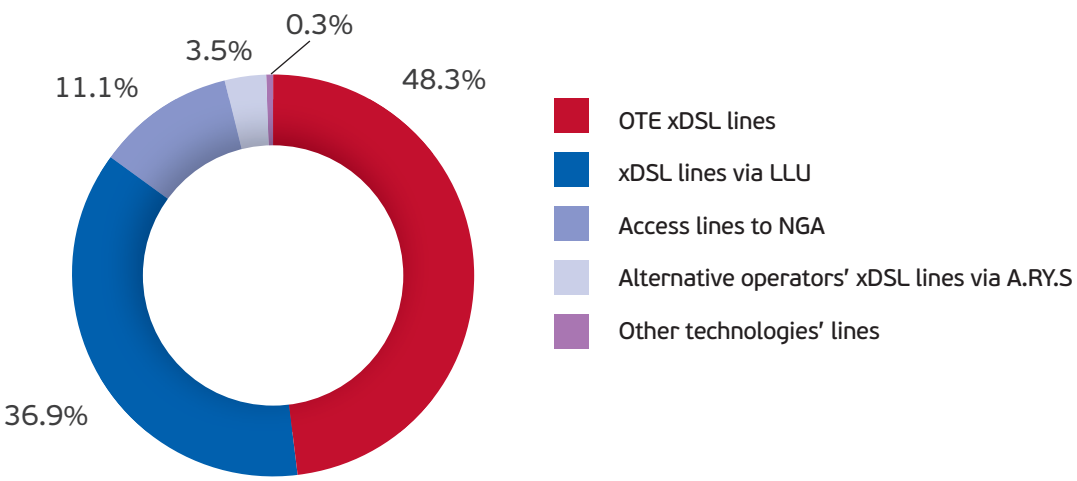
Source: EETT (based on data provided by the licensed operators)

Chart 1.58: Evolution of VDSL lines



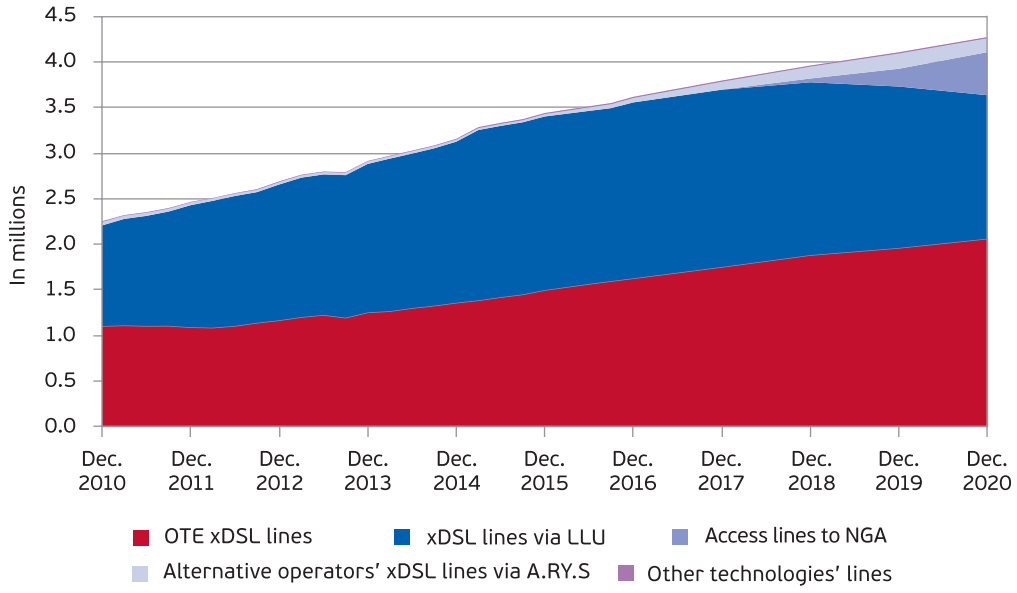
Source: EETT (based on data provided by the licensed operators)

Chart 1.59: Breakdown of broadband lines per technology, December 2020



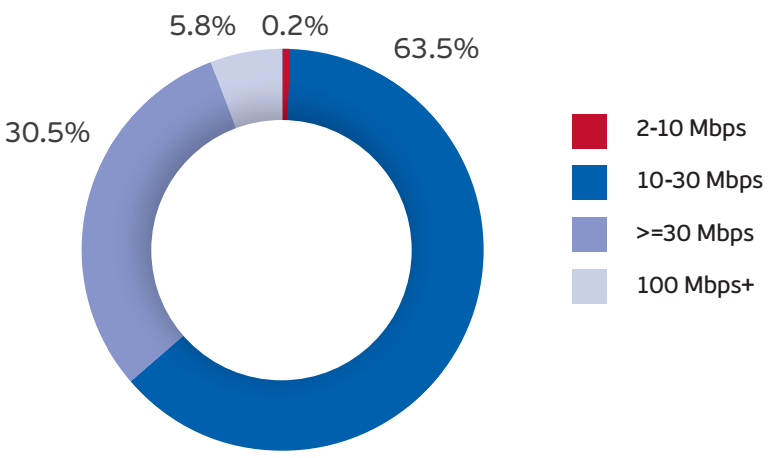
Source: EETT (based on data provided by the licensed operators)

Chart 1.60: Evolution of broadband lines per technology



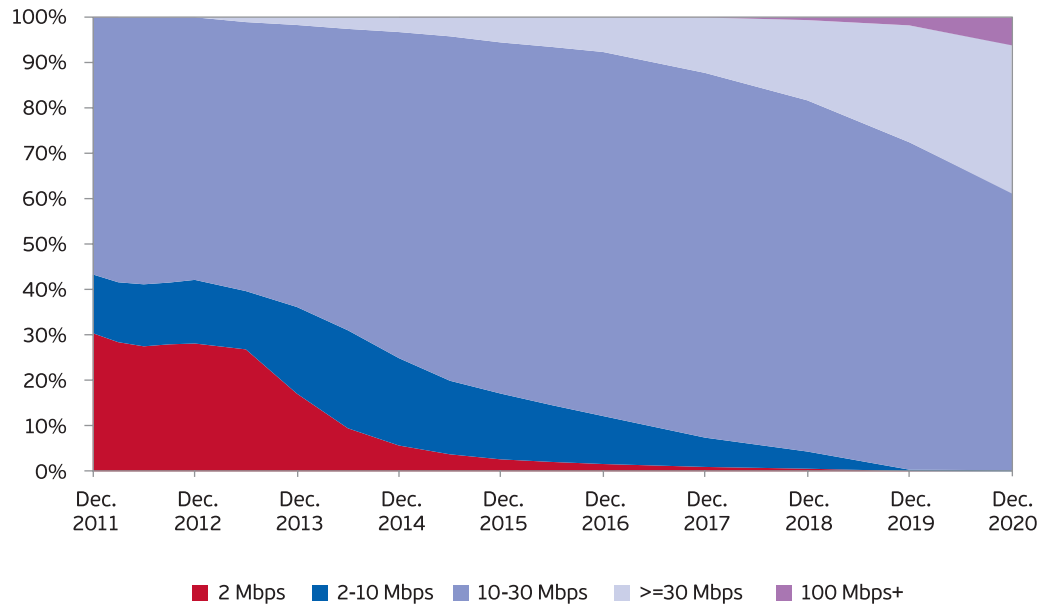
Source: EETT (based on data provided by the licensed operators)

Chart 1.61: Breakdown of broadband lines per nominal download access speed, December 2020



Source: EETT (based on data provided by the licensed operators)

Chart1.62: Evolution of broadband lines' nominal download access speeds



Source: EETT (based on data provided by the licensed operators)

Table 1.14: Shares of fixed broadband access operators (based on the number of lines)

	Dec. 2020
COSMOTE	45%-55%
VODAFONE	15%-25%
WIND	15%-25%
FORTHNET	10%-15%

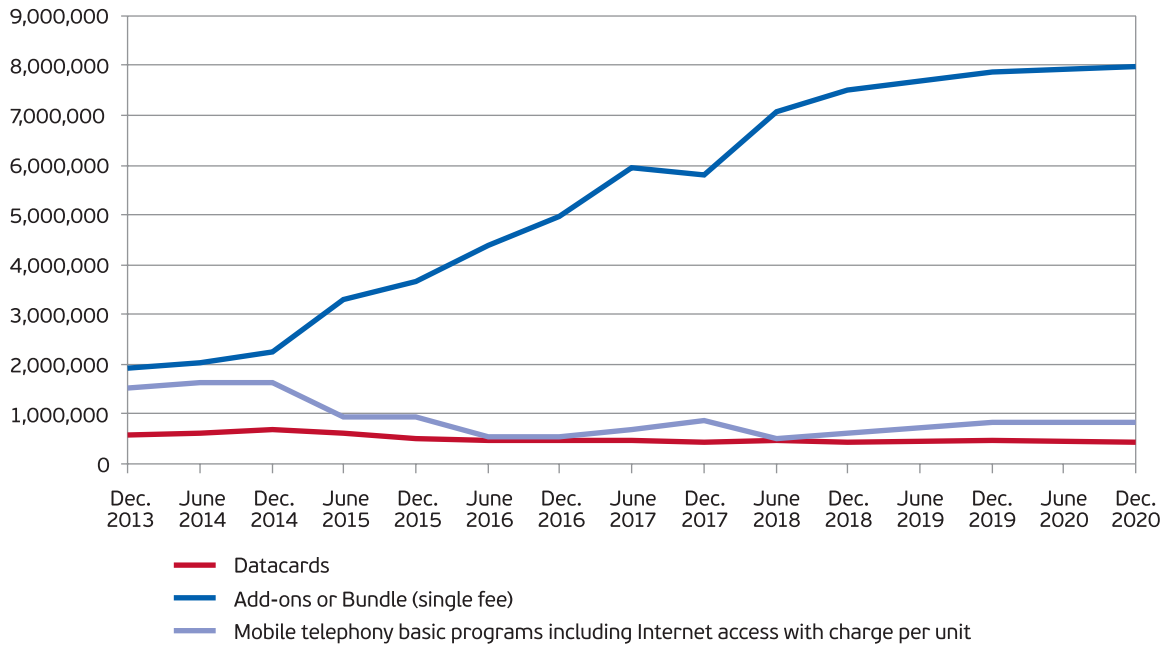
Source: EETT
(based on data provided by the licensed operators)

Mobile broadband

The total active mobile connections that were used for data services increased annually by 1.2%, reaching 9,231,228 at the end of 2020, versus 9,122,462 at the end of 2019 (Chart 1.63). For the majority of these connections (7,962,394 compared to 7,855,101 in 2019), either an add-on data package was selected (on top of mobile voice services) or data services were used via mobile bundled (i.e. voice and data access) programs offered for a single fee. For 840,393 connections (compared to 812,812 in 2019), their subscribers opted for data services via mobile telephony programs that include, among others, Internet access with a charge per unit. Lastly, 428,441 Internet connections concerned datacards. The overwhelming majority of Internet traffic was carried through 4G networks (91.3% in December 2020 versus 91.5% in December 2019) (chart 1.64) while the average traffic per user in 2020 was estimated at 62.25 GB for the 4G subscribers (compared to 39.2 GB in 2019).

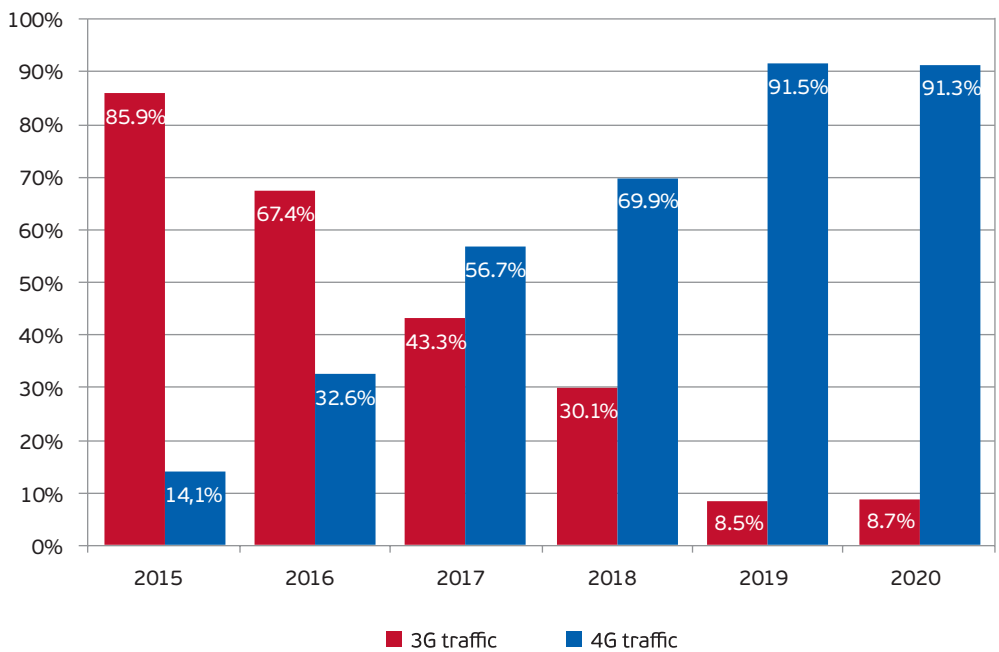
Chart 1.65 presents the change of 3G and 4G networks population coverage in the country over time. During 2020, the 4G and 3G networks population coverage percentages remained stable (98.8% and 99.7% respectively).

Chart 1.63: Evolution of mobile connections with Internet usage



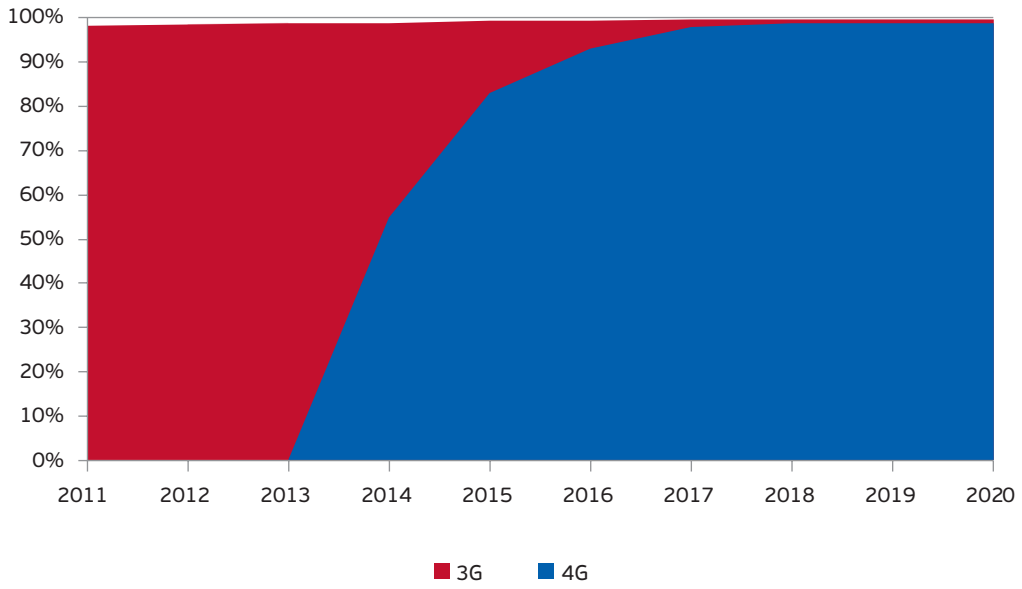
Source: EETT (based on data provided by the licensed operators)

Chart 1.64: Volume comparison of Internet traffic (%) between 3G and 4G networks



Source: EETT (based on data provided by the licensed operators)

Chart 1.65: Over time change of 3G and 4G networks population coverage (%)



Source: EETT (based on data provided by the licensed operators)

1.2.6. Pay-TV

During 2020 and excluding the Over the Top (OTT) providers (e.g. Netflix, Amazon, Cinobo, etc.), pay-audiovisual content services (i.e. pay-TV) in Greece were being provided by the largest operators of electronic communications networks (or companies that belong to a group), namely OTE, FORTHNET MEDIA (NOVA), VODAFONE and WIND.

The pay-TV subscriptions provided by the electronic communications operators amounted to 1.11 million at the end of 2020, having increased by 4% compared to 2019 (1.07 million). It is noted that from 2020 and onwards, those subscriptions include all pay-TV subscriptions via an IP network (i.e. both those where the Internet access is obligatory via a broadband connection of the same network operator and those via a broadband connection of any network operator). About 72% of these subscriptions was via satellite and the remaining 28% via IP (Chart 1.66). The corresponding market shares are presented in Table 1.15

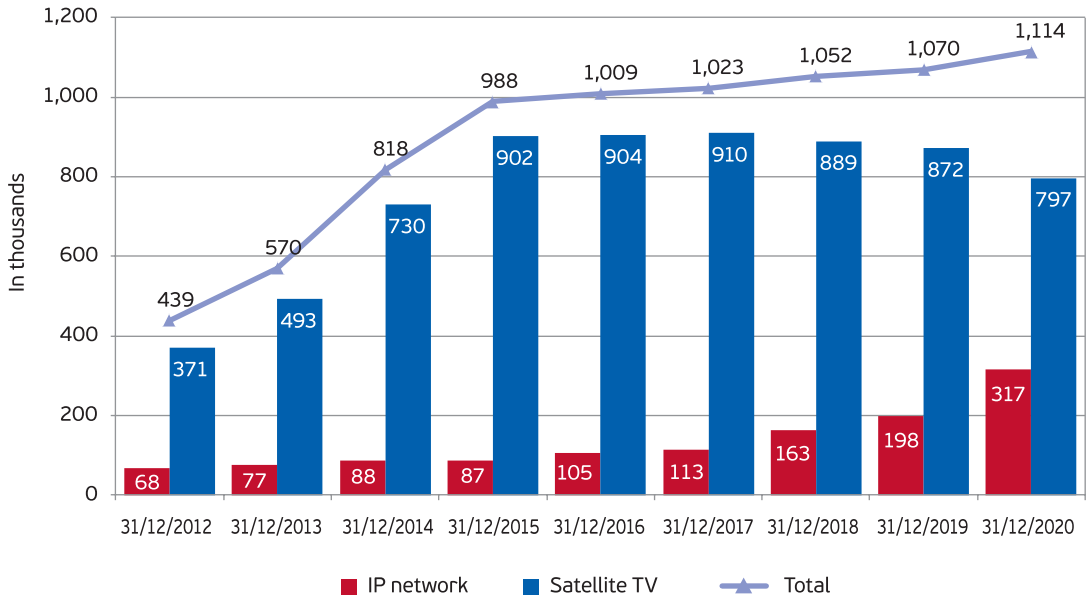
1.2.7. Bundled offers

Bundled offers generally refer to commercial offers that include two or more of the following services; fixed telephony, fixed broadband access, pay-TV and mobile service(s). It is noted that during 2020, EETT updated the definition used for the collection of bundled offers[20] and based on the available information, these changes/clarifications have little effect on maintaining the historicity of the data.

According to the data submitted by the operators that provide bundled offers[21], the total residential and non-residential bundled offers were over 4.28 million at the end of the 2020, recording a 3.6% increase, while the percentage of the fixed telephony connections that were bundled was estimated at 90%, compared to 87% in 2019.

20. Using clarifications and amendments concerning, inter alia, the extension of the pay-TV definition in order to include all the means for its provision.
21. In 2020, OTE-COSMOTE, FORTHNET-FORTHNET MEDIA (NOVA), VODAFONE and WIND provided bundled offers (FORTHNET is not currently active in providing bundled offers with mobile services).

Chart 1.66: Evolution of pay-TV subscriptions



Source: EETT (based on operators' data)

Table 1.15: Shares of pay-TV operators based on subscriptions

	31/12/2015	31/12/2016	31/12/2017	31/12/2018	31/12/2019	31/12/2020
CYTA	0%-5%	0%-5%	0%-5%	0%-5%	-	-
FORTHNET MEDIA (NOVA)	45%-55%	35%-45%	35%-45%	35%-45%	25%-35%	25%-35%
HOL	0%-5%	-	-	-	-	-
OTE	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%	45%-55%
VODAFONE	-	5%-10%(1)	5%-10%(1)	5%-10%(1))	10%-15%(1) (2)	10%-15%(1) (2)
WIND	-	-	-	0%-5%	5%-10%	5%-10%

Notes:
(1) Including HOL.
(2) Including CYTA.

Source: EETT (based on operators' data)

As far as the bundled offers with mobile services are concerned, it is clarified that, mobile-wise, all bundled offers, including either one at least post-paid connection or exclusively a pre-paid mobile(s)[22], have been counted and presented.

22. Commercially available as of October 2018.

Hence, the main conclusions for 2020 are as follows:

- Fixed telephony and fixed broadband access are basic components of the majority of the bundled offers that were commercially available (percentages of over 99% and almost 99% respectively) (Table 1.16).
- Bundled offers amounted to 4,282,002 at the end of 2020, increased by about 152 thousand compared to 2019 (4,130,376) (Chart 1.67). It is also noted that fixed telephony subscriptions as a total (bundled and unbundled) followed a slightly upward trend in the period 2015-2020 (Table 1.16).
- OTE-COSMOTE's share based on the total bundled offers was estimated at the range of [45%- 55%] at the end of 2020, followed by VODAFONE at the range of [15%-25%] and then by WIND and FORTHNET with their relative shares at the range of [10%-15%] (Table 1.17).
- The double play of fixed telephony and fixed broadband access was still the most popular bundled offer, with about 2.2 million subscriptions, making up 51% of the total bundled offers. The triple play of fixed telephony, fixed broadband access and mobile services is the second most popular offer with 1.55 million subscriptions (36% of the total bundled offers). Lastly and way below are the triple play of fixed telephony, fixed broadband access and pay-TV and the quadruple play, making up, at the end of 2020, 8% and 4% respectively of the total bundled offers (Charts 1.68 and 1.69).
- The pay-TV subscriptions increased by about 40 thousand in 2020, amounting to 1.11 million at the end of 2020. About 56% of those concerned unbundled pay-TV subscriptions, namely subscriptions that are not part of a bundled offer (Chart 1.70). It is clarified that as unbundled pay-TV subscriptions are also considered those that are bought jointly with other services (from the same operator or group of companies) but do not fall under the bundle offer's definition in order to be counted as such[23].
- Bundled offers with mobile services (post-paid and pre-paid) reached 1.8 million at the end of 2020, making up about 41% of the total bundled offers compared to 36% at the end of 2019 (Chart 1.71). It is noted that the considerable increase of this percentage during the last three years is attributed, inter alia, to the provision of bundled offers with pre-paid connections. 88% of those (i.e. 1,553,116) concerned the triple play fixed telephony, fixed broadband access and mobile services, 9% (161,235) was the quadruple play and about 2% (44,869) pertained to other bundled offers (Chart 1.72 and Table 1.16).
- OTE-COSMOTE's market share based on the bundled offers that include mobile services was, at the end of 2020, at the range of [55%-65%] whereas VODAFONE's and WIND's shares ranged between [15%-25%] (Table 1.18).
- In 2020, the fixed-mobile bundled offers[24] increased by about 280 thousand while the SIM cards that participate in them grew by roughly 555 thousand reaching 2.7 million[25] (Chart 1.73). Finally, the estimated average number of SIM cards per bundled offer with mobile services was 1.5 at the end of 2020.

23. For example and according to the definition used, buying jointly from the same operator of (a) a double play of fixed telephony and fixed broadband access and of (b) a pay-TV subscription is not considered as triple play if the price that the user pays equals the sum of the prices of the individual (a) and (b) services.
24. It is clarified that fixed-mobile bundled offers are those that include (a) "Fixed telephony" and/or "Fixed broadband access" and (b) "Mobile service", whether or not they include "Pay-TV".
25. The bundled offer that includes mobile services may correspond, mobile-wise, to more than one SIM card, post-paid or/and pre-paid.

Table 1.16: Number of bundled offers, fixed connections and SIM cards

Bundled offers (residential and non-residential)	2015	2016	2017	2018	2019	2020
"Fixed telephony" and "Fixed broadband access" (2-Play)	1,896,454	2,092,681	2,405,296	2,393,190	2,326,067	2,197,956
"Fixed telephony" and "Fixed broadband access" and "Pay-TV"(3-Play)	715,289	630,690	411,542	355,642	327,913	324,826
"Fixed telephony" and "Fixed broadband access" and "Mobile services" (3-Play)	651,515	629,050	745,603	1,047,881	1,321,926	1,553,116
"Fixed telephony" and "Fixed broadband access" and "Pay-TV" and "Mobile services" (4-Play)	20,982	137,754	89,059	80,812	102,255	161,235
Other bundled offers	83,611	82,614	41,651	49,416	52,215	44,869
Total bundled offers	**3,367,851**	**3,572,789**	**3,693,150**	**3,926,941**	**4,130,376**	**4,282,002**
Fixed telephony connections (residential and non-residential)	Connections					
Fixed telephony connections that are part of bundled offers on the total fixed telephony connections	72%	75%	78%	82%	87%	90%
Unbundled fixed telephony connections on the total fixed telephony connections	28%	25%	22%	178	13%	10%
Total fixed telephony connections	**4,725,256**	**4,733,425**	**4,737,871**	**4,766,317**	**4,781,472**	**4,830,844**
Mobile SIM cards (residential and non-residential)	SIM cards					
Number of SIM cards (for mobile telephony and/or mobile broadband) participating in fixed-mobile bundled offers	798,034	969,173	1,163,489	1,350,553	2,129,366	2,679,564

Source: EETT (based on data provided by the licensed operators)

Chart 1.67: Evolution of bundled offers

Source: EETT (based on data provided by the licensed operators)

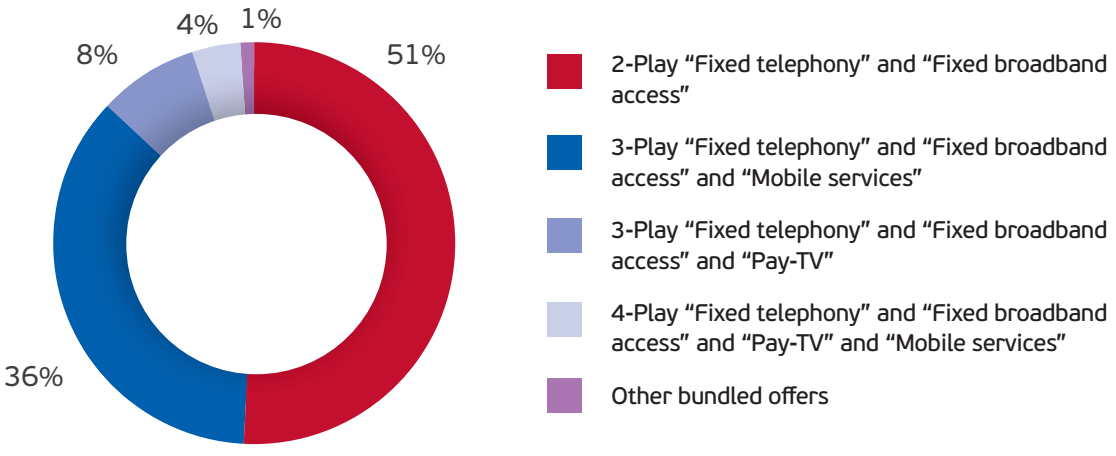
Table 1.17: Shares based on total number of bundled offers

	31/12/2015	31/12/2016	31/12/2017	31/12/2018	31/12/2019	31/12/2020
CYTA	5%-10%	5%-10%	5%-10%	5%-10%	-	-
FORTHNET	15%-25%	15%-25%	10%-15%	10%-15%	10%-15%	10%-15%
HOL-VODAFONE	15%-25%	-	-	-	-	-
OTE-COSMOTE	35%-45%	35%-45%	35%-45%	45%-55%	45%-55%	45%-55%
VODAFONE	0%-5%	15%-25%(1)	15%-25%(1)	15%-25%(1)	15%-25% (1) (2)	15%-25%(1) (2)
WIND	10%-15%	15%-25%	15%-25%	15%-25%	10%-15%	10%-15%

Notes:
(1) Including HOL.
(2) Including CYTA.

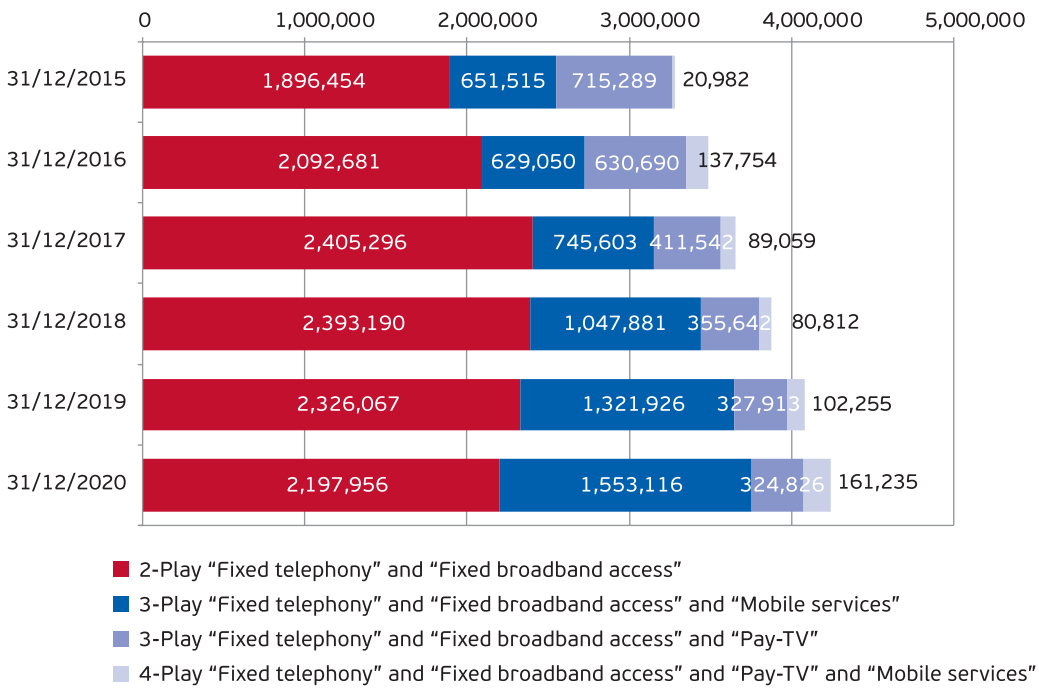
Source: EETT (based on data provided by the licensed operators)

Chart 1.68: Breakdown of bundled offers per specific type, December 2020



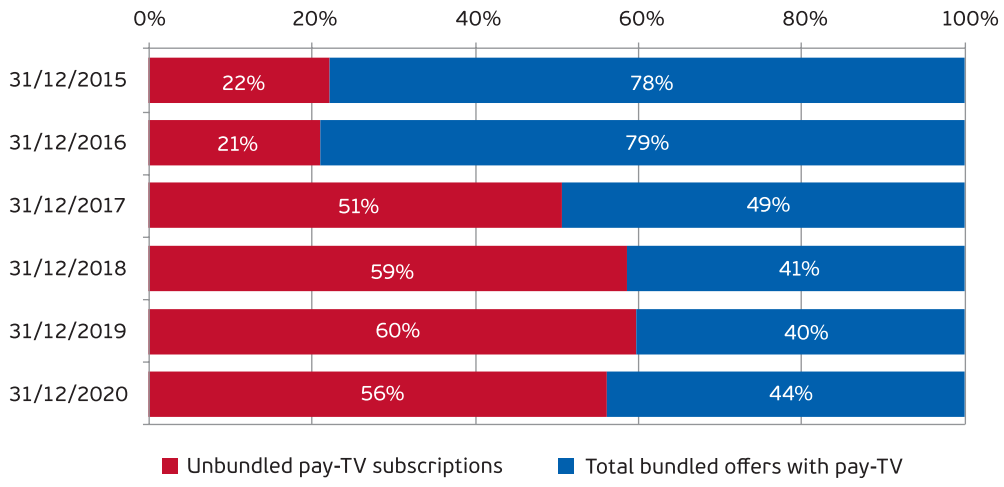
Source: EETT (based on data provided by the licensed operators)

Chart 1.69: Most popular bundled offers per specific type



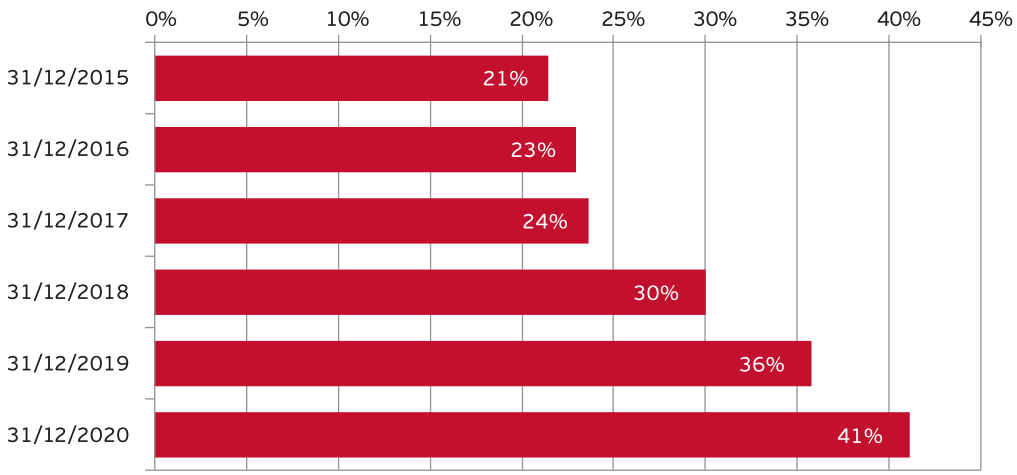
Source: EETT (based on data provided by the licensed operators)

Chart 1.70: Breakdown of bundled and unbundled pay-TV subscriptions



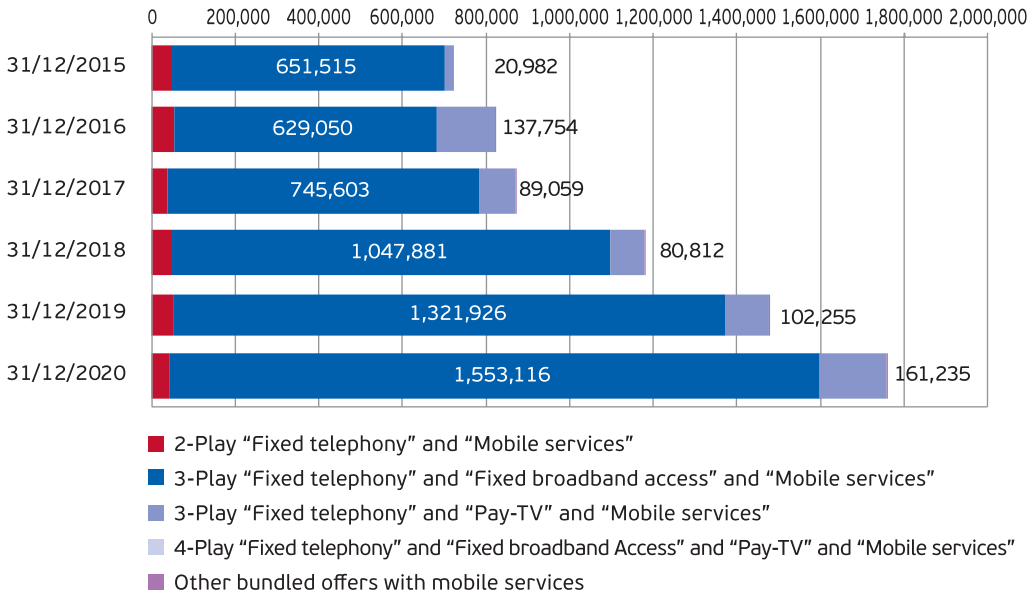
Source: EETT (based on data provided by the licensed operators)

Chart 1.71: Bundled offers with mobile services as a % on the total bundled offers



Source: EETT (based on data provided by the licensed operators)

Chart 1.72: Bundled offers with mobile services



Source: EETT (based on data provided by the licensed operators)

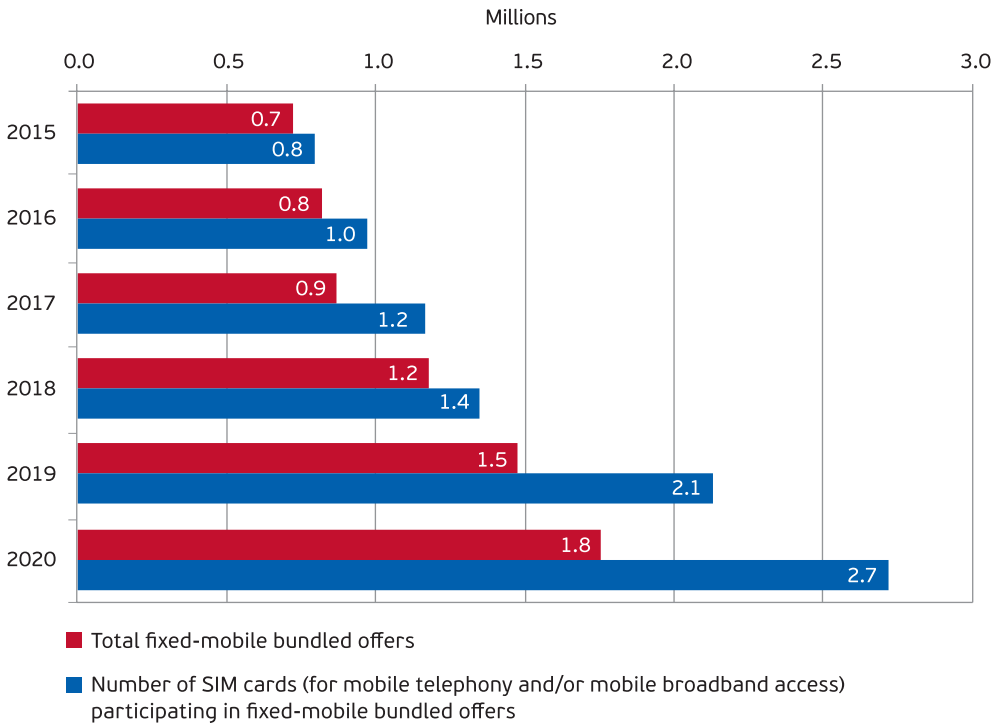
Table 1.18: Shares based on total number of bundled offers with mobile services

	31/12/2015	31/12/2016	31/12/2017	31/12/2018	31/12/2019	31/12/2020
CYTA	0%-5%	0%-5%	0%-5%	0%-5%	-	-
HOL-VODAFONE	25%-35%	-	-	-	-	-
OTE-COSMOTE	35%-45%	35%-45%	35%-45%	45%-55%	55%-65%	55%-65%
VODAFONE	0%-5%	25%-35%(1)	25%-35%(1)	25%-35%(1)	15%-25%(1) (2)	15%-25%(1) (2)
WIND	25%-35%	25%-35%	25%-35%	15%-25%	15%-25%	15%-25%

Notes:
(1) Including HOL.
(2) Including CYTA.

Source: EETT (based on data provided by the licensed operators)

Chart 1.73: Fixed-mobile bundled offers and respective number of SIM cards



Source: EETT (based on data provided by the licensed operators)

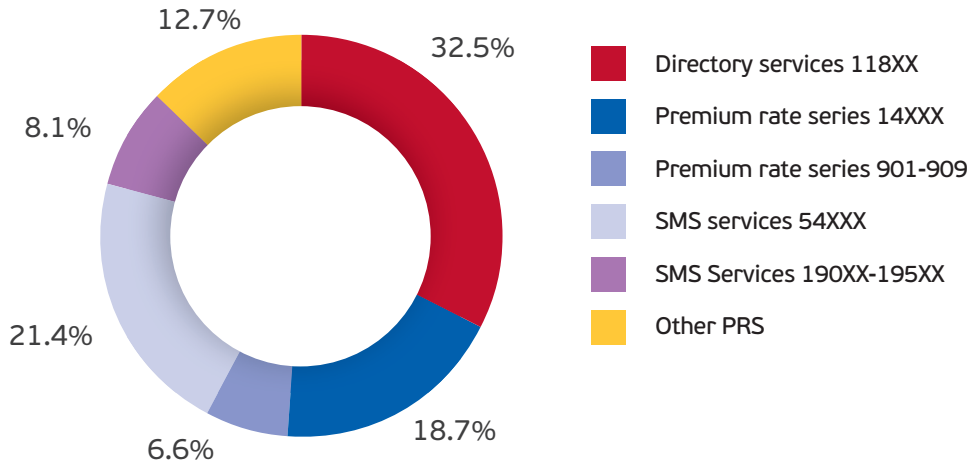
1.2.8. Premium Rate Services (PRS) and directory services

This section presents information on the traffic and revenues of telecommunications operators in 2020 from Premium Rate Services (PRS) and directory services. In particular, the figures have been based on data collected from 22 operators out of a total of 54 licensed companies.

In 2020, the total invoiced traffic was 26 million minutes compared to 35 million minutes in 2019 and 30.4 million calls/messages (compared to 46.1 million calls/messages in 2019), generating revenues of 56.7 million euros, reduced by 33% compared to 2019.

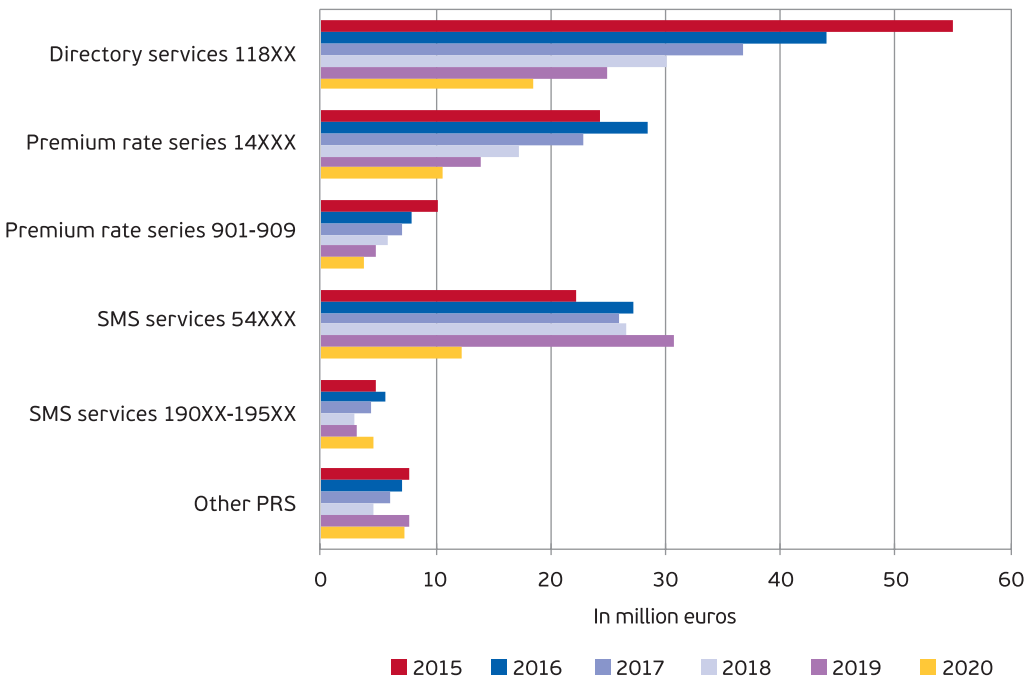
In 2020, the revenues from directory services 118XX amounted to 18.6 million euros, accounting for 32.5% of the total market and having dropped by 25% compared to 2019. The revenues from SMS services (54XXX and 190XX-195XX) amounted to 16.8 million euros, making up 29.5% of the total market and having decreased considerably by 42.8% compared to 2019. The revenues from premium rate series (14XXX and 901-909) are estimated at 14.4 million euros with a 25% share. The rest PRS, i.e. those that do not fall in the above categories, accounted for 12.7% of the total turnover (7.2 million euros) (Charts 1.74 and 1.75).

Chart 1.74: PRS and directory services' shares based on revenues, 2020



Source: EETT (based on data provided by the licensed operators)

Chart 1.75: Evolution of PRS and directory services' total revenues

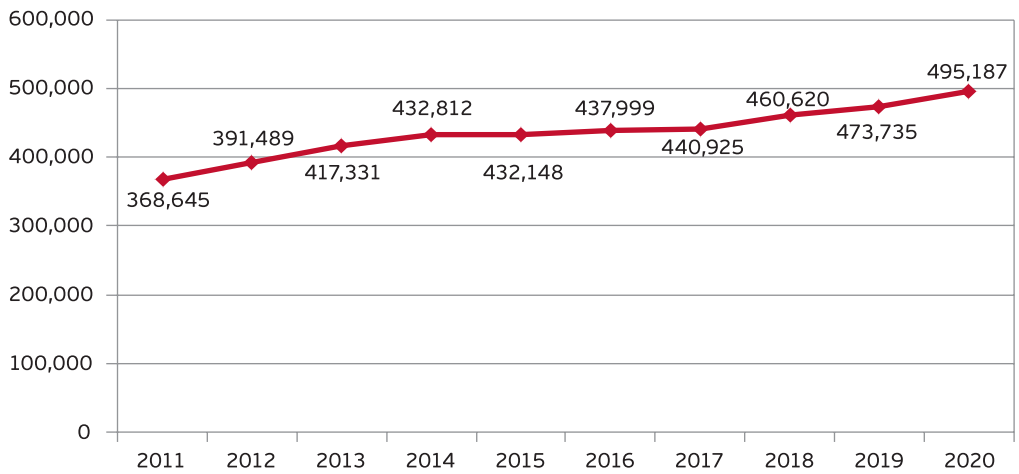


Source: EETT (based on data provided by the licensed operators)

1.2.9. Domain names [.gr] and [.ελ]

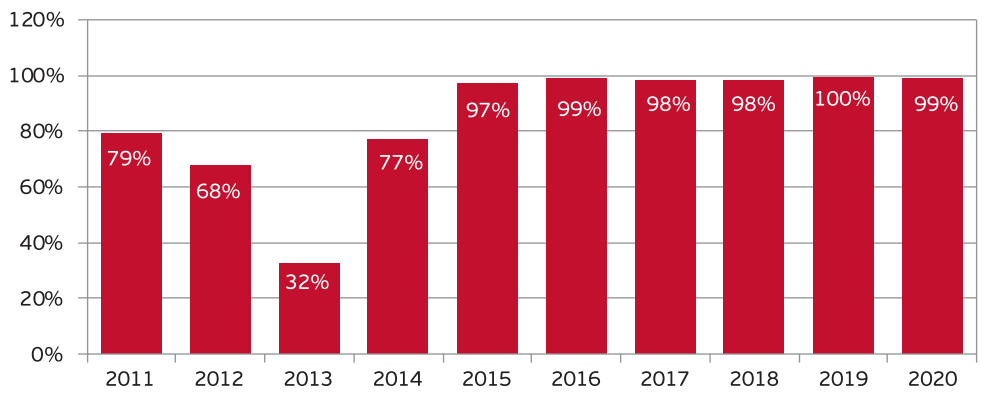
In 2020, the total number of [.gr] and [.ελ] domain names, including the sub-domains (.com.gr, .net.gr, .org.gr, .edu.gr, .gov.gr, .ελ), amounted to 495,187, registering a 4.5% increase compared to 2019. Chart 1.76 presents the evolution of the total domain names. With the exemption of the small drop in 2015, the assignment rate remains positive up till today. Chart 1.77 depicts the annual evolution of the average assignment rate over the number of submitted applications for the period 2011-2020. The average assignment rate in 2020 was 99%.

Chart 1.76: Evolution of domain names



Source: EETT

Chart 1.77: Average assignment rate for domain names



Source: EETT

1.2.10. Price Observatory's comparison of retail prices (Pricescope)[26]

Based on the data registered by the telecommunications operators in the Price Observatory (Pricescope), at the end of 2020, the companies FORTHNET, OTE-COSMOTE, VODAFONE and WIND were offering approximately 1,500 products/packages in the domestic market[27] (Chart 1.78), roughly at the same level as in 2019. These products entailed about 90,000 possible and dynamically produced combinations (product solutions) of basic products[28], add-ons[29] and offers[30]. The basic conclusions drawn from Pricescope are summarized as follows:

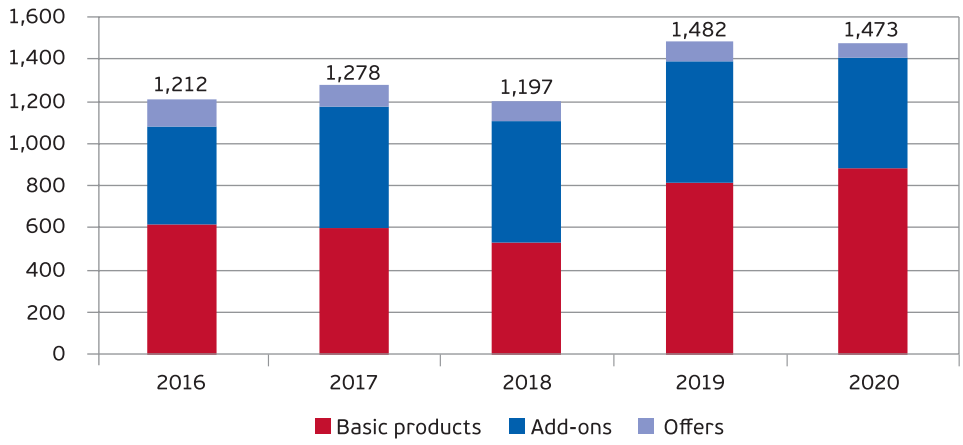
- VODAFONE had more commercially available products than the other operators, followed by COSMOTE and WIND (Chart 1.79).
- WIND and COSMOTE relied mainly on add-on programs (56% and 51% respectively), whereas FORTHNET, OTE and VODAFONE laid emphasis on basic programs (93%, 75% and 65% respectively) (Chart 1.80).
- Less than one out of ten products was marketed as an offer, while around 40% of the products was add-ons, demonstrating the need for multiple bundled, differentiated and customized solutions (Chart 1.81).
- About 47% concerned mobile communications' products, with approximately 40% corresponding to mobile voice products and 7% to mobile broadband products. Thus, around 53% of the products concerned fixed communications, following an upward trend since 2016, having also at the same time integrated the increase of the TV programs. In 2020, this percentage remained stable (Charts 1.82 and 1.83).
- Just 3% of the mobile pre-paid voice products was registered by the operators as basic, while the ratio of the add-ons to the basic products appeared to be higher for mobile post-paid telephony compared to fixed telephony (Charts 1.84 till 1.86), showing though a decrease for mobile post-paid and being stable for fixed telephony, compared to the respective figures of 2019 (Chart 1.87).
- Approximately six out of ten products were addressed exclusively to residential customers. In contrast, about one out of five products targeted only business customers, while 17% of products targeted both customers groups (Chart 1.88).
- The mobile pre-paid products were mainly addressed to residential customers, while most of the mobile post-paid products were addressed to business customers. It is noted that proportionally most of business products were included among the mobile post-paid broadband access products (Chart 1.89).
- The programs of COSMOTE, FORTHNET and WIND were primarily addressed to residential customers, while a large percentage of VODAFONE's programs aimed at business customers. Most of OTE's programs were directed at both customers groups (Chart 1.90).
- About 38% of mobile telephony connections was post-paid ones, the overwhelming majority of them including call and data allowances[31].
- 63% of the mobile post-paid telephony programs consisted of a monthly fee up to 60 euros, with an average price[32] of 41 euros (39 euros in 2019), median price[33] of 35 euros (34 euros in 2019) and a call allowance of around 10,000[34] minutes (versus 6,000 minutes in 2019 based on the median price) (Chart 1.91)

---

26. The information of this section derives from data registered by the operators OTE-COSMOTE, VODAFONE, WIND, FORTHNET in the data repository of EETT Pricescope.
27. Setting aside commercially available products, there are also additional products registered that, even though are not commercially active, customers favor them and still use them. In addition, product differentiation does not solely depend on a different brand name but also on other specific features, such as the binding duration attached to a telecommunications service contract.
28. A basic product is a product that can be commercially available by itself i.e. a consumer can buy only that in order to meet his/her telecommunication needs.
29. An add-on is a product that is not commercially available by itself but must be combined with a basic product.
30. An offer is a basic or an add-on product, which is available under certain restrictive terms.
31. Based on the data submitted by the MNO during the first three quarters of 2020.
32. The average price (or arithmetic average) is the sum of the values of a group of numbers divided by their volume.
33. Median is the average of a group of numbers sorted by size. It is the number right in the middle, so that 50% of the sorted numbers is above the median and the other 50% below the median.
34. Unlimited call time is set at 45,000 minutes.

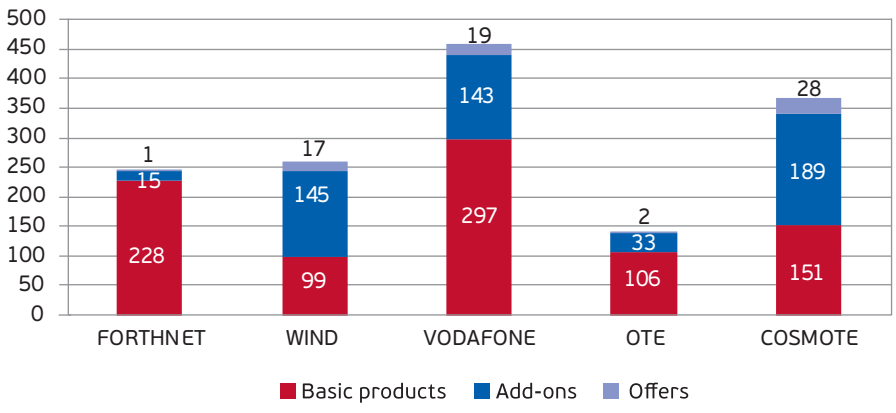
- 63% of the mobile post-paid telephony programs with voice and data services consisted of a monthly fee up to 60 euros, with an average and a median price of 15 euros and a data allowance of around 6 GB[35], based on the median price (Chart 1.92).
- 68% of the mobile post-paid telephony programs with only data services consisted of a monthly fee up to 30 euros, with an average and a median price of 15 euros and a data allowance of around 12 GB, based on the median price (Chart 1.93).

Chart 1.78: Number of products in the domestic market



Source: EETT

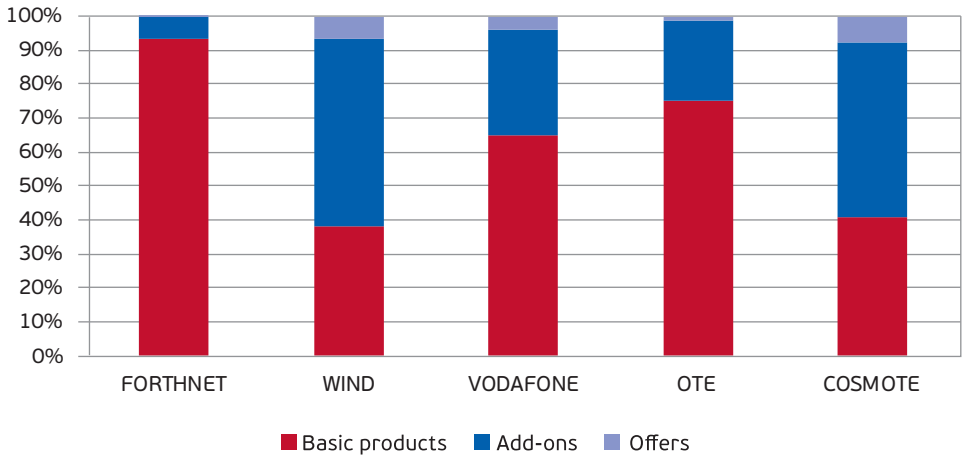
Chart 1.79: Commercially available products per operator, 2020



Source: EETT

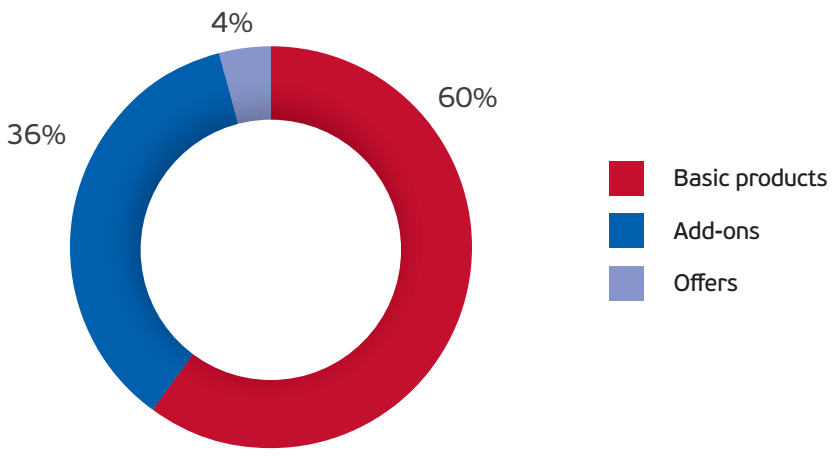
35. Unlimited data is set at 100 GB.

Chart 1.80: Breakdown of commercially available products per operator, 2020



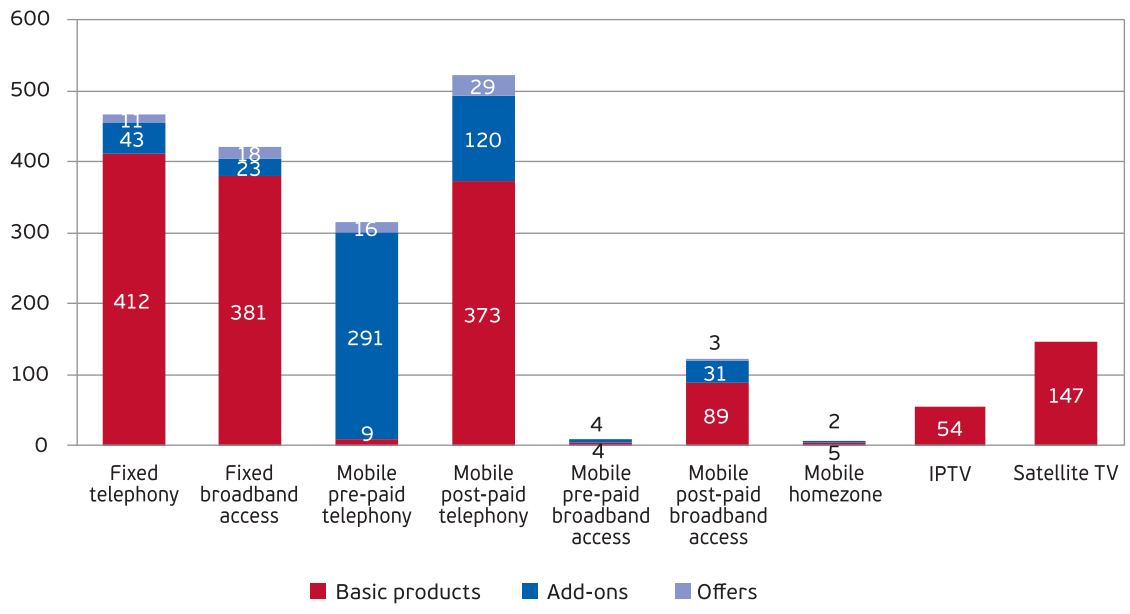
Source: EETT

Chart 1.81: Breakdown of products per product type, 2020



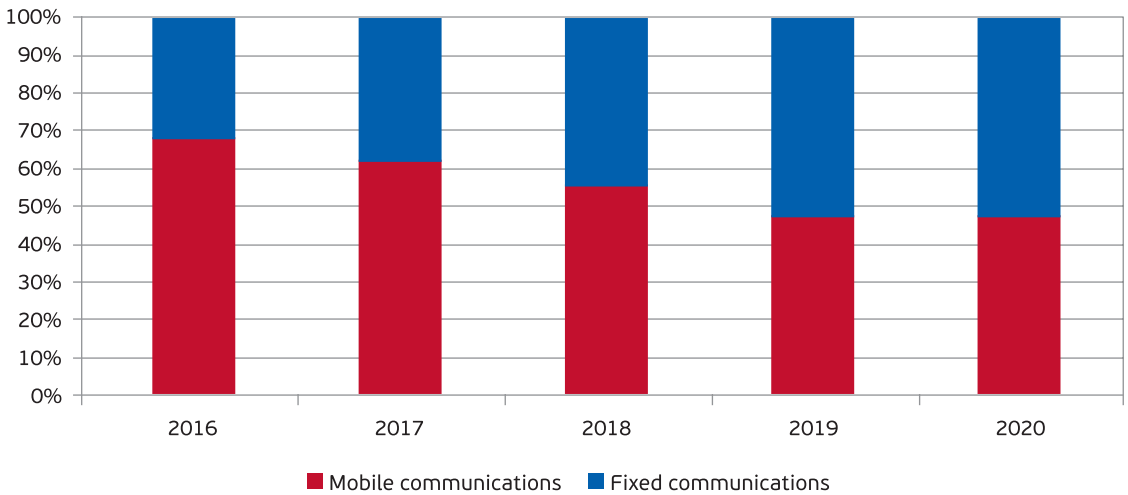
Source: EETT

Chart 1.82: Number of products per service, 2020



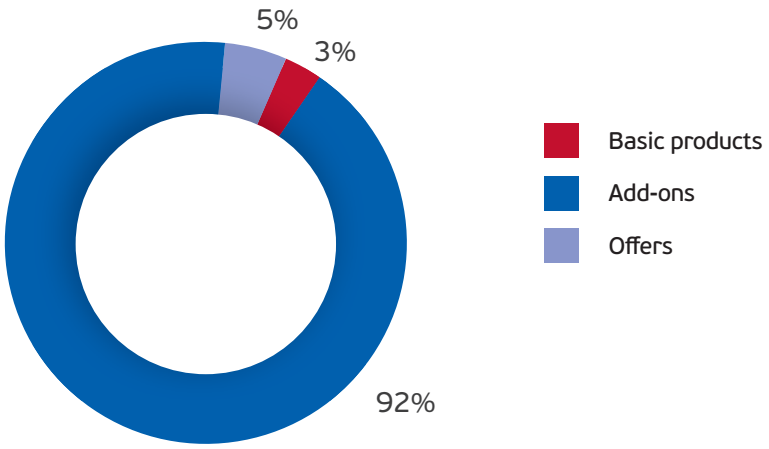
Source: EETT

Chart 1.83: Fixed versus mobile communications products



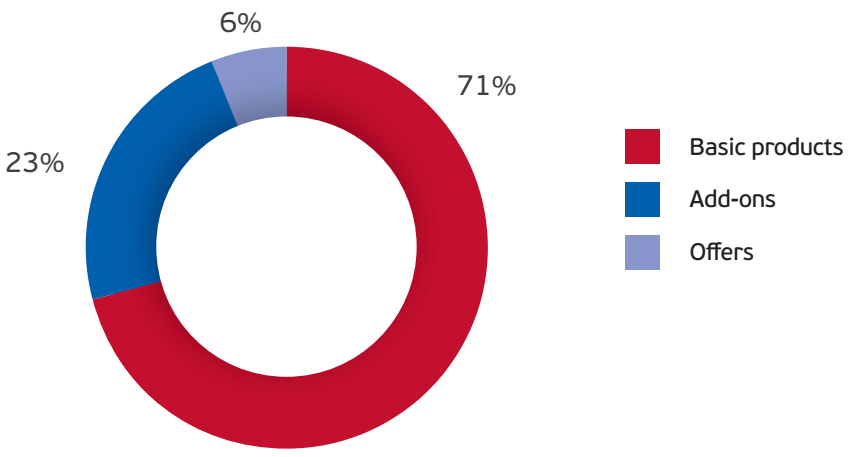
Source: EETT

Chart 1.84: Breakdown of mobile pre-paid telephony products per product type, 2020



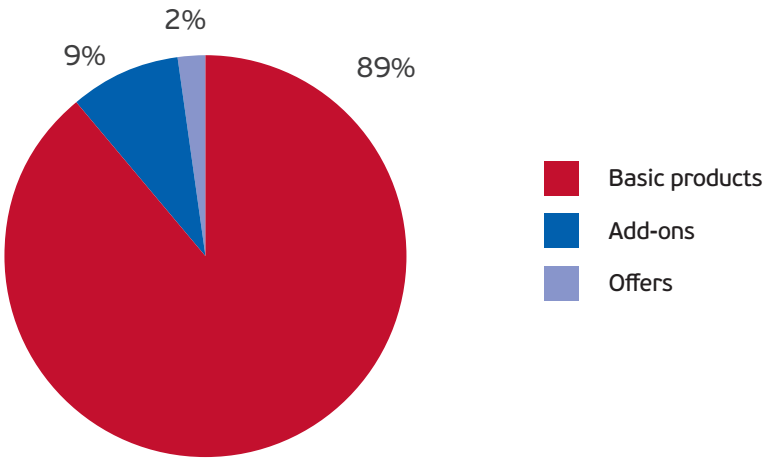
Source: EETT

Chart 1.85: Breakdown of mobile post-paid telephony products per product type, 2020



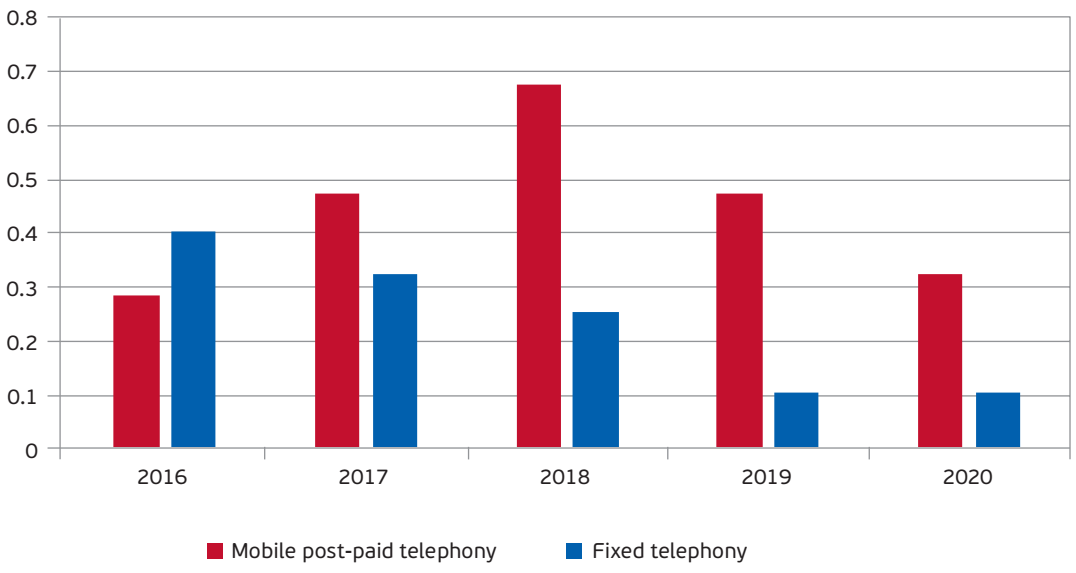
Source: EETT

Chart 1.86: Breakdown of fixed telephony products per product type, 2020



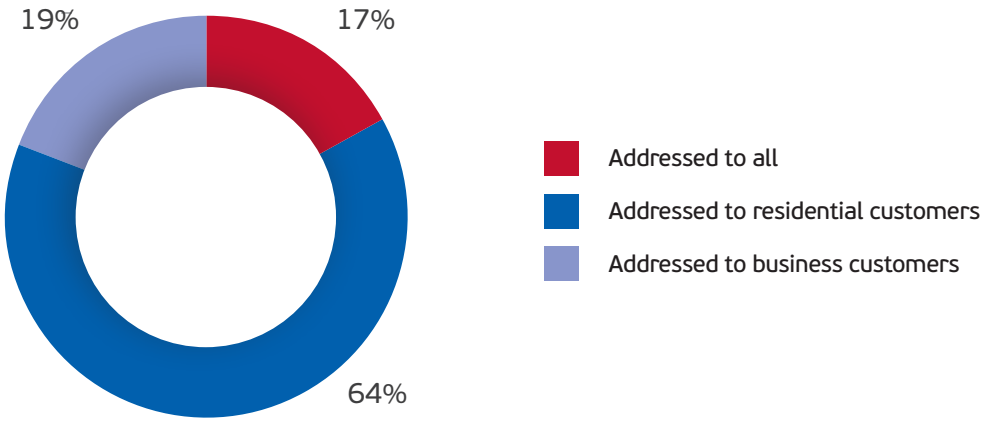
Source: EETT

Chart 1.87: Ratio of add-ons to basic products for mobile post-paid and fixed telephony



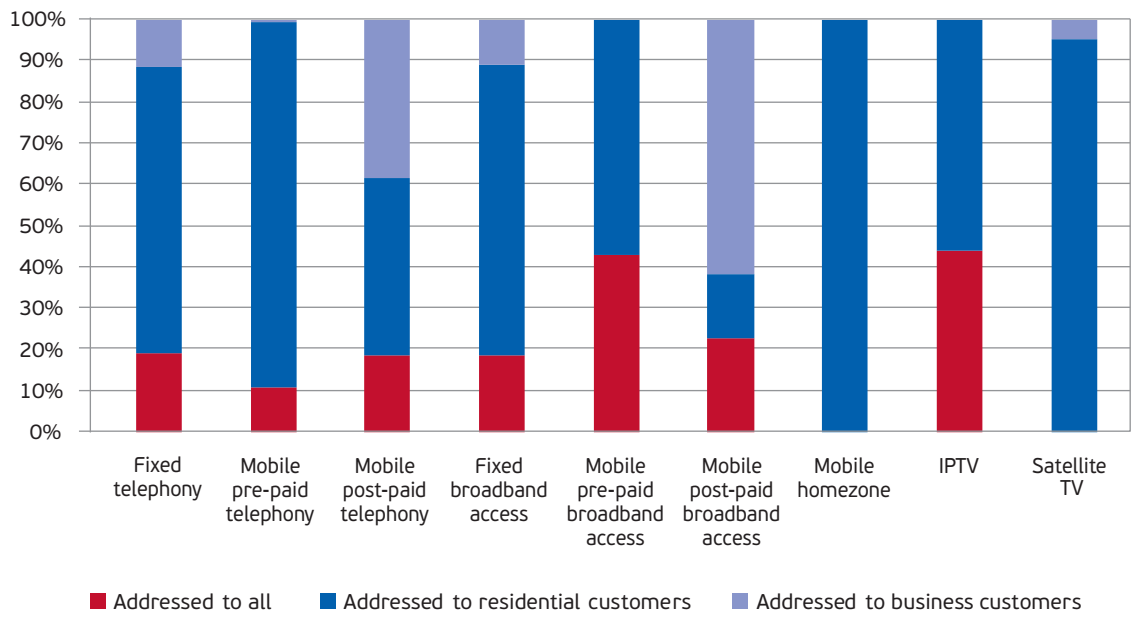
Source: EETT

Chart 1.88: Target-markets of telecommunications products, 2020



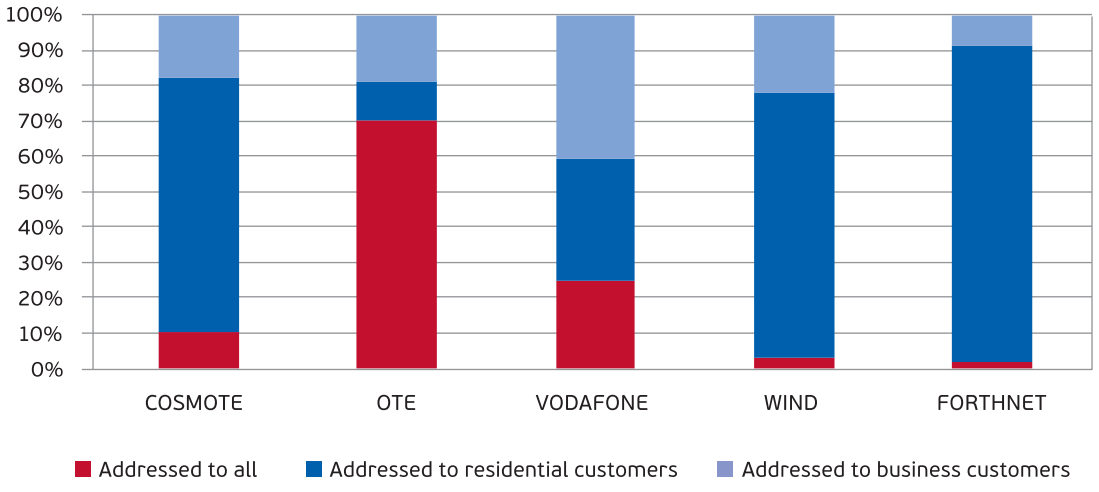
Source: EETT

Chart 1.89: Breakdown of products per service in the target-markets, 2020



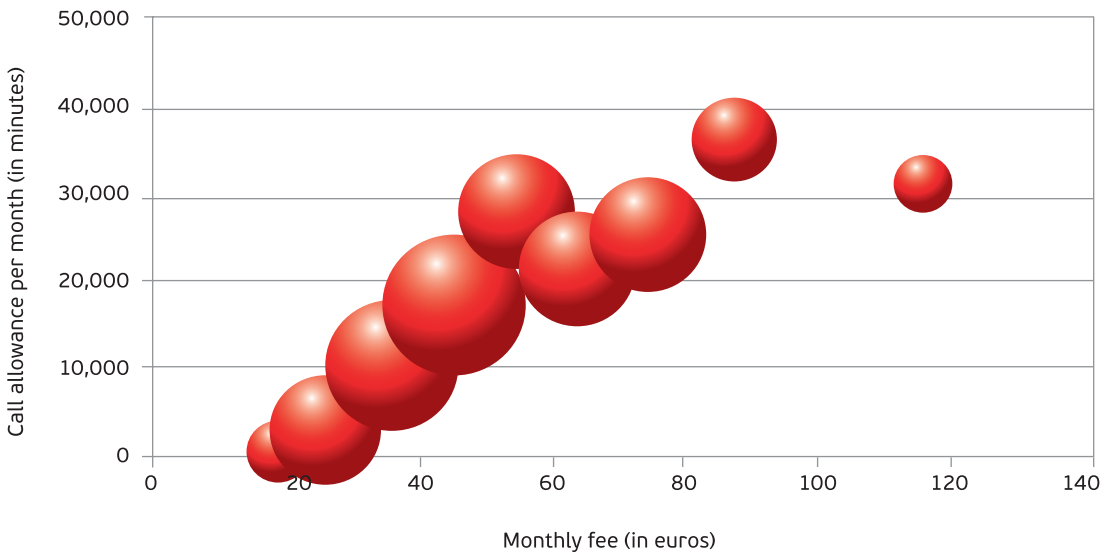
Source: EETT

Chart 1.90: Breakdown of products per operator in the target-markets, 2020



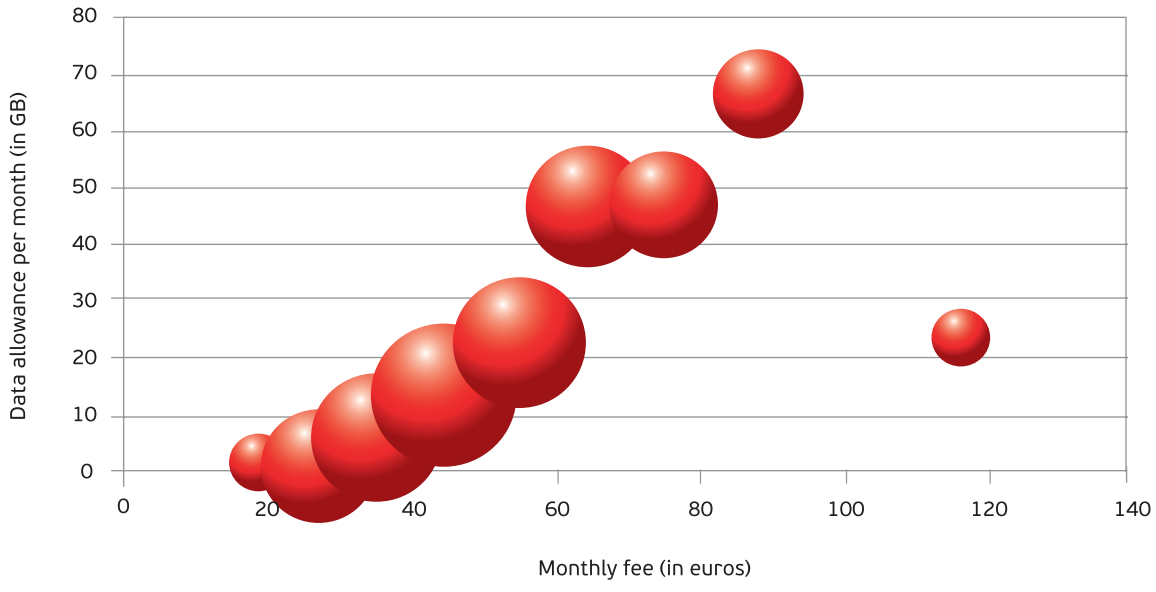
Source: EETT

Chart 1.91: Concentration of products with call allowance for mobile post-paid telephony, 2020



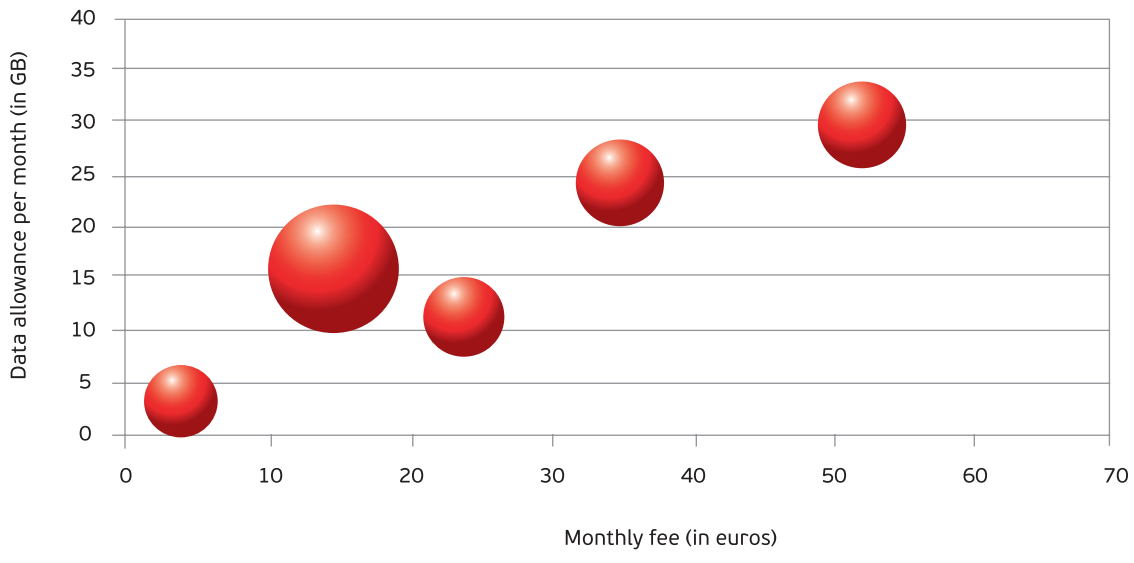
Source: EETT

Chart 1.92: Concentration of products with voice and data allowance services for mobile post-paid telephony, 2020



Source: EETT

Chart 1.93: Concentration of products with data allowance service for mobile post-paid telephony, 2020



Source: EETT

1.2.11. Comparison of Greek and European market indicators[36]

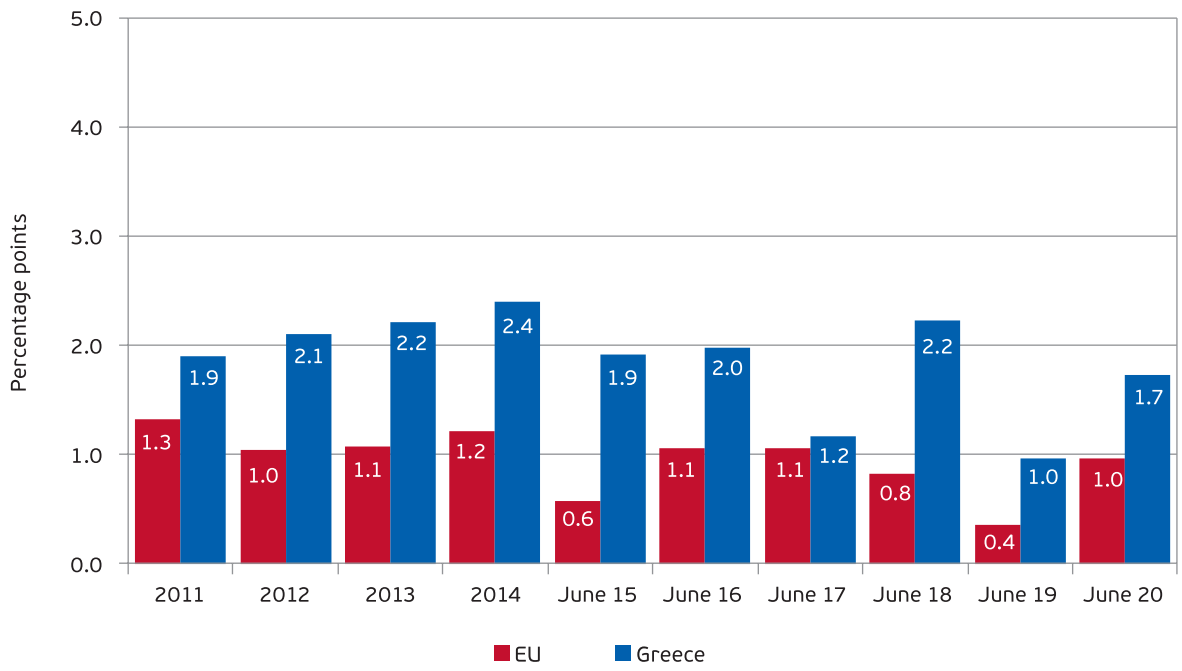
Fixed broadband

During 2020, the penetration of fixed broadband in the population, i.e. the number of broadband connections per 100 people, continued to increase in Greece (Chart 1.94).

In June 2020, the penetration of fixed broadband in the EU was 35.9% (Chart 1.95) compared to 34.9% in June 2019. The respective figures for Greece were 38.9% in June 2020 versus 37.1% in June 2019, increased by 1.7 percentage points (Chart 1.96) and thus ranking Greece in the 9th position among the EU member states. It should be mentioned that the penetration of fixed broadband in Greece has steadily exceeded the respective European average during the last five years (Chart 1.97).

Additionally, the demand for high-speed broadband access kept on growing, and as a result, the EU broadband connections with advertised download access speeds of at least 30 Mbps in June 2020 accounted for about 65.3% of total connections versus 59.7% in June 2019. Greece however, is an outlier among the EU member states with 33.2%, compared to 23.3% in June 2019 (Chart 1.98). Therefore and despite the diminishing gap between the Greek and the European average (32.1 percentage points in 2020 versus 36.4 in 2019), the challenge of convergence with the EU on issues of fixed broadband penetration still persists.

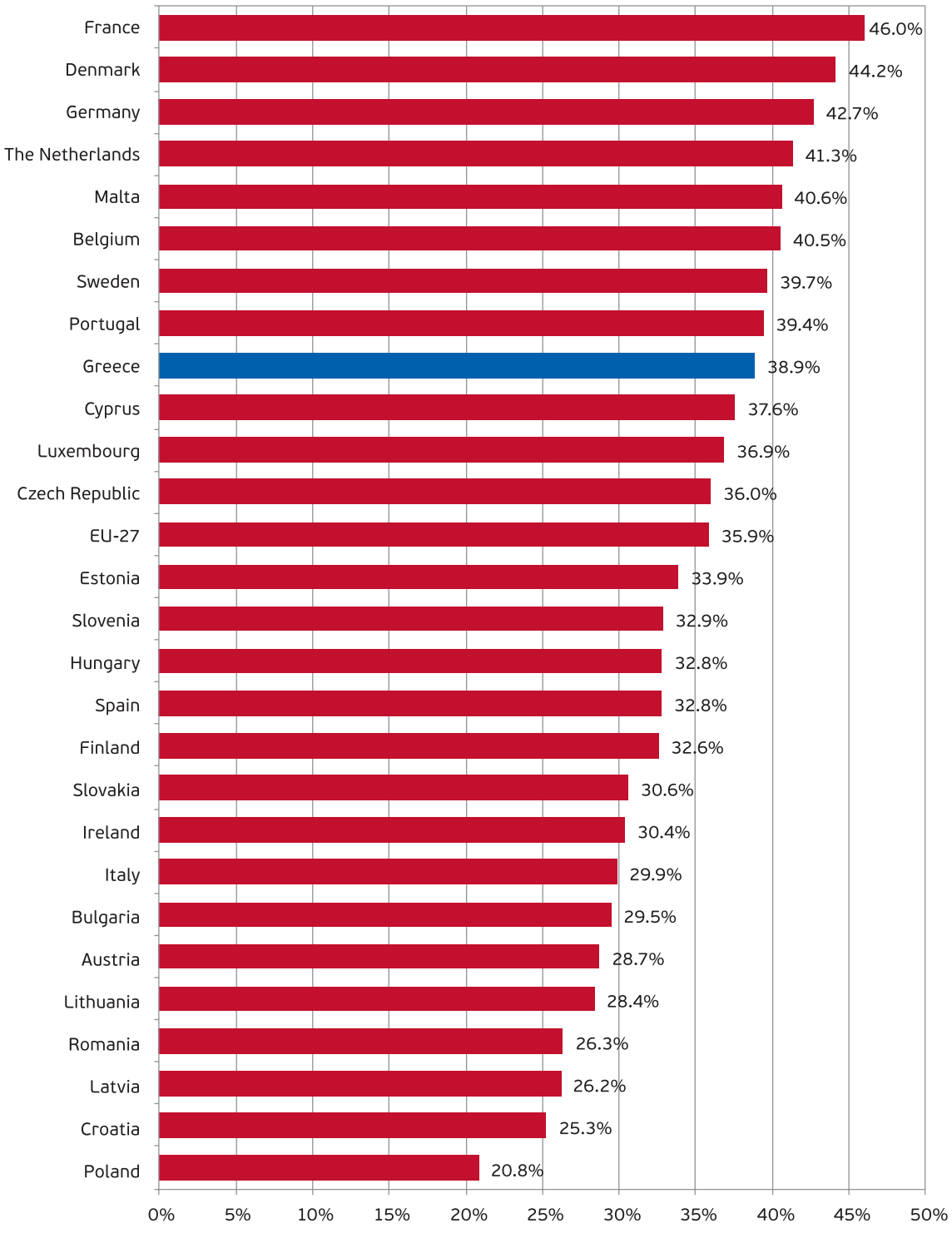
Chart 1.94: Change in fixed broadband penetration in Greece and the EU



Source: EETT (based on Digital Economy & Society Index data)

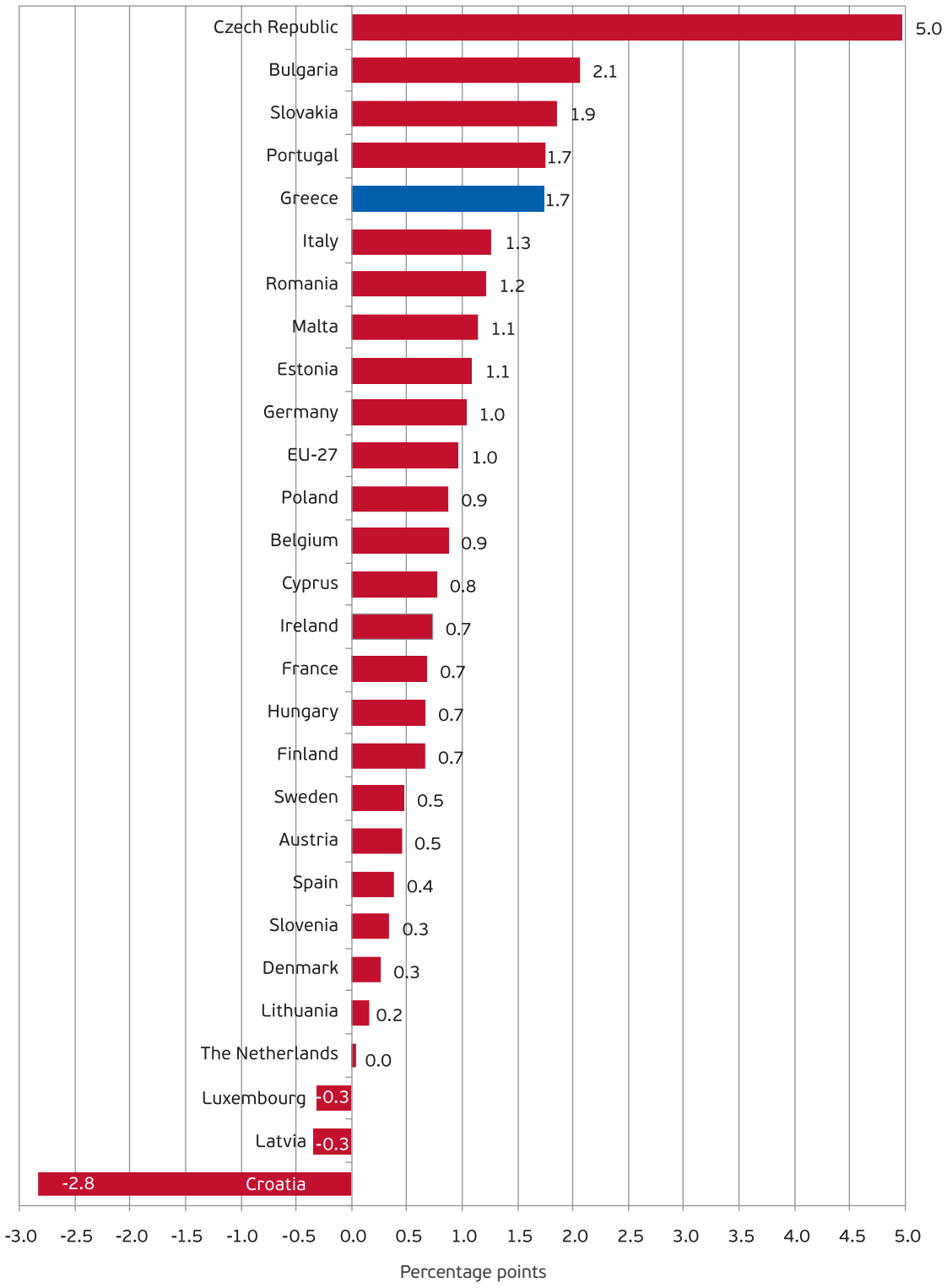
36. Based on charts published in Digital Economy & Society Index.

Chart 1.95: Fixed broadband penetration in the EU, June 2020



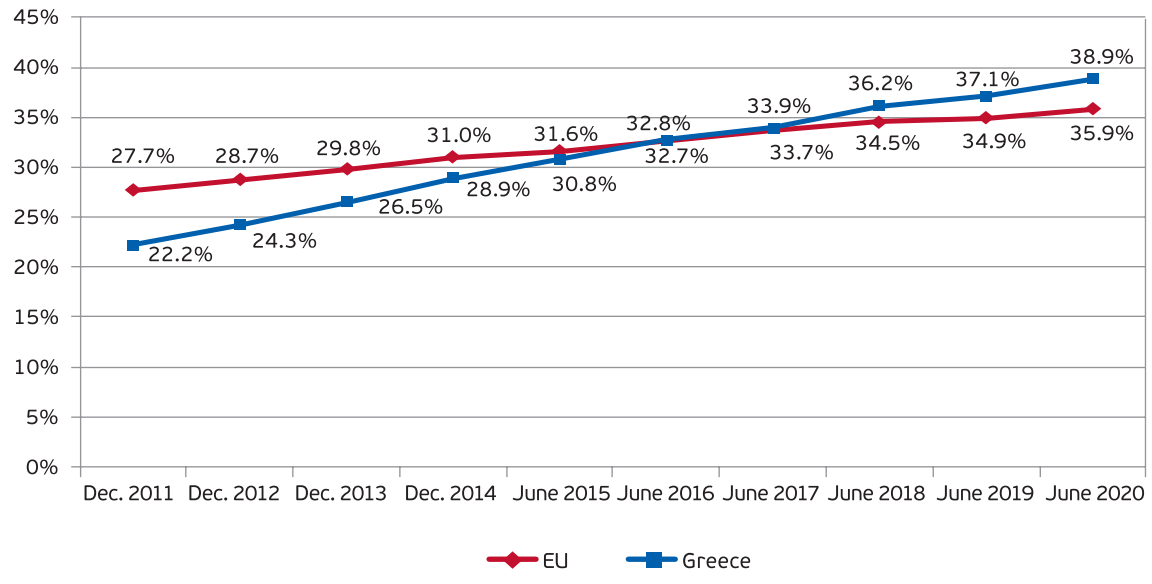
Source: EETT (based on Digital Economy & Society Index data)

Change 1.96: Fixed broadband penetration change in the EU, June 2020



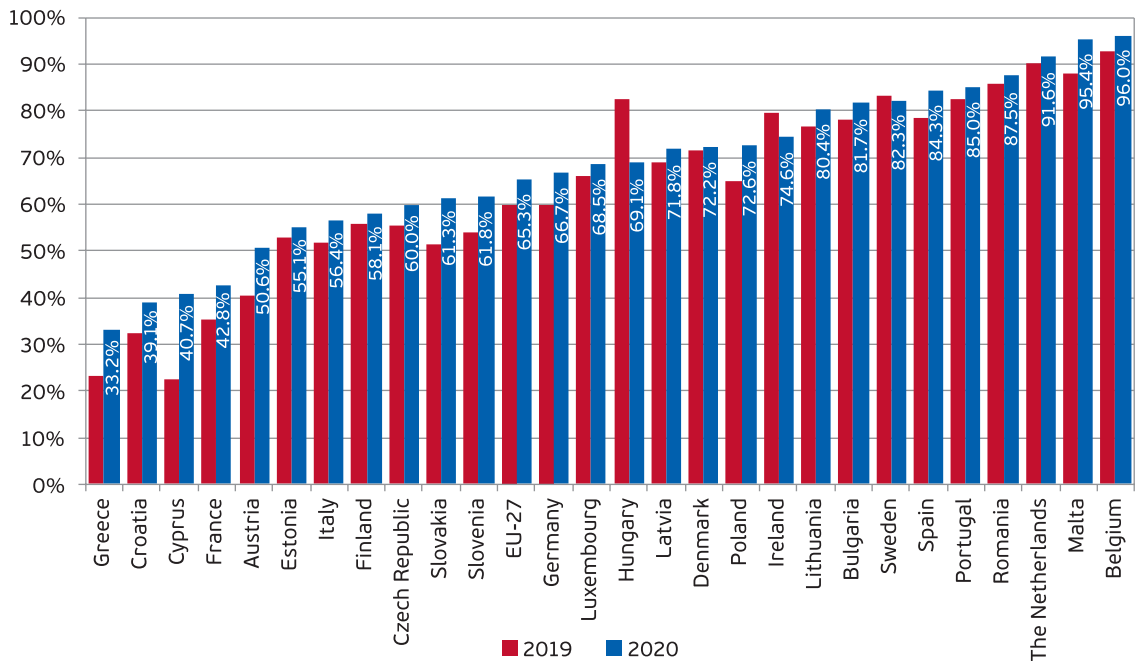
Source: EETT (based on Digital Economy & Society Index data)

Chart 1.97: Evolution of fixed broadband penetration in Greece and the EU



Source: EETT (based on Digital Economy & Society Index data)

Chart 1.98: Percentage of lines with advertised download access speeds ≥ 30 Mbps in the EU, June 2020

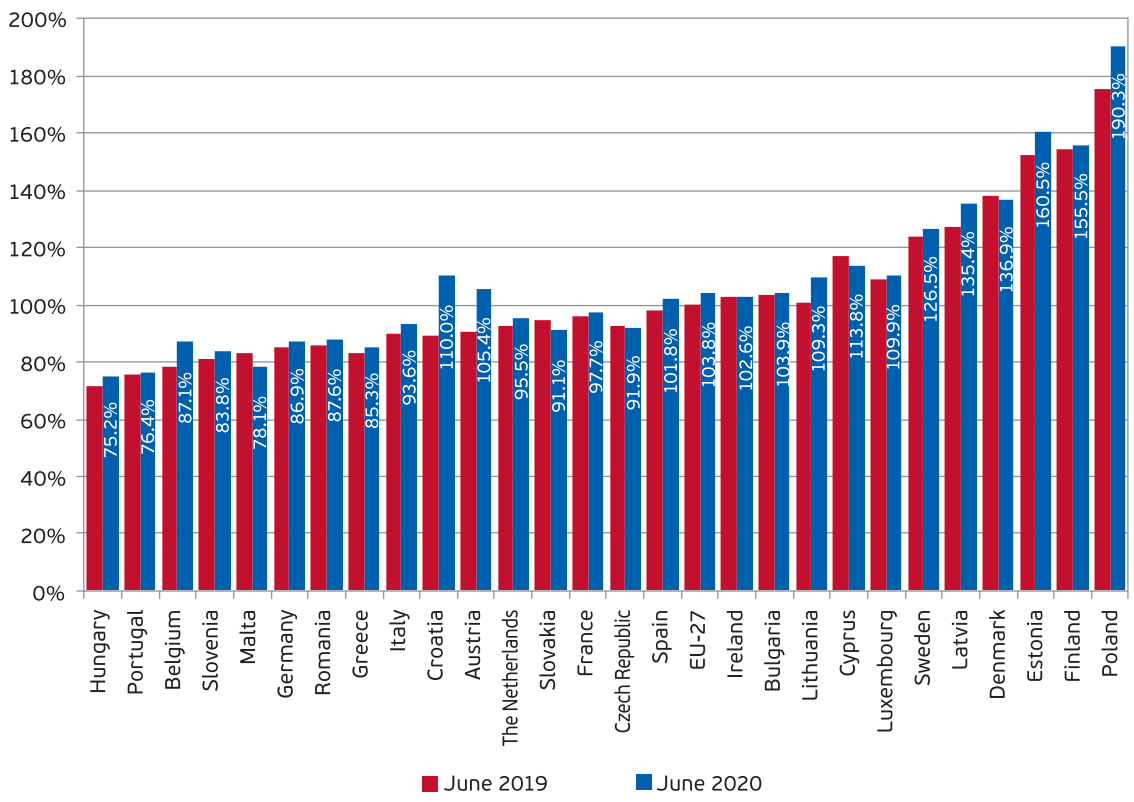


Source: EETT (based on Digital Economy & Society Index data)

Mobile broadband

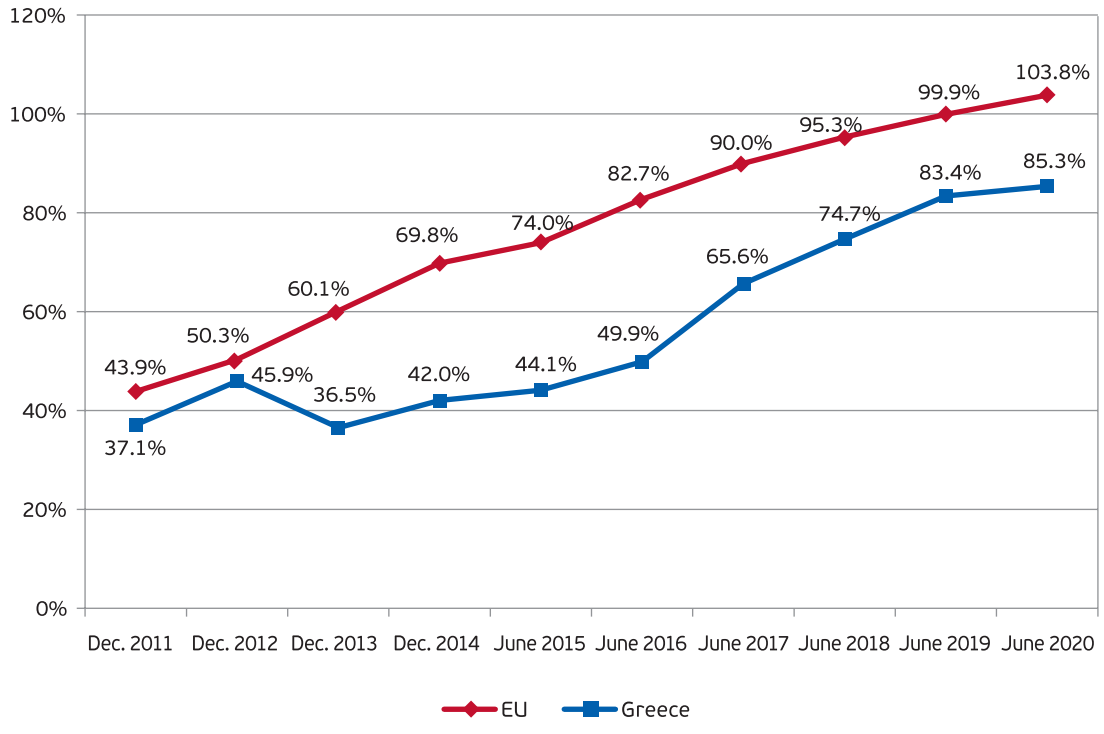
The mobile broadband penetration in the EU continued its steady upward trend, reaching 103.8% (connections per 100 people) in June 2020, versus almost 100% in June 2019 (Chart 1.99). In 12 countries (Spain, Ireland, Bulgaria, Lithuania, Cyprus, Luxembourg, Sweden, Latvia, Denmark, Estonia, Finland and Poland) the mobile broadband penetration was more than 100%. Greece, with a 85.3% penetration, is among the last ten countries with the lowest mobile broadband penetration, widening again, after a narrowing course, the gap with the EU average penetration, as within a year it increased only by 1.9 percentage points versus 3.9 percentage points of the EU (Chart 1.100).

Chart 1.99: Mobile broadband penetration in the EU (connections per 100 people), June 2020



Source: EETT (based on Digital Economy & Society Index data)

Chart 1.100: Evolution of mobile broadband penetration in Greece and the EU (connections per 100 people)



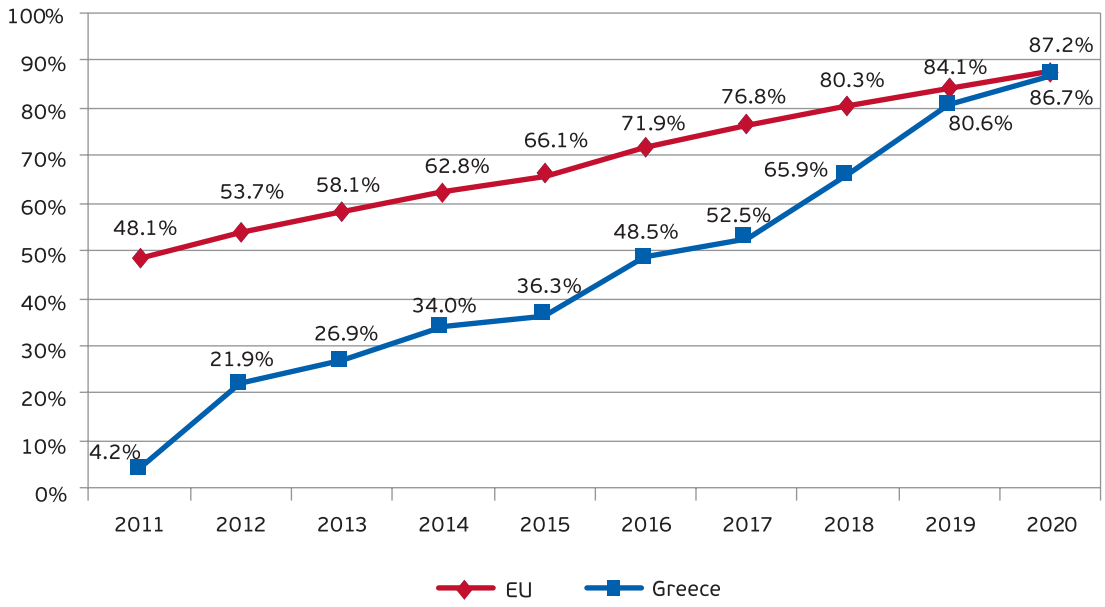
Source: EETT (based on Digital Economy & Society Index data)

Network infrastructure deployment

The broadband coverage of the NGAs in the EU reached 87.2% of households by mid-2020, versus 84.1% of mid-2019 (Chart 1.101). Greece is only by 0.5 percentage points below the European average, with 86.7% coverage versus 80.6% of mid-2019, since within a year it increased by 6 percentage points. This growth is attributed to the development of access networks via the VDSL vectoring technology. However, the NGA broadband penetration rate of households is still low (25.7%) far away from the European average (50.3%) (Chart 1.102).

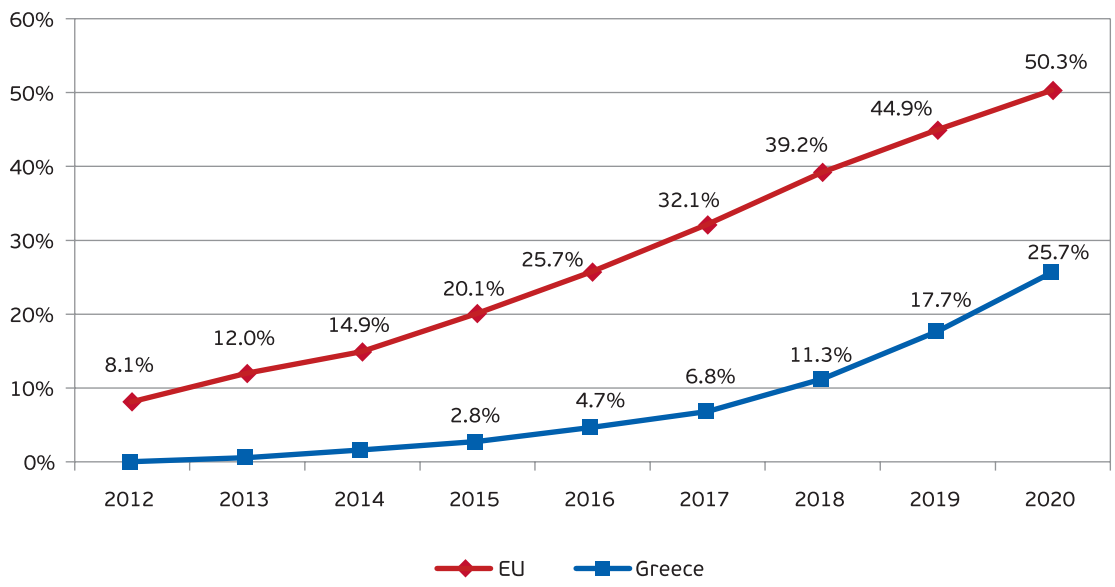
Regarding the Very High Capacity Networks (VHCN), Greece, despite the growth by 3.1 percentage points in the network coverage rate (10.2% in 2020 compared to 7.1% in 2019) and by 2 percentage points in the households' penetration rate (2.7%), nevertheless still lags behind the respective European averages (59.3% and 32.9%) (Charts 1.103 and 1.104).

Chart 1.101: NGA broadband coverage in Greece and the EU



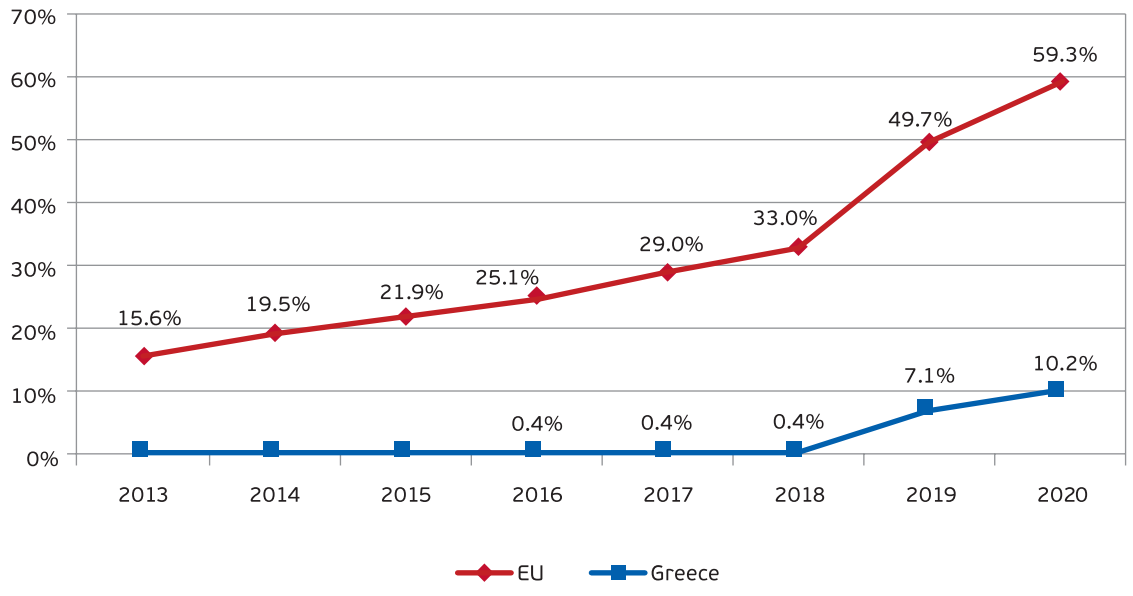
Source: EETT (based on Digital Economy & Society Index data)

Chart 1.102: NGA broadband penetration rate in Greece and the EU



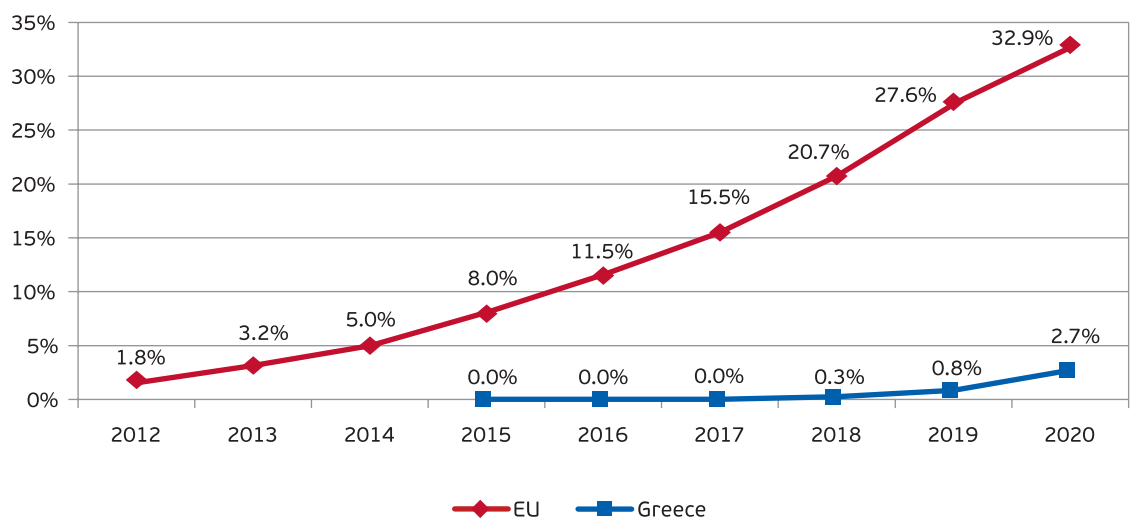
Source: EETT (based on Digital Economy & Society Index data)

Chart 1.103: VHCN broadband coverage in Greece and the EU



Source: EETT (based on Digital Economy & Society Index data)

Chart 1.104: VHCN broadband penetration rate in Greece and the EU

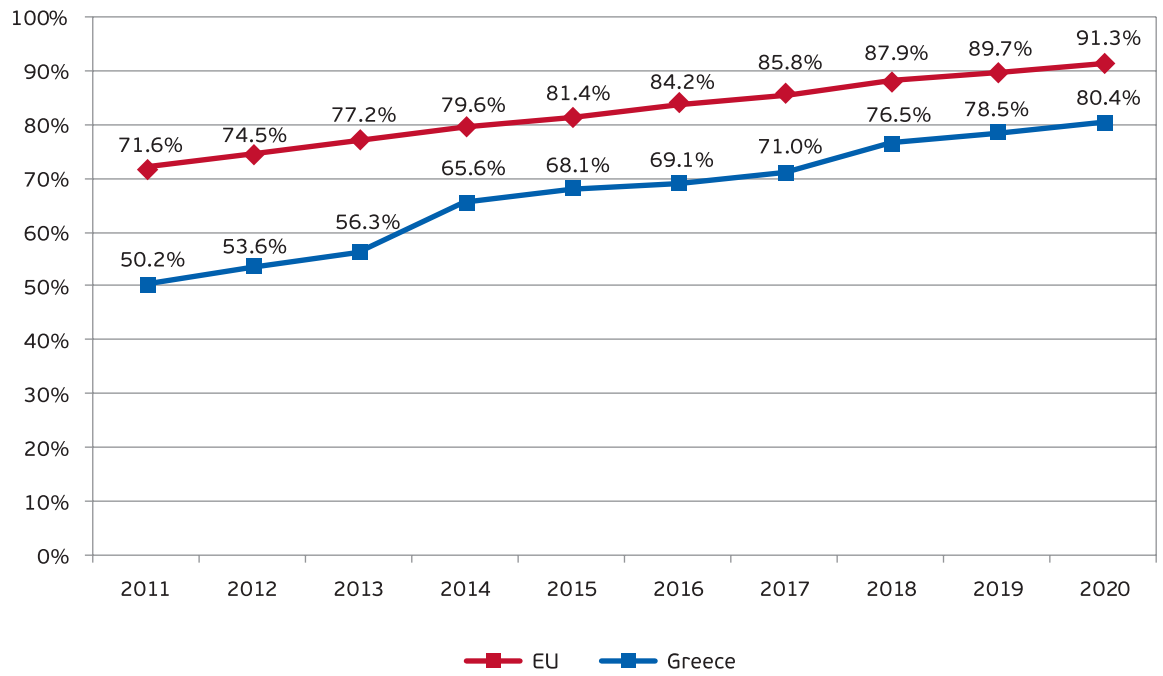


Source: EETT (based on Digital Economy & Society Index data)

Internet access

In 2020, 80.4% of Greek households had access to the Internet, with the respective European average at 91.3%. As a result, the gap between Greece and the EU remained relatively stable (10.9 percentage points in 2020 versus 11.1 percentage points in 2019 (Chart 1.105)

Chart 1.105: Evolution of Internet penetration in households in Greece and the EU



Source: EETT (based on Digital Economy & Society Index data)

02

Postal services

Postal services

2.1. The Greek postal market

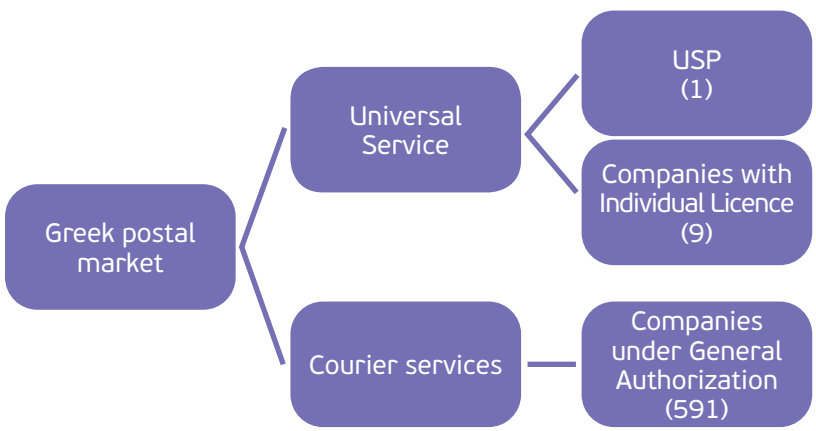
In 2020, 591[37] companies operated in the Greek postal market, thus 75 companies more compared to previous year (Graph 2.1 and Chart 2.1). More precisely, a) in the Universal Service (US) sector, operated the USP (Hellenic Post-ELTA) and nine private companies holding an Individual License and b) in the courier services sector operated 591 companies under General Authorization.

2.2. Evolution of key figures of the postal services market in Greece

2.2.1. Financial data from the published financial statements

In 2020, the postal services sector showed a positive trend compared to the previous year, as presented in Chart 2.2.

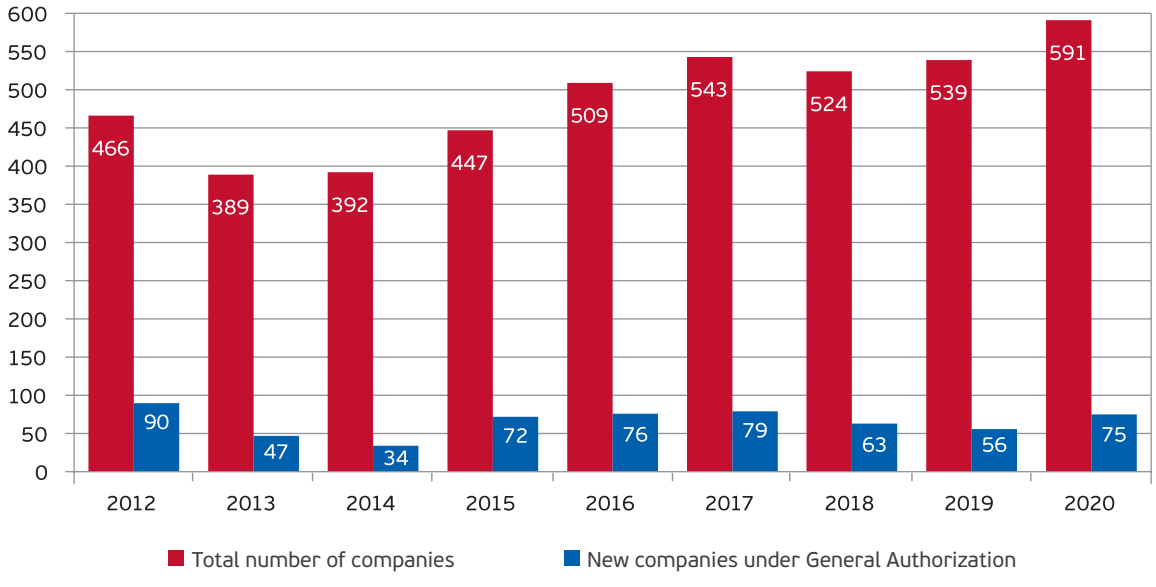
Graph 2.1: Number of companies in the Greek postal market



Source: EETT (Register of postal services providers)

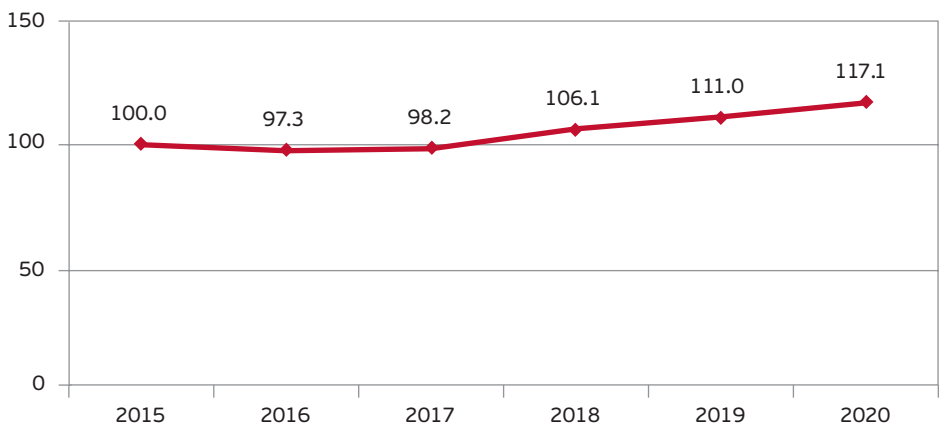
37. There are some companies holding simultaneously an Individual License and a License under General Authorization.

Chart 2.1: Number of companies under General Authorization



Source: EETT (Register of postal services providers)

Chart 2.2: Evolution of the market turnover index for postal and courier activities (base year 2015)



Source: HELLASTAT

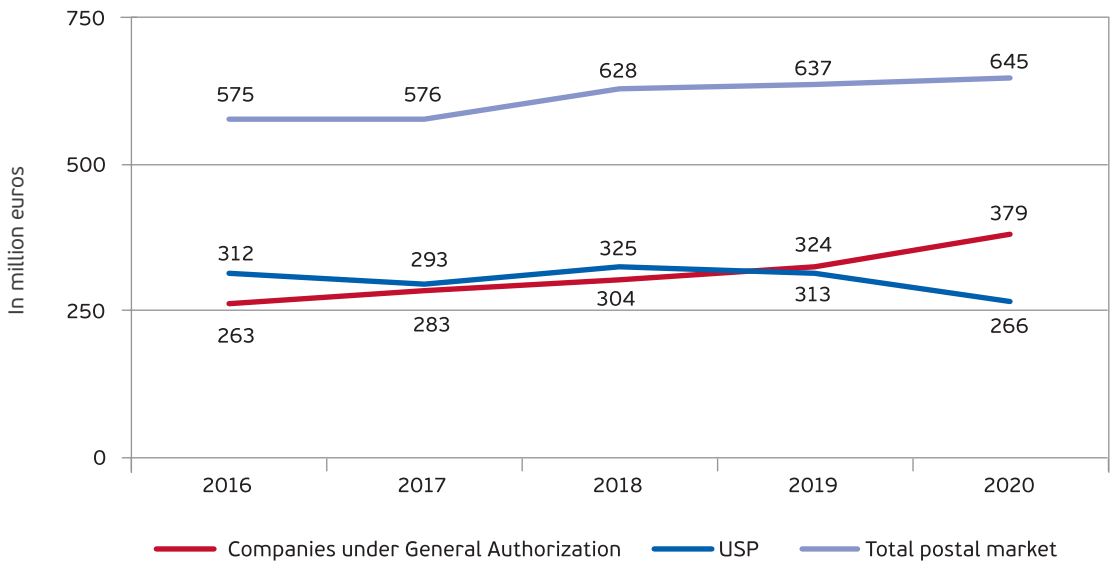
Note: The presented data are adjusted according to the actual number of working days.

The financial analysis of this section, takes into account the published financial statements of the USP (ELTA) and seven of the largest companies operating in the courier sector (under General Authorization). The postal companies under General Authorization, included in this analysis, represent 75% of total revenues and 87% of total volume of the courier sector for 2020.

The turnover of postal services sector showed an upward trend, which reached 645 million euros compared to 637 million euros in 2019 (Chart 2.3). In 2020, the postal companies under General Authorization showed an improving trend on turnover by 17% compared to the previous year, due to the spread of the pandemic Covid-19, which caused a great increase in the demand of courier services. On the other side, the USP's turnover decreased by 15% compared to 2019. As it is noted in the financial statements of the USP, this decline was driven from various reasons, e.g. intensive electronic substitute of letters and decrease of single post correspondence items and international letters, as a result of the difficulties caused by the pandemic to in person transactions and international transportation.

The turnover and the key financial data relevant to the profitability of the postal companies are listed in Table 2.1.

Chart 2.3: Evolution of postal companies' turnover



Source: Annual published financial statements

Table 2.1: Key financial data of postal companies, 2020

	Turnover (in million euros)	Gross profit (in million euros)	Gross profit margin	Net profit (in million euros)	Net profit margin
USP	266	-6	-2.2%	-24.7	-9.3%
Companies under General Authorization	379	64	16.9%	15.5	4.1%

Source: Annual published financial statements

The courier services companies' turnover benefited mainly from the increase of the parcel delivery services, which is represented in their profit. The financial results of the USP have been affected by the decrease of the turnover and by the fact that the financial results of the previous year had been benefited by the adjustment of the actuarial study. This adjustment was due to the mandatory compliance of ELTA, as an utility company, to the upper limit of 15 thousand euros of employees' retirement compensation.

It is noted that the postal companies' turnover may include data from non-postal activities, since several companies under General Authorization, also operate in other sectors of the economy. Consequently, there may be a discrepancy in relation to the amount of revenues analyzed below (data derived from the postal sector companies through EETT's questionnaires), which only concern the postal market.

Balance sheet analysis

Regarding the financial structure of postal sector companies, the below mentioned indexes show the balance of capital between current assets and liabilities (Table 2.2). In 2020, the companies under General Authorization held investments in assets, resulting to an 11% increase.

The data published in financial statements of companies under General License showed investments in IT services upgrade and business units support with new technologies, construction and support of technologically updated sorting centers, as well as expenses and investments for confronting the pandemic. The majority of capital of postal companies maintained to current assets (64% for courier companies, and 71% for the USP).

Regarding the structure of liabilities, the obligations of the companies under General Authorization accounted for 81% of total liabilities (Table 2.3), while a significant decrease in equity is observed, which derives from accumulated losses from previous fiscal years. As far as the USP is concerned, its financial position improved significantly, as the negative course of the company's equity was reversed, through an increase in share capital and offsetting losses of previous years.

Table 2.2: Assets' share in the postal market

	2018	2019	2020
Companies under General Authorization			
Fixed assets	20%	25%	30%
Current assets	79%	72%	64%
Other assets	1%	3%	6%
Total assets	**100%**	**100%**	**100%**
USP			
Fixed assets	28%	33%	29%
Current assets	72%	67%	71%
Other assets	0%	0%	0%
Total assets	**100%**	**100%**	**100%**

Source: Annual published financial statements

Table 2.3: Liabilities' share in the postal market

	2018	2019	2020
Companies under General Authorization			
Shareholder's equity	27%	26%	19%
Liabilities	73%	74%	81%
Other liabilities	0%	0%	0%
Total liabilities	**100%**	**100%**	**100%**
USP			
Shareholder's equity	-16%	-10%	10%
Liabilities	116%	110%	90%
Other liabilities	0%	0%	0%
Total liabilities	**100%**	**100%**	**100%**

Source: Annual published financial statements

Table 2.4: Postal market financial indicators

	2018	2019	2020
Liquidity ratio			
USP	0.92	0.82	0.99
Companies under General Authorization	1.35	1.31	0.98
Turnover ratio (number of times)			
USP	0.74	0.70	0.45
Companies under General Authorization	1.99	2.00	1.90
Day sales outstanding ratio			
USP	293	285	229
Companies under General Authorization	91	87	80
Return on equity capital			
USP	21.8%	-16.4%	-40.3%
Companies under General Authorization	41.4%	22.4%	41.1%

Source: Annual published financial statements

Ratio analysis

The main ratios derived from the analysis of the postal companies' balance sheets are presented in Table 2.4.

The liquidity ratio, which reflects the capacity of the postal companies to cover their current liabilities with current assets, in 2020 was estimated approximately to a unit.

In 2020, the turnover ratio, which refers to the companies' profitability, remained higher than the unit for companies under General Authorization, due to their current assets intensive character (mainly receivables). The respective USP index remained below the unit.

The day sales outstanding ratio for companies under General Authorization shows how effectively the company is managing receivables, as well as the degree of their liquidity. In 2020, this index remained at the same level, while the USP's corresponding index is improved compared to the previous year.

The return on equity index is a function of net profit margin and the speed of recycling shareholder's equity. The return on equity capital ratio remained at a satisfactory level for companies under General Authorization over the previous year. The corresponding index for the USP was negative due to negative shareholder's equity.

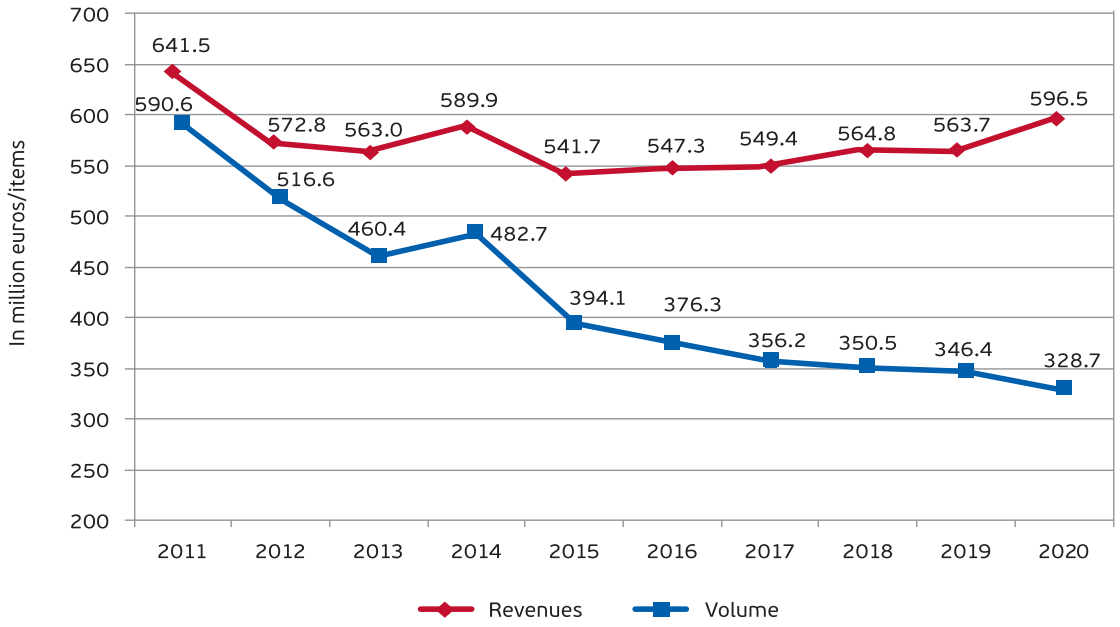
2.2.2. Postal revenues and volume

Total postal market

In 2020, the Greek postal market showed an upward trend, as regards to revenues, while the volume of the postal items continued to drop, due to the continued drop of letters. Specifically, 328.7 million postal items were handled, generating revenues of 596.5 million euros.

The course of postal market over the last ten years is shown in Chart 2.4.

Chart 2.4: Revenues and postal items volume of the Greek postal market



Source: EETT (based on data provided by postal services providers)

Per market sector

The total revenues of the postal market increased by 5.8% in 2020, due to revenues increase of companies under General Authorization by 16.2%. The total volume of postal items decreased in the same year, despite the growth of postal items of companies under General Authorization (25.9%). The USP had a significant decrease in the volume (-17.2%) of postal items. The course of the three sectors that constitute the Greek postal market, thus Universal Service, Individual License and General Authorization, is shown in Tables 2.5 and 2.6.

Table 2.5: Postal market revenues (in thousand euros)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/19
USP	317,486	282,919	272,658	227,417	207,313	195,059	185,273	174,307	149,895	-14.0%
Companies with Individual License	3,486	2,471	14,496	14,309	15,865	18,251	19,220	20,852	18,409	-11.7%
Companies under General Authorization	251,814	277,628	302,753	299,954	324,086	336,110	360,274	368,575	428,195	16.2%
Total	**572,786**	**563,018**	**589,907**	**541,680**	**547,265**	**549,421**	**564,768**	**563,734**	**596,499**	**5.8%**
Annual change	-10.7%	-1.7%	4.8%	-8.2%	1.0%	0.4%	2.8%	-0.2%	5.8%	-

Source: EETT (based on data provided by postal services providers)

Table 2.6: Postal market volume (in thousand items)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/19
USP	461,361	402,818	398,325	308,300	278,523	248,452	231,607	213,496	176,694	-17.2%
Companies with Individual License	8,065	5,326	26,854	27,251	32,060	37,136	42,312	48,681	46,049	-5.4%
Companies under General Authorization	47,162	52,278	57,563	58,578	65,752	70,613	76,624	84,199	106,000	25.9%
Total	**516,588**	**460,422**	**482,742**	**394,129**	**376,334**	**356,201**	**350,543**	**346,376**	**328,744**	**-5.1%**
Annual change	-12.5%	-10.9%	4.8%	-18.4%	-4.5%	-5.4%	-1.6%	-1.2%	-5.1%	-

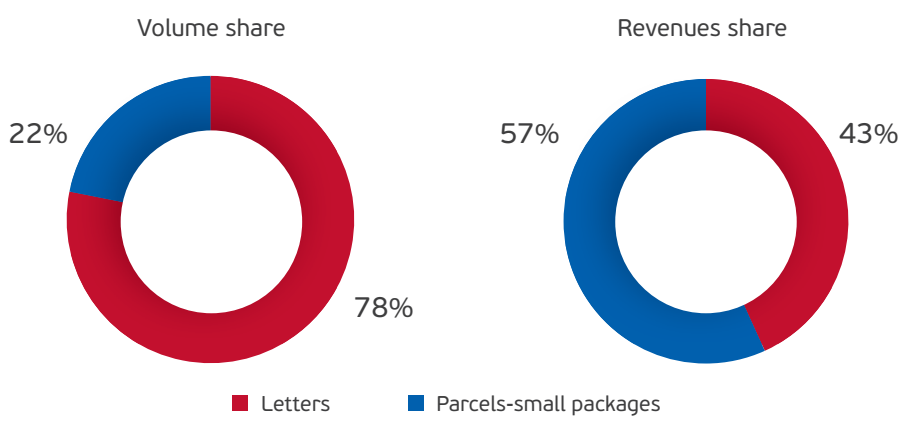
Source: EETT (based on data provided by postal services providers)

Per postal service

The postal items are divided to letters and parcels (including the small packages). In 2020, the parcel sector accounted for 57% of the total postal market revenues, handling 22% of the total postal items (Chart 2.5). The over time growth of volume and revenues of parcels-small packages, as well as the respective decline of volume and revenues of letters, although letter mail accounted for 78% of total volume of postal items, are mainly due to e-commerce growth and e-substitution of letter mail.

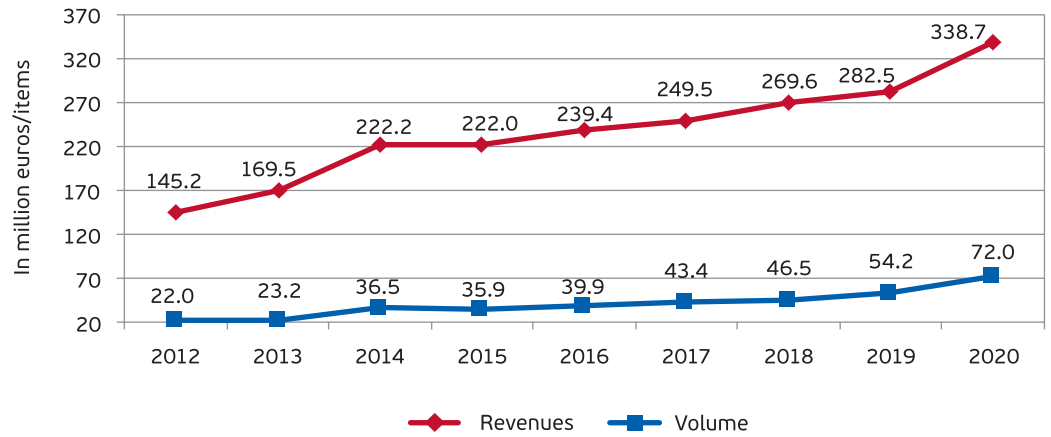
The course of volume and revenues of the two postal services over the last nine years is presented in Charts 2.6 and 2.7 respectively.

Chart 2.5: Postal items volume and revenues shares, 2020



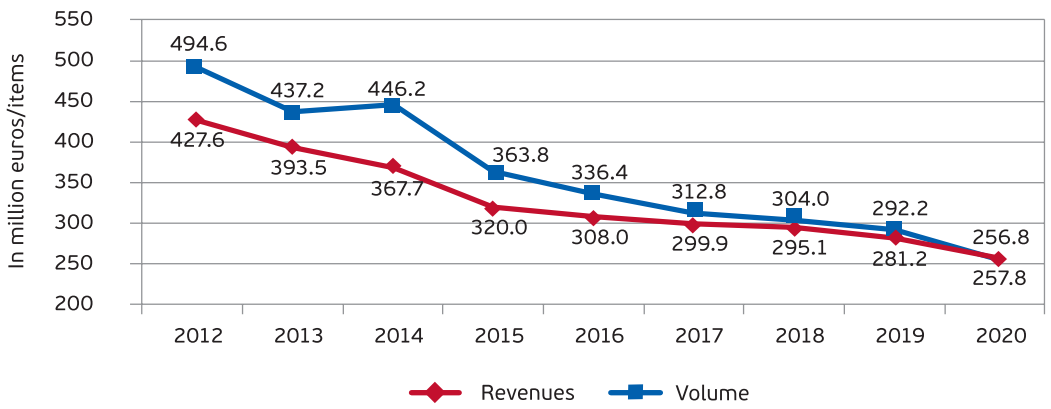
Source: EETT (based on data provided by postal services providers)

Chart 2.6: Volume and revenues of parcels-small packages



Source: EETT (based on data provided by postal services providers)

Chart 2.7: Volume and revenues of letters



Source: EETT (based on data provided by postal services providers)

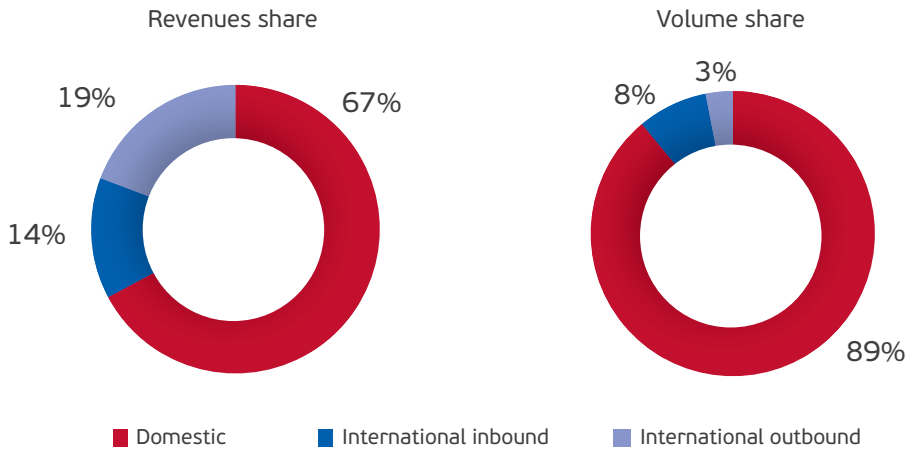
Per destination and origin of deliveries

In 2020, 67% of revenues in the Greek postal market resulted from domestic traffic (89%). The breakdown of revenues and volume shares of domestic, international inbound and international outbound items is depicted in Chart 2.8.

The majority of postal items was delivered from Attica (72%) and Macedonia (12%) to domestic and international destinations. These two regions were also the most popular destinations of the items being sent domestically and from international destinations. More specifically, 42% of postal items was delivered in Attica and 17% in Macedonia (Chart 2.9).

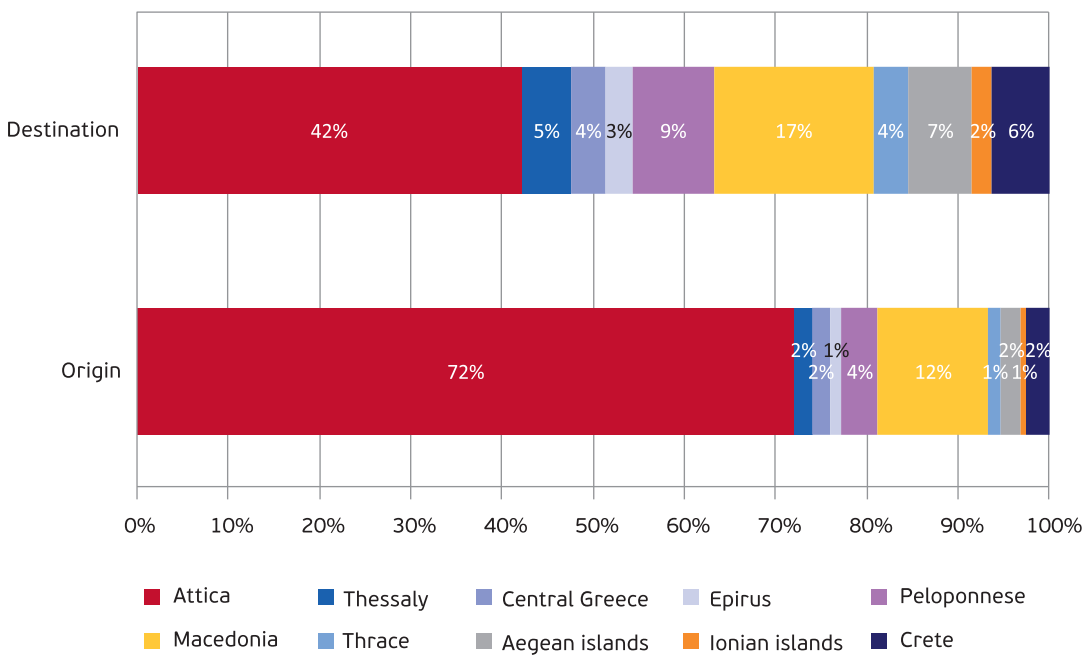
Moreover, the largest volume of postal items delivered in Greece from international destinations was coming from the European Union (EU) (61%) and Asia (28%), while the deliveries of postal items to international destinations concerned mostly the EU (58%) and the USA-Canada (16%), as presented in Chart 2.10.

Chart 2.8: Revenues and postal items volume shares per domestic-international service, 2020



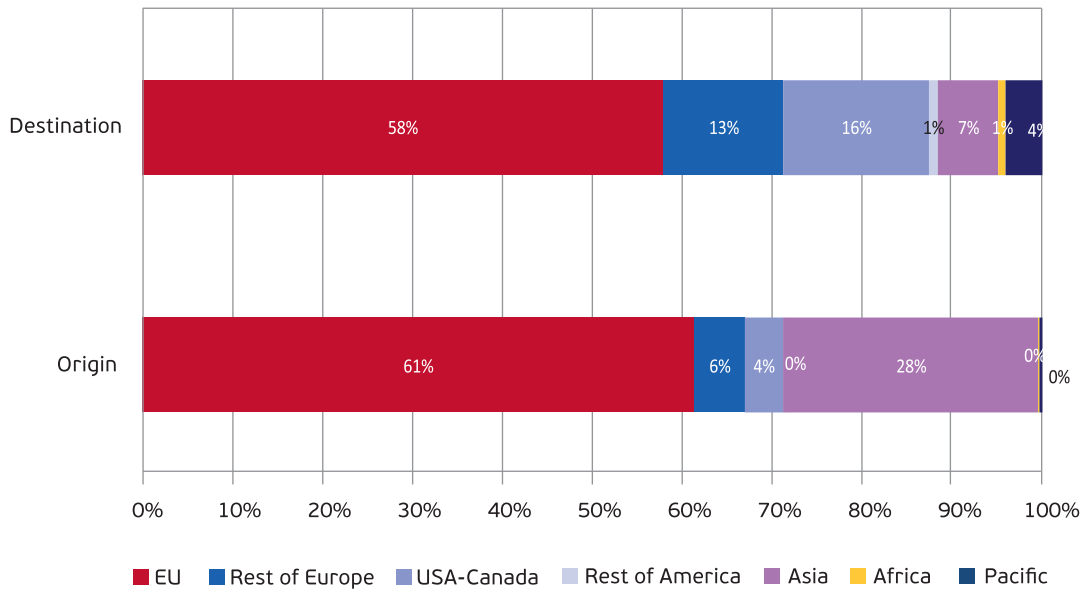
Source: EETT (based on data provided by postal services providers)

Chart 2.9: Destination and origin of postal items deliveries per geographic region, 2020



Source: EETT (based on data provided by postal services providers)

Chart 2.10: Destination and origin of international postal items deliveries, 2020



Source: EETT (based on data provided by postal services providers)

2.2.3. Employment and infrastructure of postal companies

The total number of people employed in the Greek postal market, in 2020, reached 20,433 employees, showing a 7% increase compared to 2019 (19,107 employees). In particular, 28% of people was employed by the USP, while the remaining 72% was employed by the other postal services providers with Individual License or under General Authorization (Chart 2.11).

Regarding the infrastructure of postal services providers, in 2020, the USP owned 1,174 post offices and 2,495 vehicles, while the other providers with Individual License or under General Authorization owned 2,003 post offices and 8,670 vehicles.

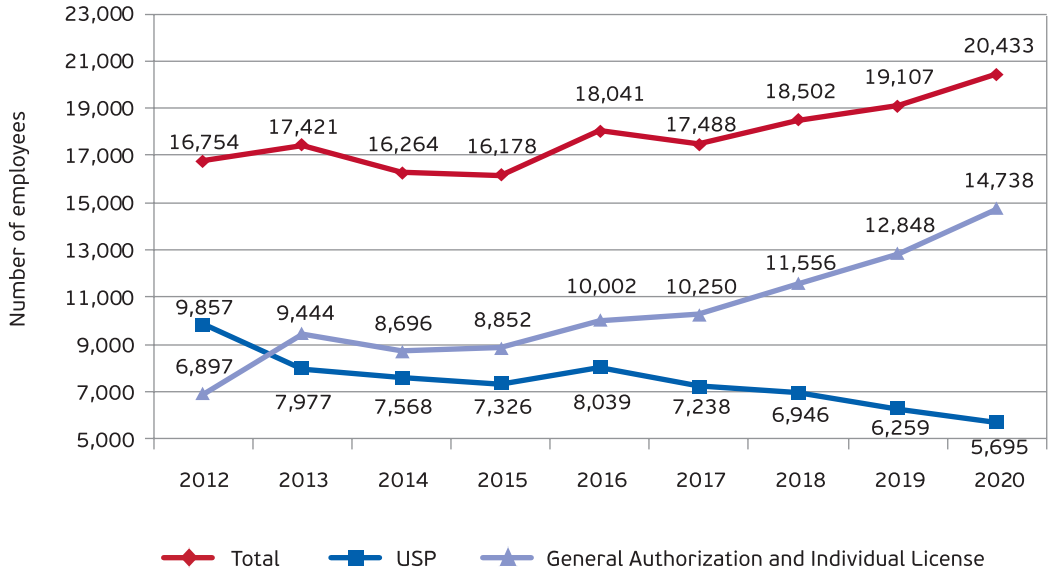
2.2.4. Consumers complaints for postal companies

The over time evolution of consumers complaints submitted to postal companies is presented in Table 2.7.

The USP received 11,918 complaints in 2020 (more by 14.6% than in 2019), referring to a total of 176.7 million handled postal items. All other companies with Individual License received 15,574 complaints referring to a total of 46.1 million handled postal items, while the companies under General Authorization received 14,108 complaints referring to a total of 106 million handled postal items.

More specifically, the cases regarding differences resolution between consumers and companies under General Authorization referred mainly to delays, losses of postal items and damages (Chart 2.12). The compensations given in 2020 referred mainly to cases of loss and damage of postal items (Chart 2.13).

Chart 2.11: Employment in the Greek postal market



Source: EETT (based on data provided by postal services providers)

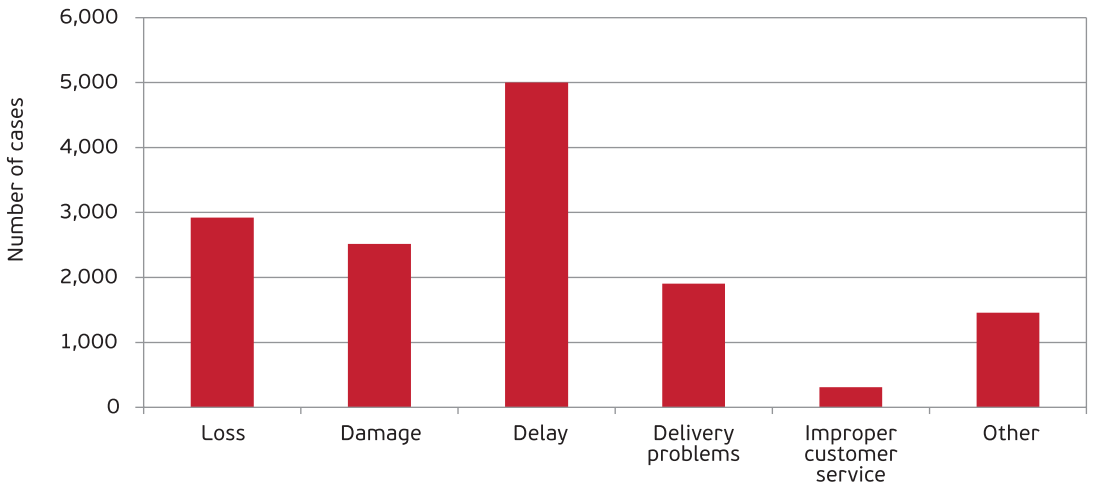
Table 2.7: Evolution of consumers' complaints to postal companies

	2016	2017	2018	2019	2020
Complaints to USP	15,772	18,646	13,533	10,404	11,918
Complaints to other companies with Individual License (except USP)	10,270	11,146	10,789	22,467[38]	15,574
Complaints to companies under General Authorization	6,868	10,347	12,004	13,709	14,108

Source: EETT (based on data provided by postal services providers)

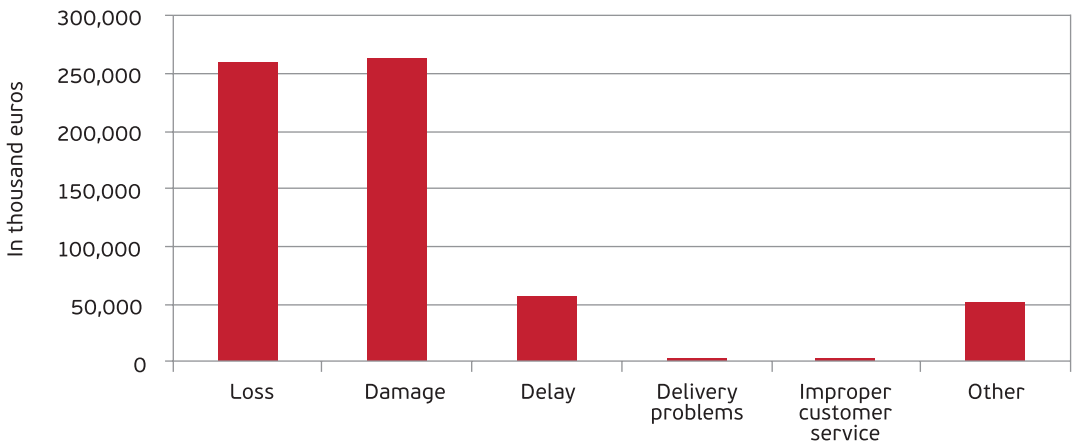
38. According to the postal company to which the complaints have been increased around 10,000 compared to the previous year, this increase was caused due to incorrect delivery addresses provided by the client.

Chart 2.12: Classification of cases regarding differences resolution between consumers and companies under General Authorization, 2020



Source: EETT (based on data provided by postal services providers)

Chart 2.13: Compensations referring to cases of differences resolution between consumers and companies under General Authorization, 2020



Source: EETT (based on data provided by postal services providers)

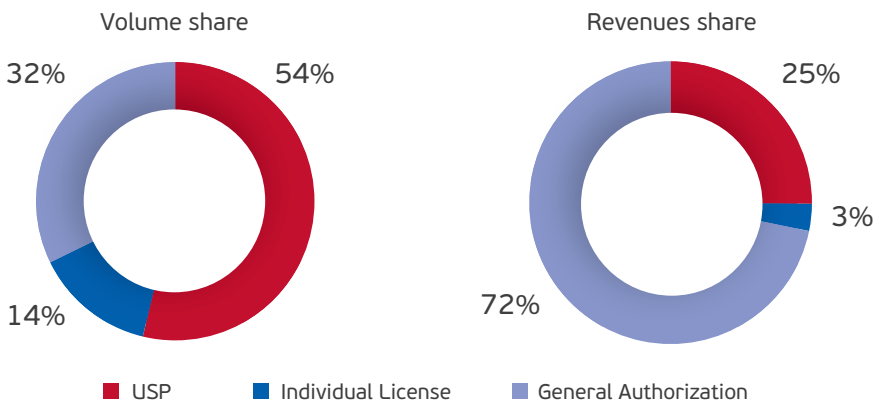
2.3. Competition in the postal market

2.3.1. Market shares

In 2020, the USP accounted for 54% of the market in terms of volume of postal items, while the postal services providers with Individual License and under General Authorization accounted for 14% and 32%, respectively. However, in terms of revenues, the postal companies under General Authorization held the largest market share (72%), followed by the USP which held 25% (Chart 2.14).

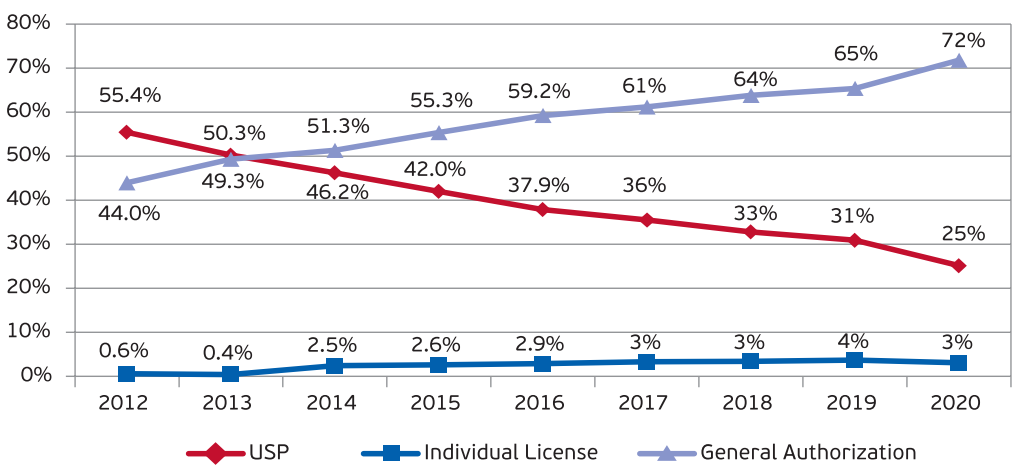
The USP's revenues share continued to decrease over the last nine years, while the respective figure for providers under General Authorization has shown a steady upward trend. Finally, the share of providers with Individual License remained almost stable. (Chart 2.15).

Chart 2.14: Postal items volume and revenues shares of postal services providers, 2020



Source: EETT (based on data provided by postal services providers)

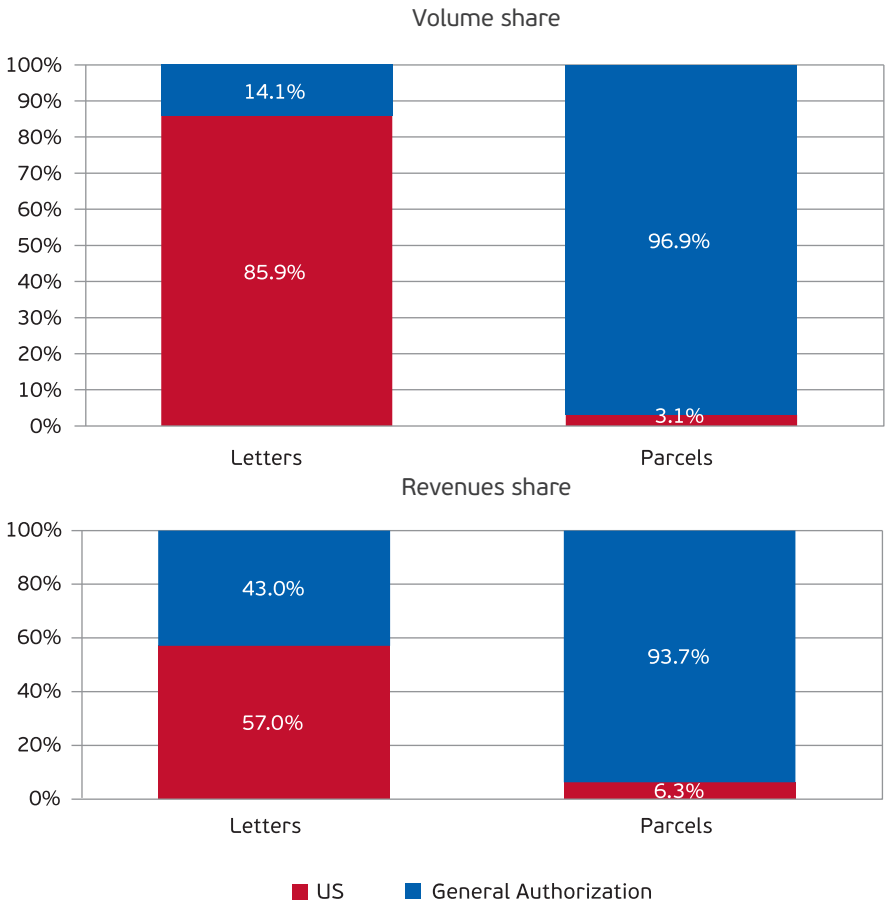
Chart 2.15: Revenues share of postal services providers



Source: EETT (based on data provided by postal services providers)

In terms of the provided services, it is obvious that the US dominates the letter mail sector[39], accounting for 85.9% of the volume and 57% of the revenues, in 2020. As regards to the sector of parcels-small packages, courier companies had a dominant role, accounting for 96.9% of the volume and 93.7% of the revenues (Chart 2.16).

Chart 2.16: Letters and parcels shares for the US and the courier services, 2020



Source: EETT (based on data provided by postal services providers)

39. Including direct mail, newspapers, books, catalogues and periodicals.

2.3.2. The Universal Service sector

The USP and the companies with Individual License are the two types of providers operating in the US sector. According to the current legal framework, ELTA is the USP in Greece and has undertaken the provision of the US for a period of 15 years, since the beginning of the postal market liberalization until 31/12/2028[40].

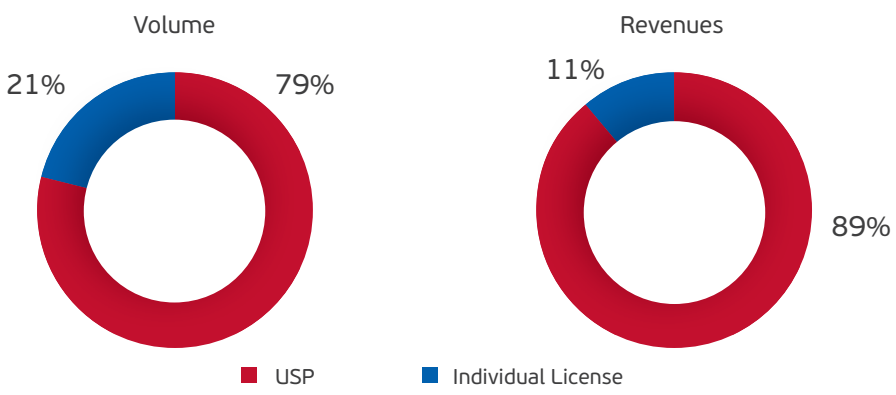
The provision of the US includes the handling of letters, direct mail, newspapers, books, catalogues and periodicals weighing up to 2 kg, as well as parcels up to 20 kg. As shown in Table 2.8, letters were the prevalent postal item in the US sector, accounting for 91.4% of the sector's volume and 82.7% of its revenues for the 2019.

Table 2.8: Volume and revenues shares of postal items within the US sector, 2020

	Volume	Revenues
Letters	91.4%	82.7%
Direct mail	3.3%	1.6%
Newspapers	4.2%	3.1%
Books-catalogues-periodicals	0.1%	0.06%
Parcels and small packages	1.0%	12.6%
US total	**100%**	**100%**

Source: EETT (based on data provided by postal services providers)

Chart 2.17: Postal items volume and revenues shares of postal services providers within the US sector, 2020



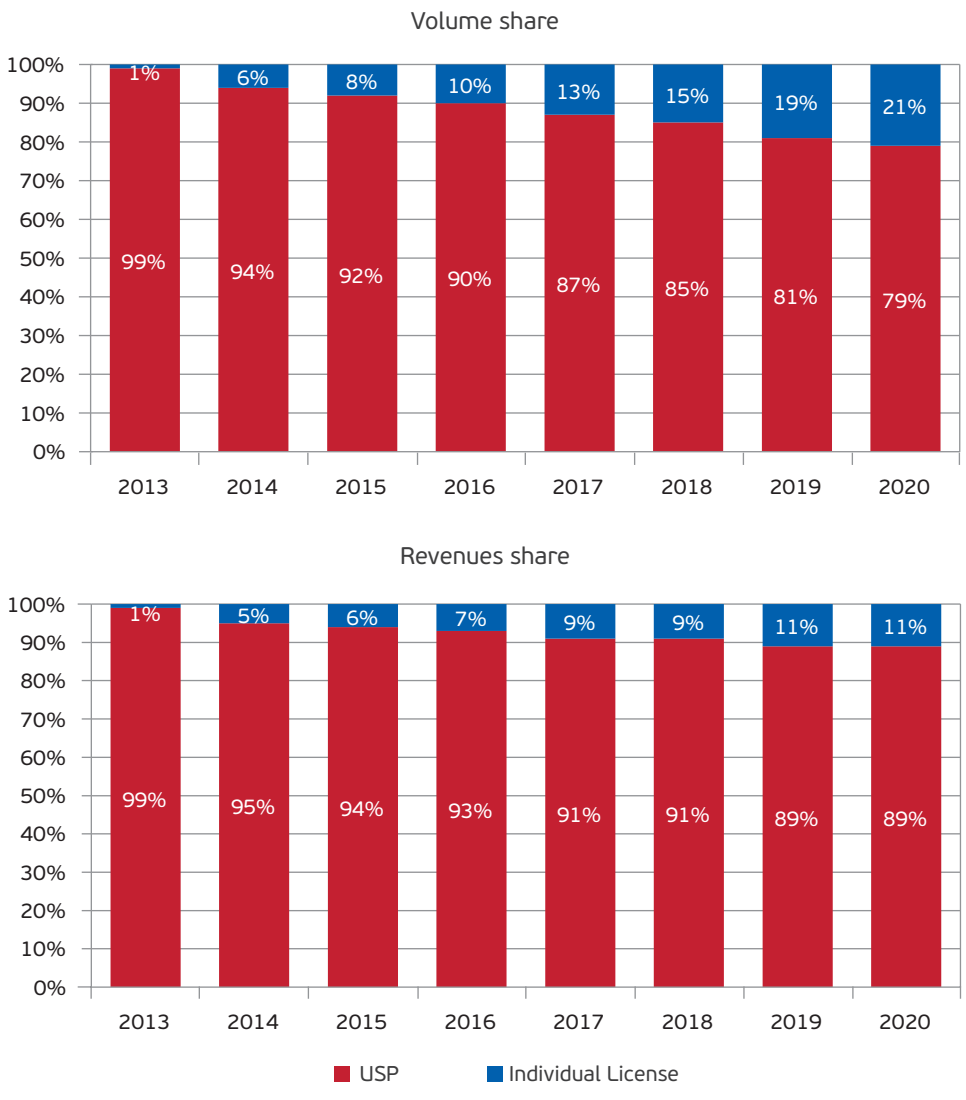
Source: EETT (based on data provided by postal services providers)

40. L.4053/2012 "Regulation for the operation of the postal market, electronic communications issues and other rules", Government Gazette (GG) 44/A/07-03-2012.

In 2020, the USP was the dominant player in the US market, accounting for 79% of the volume (compared to 81% to 2019) and 89% of the revenues from the postal items, as shown in the Chart 2.17.

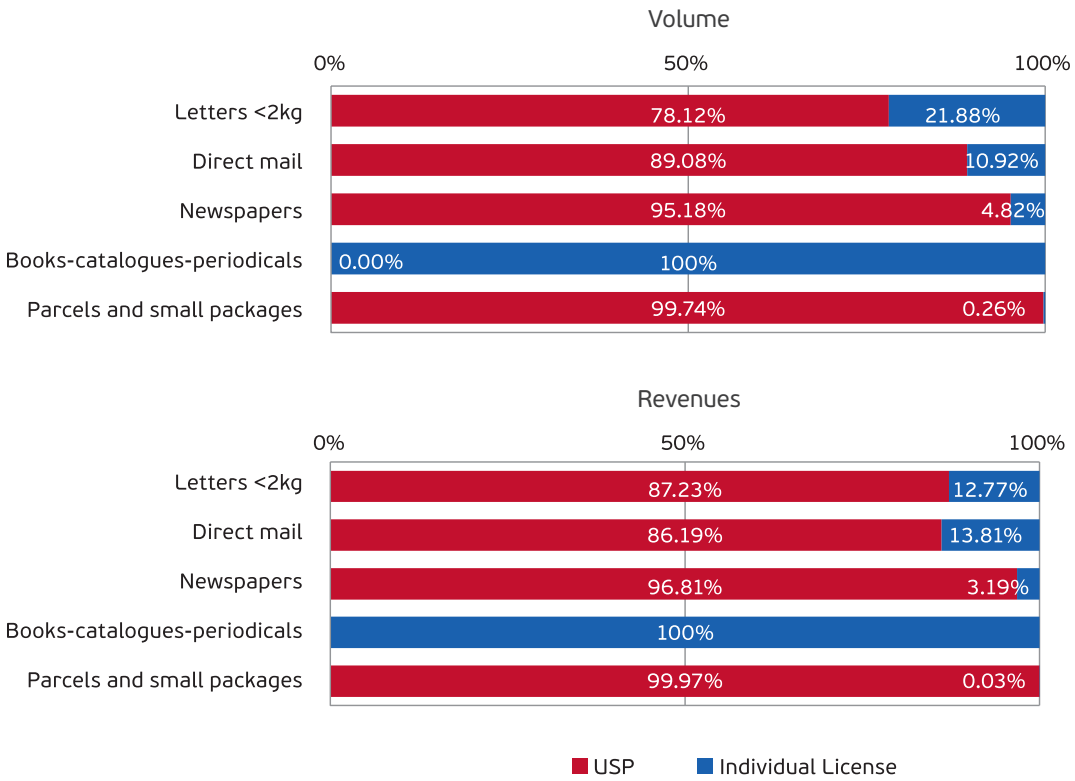
The course of market share of companies within the US sector over the last eight years is shown in Chart 2.18. Companies with Individual License seem to gradually increase their market share in the US sector. In particular, in 2020 they increased their market share to 21% referring to the volume of postal items compared to 19% in 2019, accounting for 11% of total revenues (11% in 2019 as well). This increase came mainly from the handling of letter mail weighing up to 2 kg. The market shares of providers regarding all postal services, within the US sector, in 2020, are shown in Chart 2.19.

Chart 2.18: Evolution of postal services providers market shares within the US sector



Source: EETT (based on data provided by postal services providers)

Chart 2.19: Market shares of postal services providers by postal items type within the US sector, 2020



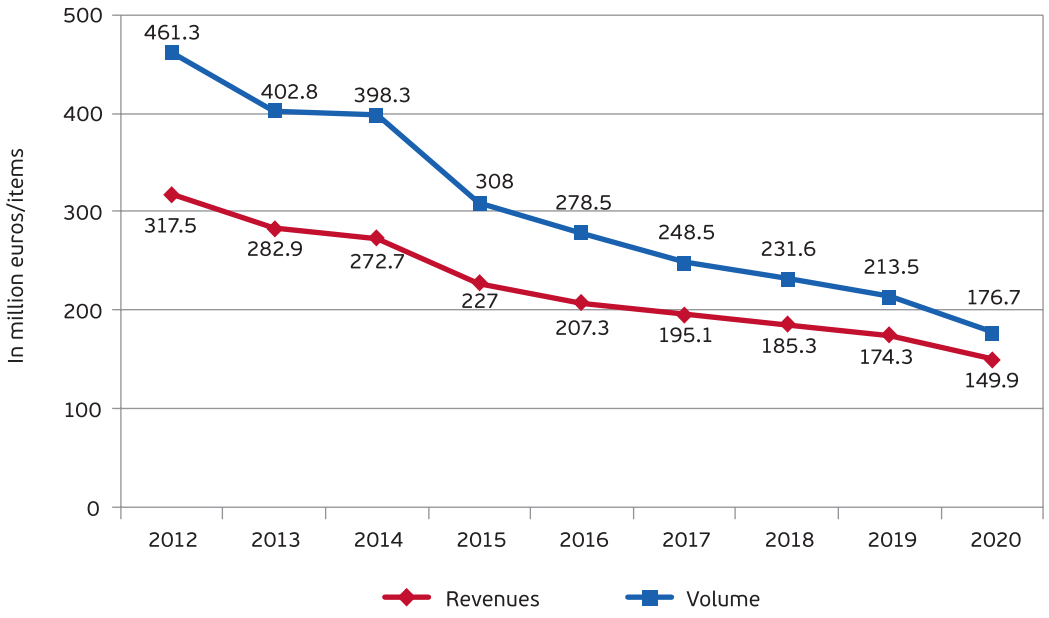
Source: EETT (based on data provided by postal services providers)

The Universal Service Provider (USP)

In 2020, USP's revenues totaled 149.9 million euros, decreased by 14% compared to the previous year. These revenues came from the handling of 176.7 million postal items, 17.2% less compared to 2019. The over time progress of the USP's revenues and volume during the last nine years is presented in Chart 2.20.

The majority of the USP's revenues (81%) was generated mainly from the handling of letters up to 2 kg, followed by parcels up to 20 kg (12.9%) and newspapers (3.3%). In 2020, the average revenues per service increased significantly for parcels up to 20 kg (35.21%) and for newspapers (12.91%). A decrease showed the average revenues to the other categories, e.g. handling of direct mail by 8.06%, small packages up to 2 kg by 2.05% and letters by 2.57% compared to 2019 (Table 2.9).

Chart 2.20: USP's revenues and postal items volume



Source: Annual financial statements of the USP

Table 2.9: USP's revenues and postal items volume shares per service, 2020

	Total items (%)	Total revenues (%)	Average revenue (in euros)	Difference 2019-2020 (%)
Letters	90%	81.0%	0.76	-2.57%
Direct mail	3.7%	1.5%	0.35	-8.06%
Newspapers	5.0%	3.3%	0.56	12.91%
Books-catalogues-periodicals	0%	0%	0	0%
Small packages	0.4%	1.3%	3.03	-2.05%
Parcels	0.9%	12.9%	12.07	35.21%
Total	**100%**	**100%**	**-**	**-**

Source: Annual financial statements of the USP

It is noted that 74% of the USP's revenues was generated by customers holding a contract and 26% from customers paying in cash. The USP's customer portfolio consisted of public sector's organizations (18%), banks/assurance companies (19%), energy supply companies (30%) and individuals (26%).

In 2020, the USP's personnel decreased, compared to 2019, to 5,695 employees. Regarding infrastructure, the USP owned 1,174 post offices, 532 of which were agencies. In addition, the USP owned 656 cars and 1,839 motorbikes.

Companies with Individual License

Besides the USP, nine companies with Individual License operated in the US sector in 2020 (Chart 2.21). Particularly, six companies with Individual License operated in letter mail handling, four in direct mail handling, one in newspapers handling, two in handling of books/catalogues/periodicals and three of them in parcels handling. It is worth noting that 63.7% of the revenues was generated by a single company, which handled 67.6% of letters.

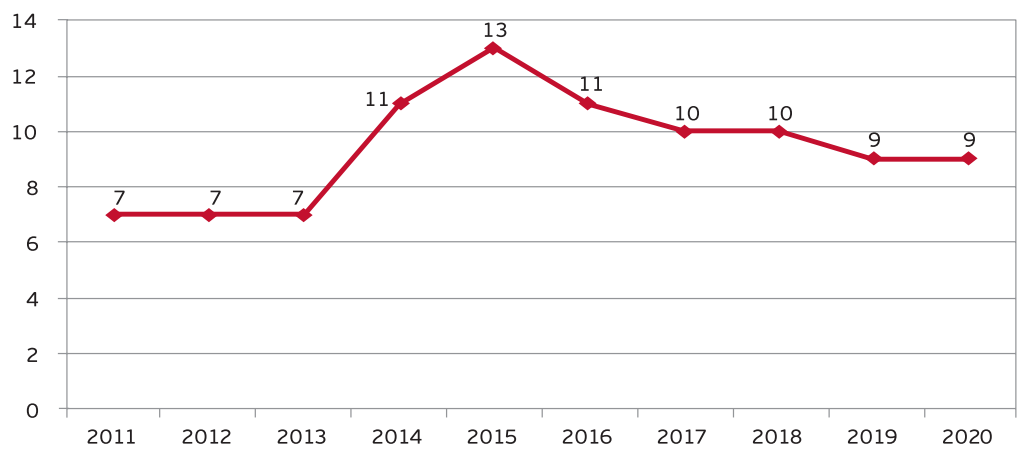
In 2020, the companies with Individual License showed a decrease referring to revenues and to volume of postal items. In particular, the companies with Individual License generated 18.41 million euros revenues, decreased by 11.7% compared to previous year and handled 46.05 million postal items, 5.4% less than in 2019. The over time progress of the revenues and postal items volume of companies with Individual License, during the last nine years, is presented in Chart 2.22.

Since the liberalization of the Greek postal market in 2013, large courier companies are showing great interest in letter mail service. This trend is verified by the fact that, in 2020, companies with Individual License increased their share, regarding postal items volume, to 21% compared to 19% in 2019, generating 11% of total US revenues (compared to 11% in 2019).

As presented in Table 2.10, in 2020, similarly to 2019, letter mail handling almost monopolized the sector's activity.

Herfindahl-Hirschman Index (HHI)[41] gives an indication of the level of competition among postal services providers. It is an index reflecting market

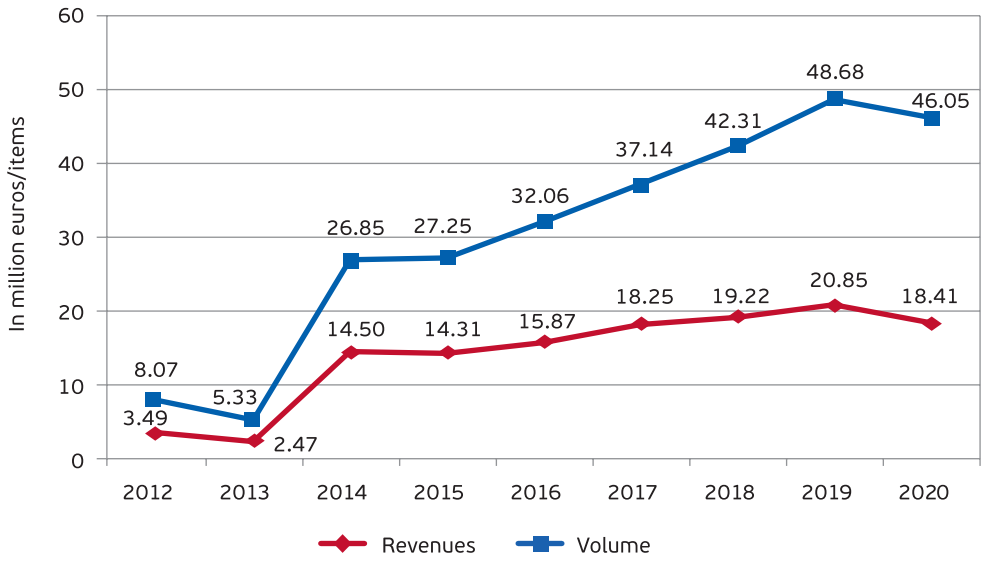
Chart 2.21: Number of companies with Individual License



Source: EETT (Register of postal services providers)

41. Source: Hirschman A. (1945), National Power and the Structure of Foreign Trade, Berkley and Los Angeles: Publications of the Bureau of Business and Economic Research, University of California and Herfindahl, O.C. (1950), Concentration in the U.S. Steel Industry, Columbia University, unpublished Ph.D. thesis. $HHI=\sum^{n}{}_{i=1}\, si^{2}$, where s is the market share of company "i" and n is the number of companies.

Chart 2.22: Revenues and postal items volume of companies with Individual License



Source: EETT (based on data provided by postal services providers)

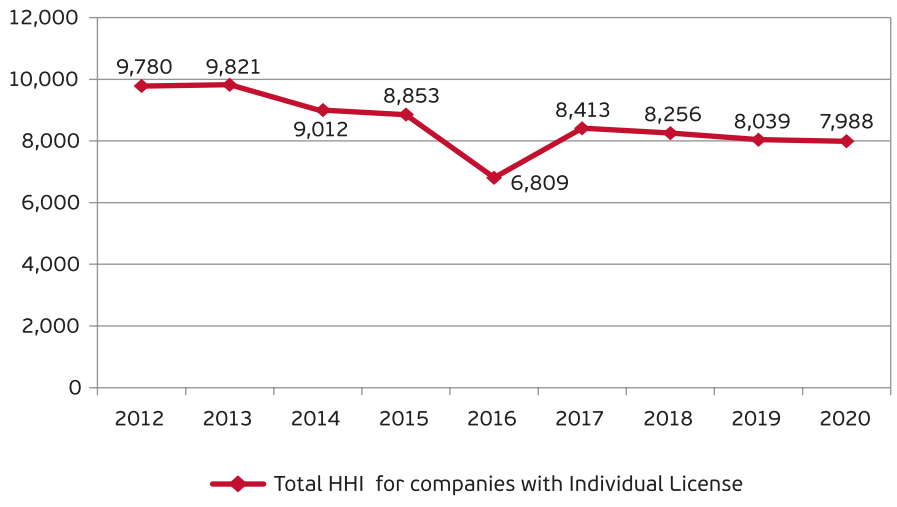
Table 2.10: Postal items volume and revenues shares per service for companies with Individual License, 2020

	Total items (%)	Total revenues (%)
Letters	96.8%	96.5%
Direct mail	1.7%	2.0%
Newspaper	0.98%	0.9%
Books-catalogues-periodicals	0.5%	0.6%
Parcels and small packages	0.013%	0.0%
Total	**100%**	**100%**

Source: EETT (based on data provided by postal services providers)

concentration, which shows the degree to which a small number of companies represents a large part of the market. The higher the HHI, the higher is the concentration. Particularly, a HHI index between 1,000 and 1,800 indicates a moderate level of market concentration. In 2020, the HHI index for the postal market of companies with Individual License continued to show a high degree of concentration due to the presence of the USP (Chart 2.23).

Chart 2.23: Herfindahl-Hirschman Index for companies with Individual License



Source: EETT (based on data provided by postal services providers)

2.3.3. The courier services sector

The courier services sector is of particular interest mainly because of its considerable activity in the area of parcels and small packages delivery. This sector's companies operate under General Authorization and provide courier services, meaning express delivery of postal items including monitoring and track and trace systems.

In 2020, 75 new companies entered into the courier services sector, raising the total number of companies operating under General Authorization to 591[42], versus 539 in 2019.

The activities of the courier companies include the handling of:

- letters up to 2 kg,
- small packages up to 2 kg,
- parcels from 2 up to 20 kg and
- parcels heavier than 20 kg.

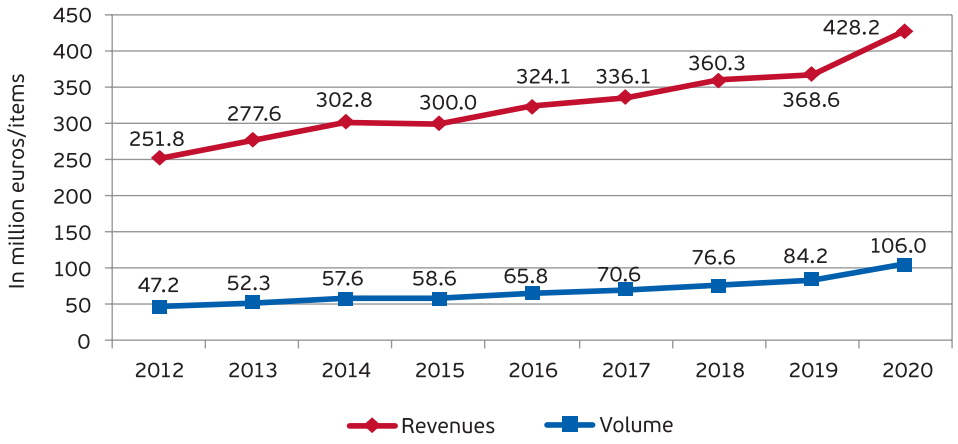
In 2020, companies operating under General Authorization generated 428.20 million euros revenues, increased by 16.2% compared to 2019 and handled 106 million postal items, 25.9% more than 2019 (84.2 million postal items). This impressive increase of the revenues and volume of postal items came from the huge growth of e-commerce due to pandemic Covid-19. The over time growth of revenues and postal items volume of the companies under General Authorization, during the last nine years, is presented in Chart 2.24.

Letters constitute 34% of postal items handled by courier companies, whereas parcels and small packages constitute 65%. Letters generated significantly less revenues (26%) than parcels and small packages (74%). The volume and revenues shares per category of postal items handled by the courier services providers, in 2020, is presented in Chart 2.25.

Regarding the infrastructure, in 2020, courier companies owned in total more than 1,927 branches (including network outlets) and 537 parcel lockers. Additionally, they owned more than 8,265 vehicles (cars and motorbikes) and employed more than 14,078 employees.

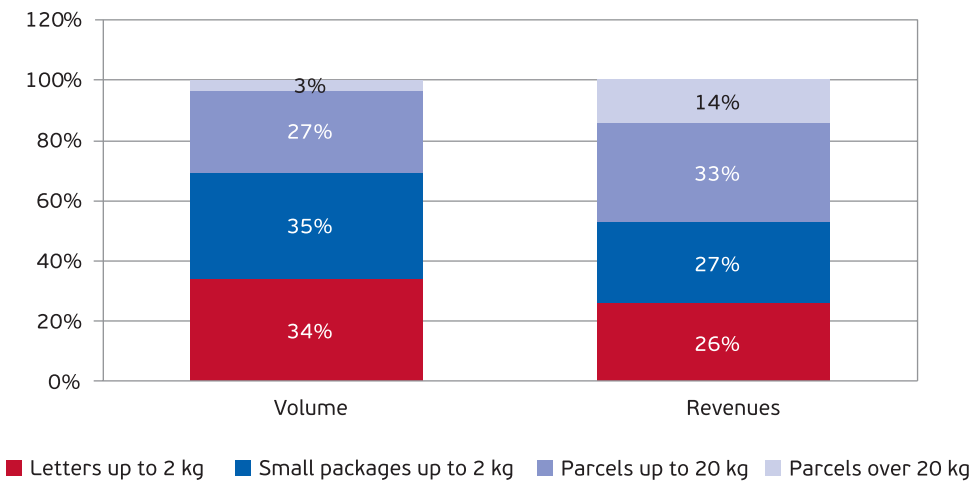
42. Including companies that were active even for a part of the reference year.

Chart 2.24: Postal items volume and revenues of companies under General Authorization



Source: EETT (based on data provided by postal services providers)

Chart 2.25: Postal items volume and revenues shares per service in the courier sector, 2020



Source: EETT (based on data provided by postal services providers)

Competition in the courier services sector

Despite the large number of companies operating in the courier sector in 2020 (591), the largest share of postal items volume was handled by just six companies that generated the majority of revenues in the market. As demonstrated in Chart 2.26, in 2020, the six major companies handled 87.7% of the postal items and generated 83.8% of the courier services market revenues.

Chart 2.27 demonstrates that the competition was more intense in the regions of Attica and Macedonia, from where approximately 80% of the postal items was delivered to domestic and international destinations. Moreover, 60% of the postal items originating from domestic and international destinations was delivered to these areas.

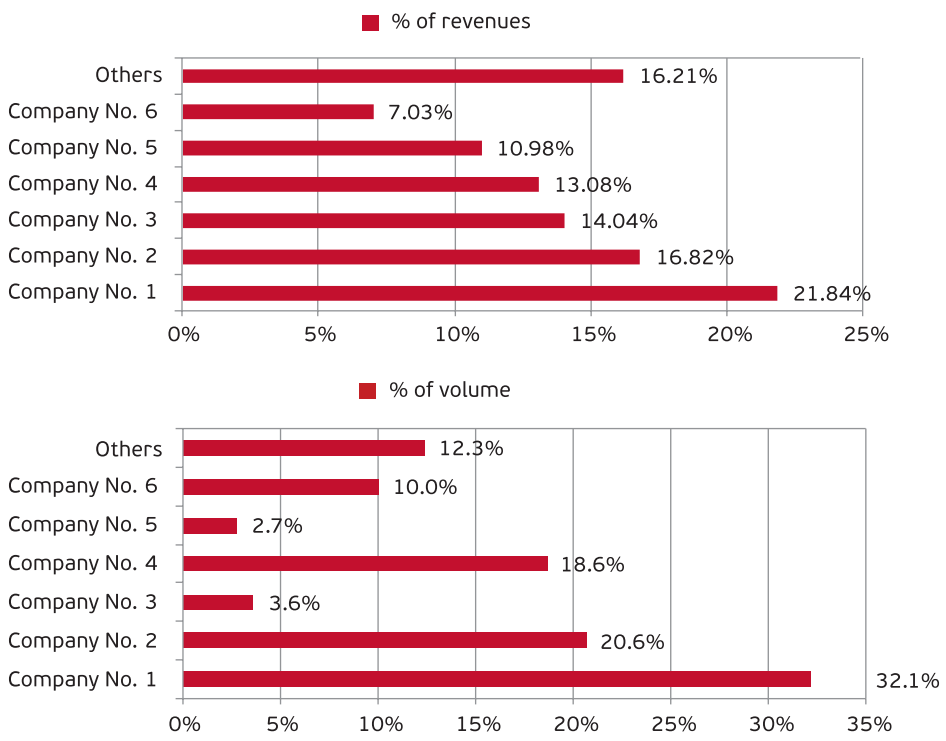
The growth of cross-border e-commerce boosted the activity of courier operators, since 19% of their revenues was generated by international outbound traffic and 14% of their revenues generated by international inbound traffic. The most significant part of outbound traffic was directed to EU countries (70%) and USA-Canada (11%), while the majority of inbound traffic originated from EU countries (90%) and Asia (5%) (Chart 2.28).

Customers holding a contract generated 90% of courier companies' revenues, while retail customers generated 10%. Revenues per customer type are depicted in Chart 2.30.

The clientele of courier companies consisted mainly of companies and less of individual consumers, as shown in Chart 2.29. Main business customers came from the e-commerce sector, followed by retail customers, industry, telecommunications, pharmaceutical industry, individuals, etc.

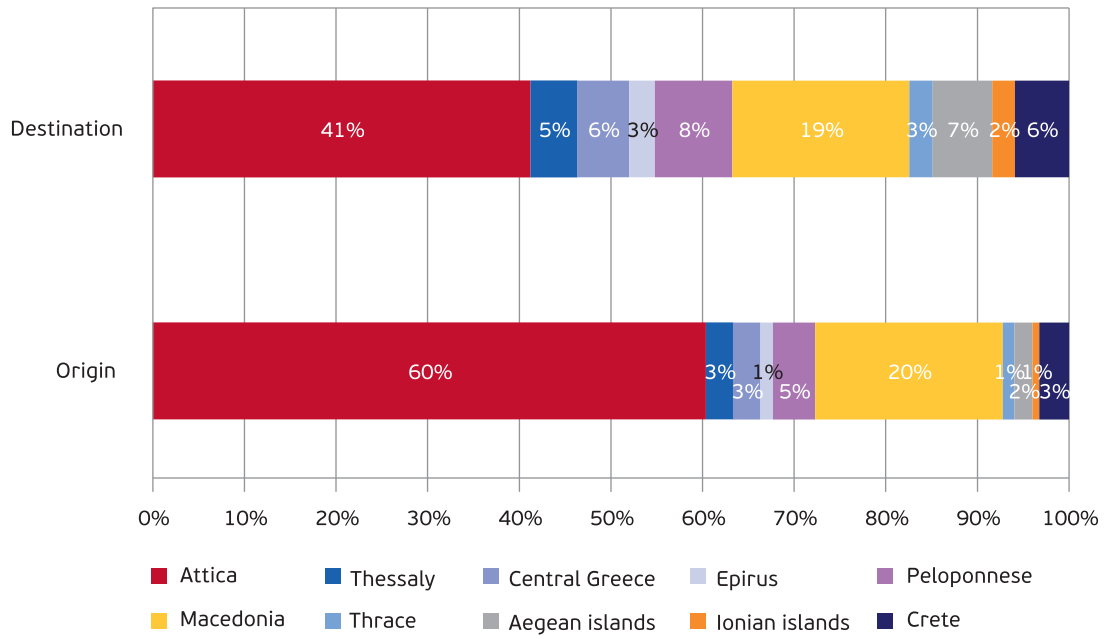
In 2020, the Herfindahl-Hirschman Index (HHI), which gives an indication of the level of competition among courier services providers, was slightly higher for the total market of courier companies, than in previous year, showing a low level of market concentration (Chart 2.31).

Chart 2.26: Revenues and postal items volume shares of courier companies, 2020



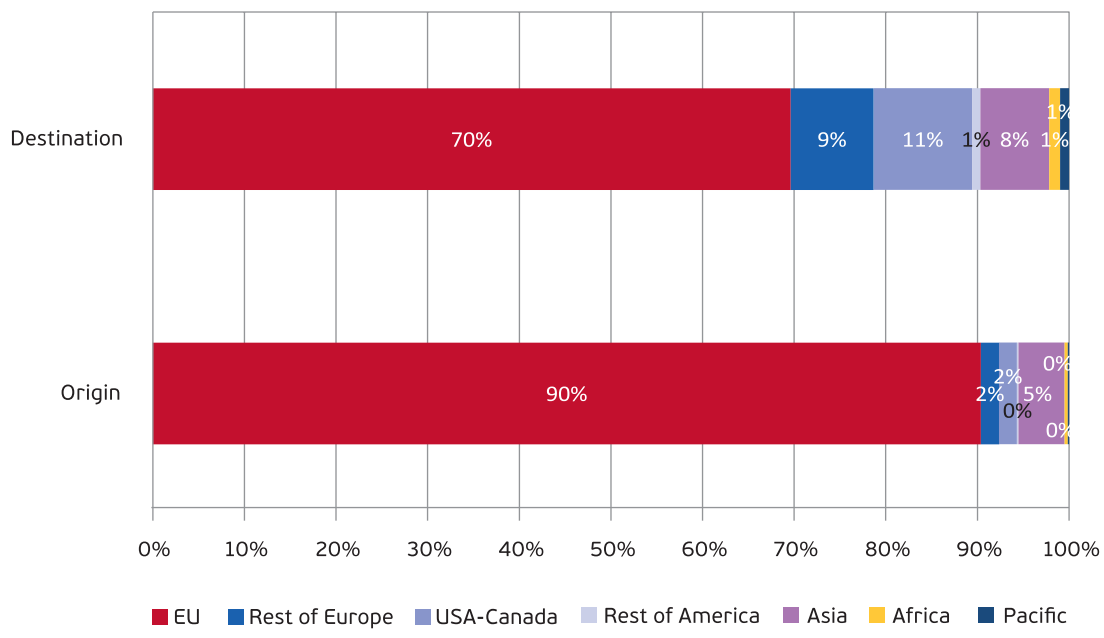
Source: EETT (based on data provided by postal services providers)

Chart 2.27: Destination and origin of courier items deliveries per geographic region, 2020



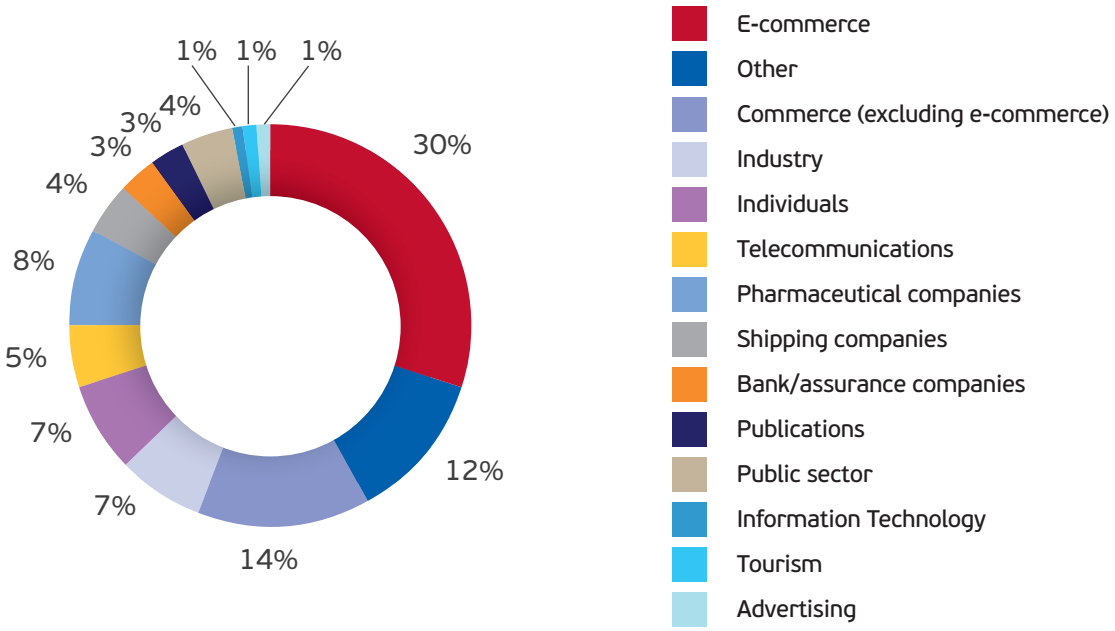
Source: EETT (based on data provided by postal services providers)

Chart 2.28: Destination and origin of cross-border deliveries per geographical region, 2020



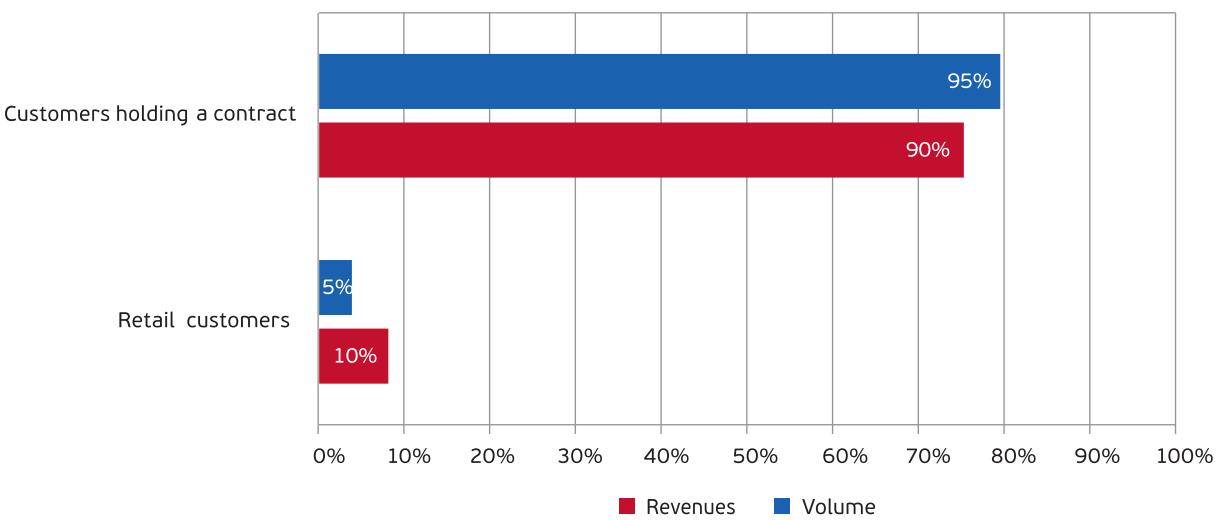
Source: EETT (based on data provided by postal services providers)

Chart 2.29: Breakdown of revenues of courier companies' clientele, 2020



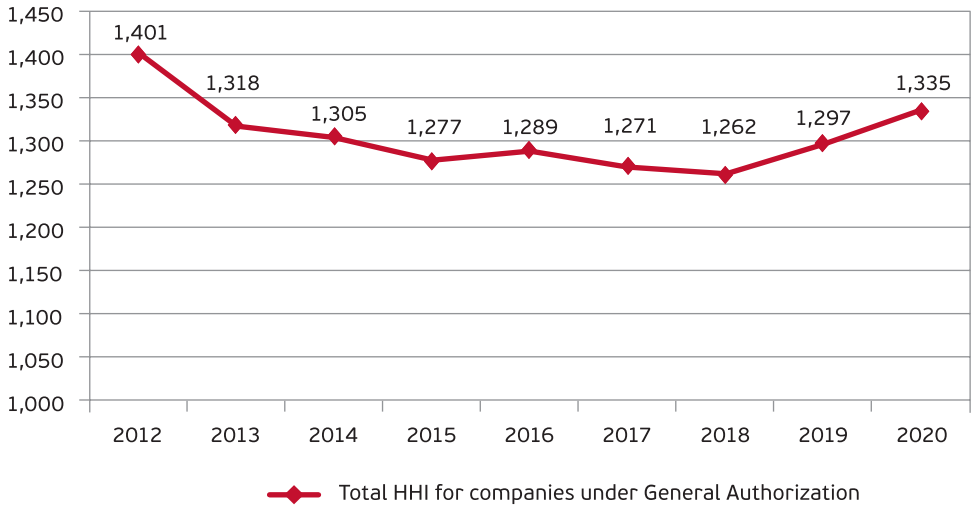
Source: EETT (based on data provided by postal services providers)

Chart 2.30: Postal items volume and revenues of courier companies per customer type, 2020



Source: EETT (based on data provided by postal services providers)

Chart 2.31: Herfindahl-Hirschman Index of companies under General Authorization



Source: EETT (based on data provided by postal services providers)

Index of Charts & Tables

Index of Charts & Tables

Index of Charts & Tables

Index of Charts & Tables

Hellenic Republic
Hellenic Telecommunications & Post Commission
60, Kifissias Ave., 151 25 Maroussi, Greece
T 210 615 1000 **E** info@eett.gr
www.eett.gr