



## Communications Market Review

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**July to December 2017**

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## Table of Contents

<b>1. Reporting parameters .....</b>	<b>4</b>
1.1. The reporting period and data cut-off date.....	4
1.2. The KPIs in this report .....	5
<b>2. Key market outcomes .....</b>	<b>6</b>
<b>3. Market share trends of the local subscriber base.....</b>	<b>13</b>
3.1. Fixed line telephony.....	13
3.2. Mobile telephony.....	13
3.3. Fixed broadband .....	14
3.4. Pay TV.....	14
<b>4. Fixed line telephony .....</b>	<b>15</b>
4.1. Subscriptions.....	15
4.2. Fixed line inward portings.....	17
4.3. Usage trends for fixed line telephony.....	18
4.3.1 National voice traffic volumes.....	19
4.3.2 International voice traffic volumes .....	20
4.4. Activity levels and call duration .....	20
4.5. Fixed telephony ARPU.....	22
4.6. Average rate per minute of fixed line communications .....	22
<b>5. Mobile telephony .....</b>	<b>24</b>
5.1. Subscriptions.....	24
5.2. Mobile inward portings.....	26
5.3. Voice usage trends for mobile telephony.....	27
5.3.1. Voice calls.....	27
5.3.2. Voice call minutes .....	28
5.4. SMS and MMS usage trends .....	28
5.4.1 SMSs .....	28
5.4.2 MMSs.....	30
5.5. Activity levels per mobile subscription .....	30
5.5.1. Voice call activity levels per subscription.....	30
5.5.2. SMS activity levels per subscription .....	31
5.6. Average mobile call duration .....	32
5.7. International roaming usage trends .....	33
5.7.1 Outbound roaming.....	33
5.7.2 Inbound roaming.....	34
5.8. Mobile ARPU .....	35
5.9. Pricing developments for mobile telephony .....	36

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<b>6. Fixed and mobile broadband .....</b>	<b>39</b>
6.1. Fixed broadband subscriptions .....	39
6.2. Fixed broadband subscriptions by type of access technology.....	40
6.3. Fixed broadband subscriptions by speed .....	41
6.4. Fixed broadband subscriptions by access technology and download speed .....	42
6.5. Fixed broadband ARPU .....	43
6.6. Average rate per Mbps .....	44
6.7. Take-up and usage of mobile broadband .....	47
6.8. Mobile broadband penetration .....	48
<b>7. Pay-TV.....</b>	<b>49</b>
7.1. Pay TV subscriptions .....	49
7.2. Pay TV subscriptions by technology platform.....	50
7.3. Pay TV ARPU.....	51
7.4. Average advertised monthly access fees for stand-alone Pay TV .....	52
<b>8. Post .....</b>	<b>54</b>
8.1. Postal mail volumes .....	54
8.2. Postal mail volumes by type of mail .....	56
8.3. Postal mail volumes by activity heading .....	57
8.4. Quality of service for the delivery of postal mail.....	58
8.4.1 Local ordinary mail and bulk mail .....	59
8.4.2. Local registered mail and priority inbound parcels.....	59
<b>9. Tables.....</b>	<b>61</b>
<b>10. Figures .....</b>	<b>62</b>
<b>11. Glossary of Terms .....</b>	<b>64</b>
<b>12. Legal Disclaimer.....</b>	<b>66</b>
<b>13. Contact .....</b>	<b>67</b>

## 1. Reporting parameters

This is the latest report in a series of Communications Market Review (CMR) publications from the Malta Communications Authority (MCA), covering the period January 2013 to December 2017. The report draws on quarterly and half-yearly data compiled by the MCA from network operators and service providers involved in the provision of electronic communications and postal services in Malta. This data is then utilised to develop key performance indicators (KPIs) for the relevant sectors.

Figure 1 below lists the network operators and service providers that submitted data to the MCA<sup>1</sup>.

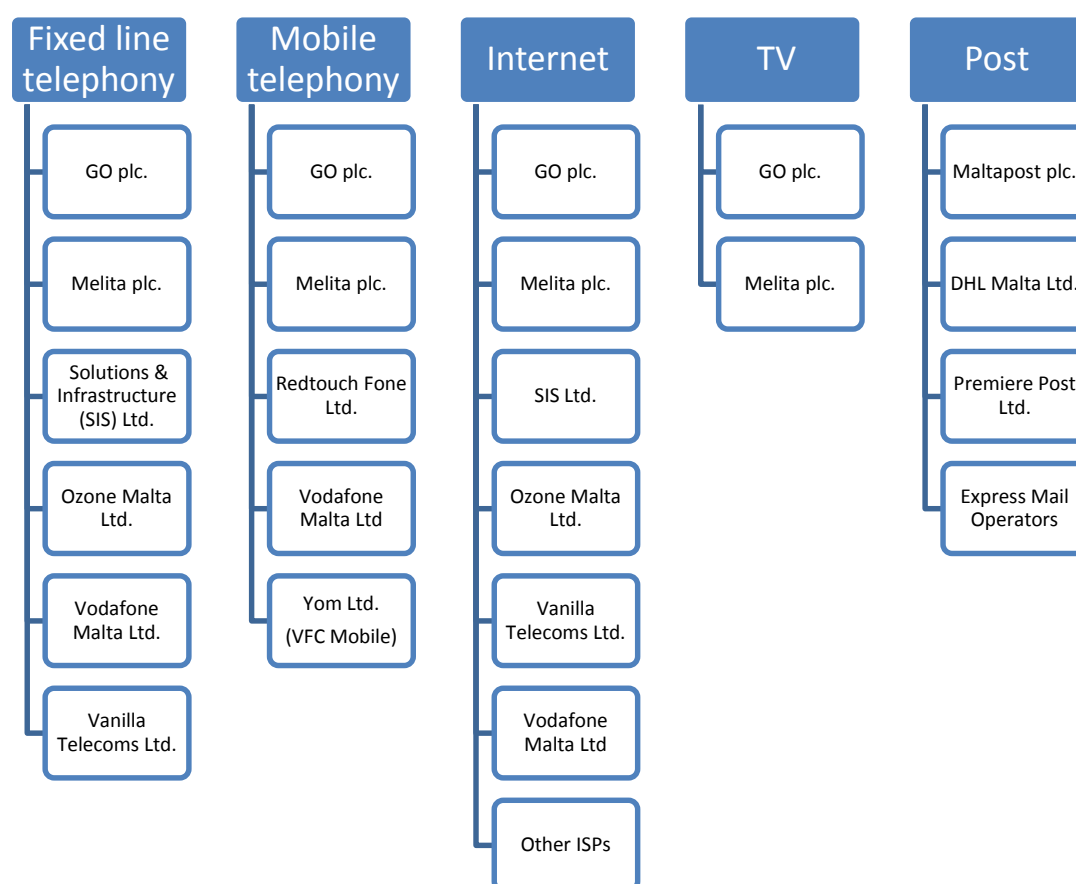


Figure 1: Operators providing quarterly data

This report also refers to findings extracted from publications of third parties in the areas of interest<sup>2</sup>.

### 1.1. The reporting period and data cut-off date

The current review presents data and KPIs on a quarterly and half-yearly basis for the period starting Q1 2013 and ending Q4 2017.

<sup>1</sup> SIS Ltd. has notified the MCA in the first quarter of 2017 that it was ceasing operations.

<sup>2</sup> References to information contained in other websites and quotes from third party sources, such as reference to Deutsche Post's postal rate figures in Malta and the EU, should not be interpreted as constituting endorsement, accuracy and/or responsibility by the MCA.

The data cut-off date for implementing changes and updates in the data has been set at the 15<sup>th</sup> June 2018. Any data revised and updated by the sources after the cut-off date has been incorporated in the Data Report Sheet (DRS) published in June 2018<sup>3</sup>.

## 1.2. The KPIs in this report

This report is composed of five sections dealing with trends observed for fixed telephony, mobile telephony, Internet, pay-TV and post. A list of indicators covered in this review is highlighted below.

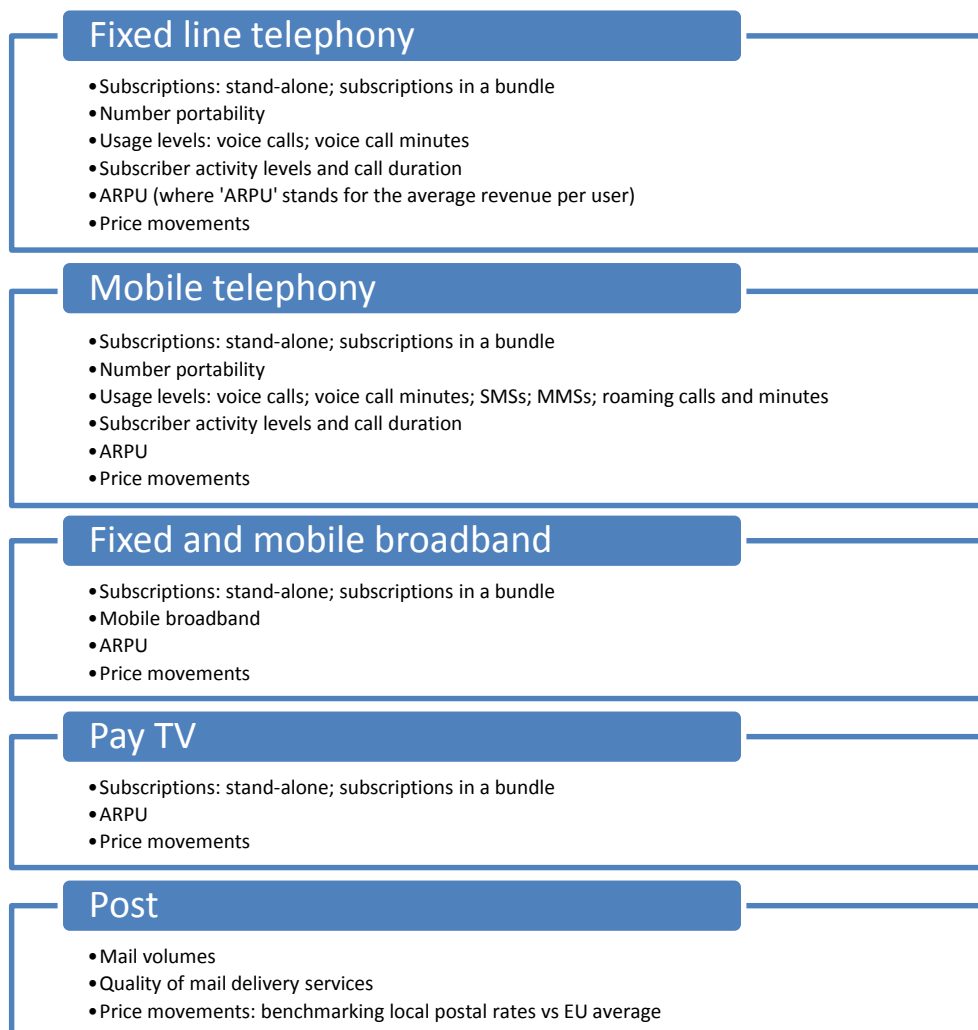


Figure 2: Key market indicators for electronic communications and post

<sup>3</sup> The MCA publishes a DRS on a regular basis, the latest of which can be found on: <https://mca.org.mt/articles/key-market-indicators-electronic-communications-and-post-q1-2014-q1-2018>

## 2. Key market outcomes

The telecoms sector in Malta has witnessed continued subscriber growth across all operating segments, with fixed broadband and mobile telephony driving the overall positive performance. Of significance is the ability of the major operators to capture a bigger proportion of the subscriber base into the bundle sphere, partly by narrowing their stand-alone service offerings and partly by offering more competitively priced bundle packages.

The operating environment was particularly upbeat in the fixed broadband segment, with the subscriber base growing by 6% in the 12-month period to December 2017. Overall growth reflects higher take-up of fast and ultra-fast connections, with around 65.5% of all fixed broadband subscriptions at the end of 2017 supporting these speeds. The wider availability of fast and ultra-fast fixed broadband meant that the average rate per Mbps slid down further in the current review period, despite the rise in entry-level monthly access fees for these products. Meanwhile, revenue streams of service providers improved, as evidenced by a reported 8.7% rise in ARPU, from €103.45 in the second of 2016 to €112.84 in the current reporting period.

The mobile telephony sector also witnessed a significant growth, both in terms of the subscriber base and usage levels, particularly when it comes to the active access to the Internet. Year-on-year, the number of subscriptions was up by 19,289 (or by 3.3%), which pushed up the mobile penetration rate 1.3 percentage points to 128.5% at the end of 2017. The surge in voice minute volumes per mobile telephony user reflects the continued shift in consumer voice calling preferences towards mobile, aided by the bigger allowances on offer with both pre-paid and post-paid plans. Ultimately, this explains the negative outcomes when it comes to fixed telephony voice usage, despite the increasing take-up of the fixed telephony service. Also of relevance is that mobile telephony ARPU was slightly down, which may suggest the onset of a more competitively priced environment, typically by way of bigger voice and data allowances. In fact, apart from rising voice usage levels, active usage of mobile broadband services surged markedly with an 11% increase in the number of mobile telephony subscriptions actively using these services.

Noteworthy is the expansion of the pay-TV subscriber base, as subscriptions were up by 5% year-on-year. The uptick in subscriptions materialised in the context of a bigger proportion of this product being purchased in a bundle. Significantly, service providers diluted the stand-alone line-up in the current review period, and placed greater emphasis on pay-TV plans featuring in bundles.

As for the postal sector, 2017 mail volumes were largely unchanged from those recorded a year earlier. The drop in single piece letter mail was somewhat offset by an increase in bulk mail and registered mail, whilst parcel mail showed a surge, buoyed by an ever expanding eCommerce activity.

More detailed information on the main market outcomes for the electronic communications and postal sectors is provided in Sections 4 to 8 of this document.

### i. Mobile telephony

- The number of mobile telephony subscriptions totalled 604,725 as at the end of December 2017, up by 19,255 (or by 3.3%) year-on-year. The mobile penetration rate at the end of the current reporting period stood at 128.51%, up from 127.19% a year earlier.
- The number of post-paid subscriptions was up by 13,121 (or by 6.6%) year-on-year and the number of pre-paid subscriptions was up by 6,134 (or by 1.6%). The proportion of the subscriber base on a post-paid was up from 33.7% at the end of 2016 to 34.8% a year later.
- 9.2% of all mobile subscriptions recorded at the end of December 2017 were bundled with some other electronic communications service.
- The number of mobile inward portings totalled 17,145 in the second half of 2017, up by 1,520 (or by 9.7%) from 15,625 inward portings recorded in the same period a year earlier.
- The number of mobile voice call minutes recorded in the second half of 2017 totalled 449.0 million, which is up by 35.6 million (or by 8.6%) from 413.4 million recorded in the second half of 2016. Conversely, the number of mobile voice calls was down by 19.5 million (or by 7.7%) from 259.9 million to 233.4 million.
- Voice usage levels per subscription were down in terms of voice calls but up in terms of voice call minutes. Table 1 below outlines these contrasting trends and the continued decline in usage levels per subscription noted in the case of SMSs.

Mobile telephony	SH 2015	SH 2016	SH 2017
<b>Subscriptions (end of period)</b>	557,583	585,470	604,725
<b>Activity levels per subscription</b>			
Number of voice calls	490	435	387
Number of voice call minutes	690	711	745
Number of SMSs	403	340	278
<b>ARPM (overall)</b>	€0.083	€0.076	€0.070
<b>Average rate per SMS (overall)</b>	€0.032	€0.034	€0.032
<b>ARPU</b>	€92.66	€89.69	€88.86

Table 1: Take-up, activity levels and pricing for the mobile sector

- In line with long-term market trends, mobile telephony maintains the drive towards more competitively priced voice call offers. In fact, the average rate per minute (ARPM) of mobile communications in the second half of 2017 was down by 7.9% to €0.070 from €0.076 in the second half of the previous year.

## ii.Fixed line telephony

- The number of fixed line subscriptions totalled 240,280 by the end of December 2017, up by 5,912 subscriptions (or by 2.5%) from 234,368 a year earlier.
- Year-on-year, the number of post-paid subscriptions and 'enhanced' subscriptions was up by 8,896 and 580 respectively. In contrast, the number of pre-paid subscriptions was down by 3,564.
- As for the proportion of the local subscriber base by type of subscription, 93.5% were on a post-paid contract at the end of the current reporting period, 5.0% were on a pre-paid plan and 1.5% where on an 'enhanced' plan.
- 72.8% of all fixed line telephony subscriptions at the end of the current reporting period were purchased in a bundle with other electronic communications services.
- There were 1,335 fixed line inward portings in the second half of 2017, up from 942 inward portings recorded a year earlier.
- Fixed line traffic volumes were down in the second half of 2017 when compared to the same period a year earlier. The number of outgoing voice calls was down by 4.7 million (or by 6.7%) and the number of outgoing voice call minutes was down by 15.6 million (or by 6.1%). The decline in traffic volumes combined with a larger subscriber base contributed to a dampening in voice activity levels per subscription. Table 2 below illustrates these trends.

Fixed line telephony	SH 2015	SH 2016	SH 2017
<b>Subscriptions (end of period)</b>	230,226	234,368	240,280
<b>Voice activity levels per subscription</b>			
Number of voice calls	327	290	263
Number of voice call minutes	1,144	1,037	938
<b>Average rate per minute (ARPM)</b>	€0.030	€0.028	€0.027
on-net FTF call	€0.009	€0.008	€0.008
off-net FTF call	€0.013	€0.011	€0.009
FTM call	€0.155	€0.137	€0.118
FTI call	€0.094	€0.094	€0.091
<b>Average revenue per user (ARPU)</b>	€75.47	€70.49	€66.96

Table 2: Take-up, activity levels and pricing for the fixed line sector

- Fixed telephony ARPU in the second half of 2017 was down by 4.8% when compared to the same period a year earlier, from €70.30 to €66.96. This is mainly due to lower voice traffic volumes as well as an increased take-up of this service in a bundle.
- The ARPM of fixed line communications in the second half of 2017, at €0.028, was relatively unchanged to that recorded in the second half of 2016.



### iii.Fixed and mobile broadband

- The number of fixed broadband subscriptions totalled 181,318 at the end of 2017. This figure is up by 10,055 (or by 5.9%) from 171,263 reported a year earlier.
- The fixed broadband penetration rate stood at 38.1% at the end of last December, representing a one-percentage point increase year-on-year.
- 84.1% of all fixed broadband subscriptions reported at the end of 2017 were in a bundle, which is up by around 5-percentage points year-on-year. In absolute terms, the number of fixed broadband subscriptions in a bundle totalled 152,437 at the end of December 2017.

Fixed broadband	SH 2015	SH 2016	SH 2017
<b>Subscriptions (end of period)</b>	<b>163,205</b>	<b>171,263</b>	<b>181,318</b>
less than 5Mbps	2,435	1,009	715
greater than or equal to 5Mbps but less than 10Mbps	296	230	142
greater than or equal to 10Mbps but less than 20Mbps	57,902	60,621	28,093
greater than or equal to 20Mbps but less than 30Mbps	2,665	3,019	2,453
greater than or equal to 30Mbps but less than 50Mbps	89,230	34,528	31,097
greater than or equal to 50Mbps but less than 100Mbps	8,407	61,295	82,528
100Mbps and more	2,270	10,561	36,290
<b>Average rate per Mbps</b>	<b>€1.515</b>	<b>€1.064</b>	<b>€0.981</b>
less than 5Mbps	€3.945	€4.425	€4.425
greater than or equal to 5Mbps but less than 10Mbps	€4.672	€4.327	€4.327
greater than or equal to 10Mbps but less than 20Mbps	€1.652	€1.631	€1.440
greater than or equal to 20Mbps but less than 30Mbps	€1.883	€2.012	€2.012
greater than or equal to 30Mbps but less than 50Mbps	€1.056	€0.975	€0.814
greater than or equal to 50Mbps but less than 100Mbps	€0.730	€0.613	€0.623
100Mbps and more	€0.833	€0.432	€0.390
<b>ARPU</b>	<b>€91.32</b>	<b>€103.17</b>	<b>€112.19</b>

Table 3: Take-up and pricing for the fixed broadband sector

- In the 12-month period to the end of 2017, the number of subscriptions supporting a download speed of 30Mbps but less than 100Mbps was up by 18.6%, whilst the number of subscriptions supporting download speeds of 100Mbps or higher more than tripled.
- At the end of 2017, 85,707 fixed broadband subscriptions were on the cable platform (equivalent to 47.3% of the total). The number of DSL-based and wireless-based subscriptions totalled 72,525 (equivalent to 40.0% of the total) and 8,380 (equivalent to 4.6% of the total) respectively. Fibre-to-the-Home (FTTH) subscriptions totalled 14,706 (equal to 8.1% of the total).

- Fixed broadband ARPU in the second half of 2017 stood at €112.19, up by 8.7% from €103.17 in the second half of 2016. This change materialised despite the fall in the average rate per unit of download speed (or per Mbps) recorded during this period.
- The average rate per Mbps in the second half of 2017 stood at €0.98, down by 7.5% from €1.06 in the second half of 2016.
- Take-up of mobile broadband services was up in the current review period, with the number of active users surging from 326,102 subscriptions at the end of 2016 to 362,004 at the end of 2017.

## iv. Pay TV

- The number of pay TV subscriptions totalled 155,676 at the end of December 2017, up by 7,920 (or by 5.4%) from 147,756 a year earlier.
- During this period, the number of analogue cable subscriptions was down by 1,456 (or by 73%). Meanwhile, the number of digital terrestrial TV (DTTV) subscriptions fell by 11,459 (or by 25.1%). On the other hand, demand was up for digital cable TV offered by Melita and Internet Protocol TV (IPTV) offered by GO. The former saw a rise of 13,175 subscriptions whilst the latter saw an increase of 10,147 subscriptions.

Pay TV	SH 2015	SH 2016	SH 2017
<b>Subscriptions (end of period)</b>	149,378	147,756	155,676
<b>Average market rates for pay TV packages</b>	€20.41	€24.82	€19.66
up to 24 channels	€5.00	-	€9.99
25 to 49 channels	€15.66	€16.49	€14.66
50 to 74 channels	€23.49	-	-
75 to 99 channels	€24.99	€23.99	€21.99
100 channels or more	€32.99	€33.99	€32.00
<b>ARPU</b>	€93.16	€92.17	€86.68

Table 4: Take-up and pricing for the Pay TV sector

- The share of total pay-TV subscriptions on the analogue cable and digital cable platforms stood at 0.94% and 54.2% respectively at the end of December 2017. In the former case, the share is down by almost 3 percentage points year-on-year, whilst in the latter case the share is up by 6 percentage points. Meanwhile, the DTTV and IPTV platforms respectively accounted for 22% and 22.9% of the total pay-TV subscriptions recorded at the end of current reporting period. Compared to its standing at the end of December 2016, DTTV is down by 8.8 percentage points, whilst IPTV is up by 5.6 percentage points.
- The number of pay-TV subscriptions in a bundle was up by 85,926 year-on-year to 101,667 at the end of 2017. The percentage of pay TV subscriptions purchased in a bundle at the end of last December stood at 65.9%, up by 5.5 percentage points year-on-year.
- Pay-TV ARPU in the second half of 2017 stood at €86.68, down from €92.17 in the second half of 2016.
- MCA workings show that the average advertised monthly access fee for pay-TV plans offered on a stand-alone basis stood at €19.66 in second half of 2017, down from €24.82 recorded in the second half of 2016. MCA workings show that the average advertised monthly access fee for stand-alone pay-TV plans stood at €19.66 in the second half of 2017, down from €24.82 recorded in the second half of 2016.

## v. Post

- Postal mail volumes delivered in the second half of 2017 totalled 18.4 million items, slightly lower than recorded in the same reporting period last year.
- Standard mail activity accounts for 96.3% of all postal mail volumes recorded in the second half of 2017. Express mail activity accounted for the remaining share.
- In absolute terms, standard mail volumes in the second half of 2017 were down by 0.04 million items (or by 0.2%) when compared to the same period a year earlier. Meanwhile, express mail volumes were up by 4.6%, from 657,002 mail items to 687,124 mail items.

Post	SH 2015	SH 2016	SH 2017
<b>Postal mail volumes</b>	19,457,230	18,381,582	18,371,962
Standard mail volumes	18,940,024	17,724,580	17,684,838
Single piece letter mail	7,807,557	7,470,966	7,245,393
Bulk mail	10,704,011	9,882,172	10,026,329
Registered mail	670,995	710,796	779,644
Parcel mail	274,667	317,648	320,596
Express mail volumes	517,206	657,002	687,124
Single piece letter mail	320,680	427,448	465,016
Bulk mail	-	-	-
Registered mail	-	-	-
Parcel mail	232,332	268,337	266,524

Table 5: Postal mail volumes

- As to developments by type of mail item (standard mail and express mail added together), bulk mail activity accounted for 54.5% of all postal mail volumes recorded in the second half of 2017, followed by single piece letter mail at 39.4%, registered mail at 4.2% and parcel mail at 1.7%.

### 3. Market share on the basis of subscriptions

This section looks at the changes in market position of local service providers, based on the number of subscriptions reported at the end of the current review period.

#### 3.1. Fixed line telephony

By the end of 2017, GO's market share stood at 61% when compared to Melita's market share of 36.1%. Vodafone Malta continues to lead small operators in market share at 2.61 whilst Ozone Malta and Vanilla Malta held a market share of 0.21% and 0.05% respectively. It has been noted that the drop in market share for GO was attributed to the increase in market share for both Melita and Vodafone Malta.

Market shares	GO	Melita	SIS	Ozone Malta	Vanilla Telecoms	Vodafone Malta
End of SH 2017	61.02%	36.13%	-	0.21%	0.05%	2.61%
End of SH 2016	64.83%	33.97%	0.07%	0.32%	0.03%	0.78%
End of SH 2015	65.43%	33.84%	0.08%	0.34%	0.02%	0.29%

Figure 3: Market shares in terms of fixed line telephony subscriptions as at end of period

#### 3.2. Mobile telephony

Vodafone Malta's market share dropped by 0.9 percentage points by the end of 2017, from 44.1% to 43.2%. Similarly, a drop in market share was also observed for GO Mobile, with market control for this operator dropping from 37.2% to 36.7% by the end of December 2017. Meanwhile, the loss of market share for the aforementioned operators resulted in gains for Melita Mobile from 17% at the end of 2016 to 18.6% a year later.

The market share for smaller companies such as Redtouch Fone has declined from 1.7 at the end of December 2016 to 1.5% at the end of December 2017 whilst the market share for YOM remains relatively unchanged from previous years.

Market shares	GO Mobile	Vodafone Malta	Melita Mobile	Redtouch Fone	YOM
End of SH 2017	36.73%	43.22%	18.58%	1.46%	0.0%
End of SH 2016	37.19%	44.14%	16.99%	1.66%	0.01%
End of SH 2015	38.24%	43.94%	16.01%	1.8%	0.01%

Figure 4: Market shares in terms of mobile telephony subscriptions as at end of period<sup>4</sup>

<sup>4</sup> In the first half of 2017, all reported activity is attributable to Redtouch Fone.

### 3.3. Fixed broadband

GO's fixed broadband market share was down by 1.6 percentage to 48.1% by the end of 2017. Despite this decline, GO still continues to be the largest market shareholder for fixed broadband. Meanwhile, Melita's market share has increased marginally by 0.04 percentage points, from 47.2% at the end of 2016 to 47.3% at the end of 2017. The combined market share of Ozone Malta and Vanilla Telecoms remains relatively unchanged.

Meanwhile, Vodafone Malta had gained 1.62 percentage points in its market share by the end of 2017, growing from 2.7% to 4.3%. This was the largest market share growth observed for fixed broadband. SIS Ltd was no longer active at the end of the current reporting period.

Market shares	GO	Melita	SIS	Ozone Malta	Vanilla Telecoms	Vodafone Malta
End of SH 2017	48.11%	47.27%	-	0.18%	0.13%	4.32%
End of SH 2016	49.72%	47.23%	0.03%	0.21%	0.11%	2.70%
End of SH 2015	48.92%	49.48%	0.06%	0.21%	0.11%	1.21%

Figure 5: Market shares in terms of fixed broadband subscriptions as at end of period<sup>5</sup>

### 3.4. Pay-TV

The latest data has revealed that Melita has made headway in the pay-TV sector. Melita's market share in pay-TV has increased by 3.3 percentage points, from 51.6% at the end of 2016 to 55.1% at the end of 2017. As a result, GO's market share dropped by the same margin to 44.9% at the end of 2017.

Market shares	GO	Melita
End of SH 2017	44.86%	55.14%
End of SH 2016	48.15%	51.85%
End of SH 2015	47.31%	52.69%

Figure 6: Market shares in terms of pay TV subscriptions as at end of period

<sup>5</sup> IP-based ISPs were no longer active as from the end of 2015.

## 4. Fixed line telephony

Developments in the fixed telephony segment are marked by three main factors. First, the rise in take-up of bundles, which serves to keep the service active in the large majority of Maltese homes and businesses, notwithstanding the steady decline in usage of the service. Second, subscriptions to pre-paid plans now accounts for just 5% of the local subscriber base, which is again linked to the rise in bundles that only allow for post-paid fixed telephony. Thirdly, the decline in fixed voice traffic volumes corresponds to a broader consumer shift in the usage of voice telephony services to mobile telephony. Bundle discounts in combination with dwindling usage largely explain why fixed telephony ARPU is in decline.

### 4.1. Subscriptions

The number of fixed telephony subscriptions by the end of 2017 totalled 240,280 compared to 234,368 a year earlier. This corresponds to a year-on-year increase of 5,912 subscriptions, brought about mainly by the rise in take-up of standard post-paid plans, which contractually bind the consumer to purchase the service for a specified period (typically two years) and to pay a monthly access fee for the whole duration of the contract term agreement.

A total of 224,760 post-paid fixed telephony subscriptions were reported at the end of the current reporting period. Compared to the end of December 2016, the number of post-paid subscriptions was up by 8,896 (or by 4.1%).

Another contribution to growth in the fixed telephony subscriber base came from the 'enhanced' type of subscriptions, which are subscriptions that offer multiple (dual or more) fixed telephony channel connections. Year-on-year, the number of 'enhanced' fixed telephony subscriptions was up by 580 (or by 19, from 2,911 at the end of 2016 to 3,491 at the end of 2017).

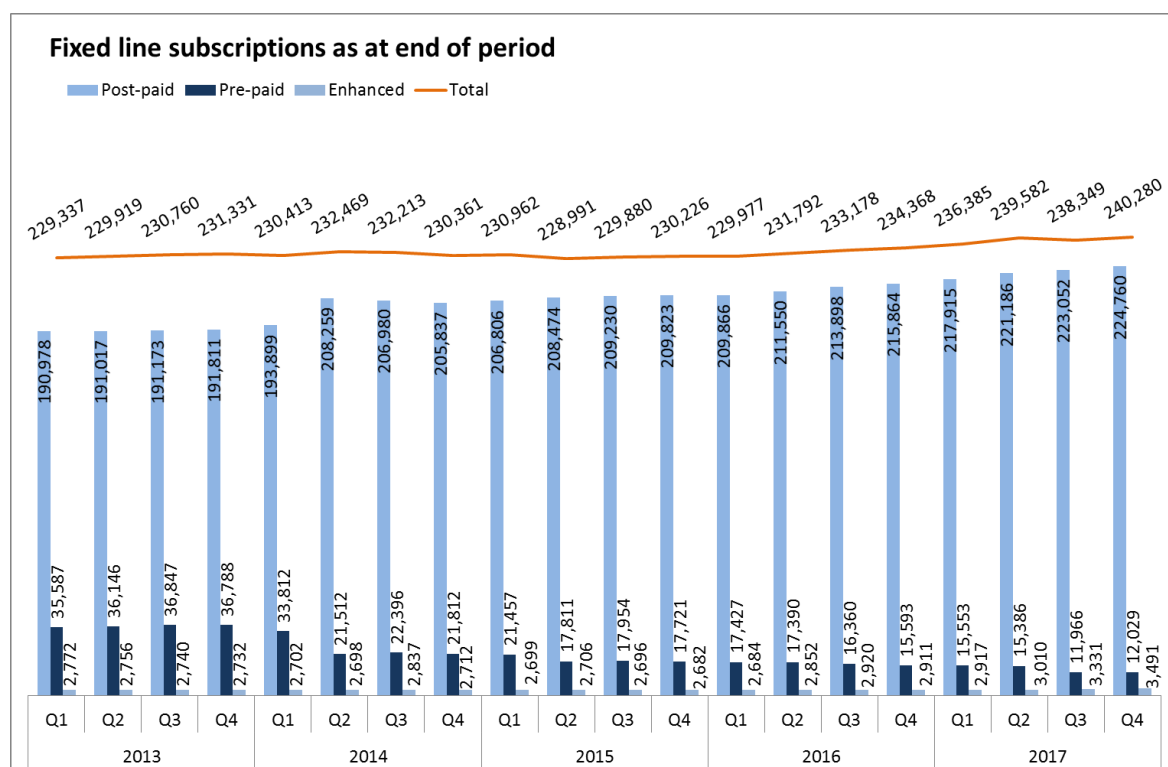


Figure 7: Fixed line telephony subscriptions as at end of period

In contrast to the above-mentioned increases, the number of pre-paid subscriptions, which do not entail a contractual term agreement, was down by 3,564 (or by 22.9%) year-on-year, from 15,593 at the end of 2016 to 12,029 at the end of last year.

By the end of 2017, 93.5% of all fixed line telephony subscriptions were on a standard post-paid contract, representing a 1.4 percentage point increase year-on-year. Meanwhile, pre-paid subscriptions accounted for just 5.0% of the local fixed telephony subscriber base, down from 6.7% a year earlier. The proportion of enhanced subscriptions stood at 1.5% by the end of 2017.

#### Subscriptions on a bundle

Fixed telephony is the second most bundled electronic communications service (ECS) product, with 68% of all subscriptions reported at the end of 2017 being purchased in a bundle. In absolute terms, the number of fixed line telephony subscriptions purchased in a bundle increased by 15,921 (or 10.8%) year-on-year, from 147,655 at the end of 2016 to 163,576 at the end of December 2017.



Fixed line telephony subscriptions in a bundle	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
<b>Fixed telephony subscriptions on a dual play contract</b>	<b>33,056</b>	<b>33,715</b>	<b>39,137</b>	<b>47,948</b>	<b>52,230</b>	<b>57,870</b>	<b>62,844</b>	<b>67,215</b>	<b>67,120</b>	<b>66,932</b>
Fixed & Mobile	12,156	12,443	13,427	11,112	8,985	7,850	7,502	7,258	6,597	6,092
Fixed & Internet	10,068	11,349	15,979	29,890	36,927	44,179	49,622	54,413	55,227	55,793
Fixed & TV	10,832	9,923	9,731	6,946	6,318	5,841	5,720	5,544	5,296	5,047
<b>Fixed telephony subscriptions on a triple play contract</b>	<b>15,459</b>	<b>21,376</b>	<b>22,477</b>	<b>25,490</b>	<b>26,718</b>	<b>27,525</b>	<b>28,613</b>	<b>30,540</b>	<b>40,675</b>	<b>46,859</b>
Fixed & Mobile & Internet	344	289	312	620	630	139	84	58	37	24
Fixed & TV & Internet	15,115	21,087	22,165	24,870	26,088	27,386	28,529	30,482	40,638	46,835
<b>Fixed telephony subscriptions on a quad play contract</b>	<b>41,339</b>	<b>42,486</b>	<b>44,069</b>	<b>44,429</b>	<b>45,683</b>	<b>46,988</b>	<b>48,075</b>	<b>49,900</b>	<b>49,175</b>	<b>49,785</b>
Fixed telephony + fixed broadband + pay-TV + mobile telephony	41,339	42,486	44,069	44,429	45,683	46,988	48,075	49,900	49,175	49,785
<b>Total number of fixed telephony subscriptions in a bundle</b>	<b>89,854</b>	<b>97,577</b>	<b>105,683</b>	<b>117,867</b>	<b>124,631</b>	<b>132,383</b>	<b>139,532</b>	<b>147,655</b>	<b>156,970</b>	<b>163,576</b>
<b>Number of fixed telephony subscriptions as at end of period</b>	<b>229,337</b>	<b>231,331</b>	<b>232,469</b>	<b>230,361</b>	<b>228,991</b>	<b>230,226</b>	<b>231,792</b>	<b>234,368</b>	<b>239,582</b>	<b>240,280</b>
<b>Percentage of fixed telephony subscriptions in a bundle</b>	<b>39.18%</b>	<b>42.18%</b>	<b>45.46%</b>	<b>51.17%</b>	<b>54.43%</b>	<b>57.50%</b>	<b>60.20%</b>	<b>63.00%</b>	<b>65.52%</b>	<b>68.08%</b>

Table 6: Fixed line post-paid subscriptions on a bundled offer

Table 6 shows that 68.1% of all fixed line telephony subscriptions recorded at the end of 2017 were in a bundled package of electronic communications services<sup>6</sup>. This figure was up by eight percentage points when compared to the end of last year.

#### 4.2. Fixed line inward portings

Fixed line inward portings<sup>7</sup> recorded in the second half 2017 totalled 1,335. This figure is up by 393 (or by 41.7%) from 942 portings reported in the second half of the previous year.

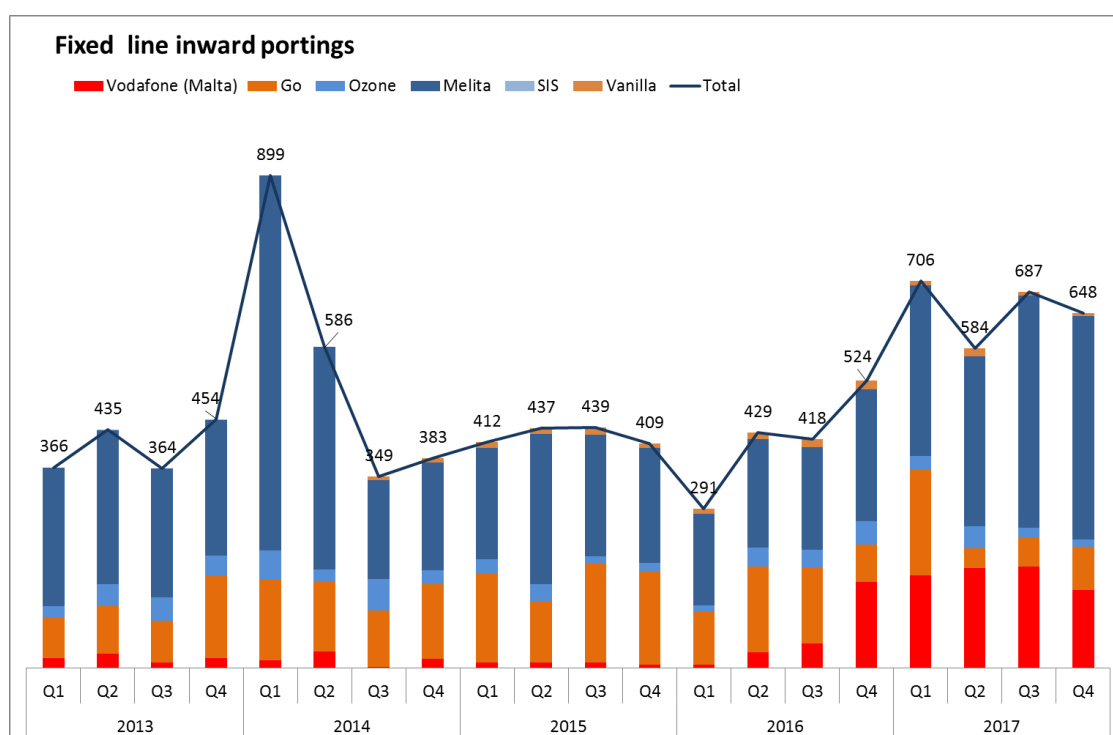


Figure 8: Fixed line number portability - number of inward portings

<sup>6</sup> Locally, only fixed line subscriptions on a post-paid contract can be purchased in a bundle with other electronic communications services.

<sup>7</sup> The term 'fixed line inward portings' refers to the total number of subscribers that switch from a fixed line operator to another whilst keeping the same number. Figures presented above only take into account inward portings.

Melita accounted for 62.4% of all inward fixed telephony portings recorded in the second half of 2017, followed by Vodafone Malta at 24.4% and GO at 9.8%. During the same period, Ozone Malta and Vanilla Telecoms accounted for 2.3% and 1% of inward portings respectively.

### 4.3. Usage trends for fixed line telephony

Despite the continued rise in fixed line subscriptions during the second half of 2017, traffic volumes during this period were down when compared to traffic volumes reported in the same period a year earlier.

The number of fixed line calls was down by 4.5 million (or by 6.7%), from 67.6 million in the second half of 2016 to 63.1 million in the current reporting period. During the same period, the number of fixed line voice call minutes was also down, in this case by 16.8 million (or by 6.9%), from 241.8 million to 225.0 million.

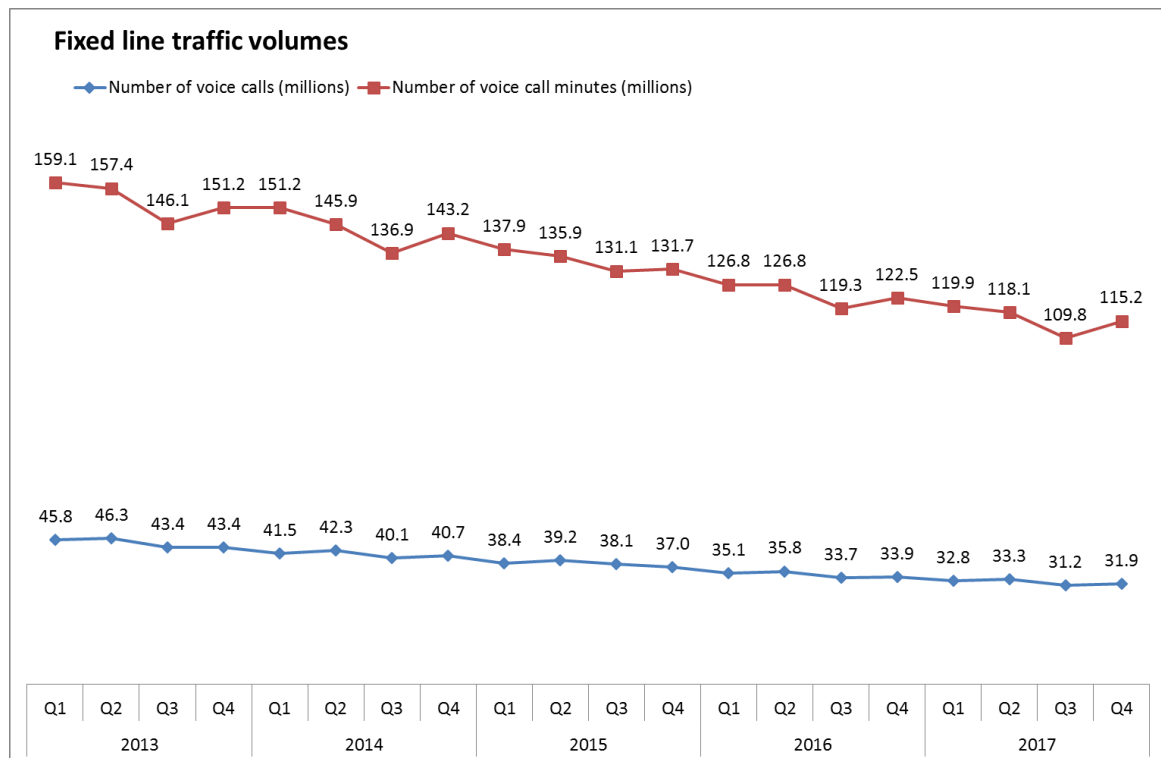


Figure 9: Voice traffic originating from local fixed line networks

Figure 9 depicts total fixed telephony traffic volumes, thus aggregating the national voice traffic segment and the international voice traffic segment. The national voice traffic segment refers to volumes of fixed voice calls and voice minutes originated and terminated in Malta, whilst the international voice traffic segment refers to volumes of fixed voice calls and voice minutes originated locally and terminated in a foreign territory. The remainder of this section will focus on the relevant developments for these traffic segments.

### 4.3.1 National voice traffic volumes

National fixed line traffic volumes in the second half of 2017 amounted to 61.1 million voice calls and 213.9 million voice call minutes. This means that, on average, each fixed telephony subscriber made approximately 254 national voice calls, equating to 890 national voice call minutes during this period.

#### National voice calls

The number of national fixed line voice calls in the second half of 2017 totalled 61.1 million, down by 4.5 million (or by 6.8%) from 65.5 million recorded in the corresponding period a year earlier.

A further drill down of these figures would show that most of the components of the national traffic segment registered a drop in volumes.

The number of on-net FTF calls was down by 4.3 million (or by 12.8%), from 34.0 million in the second half of 2016 to 29.7 million in the second half of 2017. During the same period, the number of off-net FTF calls was down by 0.9 million (or by 6.3%), from 14.0 million to 13.1 million. Conversely, the number of FTM calls was up by 0.4 million (or by 2.8%), from 16.1 million to 16.6 million.

Fixed voice calls (national)	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
Total	88,230,089	83,794,407	81,061,884	78,122,647	75,080,520	72,657,406	68,547,147	65,563,474	63,858,315	61,084,086
Fixed-to-fixed (FTF)	67,982,076	63,912,398	61,829,592	58,333,116	56,188,852	53,829,105	50,621,535	48,005,094	45,981,776	42,777,957
on-net FTF	48,651,217	45,868,914	44,020,136	41,187,247	39,631,778	37,723,423	35,555,002	34,006,980	32,594,971	29,661,016
off-net FTF	19,330,859	18,043,484	17,809,456	17,145,869	16,557,074	16,105,682	15,066,533	13,998,114	13,386,805	13,116,941
Fixed-to-mobile (FTM)	18,688,835	18,362,387	17,543,834	18,127,981	17,490,548	17,404,228	16,572,110	16,190,347	16,517,323	16,635,890
Other	1,559,178	1,519,622	1,688,458	1,661,550	1,401,120	1,424,073	1,353,502	1,368,033	1,359,216	1,670,239

Table 7: Outgoing fixed line traffic - number of national voice calls

Meanwhile, the 'other' national calls component<sup>8</sup> saw a 22% increase in traffic volumes, from 1.4 million to 1.7 million calls.

#### National voice call minutes

In terms of national voice call minutes, traffic volumes in the second half of 2017 totalled 213.9 million, which is down by 15.4 million (or by 6.7%) from the second half of 2016.

The number of on-net FTF traffic voice call minutes was down by 17.1 million (or by 12.2%), from 140.7 million in the second half of 2016 to 123.6 million in the second half of 2017. During the same period, the number of off-net FTF minutes was down by 1.9 million (or by 3.3%), from 58.2 million to 56.3 million.

Fixed voice calls minutes (national)	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
Total	297,752,857	279,628,212	280,368,533	263,586,720	258,636,682	248,023,545	239,931,933	229,280,303	225,729,879	213,922,616
Fixed-to-fixed (FTF)	265,708,235	248,045,345	249,682,050	231,976,897	228,062,609	216,988,931	209,588,785	198,933,848	194,717,464	179,863,433
on-net FTF	189,659,199	177,296,513	178,064,325	163,134,907	160,680,942	152,164,197	147,487,069	140,732,212	137,236,132	123,580,585
off-net FTF	76,049,036	70,748,832	71,617,725	68,841,990	67,381,667	64,824,734	62,101,716	58,201,636	57,481,332	56,282,848
Fixed-to-mobile (FTM)	28,531,576	27,941,261	26,892,375	27,867,348	27,223,360	27,436,775	26,774,772	26,633,512	27,244,519	28,113,509
Other	3,513,046	3,641,606	3,794,108	3,742,475	3,350,713	3,597,839	3,568,376	3,712,943	3,767,896	5,945,674

<sup>8</sup> This traffic component includes freephone calls, premium calls and payphone calls.

Table 8: Outgoing fixed line traffic - number of national voice call minutes

In contrast, the number of FTM voice call minutes was up by 1.5 million (or by 5.6%), from 26.6 million minutes in the second half of 2016 to 28.1 million in the second half of 2017. The number of 'other' national voice call minutes was also up by 2.2 million (or by 59.5%) during the same period, from 3.7 million to 5.9 million.

#### 4.3.2 International voice traffic volumes

During the second half of 2017, around 2.0 million fixed-to-international (FTI) voice calls and 11.1 million FTI voice call minutes were reported. This translates into approximately 8 international voice calls and around 46 international voice call minutes per active fixed telephony subscriber during this period.

Compared to the same period of 2016, the number of FTI voice calls was down by 0.08 million (or by 3.7%), whilst the number of international voice call minutes was down by 1.4 million (or by 11.3%).

#### 4.4. Activity levels and call duration

Lower voice activity levels in combination with a rise in fixed telephony subscriptions resulted in lower activity levels per connection. In fact, the average number of voice calls and voice call minutes per active fixed line subscription in the second half of 2017 was lower than that recorded in the second half of the previous year.

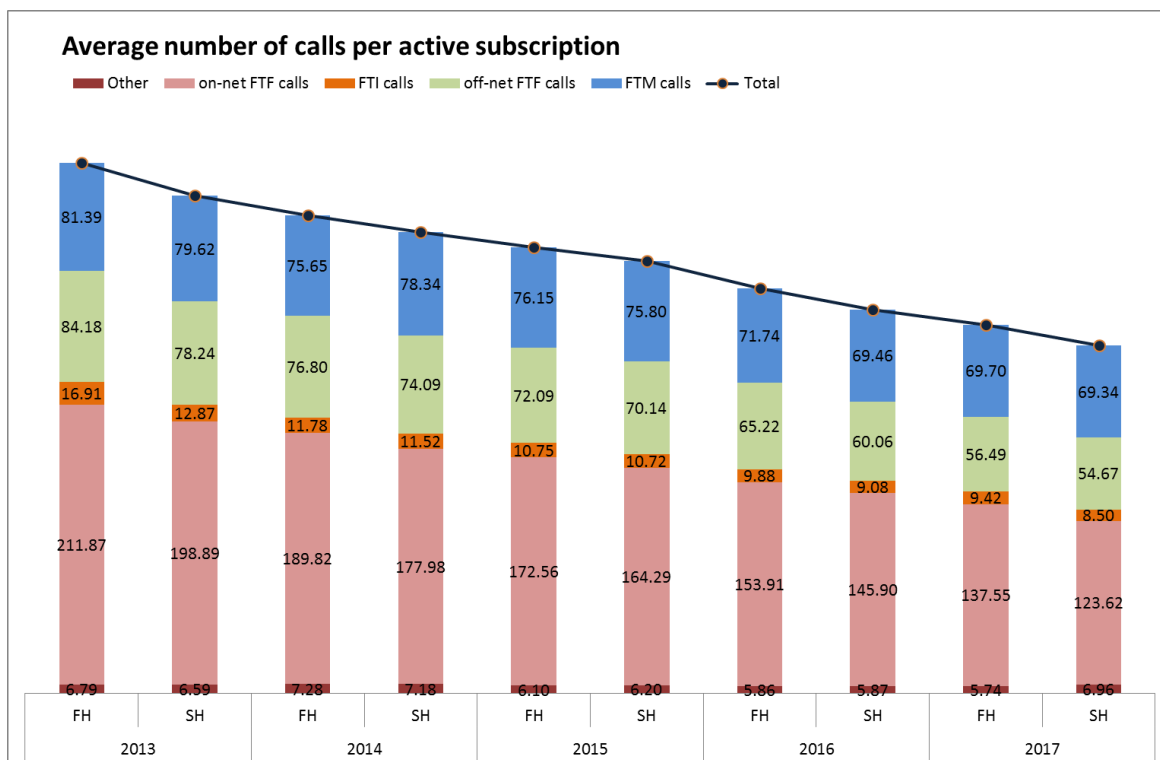


Figure 10: Average number of calls per active subscription

Figure 10 illustrates that each active fixed line subscription accounted for an average of around 264 calls in the second half of 2017<sup>9</sup>, down from around 291 voice calls per subscription in the second half of 2016. This drop is mainly attributed to the decline in on-net and off-net FTF call volumes.

In terms of fixed voice call minutes, each fixed line subscription accounted for an average of 937 in the second half of 2017 compared to 1,032 in the same period of last year. This drop is attributed to the fact that both on-net and off-net traffic volumes were down year-on-year.

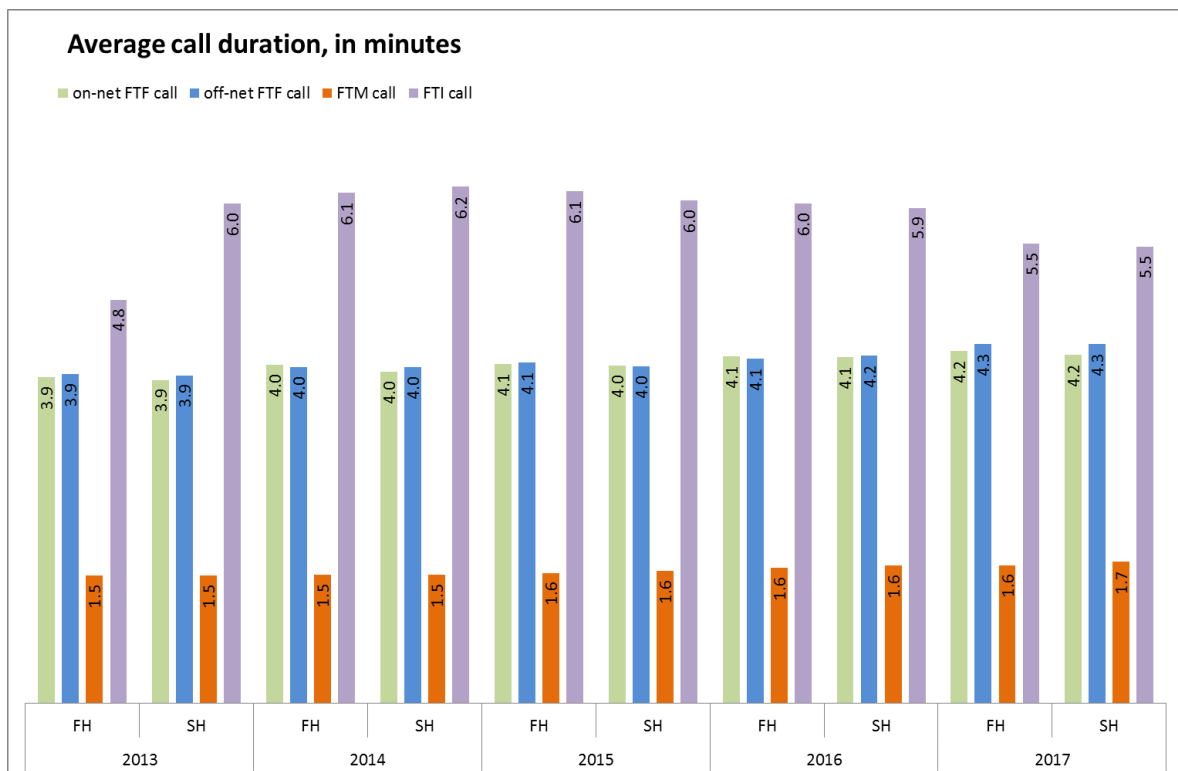


Figure 11: Average duration of an outgoing fixed line call

On average, a fixed line call generally lasted 3 minutes and 56 seconds during the second half of 2017, which is similar to the results observed during the same period in the previous year. Figure 11 illustrates that a FTI call on average lasted 5 minutes and 30 seconds in the current review period whilst a FTM call lasted 1 minute and 40 seconds. The average on-net FTF call lasted 4 minutes and 12 seconds whilst off-net FTF calls generally lasting 4 minutes and 18 seconds.

<sup>9</sup> Total depicted in Figure 10 includes the number of other calls (which encompasses premium, freephone, and Internet calls) per active subscription.

#### 4.5. Fixed telephony ARPU

Fixed telephony ARPU totalled €66.96 in the second half of 2017, which is down by 5% from €70.49 recorded in the second half of 2016. Fixed ARPU figures for each period are derived by dividing the total revenues of service providers, including revenues from access voice calling, by the average number of active subscribers<sup>10</sup>.

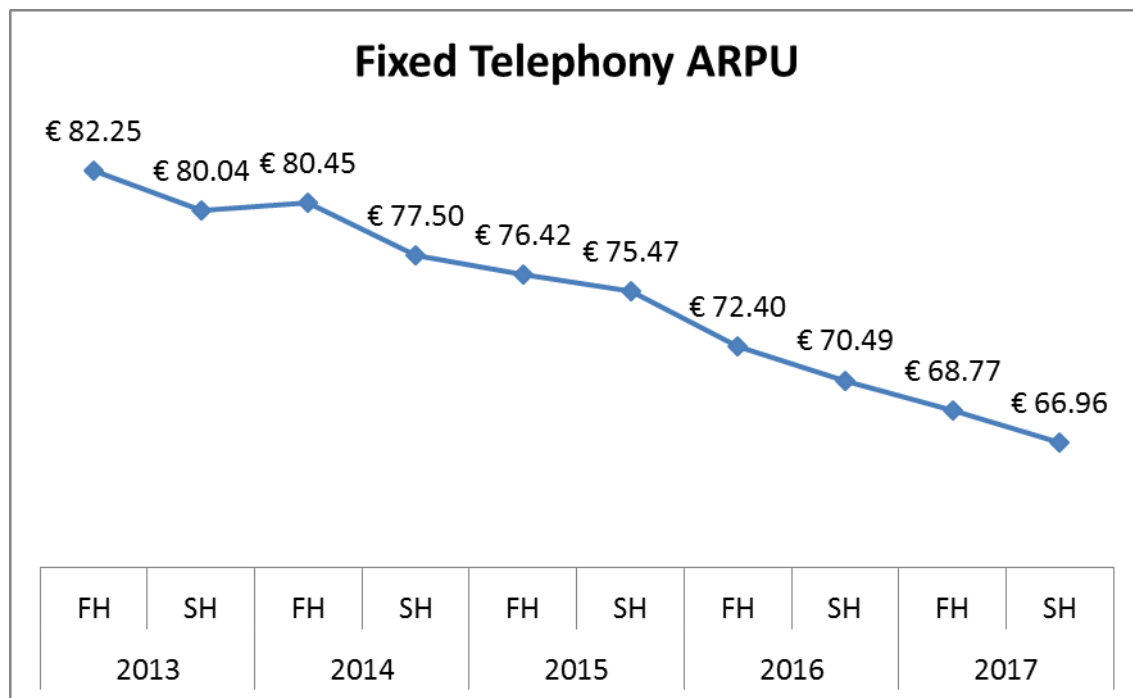


Figure 12: Average revenue per fixed line user

The increase in fixed telephony subscriptions during the second half of 2017 did not stall the decline in ARPU, even as the continued substitution of traffic from fixed to mobile remained strong. Fixed-to-mobile substitution also coincided with the continued rise in bundle subscriptions, with discounts on monthly access fees being the main selling point of these products.

#### 4.6. Average rate per minute of fixed line communications

The second half of 2017 has seen a drop of 14.3% in the ARPM of FTM calls, from €0.14 in the second half of 2016 to €0.12 in the current reporting period.<sup>11</sup> This change coincides with increasing take-up of post-paid fixed telephony subscriptions in a bundle, which now typically include unlimited allowances to both fixed and mobile connections. The ARPM for fixed to international calls also dropped due to the availability of new add-ons, which permit users to make international calls at, discounted per minute rates. The ARPM of an on-net FTF call and an off-net FTF call stood at €0.01 in the second half of 2017, relatively unchanged from the corresponding rate observed in the second half of 2016.

<sup>10</sup> The average number of active subscribers during a given period corresponds to the number of active subscriptions at the start of the period plus the number of subscriptions at the end of the same period, divided by two.

<sup>11</sup> Workings do not take into account monthly access fees from fixed telephony plans and traffic volumes and revenues from free phone calls, premium calls and payphone calls.

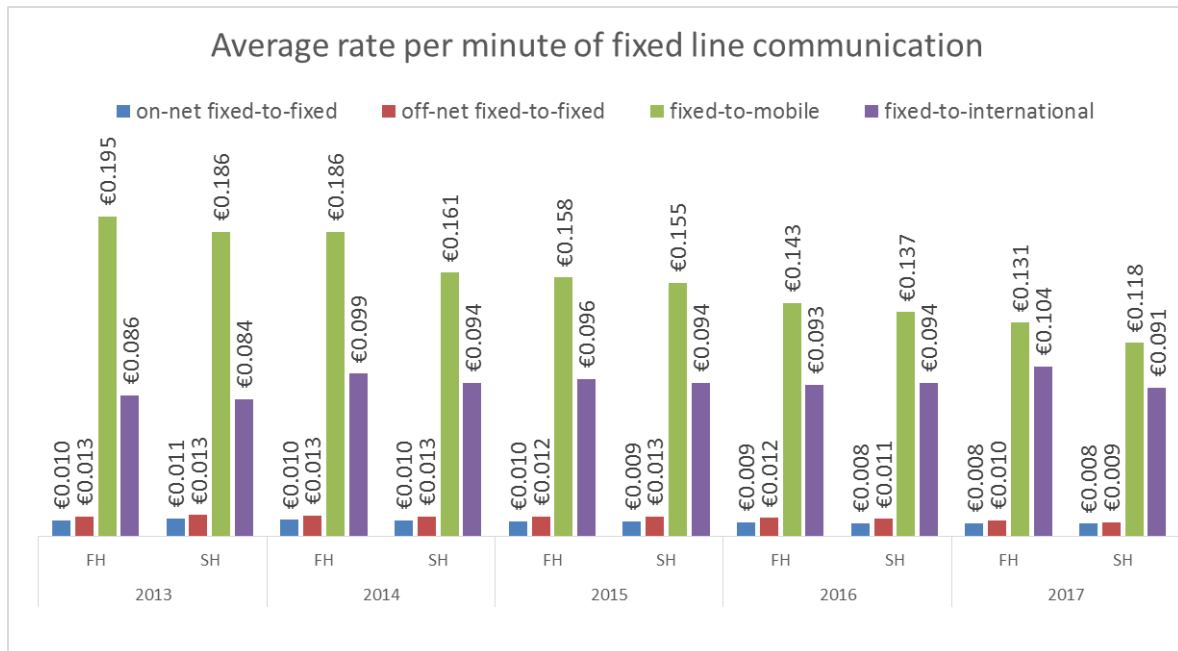


Figure 13: Average cost of a fixed line call derived from revenue-based workings

*Methodology used in deriving fixed ARPM figures*

The average rate per minute of fixed line communications is derived by subdividing voice traffic revenues, but excluding revenues from access fees, VAT and excise tax, by the number of minutes reported under each respective heading.

Figures are to be interpreted with caution, as these are not the actual rates quoted on the market for the different plans and schemes launched by local operators. It is also noted that local fixed line operators may offer free calls or discounted call rates, such as free on-net calls with bundled offers and cheaper call rates on weekends. This would affect the outcome for the average rate per minute of fixed line communications.

## 5. Mobile telephony

Mobile has been the dominant form of communication in Malta for a number of years now, superseding fixed as the preferred choice of voice communication and, more recently, surging in importance as a platform for Internet access. Significantly, the mobile subscriber base has been characterised by overall market growth and a shift in preferences to contract-based subscriptions allowing for voice and data allowances. Notwithstanding the consolidation of the subscriber base and the rise in voice and data volumes, mobile telephony ARPU did not surge, thereby suggesting an element of quality and price-based competition among operators.

### 5.1. Subscriptions

The number of active mobile subscriptions<sup>12</sup> totalled 604,759 as at the end of the year of 2017, up by 19,289 (or by 3.3%) from 585,470 a year earlier. This pushed up the mobile penetration rate by 1.3 percentage points to 128.5%<sup>13</sup>. Of relevance is that a mobile penetration rate over and above 100% would suggest that several consumers are opting for multiple SIM cards.

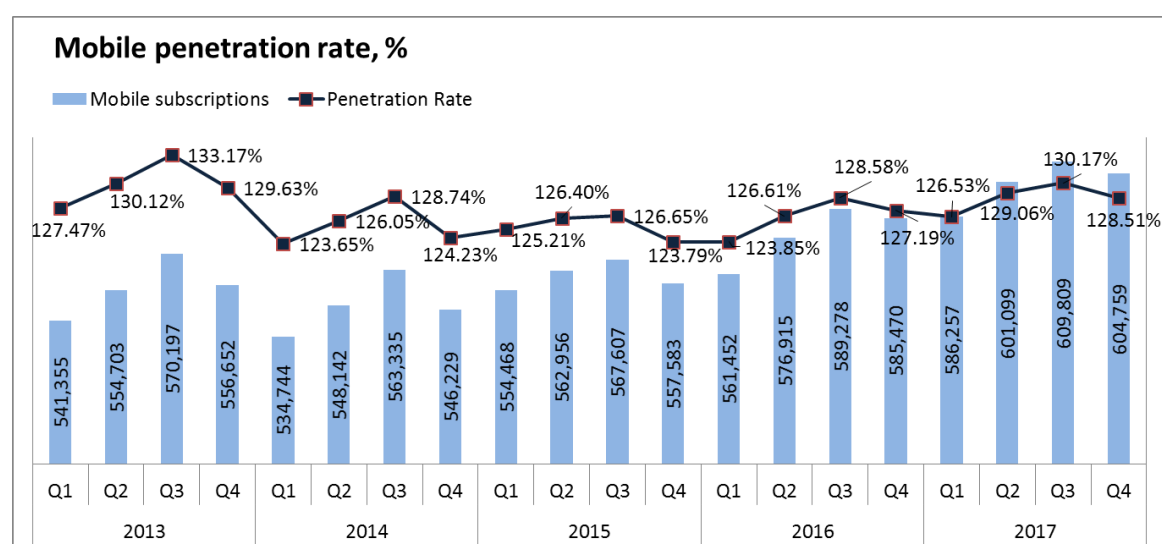


Figure 14: Mobile penetration in Malta

Growth in the mobile telephony subscriber base has been mainly driven by rising take-up of contract-based plans, better known as post-paid plans. In fact, year-on-year, the number of mobile subscriptions on a post-paid contract was up by 13,121 (or by 6.7%), from 197,239 at the end of 2016 to 210,360 at the end of last year. This change no doubt reflects the effectiveness of post-paid voice and data allowances in meeting the requirements of the end-user. Meanwhile, end-users may also benefit from purchase discounts on mobile devices through their contract agreements.

<sup>12</sup> The number of active mobile subscriptions refers to the number of subscribers having a MSISDN with registered inbound or outbound activity within 90 days of the period stipulated for pre-paid connections and within 30 days of the period stipulated for post-paid connections.

<sup>13</sup> The mobile penetration rate corresponds to the proportion of Malta's population owning an active SIM card.



The pre-paid segment has also witnessed overall growth in the subscription base, although in this case the number of subscriptions increased by 6,134 (or by 1.6%) year-on-year.

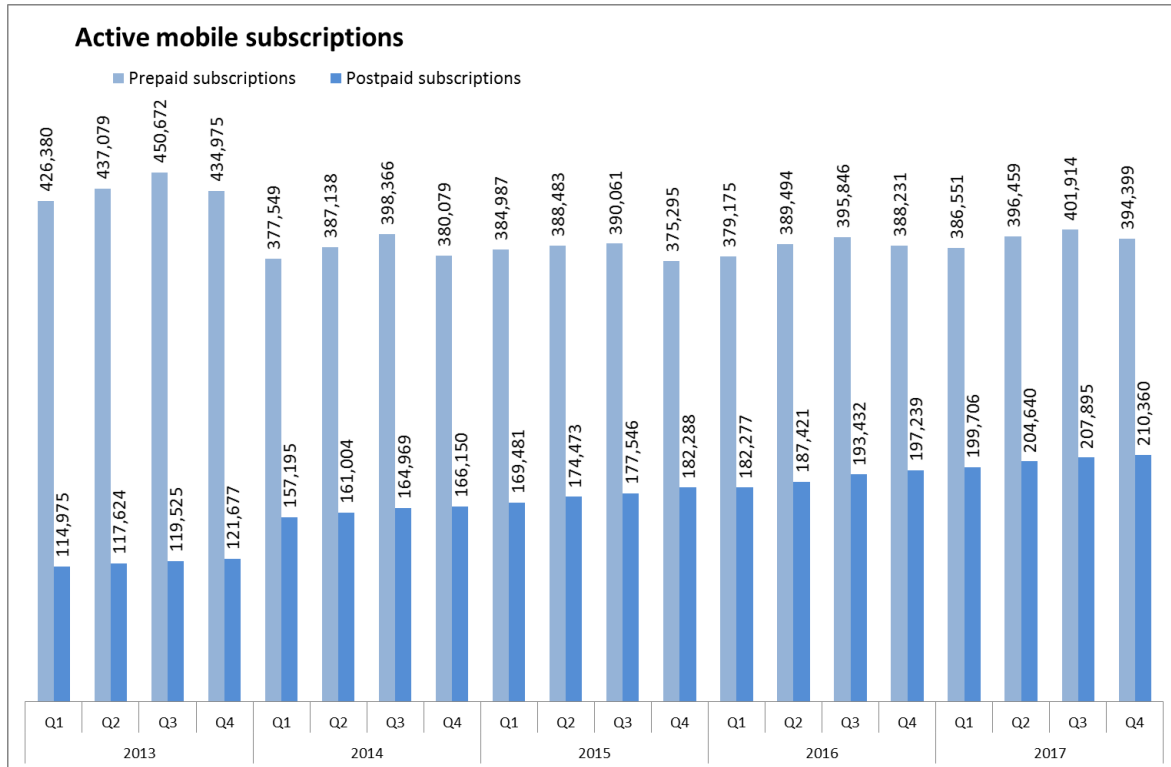


Figure 15: Mobile telephony subscriptions as at end of period

Notwithstanding the faster growth rate for post-paid, the large majority of end-users are still on a post-paid subscription. In fact, the pre-paid segment accounted for 65.2% of the subscriber base at the end of 2017 compared to 34.8% for the post-paid segment.

#### Subscriptions on a bundle

Consumers tend to personalise their mobile subscription and are not likely to purchase the service in a bundle, which is more attuned to the need of a household than the individual. This is very evident from the figures supplied in Table 9 below, which shows that just 9.2% of local mobile telephone subscriptions at the end of 2017 were purchased in a bundle.

Significantly, in absolute terms, the number of mobile telephony subscriptions purchased in a bundle were down by 1,315 (or by 2.3%) year-on-year, from 57,216 at the end of 2016 to 55,901 at the end of 2017.

Mobile telephony subscriptions in a bundle	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
Mobile telephony subscriptions on a dual play contract	12,156	12,443	13,427	11,112	8,985	7,850	7,502	7,258	6,597	6,092
Mobile telephony + fixed telephony	12,156	12,443	13,427	11,112	8,985	7,850	7,502	7,258	6,597	6,092
Mobile telephony subscriptions on a triple contract	344	289	312	620	630	139	84	58	37	24
Mobile telephony + fixed telephony + fixed broadband	344	289	312	620	630	139	84	58	37	24
Mobile telephony subscriptions on a quad play contract	41,339	42,486	44,069	44,429	45,683	46,988	48,075	49,900	49,175	49,785
Mobile telephony + fixed telephony + fixed broadband	41,339	42,486	44,069	44,429	45,683	46,988	48,075	49,900	49,175	49,785
Total number of mobile telephony subscriptions in a bundle	53,839	55,218	57,808	56,161	55,298	54,977	55,661	57,216	55,809	55,901
Total number of mobile telephony subscriptions at end of period	554,703	556,652	548,142	546,229	562,956	557,583	576,915	585,470	601,065	604,725
Percentage of fixed telephony subscriptions in a bundle	9.71%	9.92%	10.55%	10.28%	9.82%	9.86%	9.65%	9.77%	9.29%	9.24%

Table 9: Mobile subscriptions on a bundled offer

## 5.2. Mobile inward portings

There were 17,145 mobile inward portings<sup>14</sup> in the second half of 2017, up by 1,520 (or by 9.7%) compared to the same period in 2016.

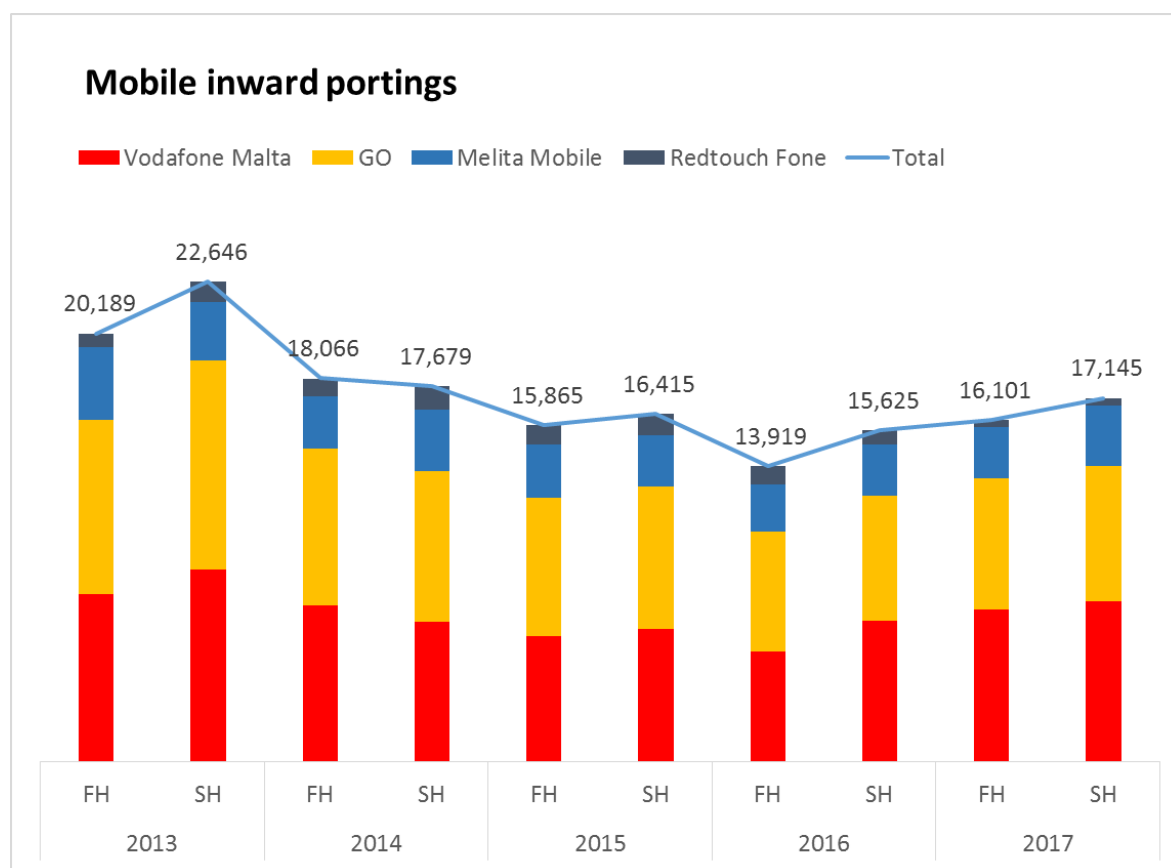


Figure 16: Mobile number portability - number of mobile portings

44.1% of all portings reported in the current review period took place on Vodafone Malta's network, followed by GO, which accounted for 37% of all inward mobile portings, and Melita, which accounted for another 16.7%. Redtouch fone accounted for the remaining 2.1% of all portings.

<sup>14</sup> This term corresponds to the total number of mobile users that switch their subscription from one operator to another, whilst keeping the same number. Figures presented above only take into account the number of mobile inward portings.

### 5.3. Voice usage trends for mobile telephony

Voice traffic volumes over mobile have been rising rapidly over time, although in the last two years growth was specifically observed for minute volumes, in contrast to a decline in the number of mobile calls. This is likely a reflection of the wider availability of monthly voice minute allowances, which in combination with lower call rates, have encouraged end-users to make calls that are of a longer duration.

Also of note is the continued fixed-to-mobile (FTM) substitution in the current review period. In this regard, Figure 18 shows that end-users are increasingly making use of mobile voice calling rather than fixed line calling. It is noted that the number of mobile-originated voice call minutes has been exceeding the number of fixed-originated voice call minutes since 2013<sup>15</sup>. The gap between the two continued to widen in the current review period.

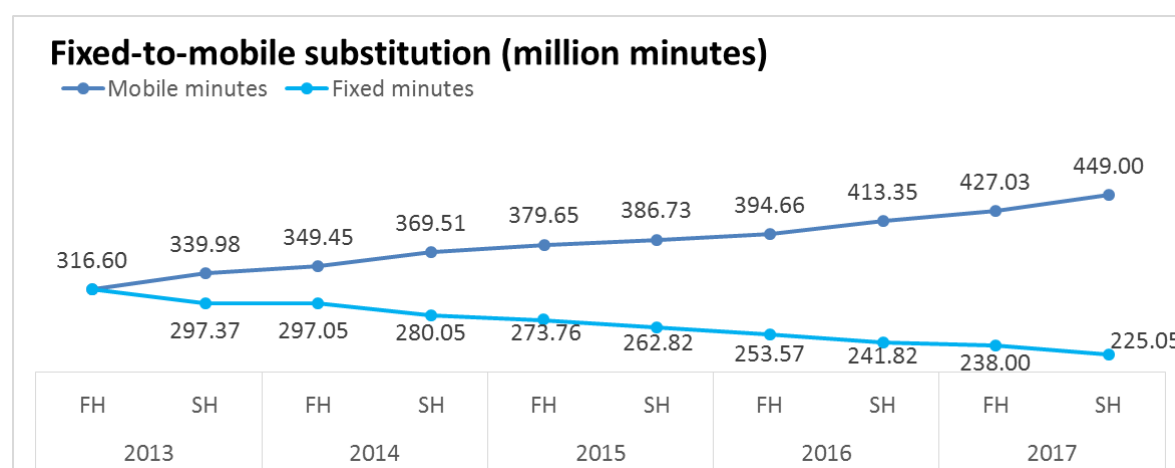


Figure 18: Fixed-to-mobile substitution

#### 5.3.1. Voice calls

The number of mobile voice calls in the second half of 2017 amounted to 233.4 million, which is down by 19.5 million (or by 7.7%) from 252.9 million in the second half of 2016.

Mobile voice calls	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
Total	222,398,680	257,724,150	251,391,213	266,265,025	261,196,465	274,656,869	259,931,283	252,890,126	227,370,751	233,389,338
Mobile-to-mobile calls	201,056,673	233,219,821	229,223,906	242,625,698	237,813,657	248,146,406	236,647,482	224,160,687	200,922,414	201,924,304
on-net MTM	148,809,195	178,683,109	174,294,465	183,107,111	177,725,948	183,376,949	172,775,579	155,781,776	130,578,138	127,622,510
off-net MTM	52,247,478	54,536,712	54,929,441	59,518,587	60,087,709	64,769,457	63,871,903	68,378,911	70,344,276	74,301,794
Mobile-to-fixed calls	17,824,243	20,452,242	18,443,136	19,163,833	19,176,332	20,336,816	19,340,803	23,356,467	20,751,694	22,971,117
Mobile-to-international (MTI)	3,517,764	4,052,087	3,724,171	4,475,494	4,206,476	6,173,647	3,942,998	5,372,972	5,696,643	8,493,917

Table 10: Outgoing mobile traffic - number of voice calls

The drop in the number of mobile voice calls is explained by the on-net segment, whereby 127.6 million on-net MTM calls had taken place in the second half of 2017, down by 28.6 million (or by 18.1%) when compared to the same period in 2016. The number of mobile-to-fixed (MTF) calls was also down by 0.4 million (or by 1.7%) to 23.0 million.

<sup>15</sup> It is also relevant to underline here that the number of mobile-originated voice calls has also been exceeding the number of fixed line originated voice calls for the last few years.

These declines outweighed an increase in off-net MTM calls and mobile-to-international (MTI) calls. The former were up by 5.9 million (or by 8.7%) and the latter were up by 3.1 million (or by 58.1%).

### 5.3.2. Voice call minutes

The number of mobile voice call minutes totalled 449 million in the second half of 2017, up by 35.6 million (or 8.6%) from 413.4 million in the second half of 2016.

Mobile voice call minutes	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
Total	316,595,055	339,975,169	349,449,383	369,508,631	379,645,131	391,996,179	394,663,889	413,350,385	427,029,219	448,998,293
Mobile-to-mobile calls	271,614,107	291,904,514	302,343,734	318,839,211	328,242,026	332,491,267	342,331,655	355,905,501	369,606,725	381,318,473
on-net MTM	205,020,567	219,863,900	224,440,686	231,550,138	234,871,600	234,096,857	235,093,966	240,818,410	245,893,738	250,283,342
off-net MTM	66,593,540	72,040,614	77,903,048	87,289,073	93,370,425	98,394,410	107,237,689	115,087,091	123,712,987	131,035,130
Mobile-to-fixed calls	36,001,708	38,029,700	37,279,753	39,565,696	39,894,002	42,412,245	41,464,160	44,463,315	44,217,587	50,039,593
Mobile-to-international (MTI)	8,979,240	10,040,955	9,825,896	11,103,724	11,509,103	17,092,667	10,868,074	12,981,569	13,204,906	17,640,228

Table 11: Outgoing mobile traffic - number of voice call minutes

A more in depth look into the type of traffic shows that both on-net MTM minutes and off-net MTM minutes were up by 9.5 million (or 3.9%) and 15.9 million (or 13.9%) respectively. MTF minutes were also up by 5.6 million (or by 12.5%) and MTI minutes were up by 4.7 million (or by 35.9%).

## 5.4. SMS and MMS usage trends

The popularity of text messaging and MMSing dwindled further in the current review period. In fact, SMS traffic volumes were down by almost 30 million (or by 15.2%) in the second half of 2017 compared to the corresponding period a year earlier. MMS volumes were also down.

As already noted in previous CMR publications, these volumes are a reflection of a shift in preferences of the end-users, as these increasingly use voice call services and OTT-based services gain more popularity.

### 5.4.1. SMSs

167.9 million SMSs were recorded in the second half of 2017, down by 29.8 million (or by 15.3%) when compared to 197.9 million SMSs recorded in the same period of 2016<sup>16</sup>.

All segments of the SMS traffic activity followed a negative trend, with on-net volumes recording the biggest decline. Upon comparing the second half of 2017 to the second half of 2016, the number of on-net SMSs was down by 24.3 million (or by 18.9%) to 104.3 million. Meanwhile, the number of off-net SMSs was down by 14.2 million (or by 20.9%), from 68.3 million to 54.0 million, whilst the number of premium SMSs was down by 0.04 million (or by 20.6%).

<sup>16</sup> Including on-net SMSs, off-net SMSs, SMSs sent to foreign mobile networks, SMSs sent from Internet Portal and premium SMSs.

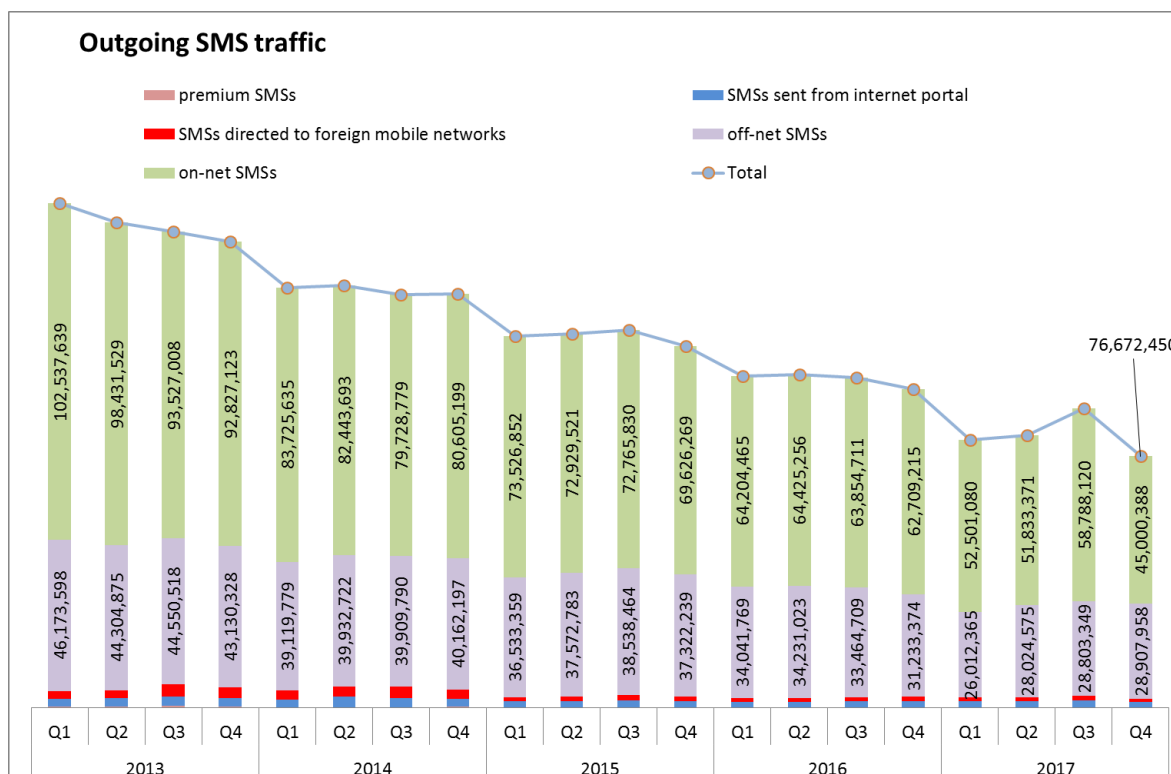


Figure 17: SMS activity - number of outgoing SMSs (1)

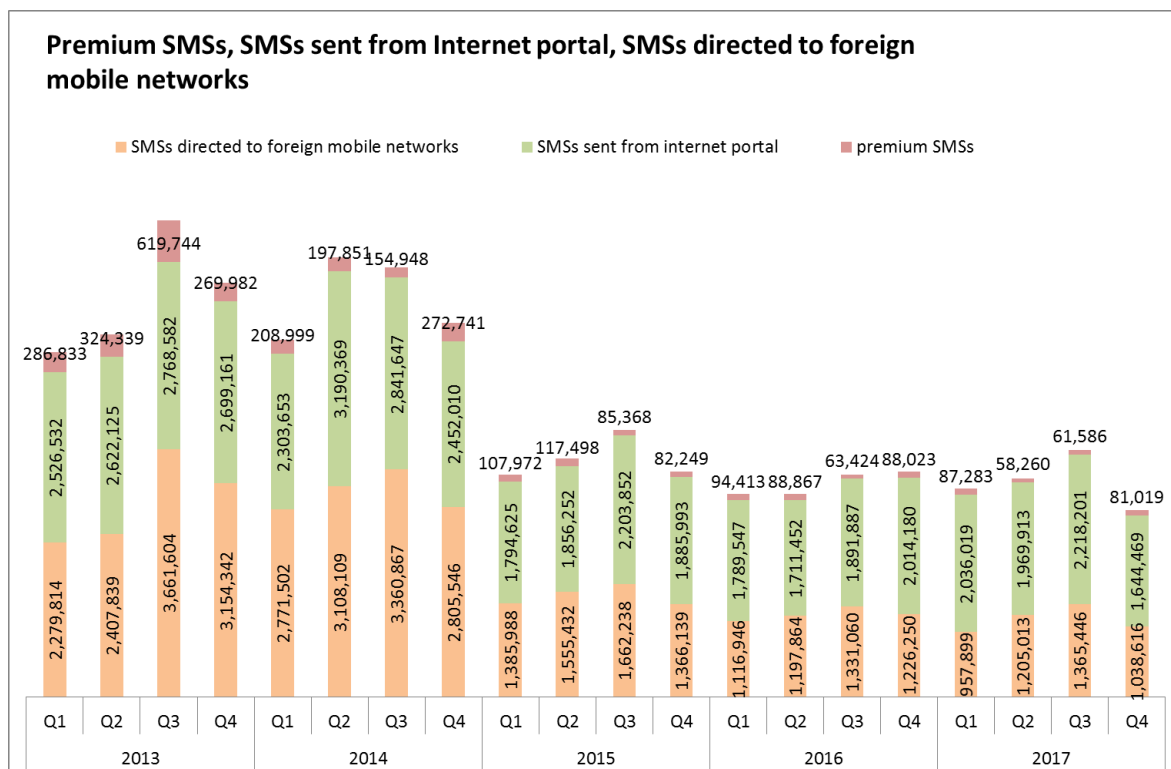


Figure 18: SMS activity - number of outgoing SMSs (2)

The number of SMSs directed to foreign mobile networks was down by 0.2 million (or by 6%), from 2.5 million in the second half of 2016 to 2.4 million in the second half of 2017, whilst the number of text messages sent from Internet portals dropped marginally by 0.04 million (or by 1.1%), from 3.91 million to 3.86 million.

#### 5.4.2. MMSs

The number of MMSs in the second half of 2017 totalled to 92,632. This figure is down by 3.8% from 96,177 MMSs recorded in the second half of the previous year.

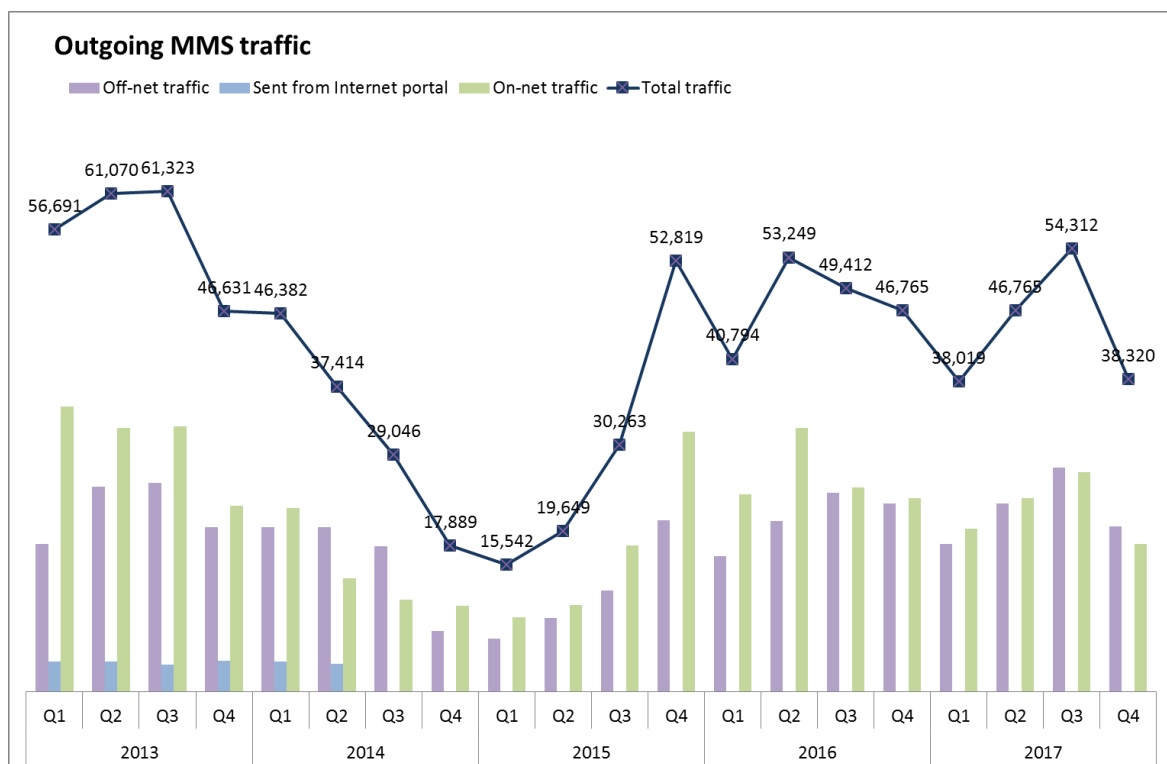


Figure 19: MMS activity - number of outgoing MMSs

### 5.5. Activity levels per mobile subscription

Developments in activity levels per mobile subscription depend on the rate of growth in traffic volumes and the change in the number of subscriptions.

#### 5.5.1. Voice call activity levels per subscription

Both mobile telephony subscriptions and mobile voice minute volumes were up in the second half of 2017. However, subscriber growth was outperformed by growth in voice call minute volumes, thus boosting voice call minute activity per subscription in the current review period compared to the same period a year earlier.

Notably, the average number of voice call minutes per subscription taking place off-net were up from 197 in the second half of 2016 to 217 in the current review period.

Meanwhile, the average number of voice call minutes per subscription taking place on-net totalled 414 in the second half of 2017, up from 411 in the second half of 2016, whilst the average number of MTF voice call minutes per subscription was up from 76 minutes to 83 minutes.

MTI voice minute activity levels were also up, in this case from an average of 22 per subscription in the second half of 2016 to an average of 29 in the second half of 2017.

In contrast to the above, activity levels per subscription are on a downward trend when it comes to the number of calls made. Disaggregating the trends by traffic segment shows that this was particularly the case with on-net MTM traffic, as the average number of on-net calls per subscription dropped from 266 in the second half of 2016 to 211 calls in the current review period. Meanwhile, the average number of MTF calls per subscription was also down, from 40 to 38. On a different note, both off-net and MTI activity levels per subscription improved year-on-year, as can be seen from Figure 21 below.

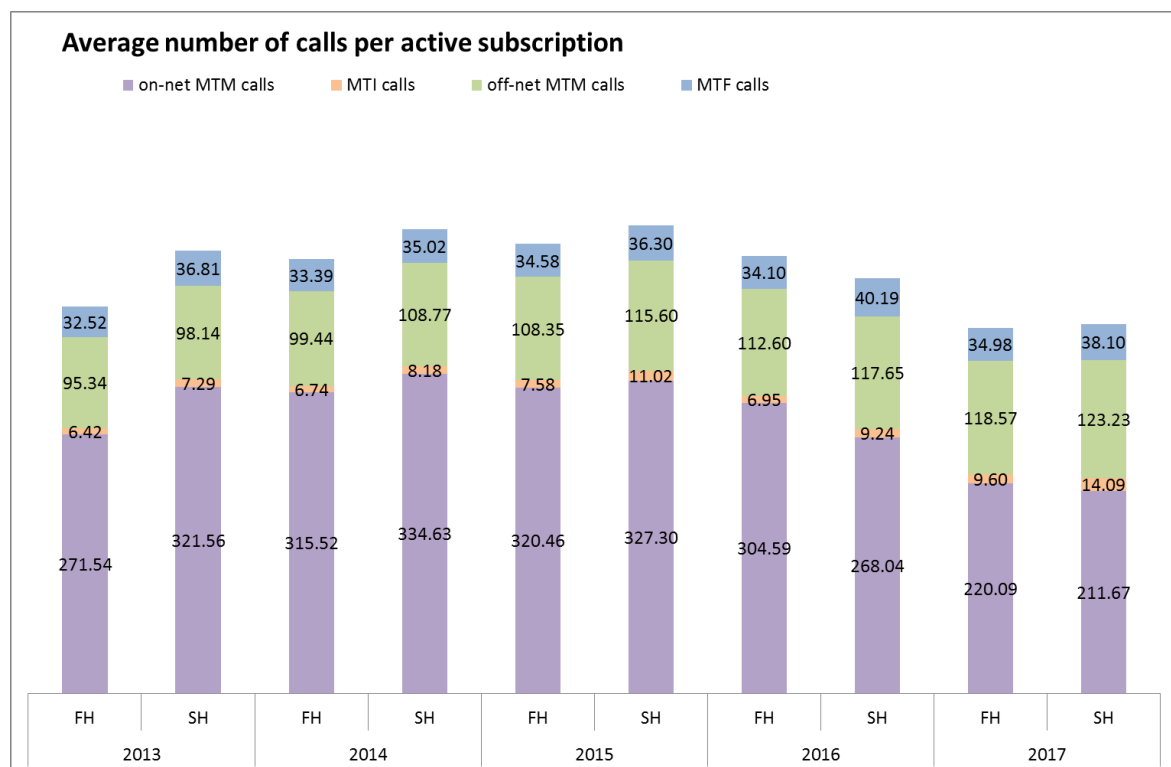


Figure 20: Average number of calls per active subscription

## 5.5.2. SMS activity levels per subscription

As observed earlier, SMS traffic volumes in the second half of 2017 were down when compared to the same period a year earlier. This drop in SMS traffic volumes reflects the increased usage of voice calling, which was generated by a wider availability of voice calling allowances in combination with falling call rates. This, in combination with a growing subscriber base, led to a drop in SMS activity levels per subscription.

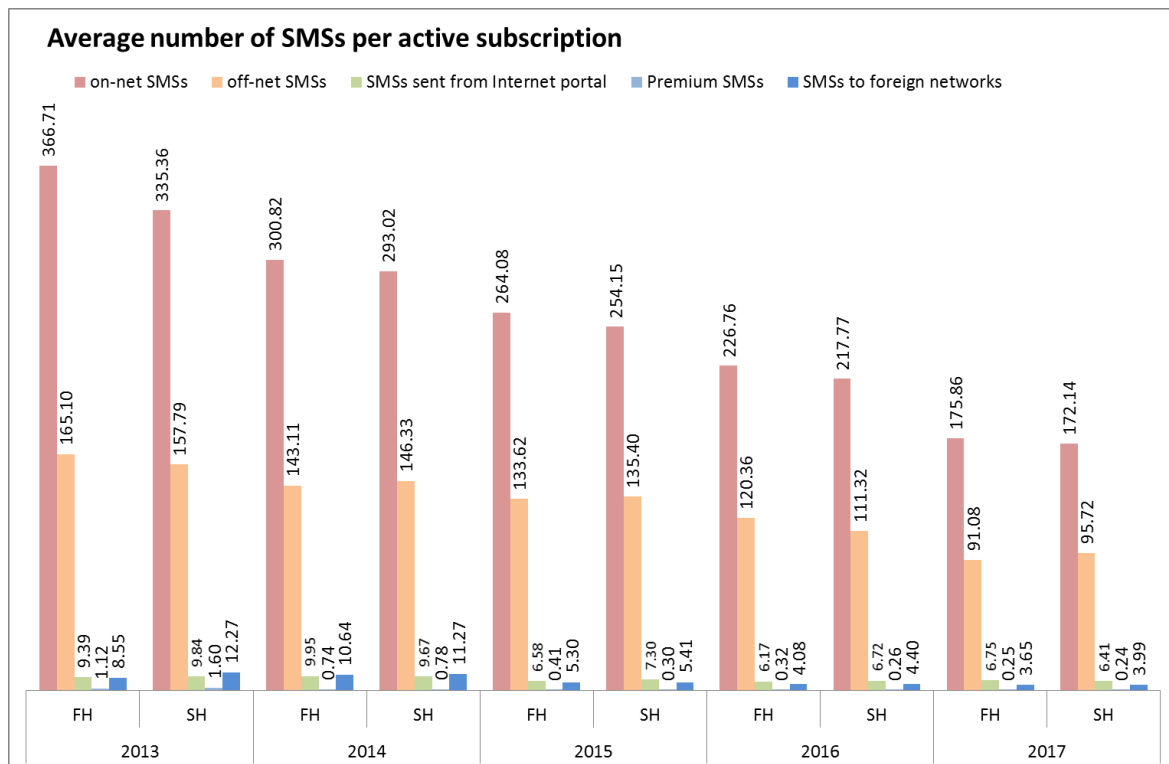


Figure 21: Subscriber activity - average number of SMSs per active subscription

The number of SMSs per active subscription in the second half of 2017 amounted to 279, down from 340 in the second half of 2016. Looking at SMSs at a more disaggregated level figure 22 shows that all segments concerning SMS were down when compared to the same period a year earlier.

## 5.6. Average mobile call duration

Mobile-originated voice calls are lasting longer on average, mainly due to the wider availability of voice minute allowances, particularly on-net. On average, a mobile call lasted around 2 minutes in the second half of 2017. In the second half of 2016, a mobile call was 6 seconds shorter. The change has been more significant for on-net MTM calling, given that the duration of an on-net call increased from an average of 1 minute and 33 seconds in the second half of 2016 to 1 minute and 58 seconds in the second half of 2017.



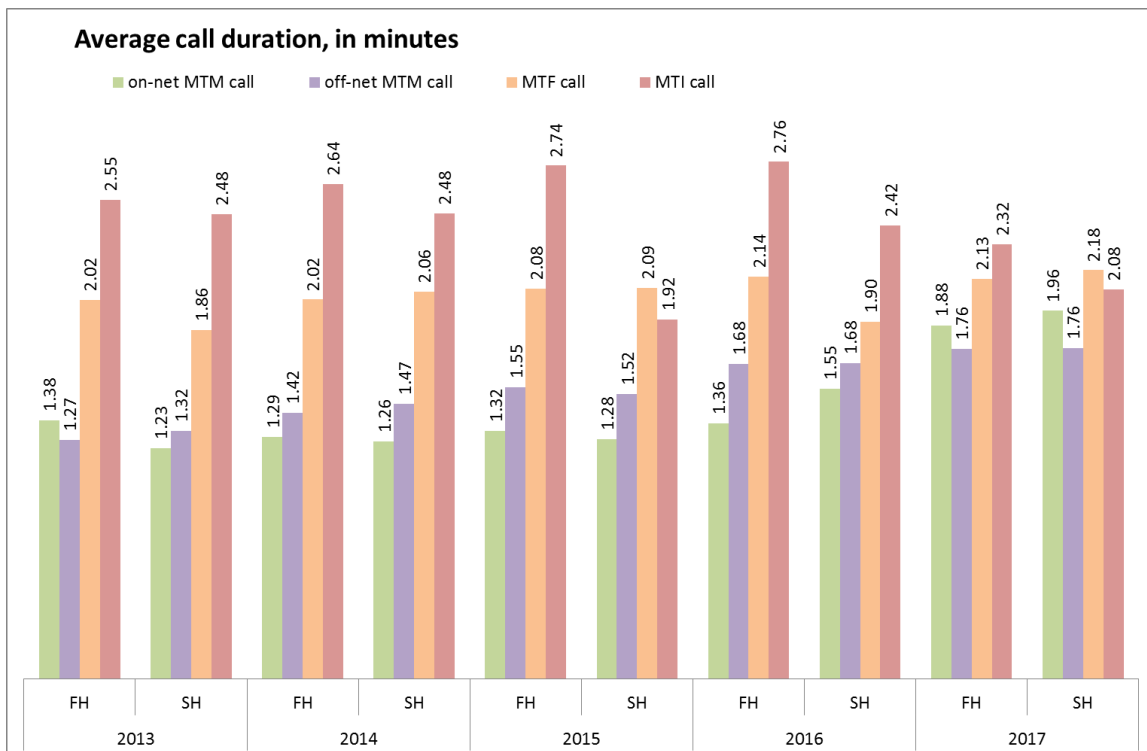


Figure 22: Average duration of an outgoing mobile call

### 5.7. International roaming usage trends

The level of international roaming activity<sup>17</sup> depends on two main factors, namely the frequency and pattern of travel by end-users and the relative roaming charges that apply for calls and SMSs. It is of relevance to underline here that Malta continues to experience a consistently higher inflow and outflow of tourists. Meanwhile, the number of Maltese travelling abroad has been on the rise for a number of years.

These trends coincided with a period of falling roaming charges, as envisaged by the EU Roaming Regulation, both in the case of voice calls and text messaging. As of the 15th of June 2017 new roaming regulations were implemented which meant that EU citizens travelling within EU member states were no longer charged roaming rates but were rather charged their standard domestic rates.

#### 5.7.1 Outbound roaming

This type of roaming activity refers to voice call, SMS, and data services operated on foreign mobile networks by local subscribers when roaming abroad.

<sup>17</sup> From a technical perspective, international roaming encompasses any activity registered by mobile subscribers whilst travelling abroad. In this regard, end-users would be using voice-roaming services when making or receiving calls via their mobile subscription while abroad. They would be using SMS roaming services when sending or receiving an SMS via their mobile subscriptions. End-users can also send or receive data while abroad over their mobile.

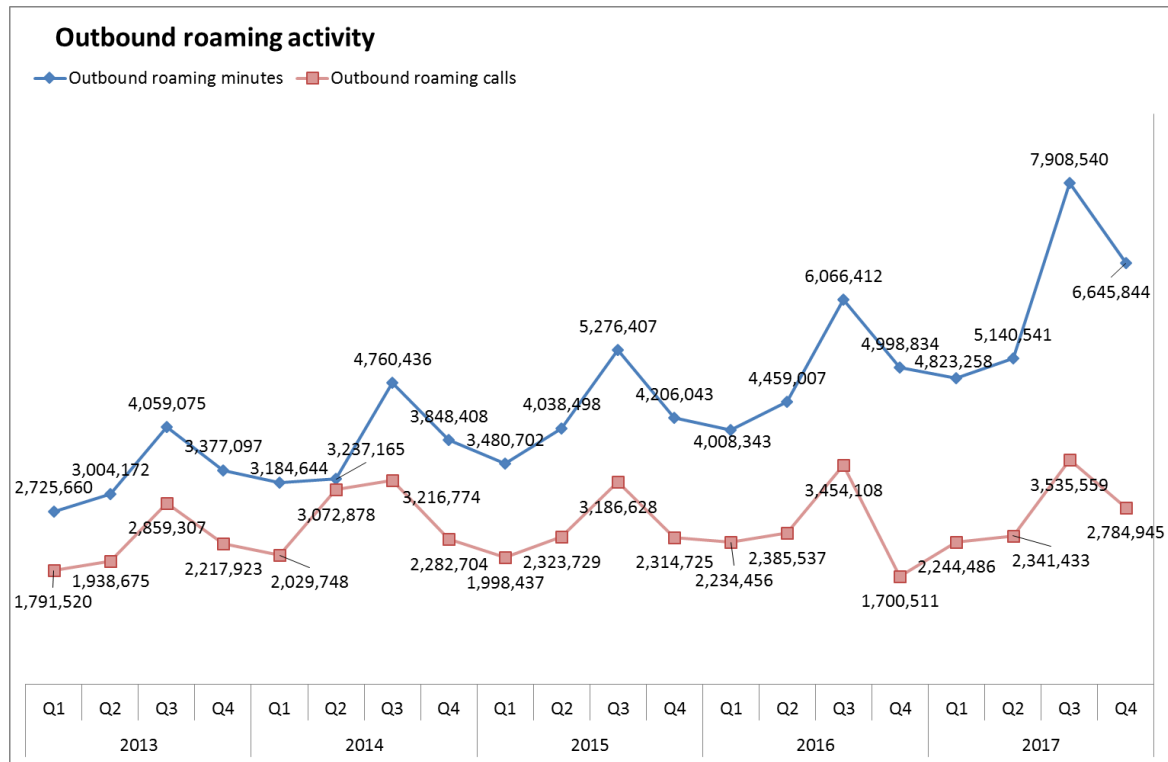


Figure 23: Outbound roaming activity

Outbound roaming calls totalled to 6.2 million in the second half of 2017, up 19% when compared to the same period last year. Outbound roaming minutes experienced an even greater uptick, whereby in this case volumes were up by 3.4 million (or by 30.6%), from 11.1 million to 14.5 million. These developments are a result of more people travelling abroad and the implementation of lower roaming call charges.

### 5.7.2 Inbound roaming

This type of roaming activity refers to call, SMS and data services operated on local mobile networks by foreign subscribers when roaming in Malta.

The number of inbound roaming calls totalled 21.1 million in the second half of 2017, up by 5.7 million (or by 37.0%) from 15.4 million in the corresponding period a year earlier.

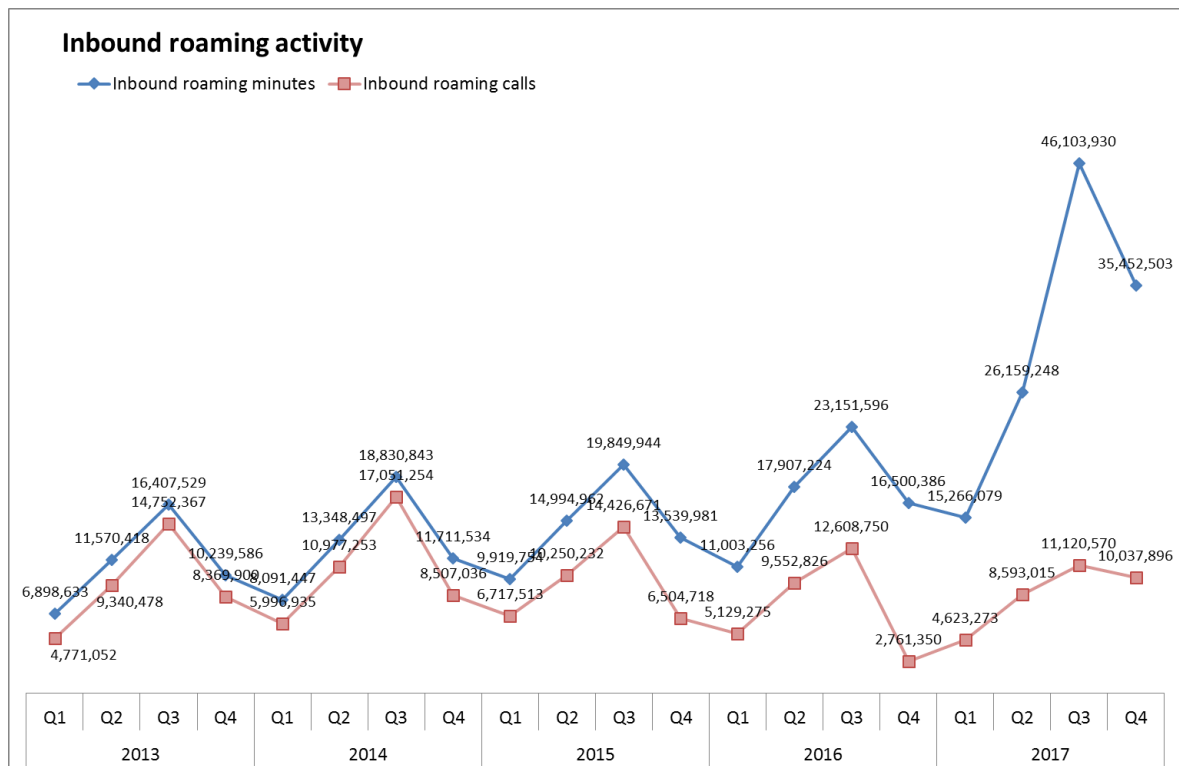


Figure 24: Inbound roaming activity

At the same time, the number of inbound roaming minutes went up by 42 million (or by 106.1%), from 39.6 million in the second half of 2016 to 81.6 million in the second half of this year.

## 5.8. Mobile ARPU

Mobile telephony ARPU totalled €88.86 in the second half of 2017, slightly down by 2.0% from €90.64 in the second half of 2016. These figures are derived by dividing total revenues of mobile service providers, including access and activity revenues related to voice, SMS, MMS and data traffic<sup>18</sup>, by the average number of active subscriptions<sup>19</sup>, during a given period.

<sup>18</sup> But excluding revenues from interconnection and inbound roaming activity.

<sup>19</sup> The average number of active subscribers during a given period is derived by adding the number of active subscriptions at the start of the period plus the number of subscriptions at the end of the said period, divided by two.

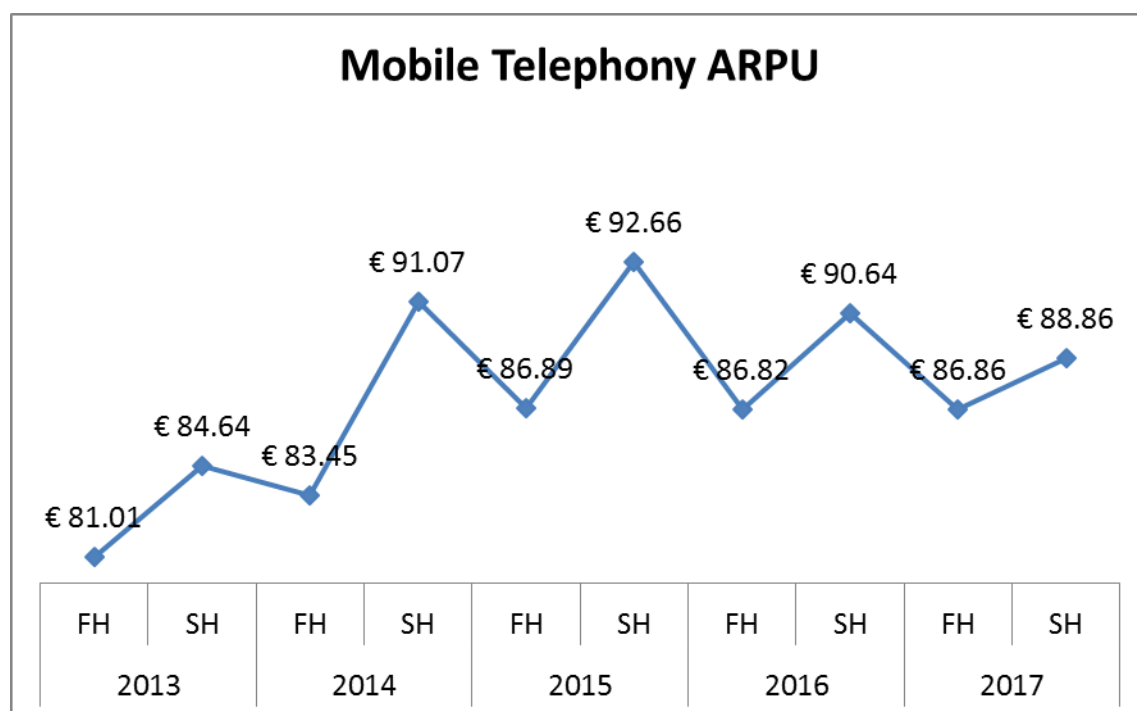


Figure 25: Average revenue per mobile user

The decline in mobile telephony ARPU is somewhat attributed to the increasing take-up of post-paid plans, which include voice, SMS and data allowances, and the possibility of end-users with multiple subscriptions benefiting from the lower on-net calling rates.

### 5.9. Pricing developments for mobile telephony

It is difficult to determine the exact price paid by the end-user to make a mobile voice call and / or to send an SMS, given the wide array of plans currently on offer and the availability of call and SMS allowances. To this effect, the MCA has developed a metric whereby it maps price movements in mobile voice calls and SMSs by taking into account changes in the average revenue per call minute and the average revenue per SMS based on figures supplied by local service providers<sup>20</sup>.

Figure 27 shows that, overall, the average rate per minute (ARPM) of mobile communication was down in the second half of 2017 when compared to the ARPM recorded in the second half of the previous year. This decline is largely explained by the increasing availability and take-up of voice minute allowances, particularly in post-paid plans, which service providers have been improving over time.

<sup>20</sup> To calculate the Average Rate Per Minute (ARPM) of mobile voice communication, figures are derived by dividing domestic and international mobile voice traffic revenues (including voice related access revenues but excluding roaming revenues), by the number of minutes reported under each respective heading. In the case of the average rate per SMS, figures correspond to the division of SMS-related revenues by the number of SMSs made during the period. These calculations exclude revenues from VAT, excise tax, and retail roaming services.

The ARPM of mobile communication for a domestic call stood at €0.064 in the second half of 2017, down by almost 17.2% from an average of €0.075 in the second half of 2016<sup>21</sup>.

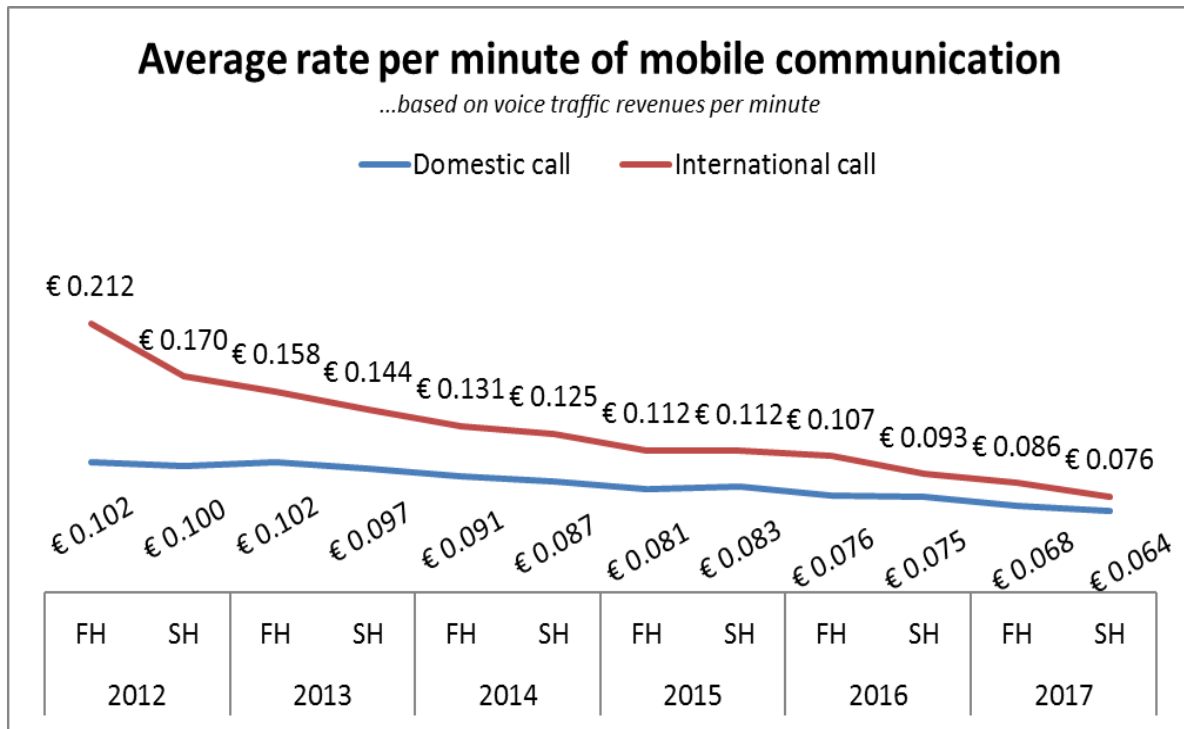


Figure 26: Average rate per minute of mobile communications

Meanwhile, the average rate per minute of mobile communication for an international call was also down, this time by 7.5%, from €0.093 in the second half of 2016 to €0.086 in the second half of 2017.

<sup>21</sup> It is again noted here that local mobile operators may offer free calls or discounted call rates, such as on weekends and evenings, and also in the case of particular schemes for closed user groups and bundled products. However, the current calculations do not take these factors into account.

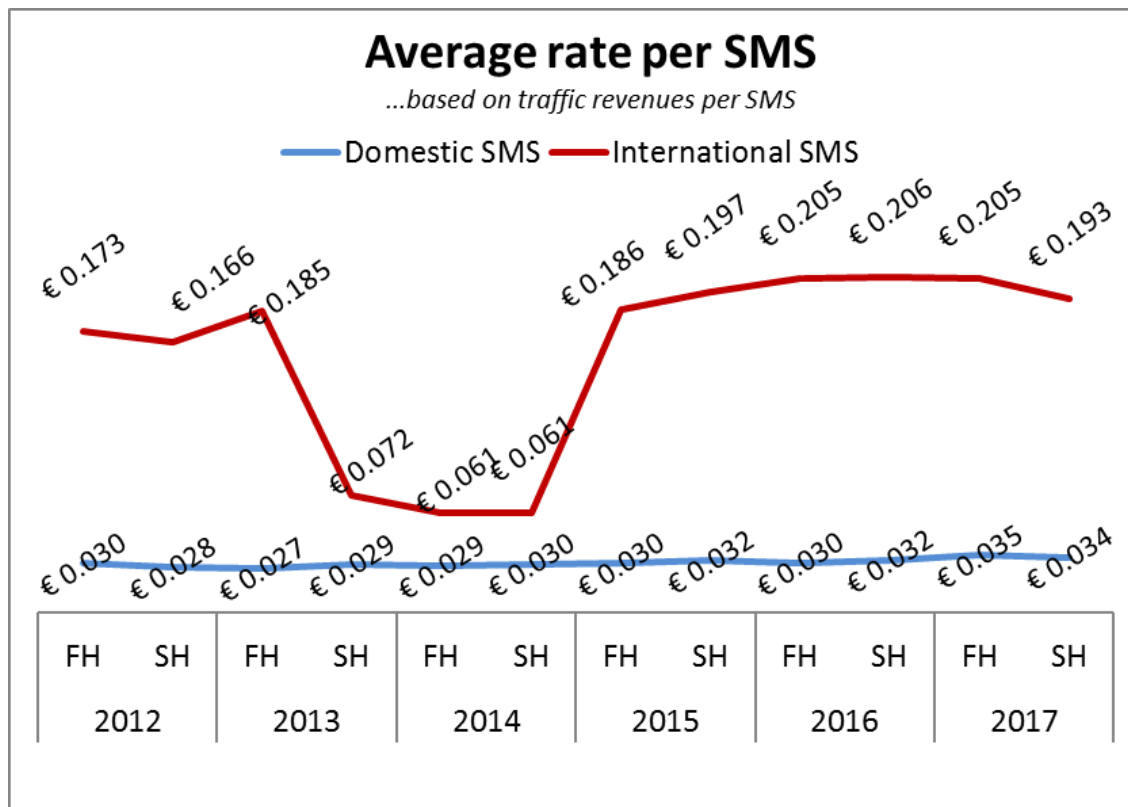


Figure 27: Average rate per domestic and international SMS

In terms of the average rate per SMS, Figure 28 illustrates that, in the second half of 2017, the consumer on average paid €0.032 for a domestically bound SMS and €0.20 for an internationally bound SMS<sup>22</sup>.

<sup>22</sup> Figures for internationally bound SMS are provisional pending some clarifications from service providers.

## 6. Fixed and mobile broadband

The broadband market has grown steadily in the second half of 2017, with rising take-up of fast and ultrafast fixed broadband subscriptions and a more widely used mobile broadband platform. Service providers have successfully enticed new subscribers into purchasing fast and ultra-fast fixed broadband in bundle plans whilst also migrating existing subscribers to these plans. It is also relevant to underline that higher download speeds come at premium prices, which explains why fixed broadband ARPU improved further in the latter half of 2017, notwithstanding the decline in the average advertised rate per Mbps.

In the case of mobile broadband, service providers sustained new growth by updating the data allowances that typically feature in post-paid mobile telephony plans and by marketing plans based on dongles and internet keys.

### 6.1. Fixed broadband subscriptions

The number of fixed broadband subscriptions totalled 181,318 at the end of December 2017. This figure is up by 10,055 (or by 5.9%) from 171,263 fixed broadband subscriptions recorded at the end of December 2016<sup>23</sup>.

The rise in subscriptions boosted fixed broadband penetration to 38.5% by the end of 2017, which represents a year-on-year increase in the penetration rate of 0.4 percentage points.

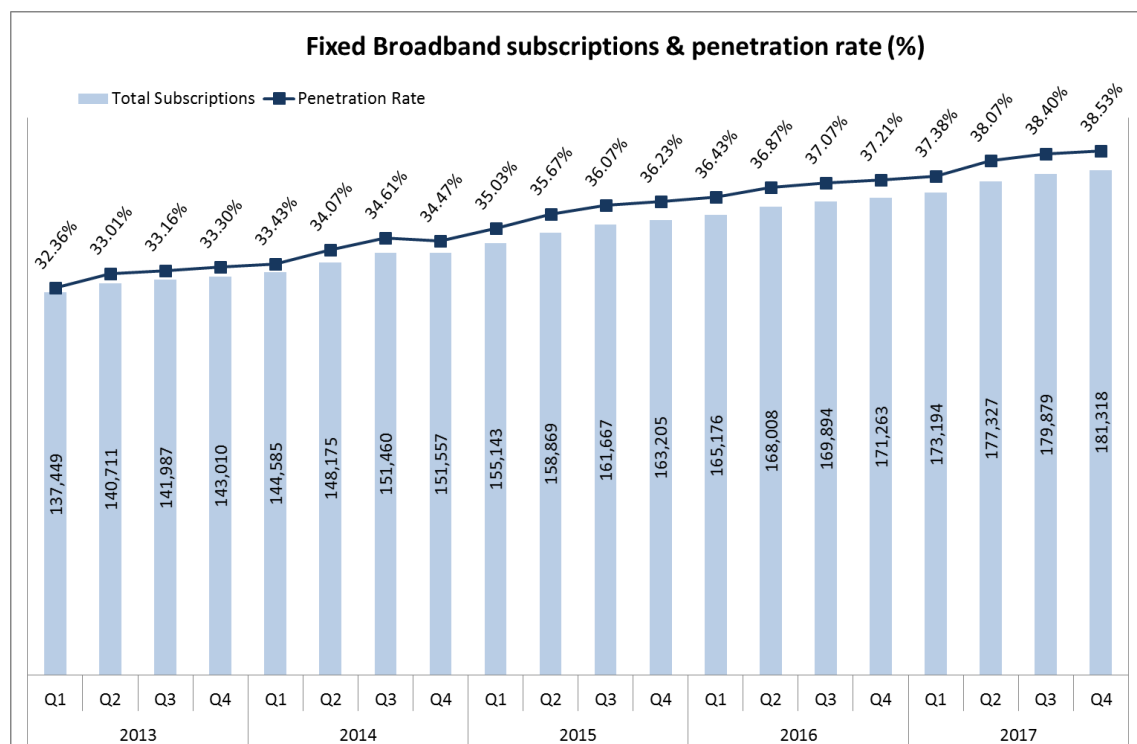


Figure 28: Take-up of fixed broadband and fixed broadband penetration

<sup>23</sup> For the purpose of this report, fixed broadband Internet subscriptions refer to those connections that are *always on* and have a speed of 128kbps or more.

Fixed broadband subscriptions in a bundle	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
<b>Fixed broadband subscriptions on a dual play contract</b>	<b>10,068</b>	<b>11,349</b>	<b>15,979</b>	<b>29,890</b>	<b>36,927</b>	<b>44,179</b>	<b>49,622</b>	<b>54,413</b>	<b>55,227</b>	<b>55,793</b>
Fixed broadband + fixed telephony	10,068	11,349	15,979	29,890	36,927	44,179	49,622	54,413	55,227	55,793
<b>Fixed broadband subscriptions on a triple play contract</b>	<b>15,459</b>	<b>21,376</b>	<b>22,477</b>	<b>25,490</b>	<b>26,718</b>	<b>27,525</b>	<b>28,613</b>	<b>30,540</b>	<b>40,675</b>	<b>46,859</b>
Fixed broadband + fixed telephony + mobile telephony	344	289	312	620	630	139	84	58	37	24
Fixed broadband + fixed telephony + pay-TV	15,115	21,087	22,165	24,870	26,088	27,386	28,529	30,482	40,638	46,835
<b>Fixed broadband subscriptions on a quad play contract</b>	<b>41,339</b>	<b>42,486</b>	<b>44,069</b>	<b>44,429</b>	<b>45,683</b>	<b>46,988</b>	<b>48,075</b>	<b>49,900</b>	<b>49,175</b>	<b>49,785</b>
Fixed broadband + fixed telephony + pay-TV + mobile telephony	41,339	42,486	44,069	44,429	45,683	46,988	48,075	49,900	49,175	49,785
<b>Total number of fixed broadband subscriptions in a bundle</b>	<b>66,866</b>	<b>75,211</b>	<b>82,525</b>	<b>99,809</b>	<b>109,328</b>	<b>118,692</b>	<b>126,310</b>	<b>134,853</b>	<b>145,077</b>	<b>152,437</b>
Number of fixed broadband subscriptions as at end of period	140,711	143,010	148,175	151,557	158,869	163,205	168,008	171,263	177,327	181,318
<b>Percentage of fixed broadband subscriptions in a bundle</b>	<b>47.52%</b>	<b>52.59%</b>	<b>55.69%</b>	<b>65.86%</b>	<b>68.82%</b>	<b>72.73%</b>	<b>75.18%</b>	<b>78.74%</b>	<b>81.81%</b>	<b>84.07%</b>

Table 12: Fixed broadband subscriptions on a bundled offer

Service providers incorporate fast and ultrafast fixed broadband in bundles, which explains the rising proportion of fixed broadband subscriptions purchased in a bundle, from 78.7% at the end of 2016 to 84.1% at the end of 2017. Effectively, this change consolidates the status of fixed broadband as the electronic communications product that is the most commonly purchased in a bundle. It is noted, from a pricing standpoint, that entry-level fees for standalone fixed broadband subscriptions have gone up over time, thus making bundle discounts on monthly access fees more significant and enticing to the end-user.

## 6.2. Fixed broadband subscriptions by type of access technology

A disaggregated look at fixed broadband subscriptions by technology shows that there were 85,707 cable-based subscriptions at the end of the current reporting period. At the same time, DSL-based subscriptions and FTTH-based subscriptions totalled 75,525 and 14,706 respectively and subscriptions on the fixed wireless platform totalled 8,380.

Year-on-year, the number of FTTH-based subscriptions was up by 5,202 (or by almost 55%) and that of cable-based subscriptions by 4,826 (or by 6%). Meanwhile, the number of wireless-based subscriptions was up by 3,210 (or by 62.1%). In contrast, the number of DSL-based subscriptions was down by 3,183 (or by 4.2%).



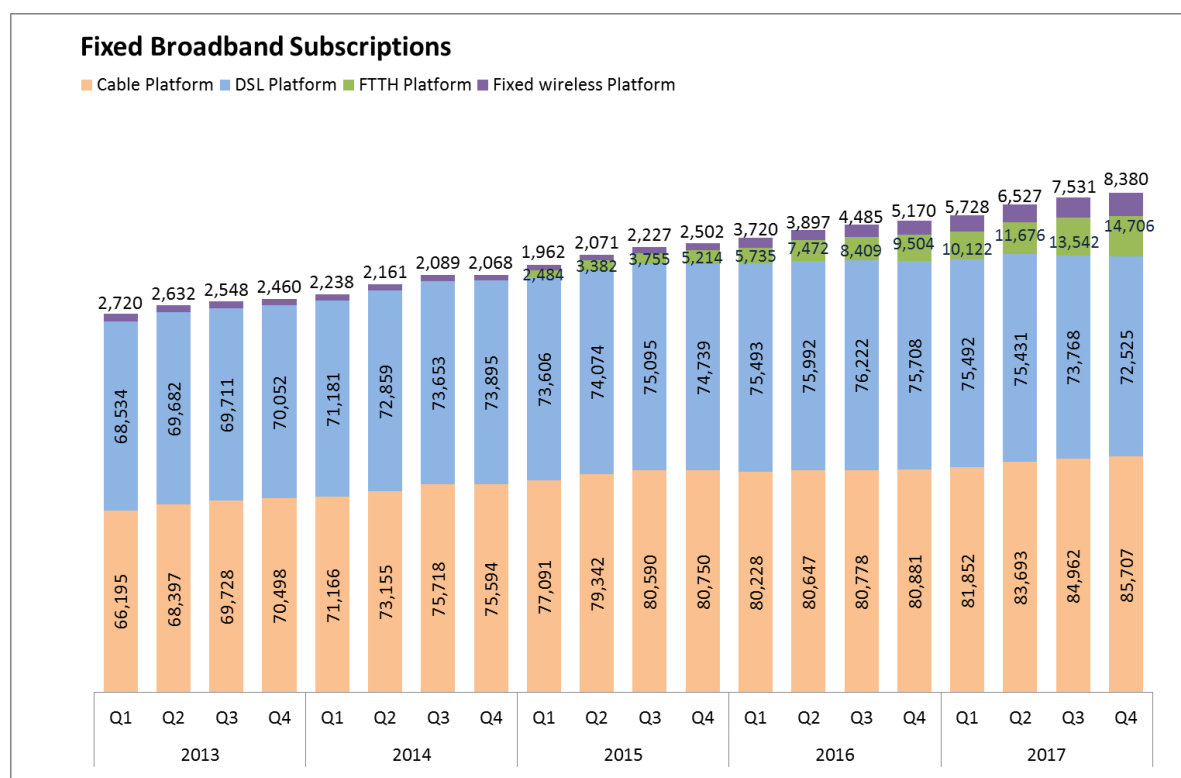


Figure 29: Broadband Internet subscriptions as at end of period - by technology

Percentagewise, the cable platform accounted for 47.3% of the local subscriber base as at the end of 2017, followed by DSL at 40.0%, FTTH at 8.1% and fixed wireless at 4.6%.

### 6.3. Fixed broadband subscriptions by speed<sup>24</sup>

Take-up of fast and ultra-fast broadband was up in the 12-month period to the end of 2017. The number of fixed broadband subscriptions allowing for a download speed of 30Mbps but less than 100Mbps was up by 17,802 (or by 18.6%), from 95,823 to 113,625. Meanwhile, the number of fixed broadband subscriptions supporting download speeds of 100Mbps or more was up by 25,729 (or by 244%), from 10,561 at the end of 2016 to 36,290.

In contrast, the number of fixed broadband subscriptions supporting a download speed of less than 30Mbps stood at 31,403 by the end of 2017, down by 33,476 (or by 51.6%) year-on-year.

As at the end of the current reporting period, fast and ultra-fast broadband accounted for 63.2% of the local fixed broadband subscriber base.

<sup>24</sup> Quoted figures refer to advertised speeds.

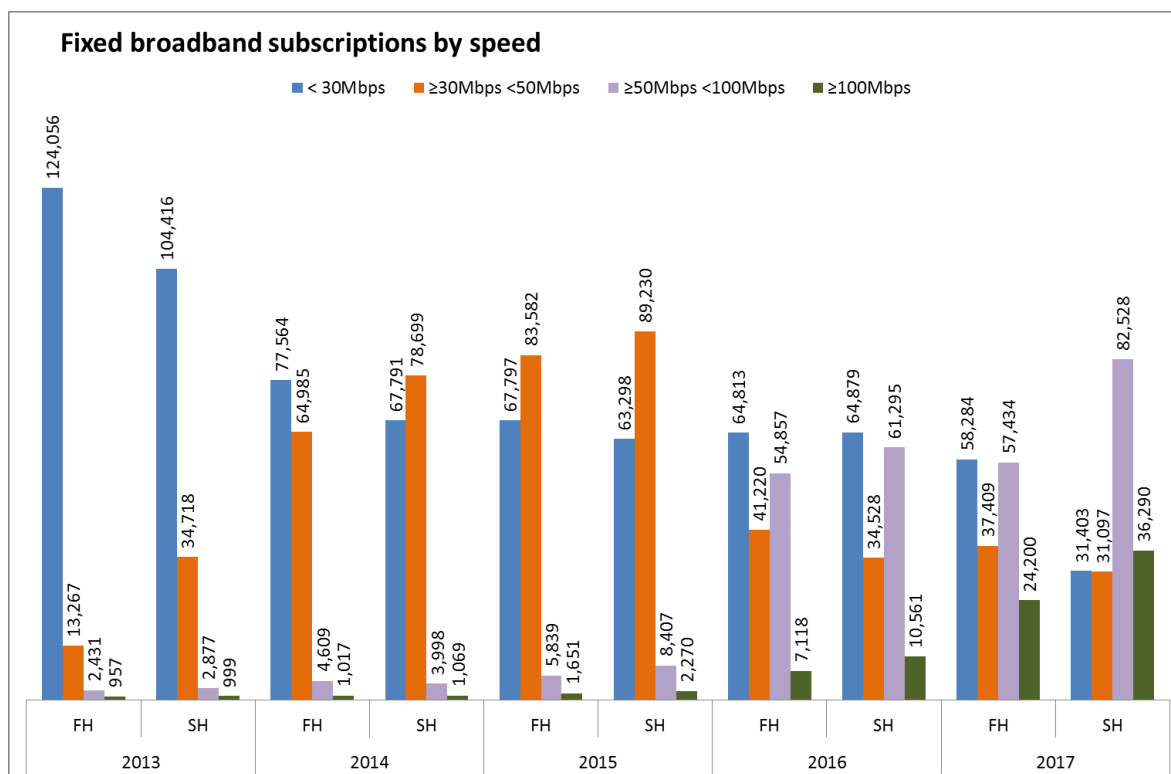


Figure 30: Fixed broadband subscriptions as at end of period, by speed

#### 6.4. Fixed broadband subscriptions by access technology and download speed

When it comes to the type of download speeds purchased from fixed broadband platforms in Malta, cable features with the highest percentage of subscriptions supporting a download speed of 100Mbps or more. In fact, at the end of 2017, 39.5% of cable-based fixed broadband subscriptions supported ultra-fast download speeds. Meanwhile, 53.7% of cable-based subscriptions allowed for a download speed of 50Mbps but less than 100Mbps and 6.8% allowed for a download speed of less than 50Mbps.

When it comes to FTTH, 16.6% of subscriptions supported a download speed of 100Mbps or more and 66.8% supported a download speed of 30Mbps but less than 100Mbps. The remaining 16.6% allowed for a download speed of less than 30Mbps.

With respect to DSL, no connections supported a download speed of 100Mbps or more. 39.2% of all subscriptions on this platform supported a download speed of less than 30Mbps and 21.2% supported a download speed of 30Mbps but less than 50Mbps. Another 39.5% of DSL-based subscriptions allowed for a download speed of between 50Mbps and 100Mbps.

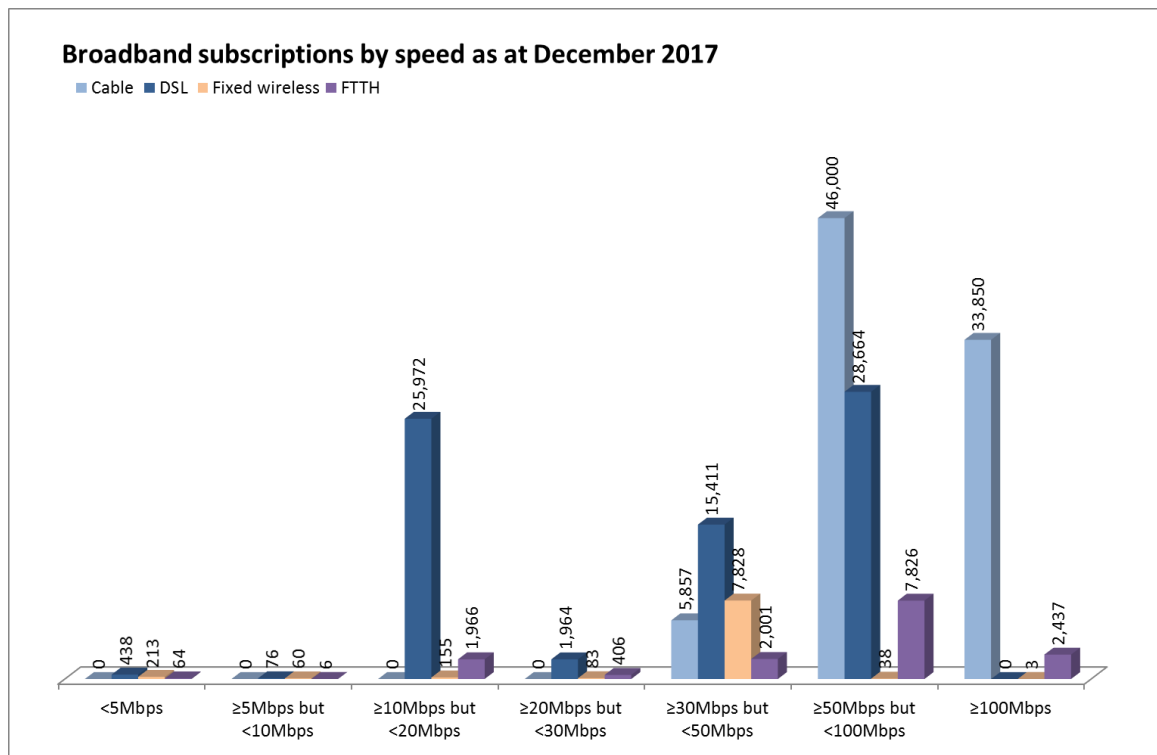


Figure 31: Broadband Internet subscriptions as at end of period - by technology & connection speed

As for the download speeds supported over fixed wireless, 6.1% of all subscriptions allowed for a download speed of less than 30Mbps. The majority of fixed wireless subscriptions had download speeds of 30Mbps but lower than 50Mbps, at 93.4%. Just 0.50% of all wireless fixed broadband connections supported download speeds of 50Mbps or more.

#### 6.5. Fixed broadband ARPU

Fixed broadband ARPU in the second half of 2017 stood at €112.19, up by 8.7% from €103.17 in the same period a year earlier. These figures are derived by dividing the total retail revenues of service providers (in terms of monthly access fees excluding installation costs) by the total number of subscriptions<sup>25</sup>, during a given period. The revenue element is composed of the total retail revenues from subscriptions to broadband services, excluding revenues from installation and connection fees.

<sup>25</sup> The average total number of subscriptions takes the sum of the total subscriptions at the start and the end of the quarter under consideration divided by two.

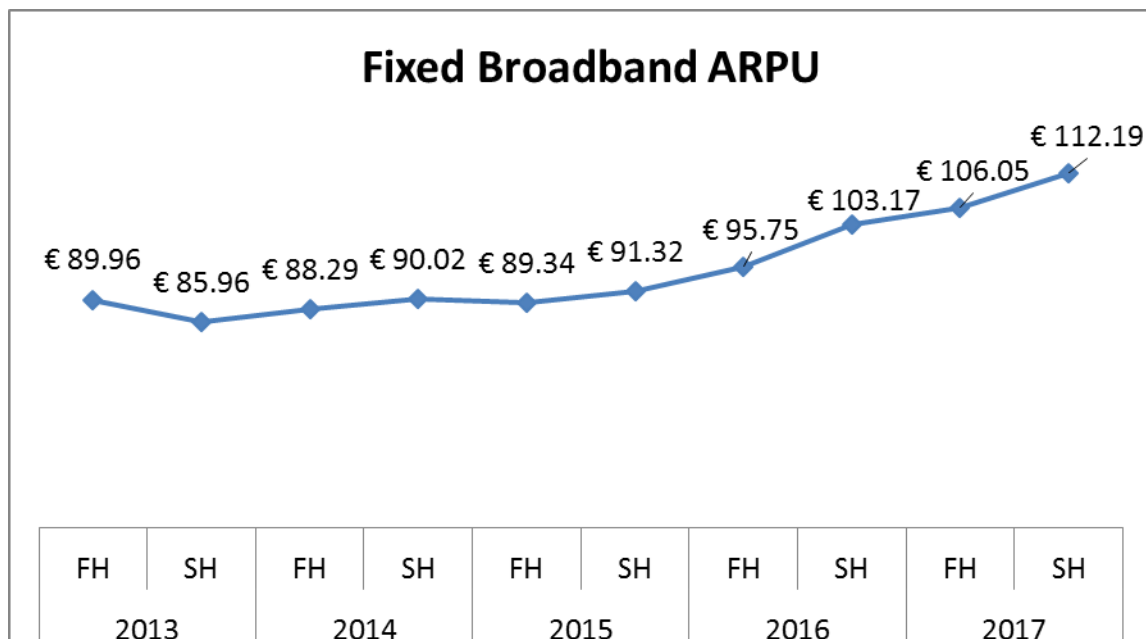


Figure 32: Average revenue per broadband user

This increase in ARPU reflects the consolidation of the fixed broadband subscriber base and the higher revenues generated from the premium paid by end-users to get fast and ultra-fast fixed broadband connections. At the same time, end-users availed themselves of promotional offers and discounts that apply with bundled subscriptions.

## 6.6. Average rate per Mbps

As end-user preferences shift toward higher-value fixed broadband services, developments in prices provide an important indication as to how competition in this area is evolving. In this regard, the rate (or price) paid by the end-user per Mbps gets significant attention, given that it takes into account the quality-to-cost relationship of the local product line-up.

It is relevant to underline that the rate per Mbps has gone down significantly over the years, particularly with the onset of fast and ultra-fast fixed broadband plans. This, notwithstanding the rise in entry-level prices as download speeds improved. The bigger the download speeds, the less the end-user would pay for every Mbps of download.

The average rate per Mbps in the second half of 2017 stood at €0.87, down by 4.4% when compared to an average rate of €0.95 in the second half of the previous year<sup>26</sup>.

<sup>26</sup> The average rate per Mbps calculation in this report takes into account fixed broadband plans that are available nationwide, including dual play bundled packages. Plans that are on a triple-play or quad-play bundle are not taken into account. Also, expenses incurred by the end-user, such as installation fees and other charges, do not feature in the calculations when determining the average rate per Mbps.

Drawing attention to the second half of 2017, Figure 34 illustrates that, in the case of fixed broadband connections supporting speeds of less than 10Mbps, the average rate per Mbps stood at €4.36, unchanged from what was observed in the second half of 2016. In the case of fixed broadband products supporting download speeds of 10Mbps but less than 20Mbps, the average rate per Mbps stood at €1.78 in the current reporting period, unchanged from the rate prevailing in the same period a year earlier. An unchanged rate per Mbps of €2.012 was also determined for products supporting download speeds of 20Mbps but less than 30Mbps. It is noted that only a few plans supporting a download speed less than 30Mbps are available on the local fixed broadband market.

Meanwhile, the average rate per Mbps for fixed broadband products supporting download speeds of 30Mbps but less than 50Mbps was down by around 18%, from €0.98 in the second half of 2016 to €0.80 in the second half of 2017. On a similar vein, the average rate per Mbps for fixed broadband products supporting download speeds of 50Mbps but less than 100Mbps has also dropped, albeit marginally by 2.9% from €0.61 in the second half of 2016 to €0.60 in the current review period. These changes reflect new nationwide plans launched by Melita to business users.

In the case of fixed broadband products supporting a download speed of 100Mbps or more, the ARPM was down by almost 16%, given the drop in the advertised rate per Mbps from €0.43 in the second half of 2016 to €0.36 in the second half of 2017. Again, this decline is the result of new plans launched by Melita in this product category addressed to business users.

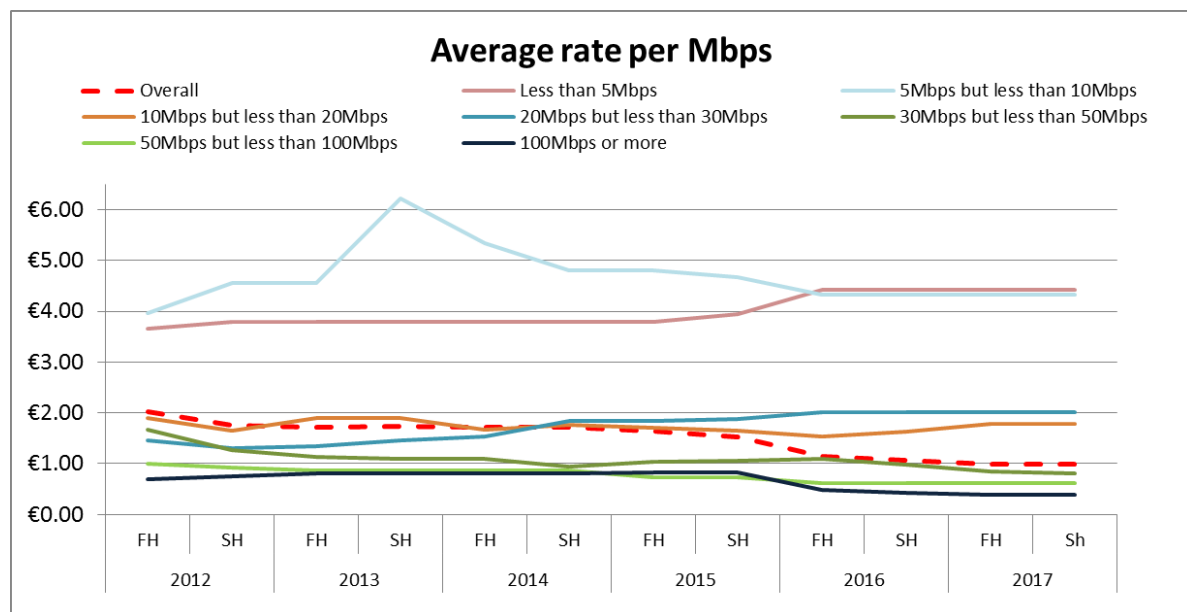


Figure 33: Average price per Mbps of fixed broadband for packages

## Note

The MCA considers the average advertised rate of fixed broadband per unit of download speed (i.e. per Mbps) as a proxy measure of how pricing for local fixed broadband products develops over time. Figure 36 illustrates movements in the average advertised rate per Mbps on a more disaggregated level, according to different brackets of headline download speeds, as follows:

- products with a download speed of less than 5Mbps;
- products with a download speed equal to or greater than 5Mbps but less than 10Mbps;
- products with a download speed equal to or greater than 10Mbps but less than 20Mbps;
- products with a download speed equal to or greater than 20Mbps but less than 30Mbps;
- products with a download speed equal to or greater than 30Mbps but less than 50Mbps;
- products with a download speed equal to or greater than 50Mbps but less than 100Mbps; and
- products equal to or greater than 100Mbps.

The calculation of the rate of fixed broadband per unit of download speed for the different products featuring in the above-mentioned categories is derived by dividing the relevant monthly access fee by the supported download speed. The final rate per Mbps figure for each category is based on a simple average of the rate per Mbps figures for the different products involved.

## 6.7. Take-up and usage of mobile broadband

The term mobile broadband used in this review encompasses data access and internet connectivity services offered over the following devices:

- A mobile handset capable with 3G or 4G capabilities.
- Portable computers and tablets, enabled by USB dongles / keys and built-in broadband cards.

For the sake of consistency, the methodology used to measure the take-up of mobile broadband in Malta corresponds with that adopted by the EU Commission when measuring progress in this area across the EU<sup>27</sup>. Locally, mobile broadband can be purchased in a bundle or as an add-on or else acquired with other mobile telephony services.

Figure 35 illustrates that the number of end-users actively accessing mobile broadband services via 3G-enabled mobile subscriptions totalled 362,004 at the end of December 2017. This figure is up by 35,902 (or by 11.00%) from 326,102 at the end of December 2016.

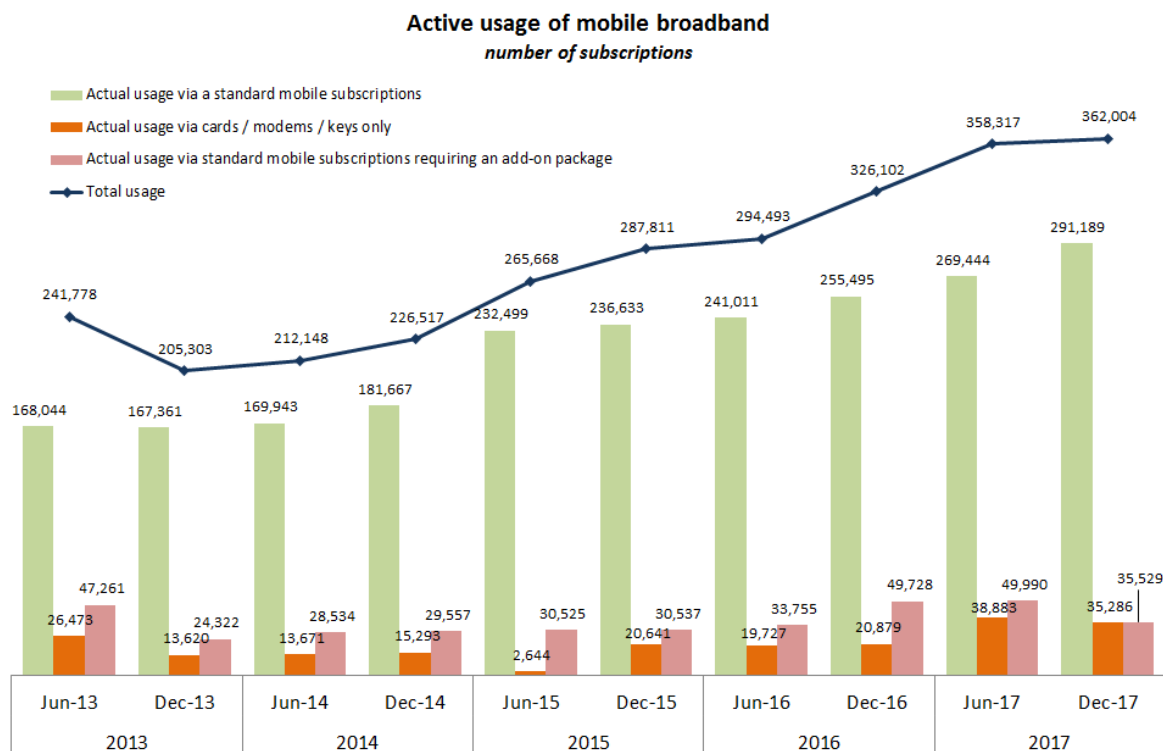


Figure 34: Mobile broadband active connections as at end of period

A disaggregated look at the above illustration shows that subscriptions to cards/modems and keys as well as standard mobile subscriptions explain the increased activity when it comes to the usage

<sup>27</sup> The EU Commission states that, for the sake of clarity, what is measured for mobile BB is the number of users, and not the number of transactions, since the overall objective is to measure a penetration per 100 population.

of mobile data. In fact, the number of subscriptions on cards/modem/keys actively using mobile data services was reportedly up by 69% year-on-year, from 20,879 at the end of 2016 to 35,286 at the end of 2017. Similarly, the number of standard mobile subscriptions actively using mobile data services was up by 14%, from 255,495 at the end of 2016 to 291,189 at the end of 2017. The widespread availability of data allowances in both pre-paid and post-paid mobile telephony plans as well as greater penetration of smart phones contributed to this outcome. Conversely, seeing that data allowances in plans have improved, consumers got less reliant on add-on packages, so much so that the number of subscriptions acquiring add-ons to actively use mobile data was down by 28.6% year-on-year, from 49,728 at the end of 2016 to 35,529 at the end of 2017.

### 6.8. Mobile broadband penetration

The latest data for Malta from the EU's Digital Agenda Scoreboard shows an improvement in mobile broadband penetration, which stood at 93.2% in June 2017 and therefore above the EU average of 90.2%<sup>28</sup>.

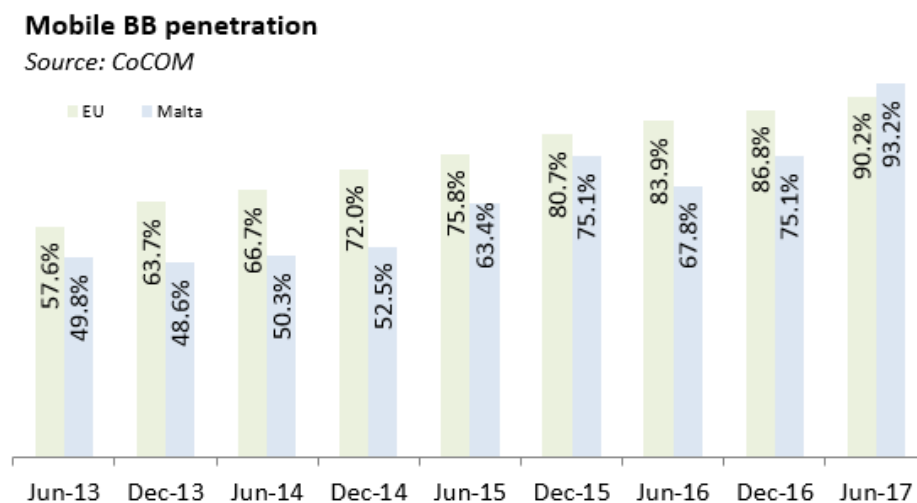


Figure 35: Mobile broadband penetration (active end-users/100 people), as at end of period

<sup>28</sup> Data beyond June 2017 is currently not available on the Commission's Digital Agenda Scoreboard.



## 7. Pay-TV

Local service providers recorded a 5.4% rise in subscriptions in the 12-month period to December 2017, with most of the new subscriptions being purchased in a bundle. Given the continued rise in bundled subscriptions, which typically allow for discounted access fees to the end-user, pay-TV ARPU was down in the second half of 2017 compared to the same period a year earlier.

### 7.1. Pay TV subscriptions

155,676 pay-TV subscriptions were reported by the end of 2017. This figure is up by 7,920 (or by 5.4%) year-on-year.<sup>29</sup> Almost all new subscriptions were purchased in a bundle, the dilution of the stand-alone line-up.

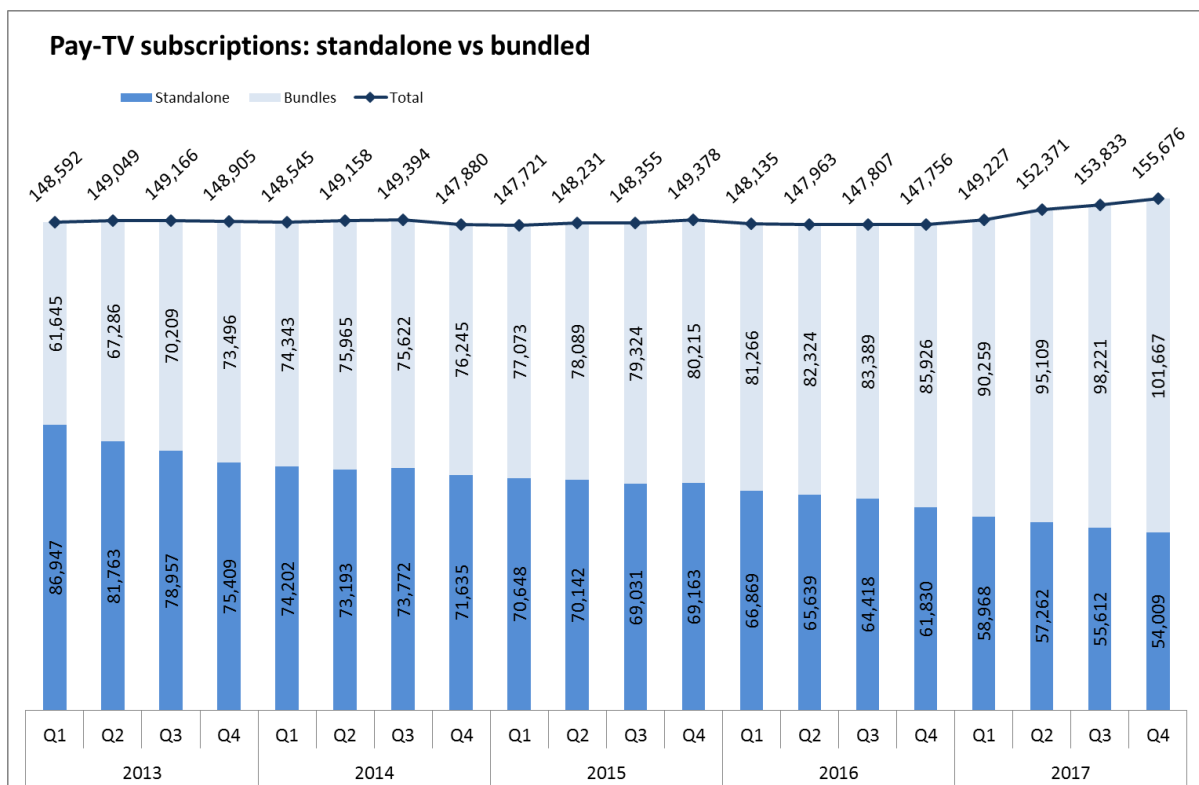


Figure 36: Pay TV subscriptions as at end of period

<sup>29</sup> This figure excludes forms of subscriptions to Over-the-Top (OTT) Video-on-Demand (VoD) offerings or internet-only streaming services. No data on take-up of such subscriptions is available to the MCA since these providers are not authorised locally.

Pay-TV subscriptions in a bundle	2013		2014		2015		2016		2017	
	FH	SH	FH	SH	FH	SH	FH	SH	FH	SH
<b>Pay-TV subscriptions on a dual play contract</b>	<b>10,832</b>	<b>9,923</b>	<b>9,731</b>	<b>6,946</b>	<b>6,318</b>	<b>5,841</b>	<b>5,720</b>	<b>5,544</b>	<b>5,296</b>	<b>5,047</b>
Pay TV + fixed telephony	10,832	9,923	9,731	6,946	6,318	5,841	5,720	5,544	5,296	5,047
<b>Pay-TV subscriptions on a triple play contract</b>	<b>15,115</b>	<b>21,087</b>	<b>22,165</b>	<b>24,870</b>	<b>26,088</b>	<b>27,386</b>	<b>28,529</b>	<b>30,482</b>	<b>40,638</b>	<b>46,835</b>
Pay-TV fixed telephony + fixed broadband	15,115	21,087	22,165	24,870	26,088	27,386	28,529	30,482	40,638	46,835
<b>Pay-TV subscriptions on a quad play contract</b>	<b>41,339</b>	<b>42,486</b>	<b>44,069</b>	<b>44,429</b>	<b>45,683</b>	<b>46,988</b>	<b>48,075</b>	<b>49,900</b>	<b>49,175</b>	<b>49,785</b>
Pay-TV + fixed telephony + fixed broadband + mobile telephony	41,339	42,486	44,069	44,429	45,683	46,988	48,075	49,900	49,175	49,785
<b>Total number of pay-TV subscriptions in a bundle</b>	<b>67,286</b>	<b>73,496</b>	<b>75,965</b>	<b>76,245</b>	<b>78,089</b>	<b>80,215</b>	<b>82,324</b>	<b>85,926</b>	<b>95,109</b>	<b>101,667</b>
Number of pay-TV subscriptions as at end period	141,085	141,410	141,950	141,032	141,694	143,286	142,220	142,357	148,642	154,220
<b>Percentage of pay-TV subscriptions in a bundle</b>	<b>47.69%</b>	<b>51.97%</b>	<b>53.52%</b>	<b>54.06%</b>	<b>55.11%</b>	<b>55.98%</b>	<b>57.88%</b>	<b>60.36%</b>	<b>63.99%</b>	<b>65.92%</b>

Table 13: Pay TV subscriptions on a bundled offer

The number of pay-TV subscriptions purchased in a bundle were up by 15,741 (or by 18.3%) year-on-year, from 85,926 at the end of 2016 to 101,667 at the end of the current review period. Around 35% of all pay-TV subscriptions recorded at the end of the current review period were purchased stand-alone, down from 42% a year earlier.

## 7.2. Pay TV subscriptions by technology platform

Pay-TV is offered in Malta by two operators over four technology platforms. Pay-TV services over the digital terrestrial television (DTTV) platform and the Internet Protocol television (IPTV) platform are supplied by GO. Melita offers its pay-TV services over the analogue cable TV and digital cable TV platforms.

The digital cable TV platform takes the largest percentage of the local subscriber base, at 54% by the end of 2017, followed by the Internet Protocol (IP) TV platform, at almost 23%, and the digital terrestrial TV (DTTV) platform, at almost 22%. Year-on-year, the digital cable platform and the IPTV platforms gained six percentage points in terms of market share. In contrast to these gains, the market share of DTTV fell by almost nine percentage points, whilst that for analogue cable TV was down by almost three percentage points.

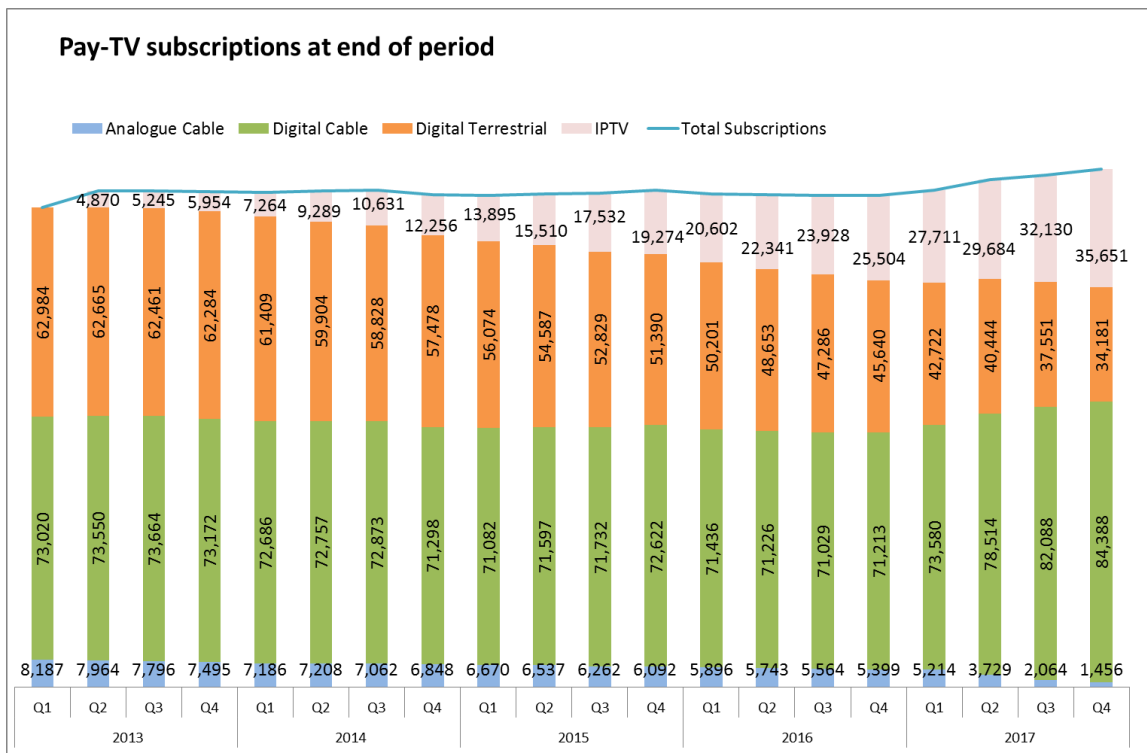


Figure 37: Pay TV subscriptions as at end of period

In absolute terms, the digital cable platform saw its subscriptions increase by 13,175 year-on-year, to 84,388 by the end of 2017. The number of IPTV subscriptions was up by 10,147 during the same period. On the other hand, the analogue cable and the digital terrestrial TV (DTTV) platforms registered a drop in subscriptions.

The number of DTTV subscriptions totalled 34,181 at the end of last December, which is down by 11,459 from 45,640 a year earlier. Meanwhile, the number of analogue pay\_TV subscriptions was down by 3,943 year-on-year, from 5,399 at the end of 2016 to 1,456 at the end of 2017.

### 7.3. Pay TV ARPU

This publication includes two pay-TV ARPU indicators, both derived by dividing the total retail revenues of service providers by the total number of subscriptions for the current reporting period<sup>30</sup>. The main distinction between the two is that one includes revenues from premium services, such as movies or sports add-ons, in addition to other revenue streams, such as those generated from installation and monthly access fees. Figure 39 illustrates developments for these two pay-TV ARPU indicators.

<sup>30</sup> To derive the average total number of subscriptions, the MCA sums the total subscriptions at the start and the end of the quarter under consideration and divides the total by two.

Pay-TV ARPU including premium totalled €86.68 in the second half of 2017, down by 4.9% from €92.17 in the same period a year earlier. Meanwhile, pay-TV ARPU excluding premium, totalled €78.97 in the current review period, also down by 4.5% compared to the same period in 2016.

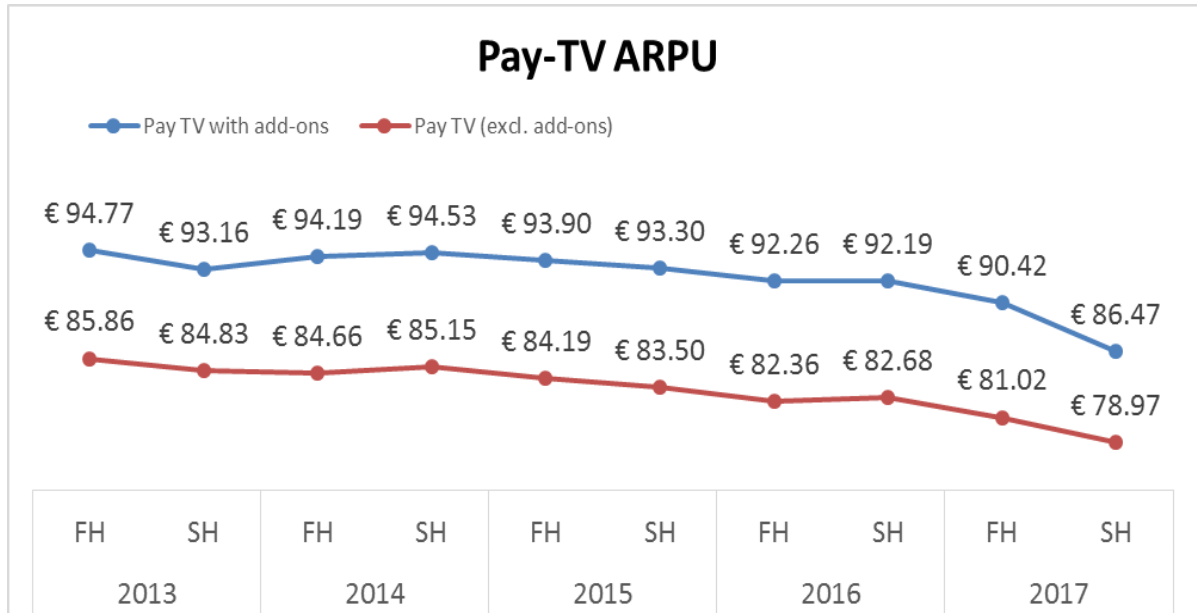


Figure 38: Average revenue per Pay TV user

The consistent drop in pay-TV ARPU tallies with the rise in take-up of the service in a bundle, whereby it has already been remarked that the bundle subscription typically comes with a discount to the 'stand-alone' monthly access fee.

#### 7.4. Average advertised monthly access fees for stand-alone Pay TV

The forthcoming overview seeks to capture movements in the average advertised monthly access fees for five distinct pay-TV categories, with each category encompassing stand-alone plans listing a particular number of channels.<sup>31</sup>

Overall, the average advertised monthly access fee for stand-alone pay-TV stood at €19.99 in the second half of 2017, down by 19.5% from €24.82 at the end of 2016. The drop in the average advertised rates is a result of both Melita and GO updating their pay-TV line-up, including a revamp of their entry-level stand-alone plans. Melita introduced its 'Starter Pack' plan in the first half of 2017 whilst GO introduced its own entry-level plan the 'Start TV Interactive' plan in the second half of 2017. Despite both packages having an identical monthly access fee of €10.00, Melita's 'Starter' plan currently stands alone in the pay-TV category for plans with less than 25 channels, whilst GO's 'Start TV Interactive' features in the '25 to 49 channel' category.

Also of note, however, is the dilution in choice of stand-alone offers. In fact, Melita no longer offers stand-alone plans that in previous years featured under categories encompassing '50 to 74

<sup>31</sup> Calculations for the average advertised rates for pay-TV only take into account products offered on a stand-alone basis.

channels', '75 to 99 channels' and '100 channels or more'. Such plans can only be availed in a bundle purchased from this service provider.

Given the above, the average advertised rate of the pay TV category encompassing 'up to 24 channels' went up to €10.00 in the second half of 2017, from €5.00 in the same period a year earlier. On the other hand, the average advertised monthly access fee for the pay TV category encompassing '75 to 99 channels' went down to €21.99 in the current reporting period, from €23.99 during the same period a year earlier. The average advertised monthly access fee for the pay TV channel category encompassing '100 channels or more' has also gone down, from €32.99 to €32.00.

In conclusion, although the average advertised monthly access fee for pay-TV has gone down, there is less choice for consumers seeking to purchase stand-alone pay-TV packages.

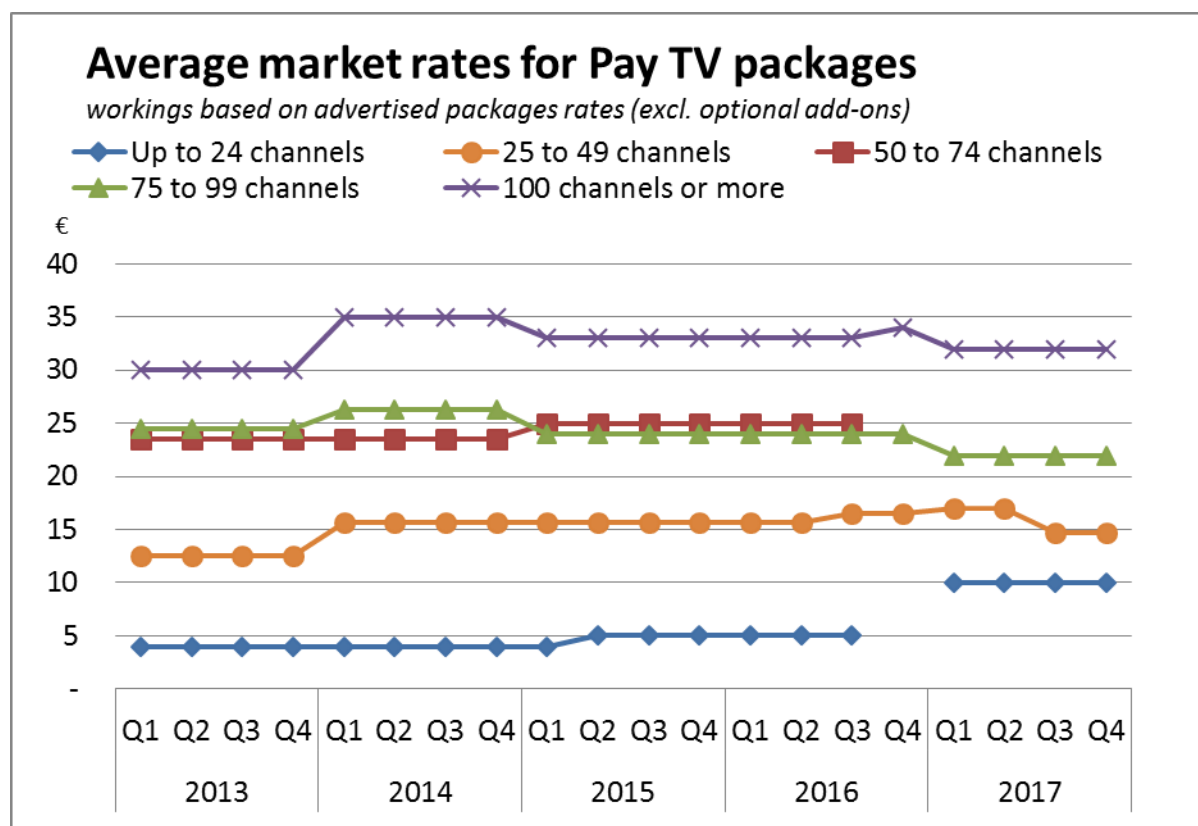


Figure 39: Average market rates for Pay TV packages

It is of note here that the figures presented above do not take into account billing charges i.e. those charges that come into force if the end-user requires paper bills and / or opts not to pay its bills via direct debit.

## 8. Post

The further drop in postal mail volumes comes as no surprise, given the observed trends for the last decade. The downward pressure on postal mail volumes is explained by the continued development of online applications and the rise in their usage. Nevertheless, online platforms have also generated new revenue streams for postal operators, particularly when it comes to cross-border activities related to eCommerce.

### 8.1. Postal mail volumes

Postal mail items delivered by local postal operators<sup>32</sup> in the second half of 2017 totalled 18.6 million. This figure is down up by around 0.2 million (or by 1.1%) from 18.4 million postal mail items delivered in the same period a year earlier.

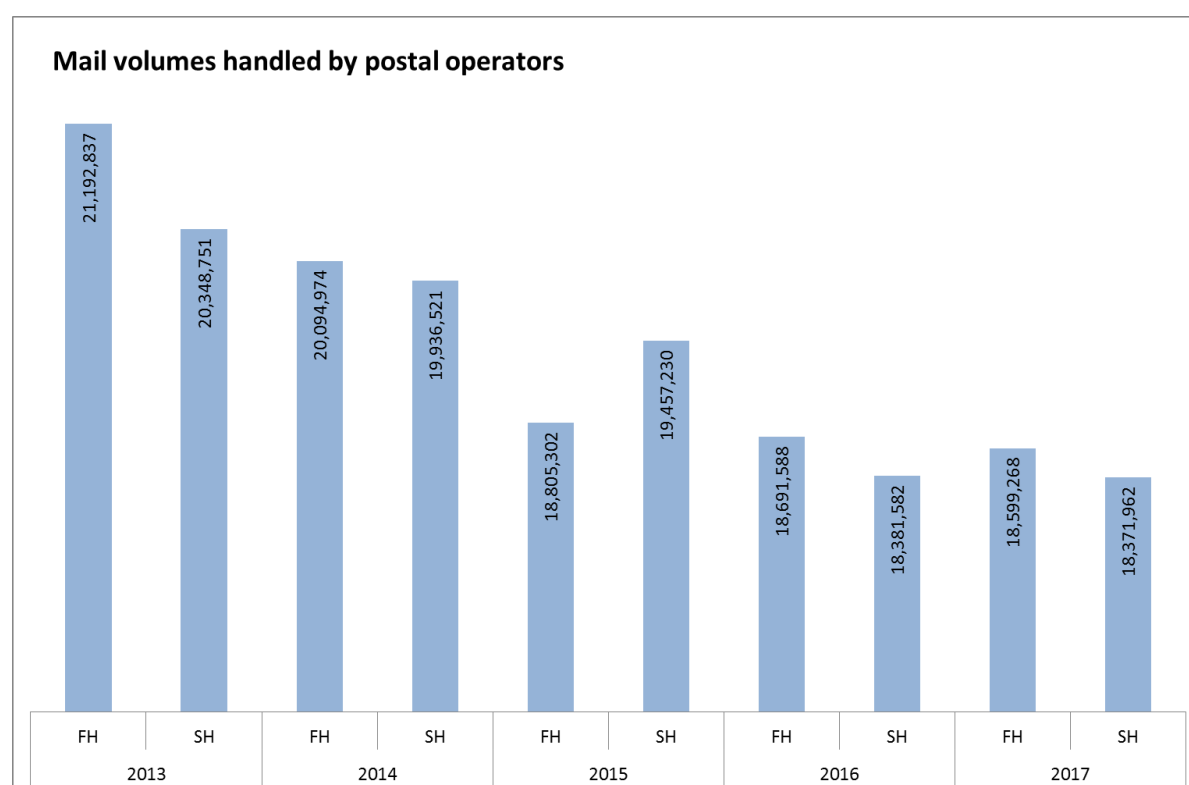


Figure 40: Postal activity - mail volumes handled by local service providers

This section also describes developments in postal mail volumes by distinguishing between standard postal mail and express postal mail.

<sup>32</sup> Maltapost plc (the designated Universal Service Provider, hereafter also referred to as “the USP”), DHL International Ltd., and Premiere Post Ltd. provide services within the universal service area. As part of its universal service obligation Maltapost is obliged to provide a set of services, outside the reserved area. Another 16 postal operators (courier and express services) provide services outside the scope of the universal service area.

By way of definition, standard postal mail encompasses the delivery of single piece letter mail, bulk mail, registered mail and parcel mail<sup>33</sup>. Express postal mail encompasses the accelerated and secure worldwide delivery of mail items, be it for important letters, documents or parcels, through express mail or courier service providers. The services offered by these providers is characterised throughout by a degree of speed, tracking and managerial control (that exceed that applied to the fastest standard category of the basic universal letter post and parcel services). The distinguishing characteristic of a courier service provider is that it focuses on the delivery of express mail items that are in possession of an employee of the company at all stages of its journey.

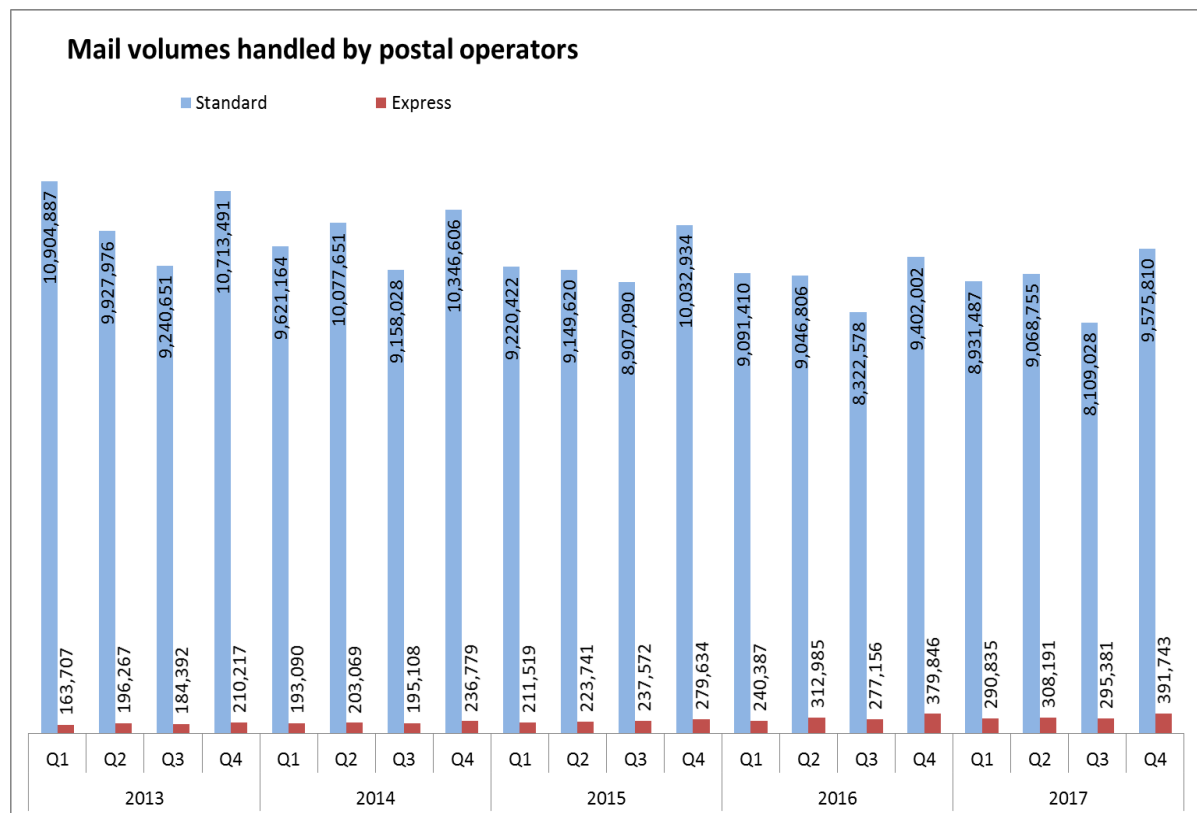


Figure 41: Postal activity - number of handled mail items by type of mail activity<sup>34</sup>

Of note is that standard postal mail accounted for 96.2% of total postal mail volumes delivered in the second half of 2017. Express mail activity accounted for the remaining share, at 3.7%.

<sup>33</sup> Single piece letter-post mail (also referred to as ordinary mail) is the ordinary day-to-day correspondence posted by individuals and businesses (other than bulk letter-post mail), at street letterboxes or over the counter at postal outlets. The registered letter-post mail service (also referred to as registered mail) refers to a service providing a flat-rate guarantee against risks of loss, theft or damage and supplying the sender, where appropriate upon request, with proof of the handing in of the postal article or of its delivery to the addressee. Bulk letter-post mail (also referred to as bulk mail) consists of a substantial number of similar letter-post items deposited with MaltaPost at the same place and time, to be transported and distributed to the addressees indicated on each of the postal articles.

In absolute terms, the number of standard postal mail items delivered in the second half of 2017 totalled 17.7 million, which is slightly down compared to the same period a year earlier. Meanwhile, the number of express postal mail items delivered in the current review period was up by 30,122 (or by 4.6%) when compared to the second half of 2016.

## 8.2. Postal mail volumes by type of mail

There are four different segments of postal mail. These are single piece letter mail, parcel mail, bulk mail and registered mail.

Single piece letter-post mail accounted for 39.4% of all postal mail items delivered during the current review period. In absolute terms, the number of single piece letter-post items totalled 7.2 million in the second half of 2017, which is down by 0.3 million (or by 4%) from volumes registered in the second half of 2016.

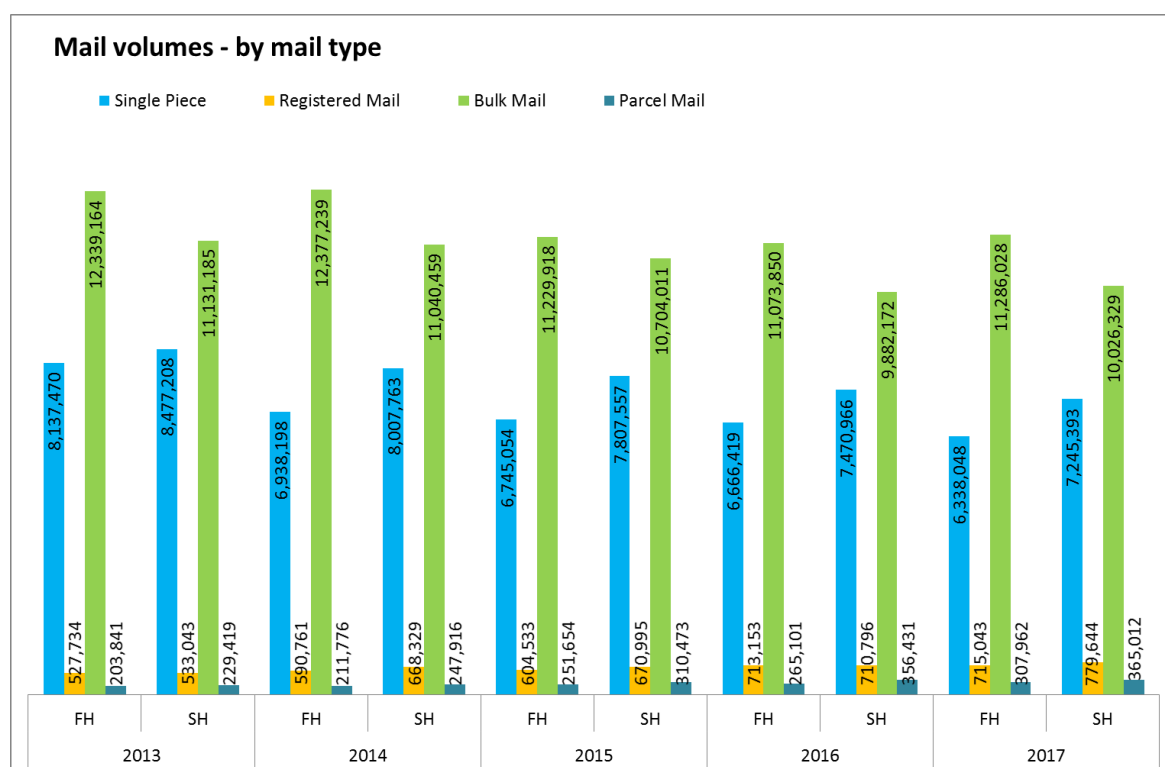


Figure 42: Postal activity - number of handled mail items by type of mail item

Bulk letter-post mail items totalled 10.0 million in the second half of 2017, which is equivalent to 54.4% of total mail volumes delivered during this period. Compared to volumes recorded in the second half of 2016, bulk mail items were up by 0.1 million items (or by 1.0%).

The number of registered mail items delivered in the second half of 2017 totalled 0.8 million, which is equivalent to 4.2% of all postal mail items recorded during the period. When compared with the second half 2016, registered mail volumes were up by 68,848 items (or by 9.7%).



Parcel mail items totalled 0.3 million in the second half of 2017, which is equivalent to 1.7% of total postal mail volumes recorded during this period. Compared to mail volumes recorded in the second half of 2016, parcel mail items were up by 2,948 (or by 0.9%).

### 8.3. Postal mail volumes by activity heading

This section distinguishes between mail activity according to the destination, namely by domestic mail; outbound cross border mail<sup>35</sup>, and inbound cross border mail<sup>36</sup>.

Domestic mail volumes delivered in the second half of 2017 totalled 13.9 million items. This figure is down by 0.9% compared to the figure recorded in the same period a year earlier.

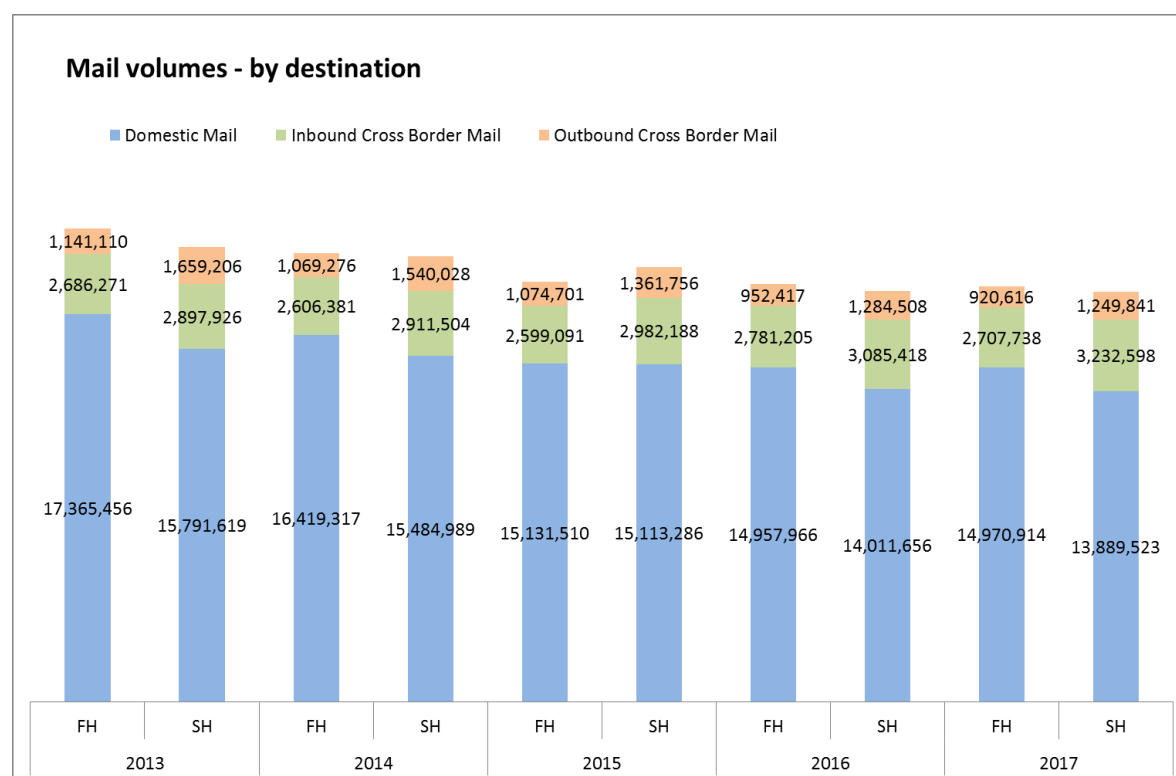


Figure 43: All postal activity - number of handled mail items by destination

Volumes of outbound cross border mail and inbound cross border mail in the second half of 2017 totalled 3.2 million items and 1.2 million items respectively. Figure 44 illustrates that, in the case of inbound cross border mail, volumes recorded in the current reporting period were down by 0.03 million items (or by 2.7%), compared to volumes recorded in the second half of 2016. Meanwhile, volumes for outbound cross border mail were down by 0.15 million-mail items (or by 4.8%).

<sup>35</sup> These postal mail items originate locally for delivery to foreign destinations.

<sup>36</sup> Foreign-originated postal mail forwarded to Malta.

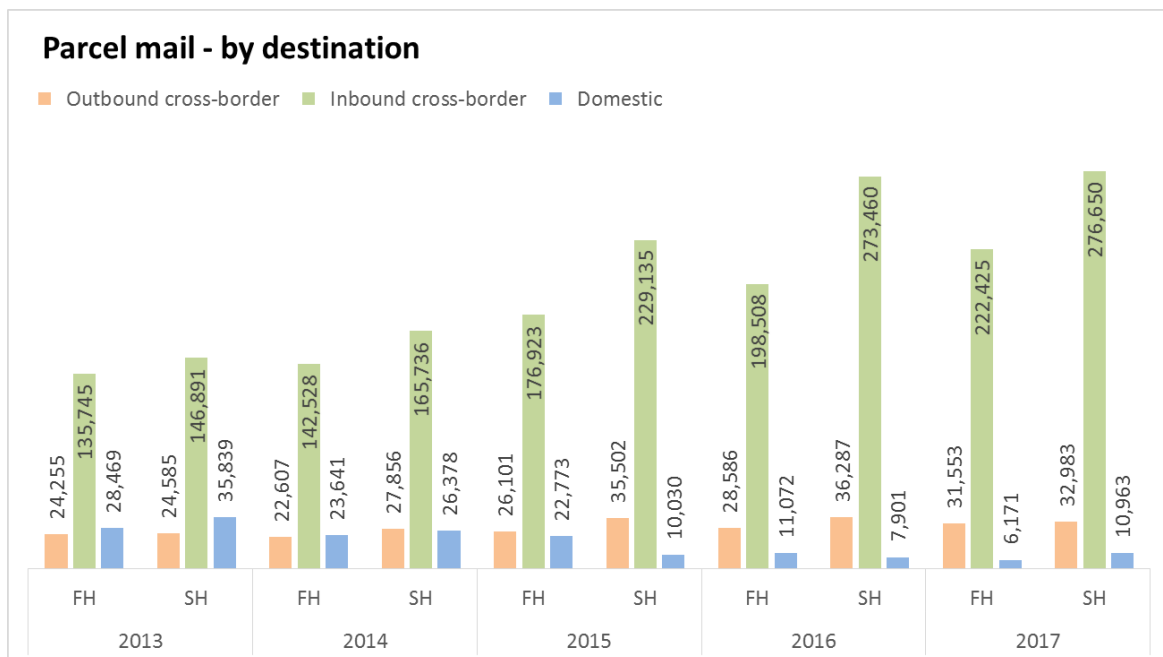


Figure 44: Parcel mail activity - number of handled mail items by destination

A further disaggregated look at parcel post illustrates that the volume of outbound cross border mail and inbound cross border mail in this reporting period totalled to 32,983 items and 276,650 items respectively. In the case of inbound cross border mail, volumes recorded in the current reporting period were up by 1.2%, compared to the same period in 2016. Conversely, volumes for outbound cross border mail were down by 9.1%. A significant uptick took place for the domestic parcel mail segment with volumes being up by around 38.8%, when comparing activity reported for the second half of 2017 to that reported in the second half of the previous year.

#### 8.4. Quality of service for the delivery of postal mail

The MCA has established a methodology, based on a series of Quality of Service (QoS) targets, to determine whether Maltapost is meeting its universal service obligations for the delivery of different mail items. These QoS targets are set in accordance with the MCA Decision<sup>37</sup> on the quality performance measurement of postal items delivered within the defined service standard. QoS data corresponds to the full calendar year<sup>38</sup>.

<sup>37</sup> Link to MCA Decision concerning the 'Review of Quality of Service Targets and Requirements to be achieved by Maltapost plc': [http://www.mca.org.mt/sites/default/files/articles/QoS\\_Review\\_-\\_DN.Nov\\_10.pdf](http://www.mca.org.mt/sites/default/files/articles/QoS_Review_-_DN.Nov_10.pdf)

<sup>38</sup> In terms of the MCA Decision Notice on the measurement of MaltaPost's Quality of Service, MaltaPost is required to attain the standards set by the Authority over a given financial year (October to September).

It is however of note that the QoS data presented in this report is adjusted to reflect developments over a standard calendar year, not a financial one.

### 8.4.1 Local ordinary mail and bulk mail

The QoS targets set by the MCA for the next day delivery (D+1) to destination of local ordinary mail and bulk mail stands at 95%.

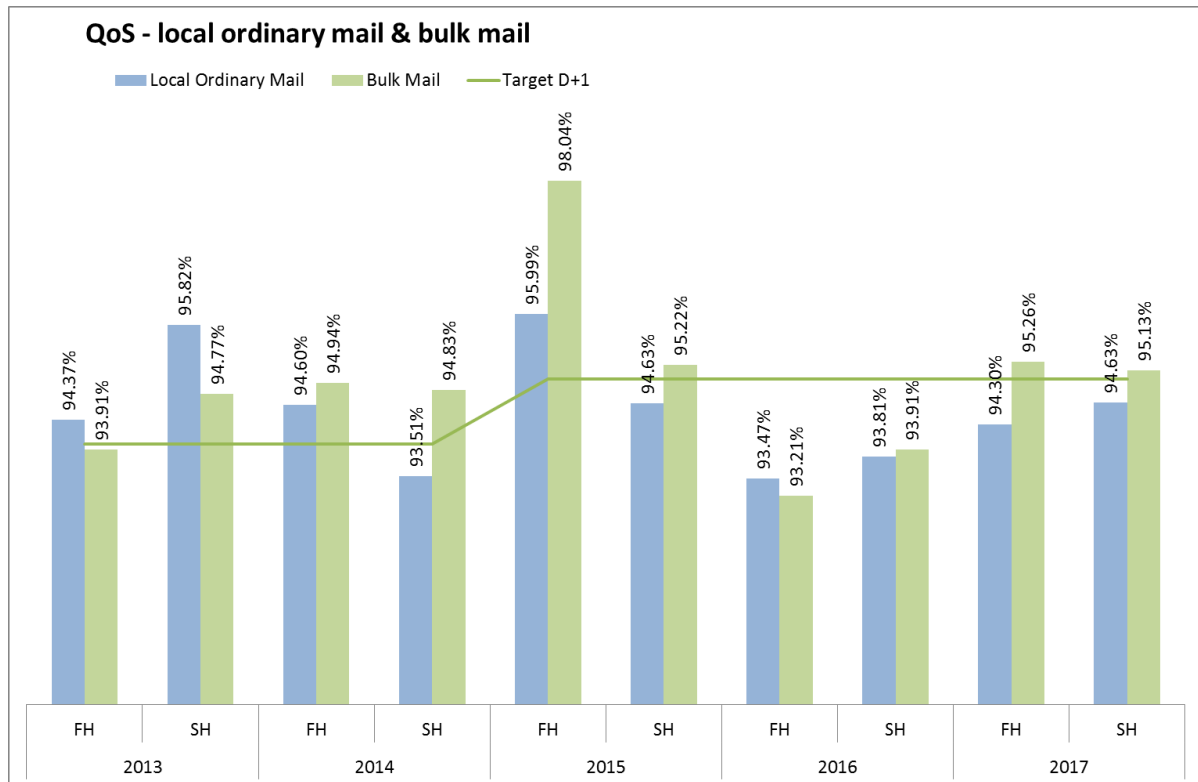


Figure 45: Quality of service - local ordinary and bulk mail

Figure 46 illustrates that Maltapost did not reach the established target for local ordinary mail in the second half of 2017. However, the established target for bulk mail was met.

### 8.4.2. Local registered mail and priority inbound parcels

The (D+1) QoS target for the delivery to destination of local registered mail and priority inbound parcels has been set at 98%.

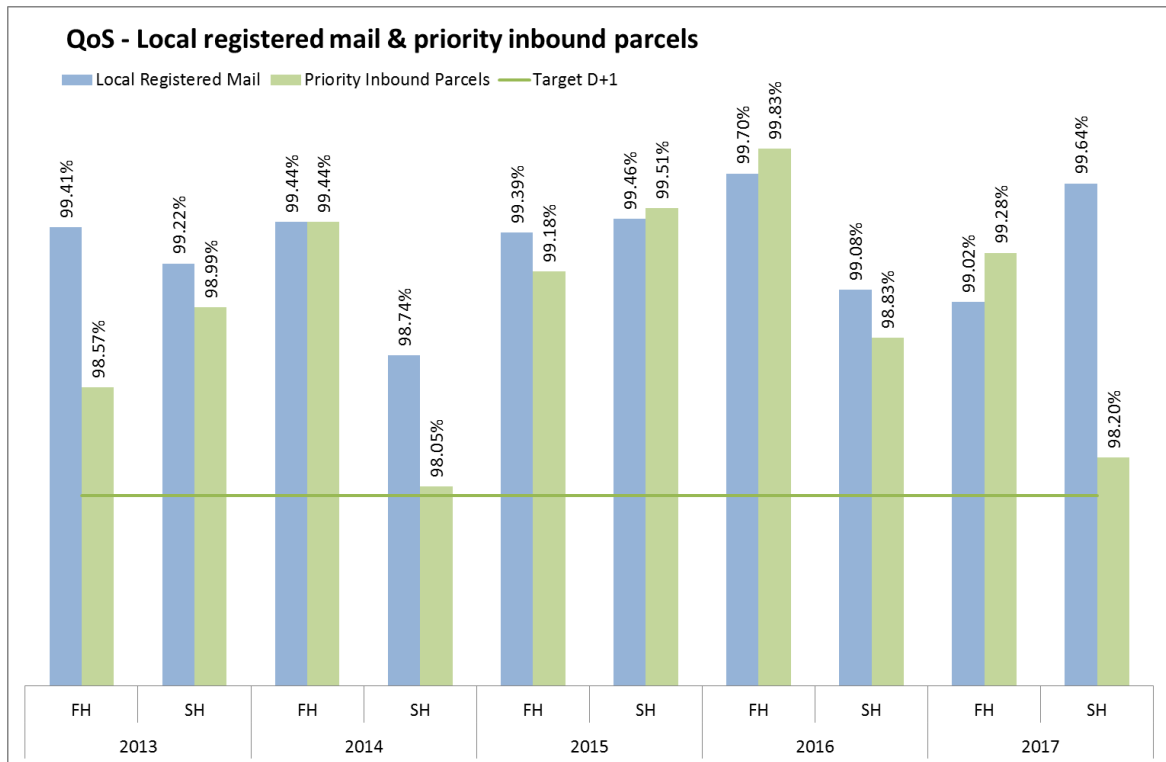


Figure 46: Quality of service - local registered mail and priority inbound parcels

Figure 47 illustrates that, last year, Maltapost has met and exceeded all the set targets for the mail activities under consideration.

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## 9. Tables

TABLE 1: TAKE-UP, ACTIVITY LEVELS AND PRICING FOR THE MOBILE SECTOR .....	7
TABLE 2: TAKE-UP, ACTIVITY LEVELS AND PRICING FOR THE FIXED LINE SECTOR .....	8
TABLE 3: TAKE-UP AND PRICING FOR THE FIXED BROADBAND SECTOR .....	9
TABLE 4: TAKE-UP AND PRICING FOR THE PAY TV SECTOR.....	11
TABLE 5: POSTAL MAIL VOLUMES.....	12
TABLE 6: FIXED LINE POST-PAID SUBSCRIPTIONS ON A BUNDLED OFFER .....	17
TABLE 7: OUTGOING FIXED LINE TRAFFIC - NUMBER OF NATIONAL VOICE CALLS.....	19
TABLE 8: OUTGOING FIXED LINE TRAFFIC - NUMBER OF NATIONAL VOICE CALL MINUTES.....	20
TABLE 9: MOBILE SUBSCRIPTIONS ON A BUNDLED OFFER .....	26
TABLE 10: OUTGOING MOBILE TRAFFIC - NUMBER OF VOICE CALLS .....	27
TABLE 11: OUTGOING MOBILE TRAFFIC - NUMBER OF VOICE CALL MINUTES .....	28
TABLE 12: FIXED BROADBAND SUBSCRIPTIONS ON A BUNDLED OFFER .....	40
TABLE 13: PAY TV SUBSCRIPTIONS ON A BUNDLED OFFER .....	50

## 10. Figures

FIGURE 1: OPERATORS PROVIDING QUARTERLY DATA .....	4
FIGURE 2: KEY MARKET INDICATORS FOR ELECTRONIC COMMUNICATIONS AND POST .....	5
FIGURE 3: MARKET SHARES IN TERMS OF FIXED LINE TELEPHONY SUBSCRIPTIONS AS AT END OF PERIOD .....	13
FIGURE 4: MARKET SHARES IN TERMS OF MOBILE TELEPHONY SUBSCRIPTIONS AS AT END OF PERIOD .....	13
FIGURE 5: MARKET SHARES IN TERMS OF FIXED BROADBAND SUBSCRIPTIONS AS AT END OF PERIOD .....	14
FIGURE 6: MARKET SHARES IN TERMS OF PAY TV SUBSCRIPTIONS AS AT END OF PERIOD .....	14
FIGURE 7: FIXED LINE TELEPHONY SUBSCRIPTIONS AS AT END OF PERIOD.....	16
FIGURE 8: FIXED LINE NUMBER PORTABILITY - NUMBER OF INWARD PORTINGS .....	17
FIGURE 9: VOICE TRAFFIC ORIGINATING FROM LOCAL FIXED LINE NETWORKS .....	18
FIGURE 10: AVERAGE NUMBER OF CALLS PER ACTIVE SUBSCRIPTION.....	20
FIGURE 11: AVERAGE DURATION OF AN OUTGOING FIXED LINE CALL .....	21
FIGURE 12: AVERAGE REVENUE PER FIXED LINE USER.....	22
FIGURE 13: AVERAGE COST OF A FIXED LINE CALL DERIVED FROM REVENUE-BASED WORKINGS.....	23
FIGURE 14: MOBILE PENETRATION IN MALTA.....	24
FIGURE 16: MOBILE TELEPHONY SUBSCRIPTIONS AS AT END OF PERIOD.....	25
FIGURE 17: MOBILE NUMBER PORTABILITY - NUMBER OF MOBILE PORTINGS .....	26
FIGURE 18: SMS ACTIVITY - NUMBER OF OUTGOING SMSs (1).....	29
FIGURE 19: SMS ACTIVITY - NUMBER OF OUTGOING SMSs (2).....	29
FIGURE 20: MMS ACTIVITY - NUMBER OF OUTGOING MMSs.....	30
FIGURE 21: AVERAGE NUMBER OF CALLS PER ACTIVE SUBSCRIPTION.....	31
FIGURE 22: SUBSCRIBER ACTIVITY - AVERAGE NUMBER OF SMSs PER ACTIVE SUBSCRIPTION.....	32
FIGURE 23: AVERAGE DURATION OF AN OUTGOING MOBILE CALL.....	33
FIGURE 24: OUTBOUND ROAMING ACTIVITY.....	34
FIGURE 25: INBOUND ROAMING ACTIVITY .....	35
FIGURE 26: AVERAGE REVENUE PER MOBILE USER.....	36
FIGURE 27: AVERAGE RATE PER MINUTE OF MOBILE COMMUNICATIONS .....	37
FIGURE 28: AVERAGE RATE PER DOMESTIC AND INTERNATIONAL SMS.....	38
FIGURE 29: TAKE-UP OF FIXED BROADBAND AND FIXED BROADBAND PENETRATION.....	39
FIGURE 30: BROADBAND INTERNET SUBSCRIPTIONS AS AT END OF PERIOD - BY TECHNOLOGY .....	41
FIGURE 31: FIXED BROADBAND SUBSCRIPTIONS AS AT END OF PERIOD, BY SPEED .....	42
FIGURE 32: BROADBAND INTERNET SUBSCRIPTIONS AS AT END OF PERIOD - BY TECHNOLOGY & CONNECTION SPEED .....	43
FIGURE 33: AVERAGE REVENUE PER BROADBAND USER.....	44
FIGURE 34: AVERAGE PRICE PER MBPS OF FIXED BROADBAND FOR PACKAGES.....	45
FIGURE 35: MOBILE BROADBAND ACTIVE CONNECTIONS AS AT END OF PERIOD .....	47
FIGURE 36: MOBILE BROADBAND PENETRATION (ACTIVE END-USERS/100 PEOPLE), AS AT END OF PERIOD ..	48
FIGURE 37: PAY TV SUBSCRIPTIONS AS AT END OF PERIOD.....	49
FIGURE 38: PAY TV SUBSCRIPTIONS AS AT END OF PERIOD.....	51
FIGURE 39: AVERAGE REVENUE PER PAY TV USER.....	52
FIGURE 40: AVERAGE MARKET RATES FOR PAY TV PACKAGES .....	53
FIGURE 41: POSTAL ACTIVITY - MAIL VOLUMES HANDLED BY LOCAL SERVICE PROVIDERS.....	54
FIGURE 42: POSTAL ACTIVITY - NUMBER OF HANDLED MAIL ITEMS BY TYPE OF MAIL ACTIVITY.....	55
FIGURE 43: POSTAL ACTIVITY - NUMBER OF HANDLED MAIL ITEMS BY TYPE OF MAIL ITEM .....	56
FIGURE 44: ALL POSTAL ACTIVITY - NUMBER OF HANDLED MAIL ITEMS BY DESTINATION.....	57
FIGURE 45: PARCEL MAIL ACTIVITY - NUMBER OF HANDLED MAIL ITEMS BY DESTINATION .....	58
FIGURE 46: QUALITY OF SERVICE - LOCAL ORDINARY AND BULK MAIL .....	59

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FIGURE 47: QUALITY OF SERVICE - LOCAL REGISTERED MAIL AND PRIORITY INBOUND PARCELS..... 60

## 11. Glossary of Terms

<b>ARPU</b>	Average revenue per user. Selected revenue items of the operator divided by the average number of active subscriptions during the period.
<b>Broadband</b>	A service or connection to the Internet which is 'always on' and has a speed of more than 128kbps. The number of active broadband subscriptions refers to subscriptions/connections having recorded a transaction within 90 days of the period stipulated.
<b>Dial-up</b>	The number of active dial-up subscriptions refers to those subscriptions/connections which made a call to an Internet number (2188, or 2186) within the last 90 days.
<b>DSL</b>	Digital Subscriber Line. A high-speed transmission technology mainly applied for Internet and video file access service. DSL services allow voice and data to share the same infrastructure and usually require a splitter at the customer's premises to separate voice and data traffic from the line. Forms of DSL include ADSL, HDSL, and VDSL.
<b>DTTV</b>	Digital Terrestrial Television. The term refers to a delivery platform primarily for television programmes in digital format, using the DVB-T standard.
<b>SH</b>	First half of the year, referring to the period June to December.
<b>FNO</b>	Fixed network operator. A provider which owns a fixed line network.
<b>FTF</b>	Fixed-to-fixed traffic.
<b>FTI</b>	Fixed-to-international traffic.
<b>FTM</b>	Fixed-to-mobile traffic.
<b>ISPs</b>	Internet Service Providers. An ISP is a point of access to the Internet for small business and individual users. The ISP provides its customers with access to its router which relays traffic to web servers on the Internet.
<b>Mbps</b>	Megabits per second ("MBit/s") or millions of bits per second. Unit applied to measure the transmission speed of digital information.
<b>MCA</b>	Malta Communications Authority.
<b>MMS</b>	Multimedia Messaging Service. MMS extends the short messaging service ("SMS") to include longer text, graphics, photos, audio clips, video clips, or any combination of the above, within certain size limits.
<b>MNO</b>	Mobile network operator. A provider which owns a mobile network.



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<b>MPR</b>	Mobile penetration rate. The MPR is a term used to describe the number of active mobile subscriptions (or SIM cards) as a percentage of total population.
<b>MTM</b>	Mobile-to-mobile traffic.
<b>MTF</b>	Mobile-to-fixed traffic.
<b>MTI</b>	Mobile-to-international traffic.
<b>MVNO</b>	Mobile Virtual Network Operator. An MVNO is a mobile operator that usually would not have a licence to use radio spectrum but would have access to the radio networks of one or more of the current mobile operators and would be able to offer services using that spectrum.
<b>Off-net activity</b>	Activity between two or more connections on different networks.
<b>On-net activity</b>	Activity between two or more connections on the same network.
<b>Pay TV</b>	Television services (generally a channel or set of channels) paid for by the user, by means of subscription or other ways of service payment.
<b>Q</b>	Quarter of the year. Q1 refers to first quarter (January to March), Q2 refers to second quarter (April to June), Q3 refers to third quarter (July to September), Q4 refers to fourth quarter (October to December).
<b>QoS</b>	Quality of Service. A statistical measure of a system or service. May also be used to set varying priorities for traffic.
<b>Service provider</b>	A supplier of electronic communications and postal services, to third parties, either through its own network or through a network of another operator.
<b>SH</b>	Second half of the year, referring to the period July to December.
<b>SMS</b>	Short message service. This refers to short text messages which can be sent from one mobile phone to another, usually up to 160 characters. Such messages can also be sent from the Internet to a mobile phone.
<b>Universal service</b>	The basic level of telecommunications services which should be available to all customers.
<b>USO</b>	Universal Service Obligations. A provision in Maltese law requiring certain operators to provide certain services to all specified persons who may reasonably request them.
<b>VAT</b>	Value Added Tax.

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## 13. Contact

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