

# ELECTRONIC COMMUNICATIONS SERVICES IN FRANCE

2<sup>ND</sup> QUARTER 2017

ELECTRONIC COMMUNICATIONS MARKET OBSERVATORY

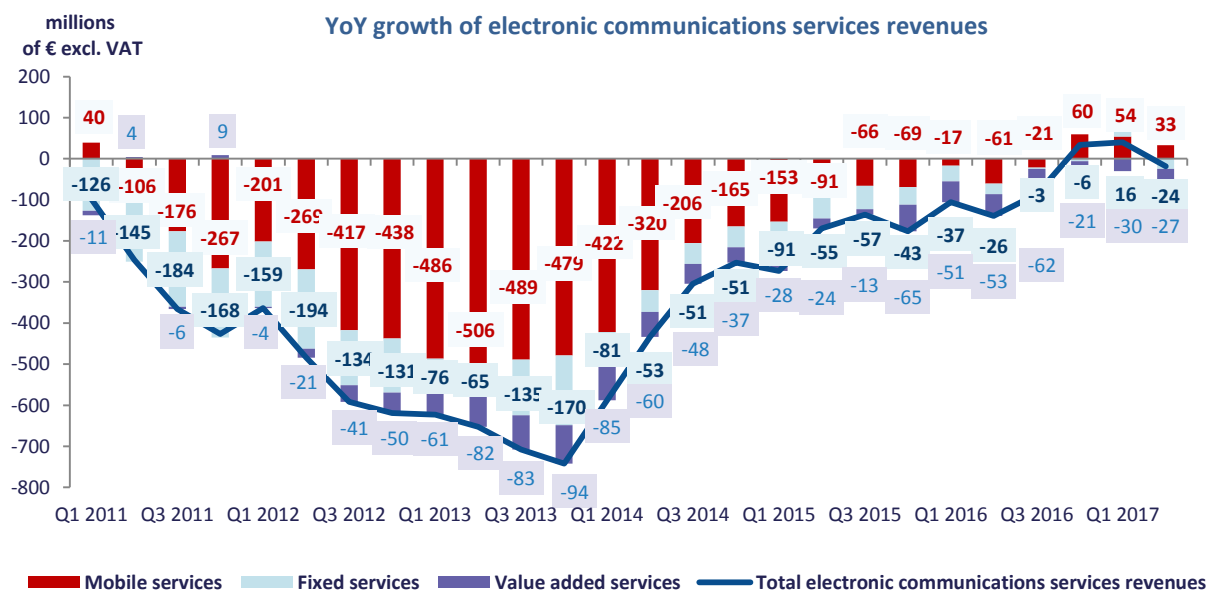
05 OCTOBER 2017

## Synthesis

Revenue on the retail market (millions of euros excl.VAT)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
fixed services (including leased lines and data transport network)	4 308	4 311	4 329	4 303	4 284	-0,6%
Mobile services (MtoM included)	3 487	3 586	3 585	3 528	3 520	0,9%
Value-added services and directory services	291	285	282	274	264	-9,4%
<b>Electronic communications services</b>	<b>8 086</b>	<b>8 183</b>	<b>8 196</b>	<b>8 105</b>	<b>8 068</b>	<b>-0,2%</b>
Others revenues	787	839	1 016	771	785	-0,2%
<b>Overall market</b>	<b>8 873</b>	<b>9 022</b>	<b>9 212</b>	<b>8 876</b>	<b>8 852</b>	<b>-0,2%</b>

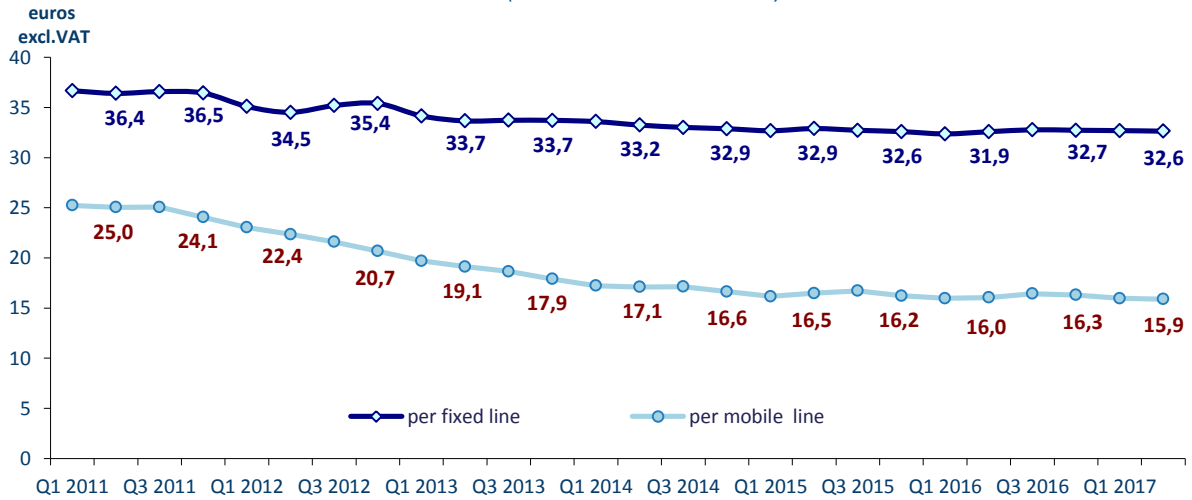
adjusted figures are in italics

Note: "Others revenues" are not, strictly speaking, part of the electronic communications services market. The contribution reported by the operators gives only a partial view of these market segments. This topic covers the income related to sale and rental of terminals and equipment (fixed, mobile and internet), hosting and management of call centres, paper directories, advertising and file transfer.



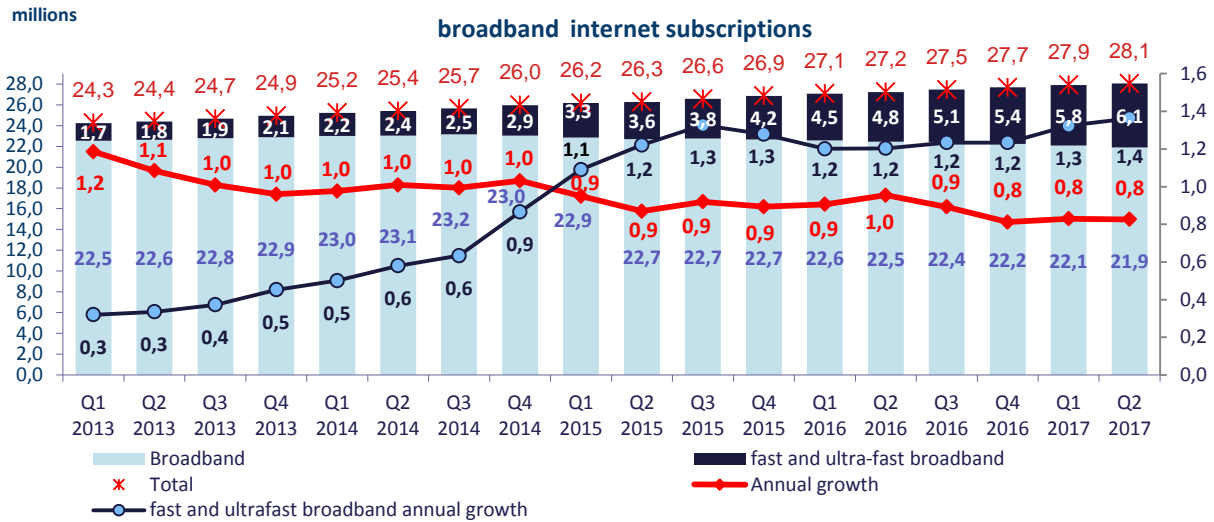
### Average monthly bill (voice & data)

(value-added services excluded)



### Number and annual increase of

Growth (million)

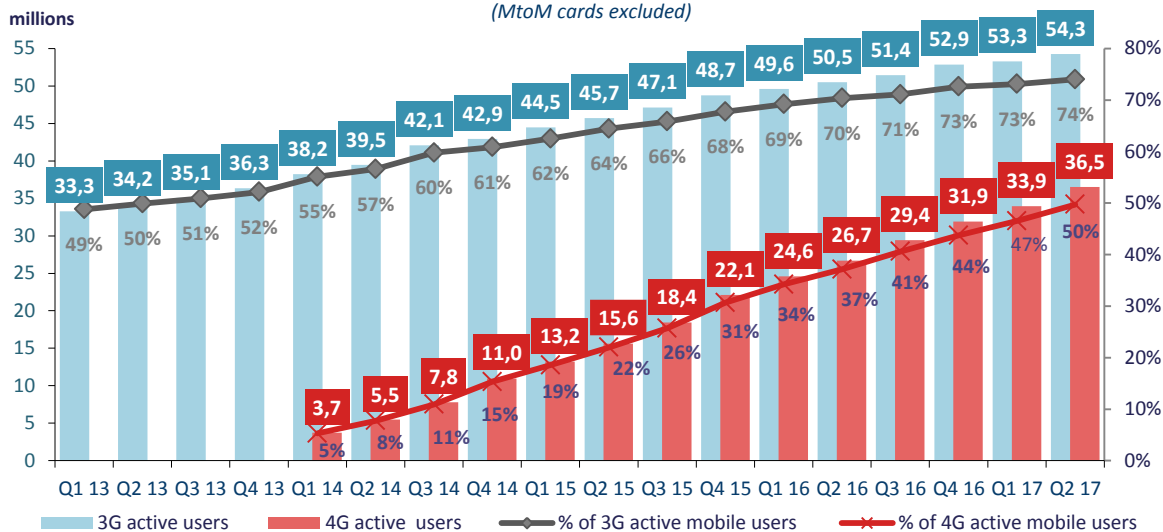


#### Notes :

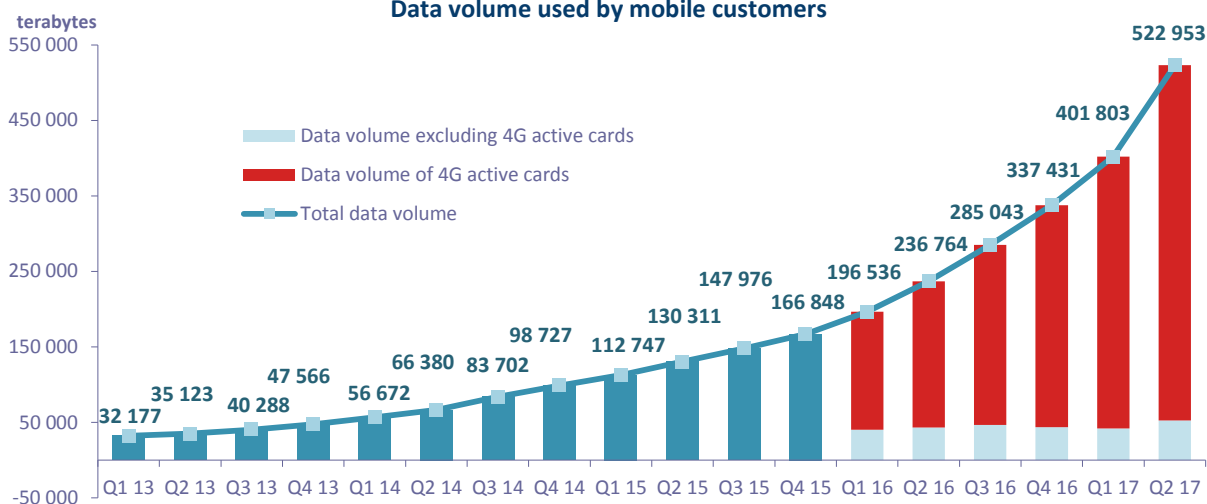
- Potential data revisions for one quarter from one publication to another are explained by corrections made by the operators in their declaration. The discrepancies that may exist between the annual growth in % and the posted levels are related to rounding.
- All revenues are exclusive of taxes.
- All comparisons are for Quarter N compared to the same quarter of the previous year, unless otherwise stated.
- Open data can be downloaded in Excel format on the ARCEP website [here](#) or on the site [data.gouv.fr](http://data.gouv.fr)

### 3G and 4G active mobile users

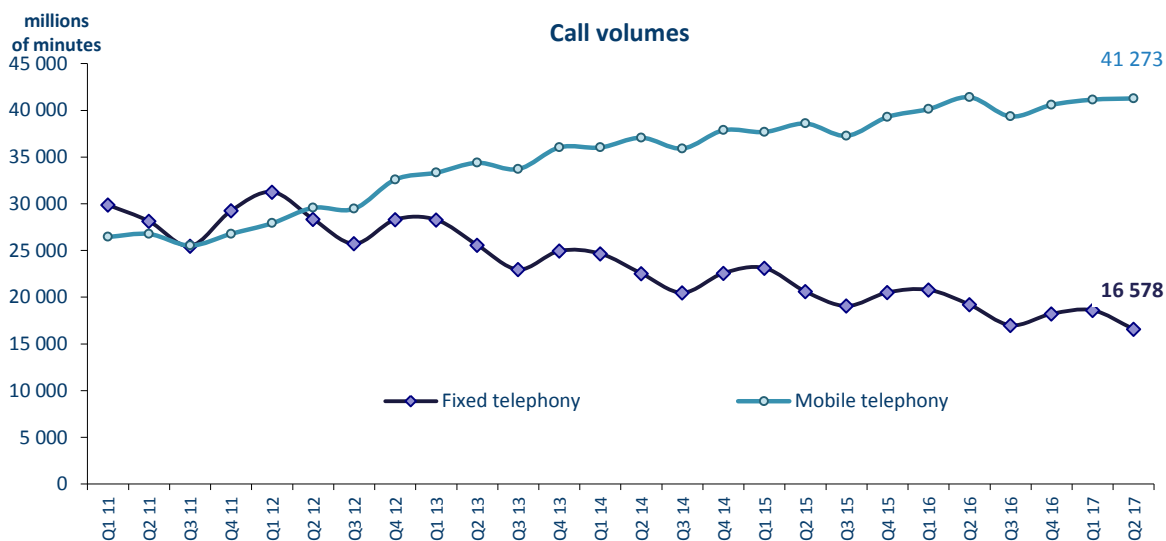
(MtoM cards excluded)



### Data volume used by mobile customers



### Call volumes



## Sommaire

<i>Synthesis</i> .....	2
<b>1 Fixed networks services - retail services</b> .....	<b>6</b>
1.1 Internet access and telephony services .....	6
1.1.1 Broadband, fast and ultra-fast broadband Internet access .....	6
1.1.2 TV subscription tied to internet access.....	7
1.2 Telephone services on fixed lines (public payphones and telephone cards excluded).....	9
1.2.1 Number of fixed lines.....	9
1.2.2 Number of subscriptions to a telephone service .....	10
1.2.3 Portability of fixed phones numbers .....	11
1.2.4 Revenue and traffic of subscriptions and calls (narrowband internet, public payphones and calling cards excluded) .....	11
1.2.5 Public payphones and calling cards .....	13
1.3 Revenue of fixed services (retail leased lines and data networking included).....	14
1.4 Average bill and traffic per user.....	15
1.4.1 Per fixed line.....	15
1.4.2 Per subscription to fixed services.....	15
<b>2 Services on mobiles networks - retail market</b> .....	<b>17</b>
2.1 Mobiles phone services.....	17
2.1.1 Number of SIM cards.....	17
2.1.2 Dedicated data cards .....	18
2.1.3 The fixed-mobile convergence .....	18
2.1.4 3G and 4G active cards.....	18
2.1.5 Portability of mobile phone numbers .....	19
2.1.6 Revenue on retail market (Value-added services excluded) .....	20
2.1.7 Volume of data consumed by mobile customers .....	21
2.1.8 Mobile call volumes .....	22
2.1.9 Interpersonal messages (SMS, MMS) .....	22
2.1.10 Roaming-out.....	23
2.1.11 Average monthly bill and traffic per user (MtoM cards excluded) .....	24
2.2 Internet of things: MtoM cards.....	28
<b>3 Value-added services</b> .....	<b>29</b>
<b>4 Other operators revenue</b> .....	<b>30</b>
4.1 Hosting and call center management services .....	30
4.2 Terminals and equipments.....	30
<b>5 The intermediate market: interconnection and wholesale market</b> .....	<b>30</b>
5.1 The overall market .....	30
5.2 Mobile operators « Roaming-in » .....	33

# 1 Fixed networks services - retail services

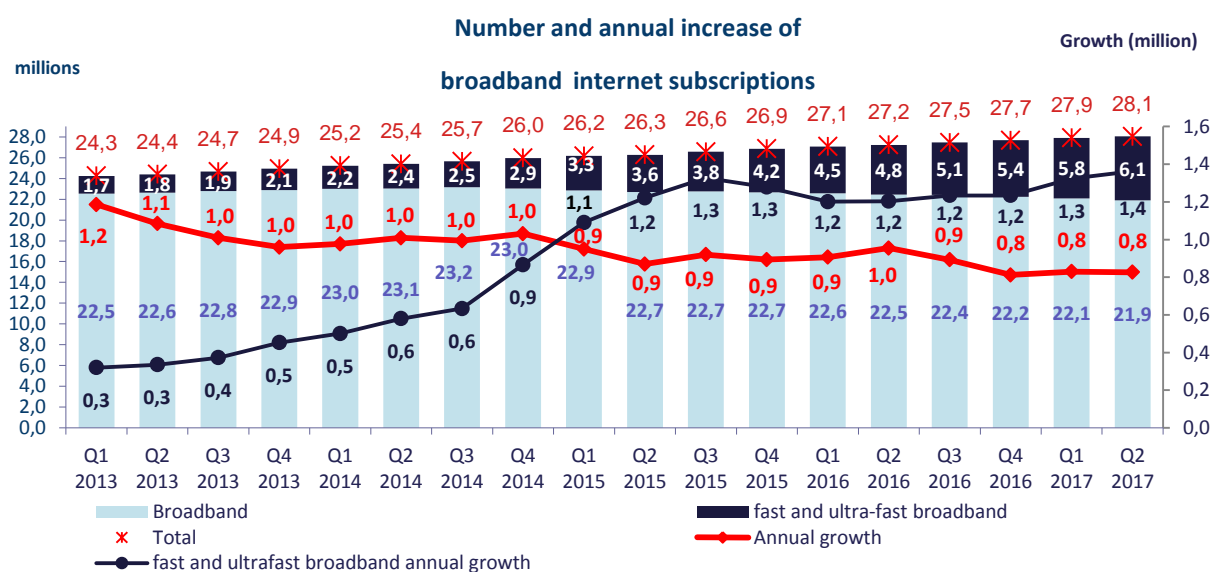
## 1.1 Internet access and telephony services

### 1.1.1 Broadband, fast and ultra-fast broadband Internet access

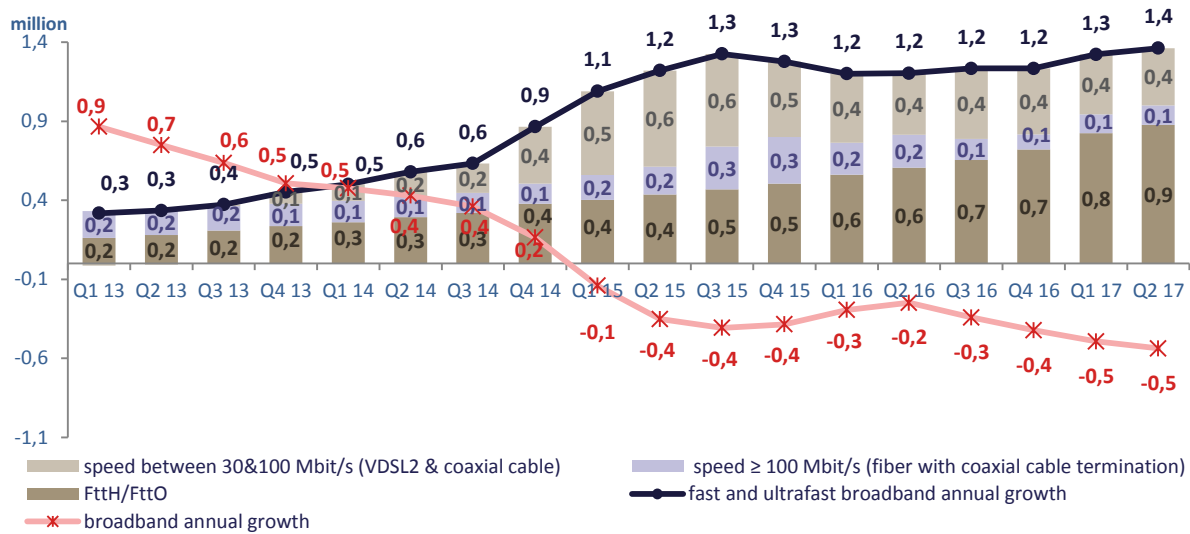
Broadband subscriptions (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Broadband</b>	<b>22,451</b>	<b>22,409</b>	<b>22,234</b>	<b>22,081</b>	<b>21,913</b>	<b>-2,4%</b>
of which ADSL	21,940	21,891	21,705	21,553	21,376	-2,6%
of which other broadband accesses	0,510	0,518	0,530	0,528	0,537	5,3%
<b>Fast and ultra-fast broadband</b>	<b>4,781</b>	<b>5,058</b>	<b>5,446</b>	<b>5,833</b>	<b>6,144</b>	<b>28,5%</b>
of which with a speed equal or greater than 100 Mbit/s	2,970	3,181	3,446	3,711	3,971	33,7%
of which fiber to the home and fiber to the office	1,764	1,926	2,164	2,428	2,642	49,8%
of which fiber with coaxial cable termination	1,207	1,254	1,282	1,283	1,330	10,2%
of which with a speed ≥30 and < 00 Mbit/s (VDSL2 & coaxial cable)	1,811	1,877	2,000	2,122	2,173	20,0%
<b>Total number of broadband internet subscriptions</b>	<b>27,232</b>	<b>27,467</b>	<b>27,680</b>	<b>27,913</b>	<b>28,058</b>	<b>3,0%</b>

*adjusted figures are in italics*

Overseas broadband internet subscriptions (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Total number of subscriptions</b>	<b>617</b>	<b>624</b>	<b>628</b>	<b>633</b>	<b>641</b>	<b>3,8%</b>



### Annual increase of fast and ultra-fast broadband internet subscription



#### Notes :

- Broadband subscriptions are counted as fast broadband internet subscriptions when the download speed is greater than or equal to 30 Mbit/s. This category includes fiber to the home or to the office (FttH, FttO) subscriptions, "hybrid fiber coaxial cable" (HFC) subscriptions, fiber with coaxial cable termination (FttLA) subscriptions, and VDSL2 subscriptions with a download speed greater than or equal to 30 Mbit/s. Other subscriptions with a speed greater than or equal to 100 Mbit/s are also published.
- 4G SIM cards only dedicated to fixed internet usage are also counted in fast broadband accesses. These cards are used by the business customers (routers) and residential customers (4G box) and cannot be used in situation of mobility. These offers needs to be distinguished from other types of technologies, such as wireless networks deployed by some actors in order to provide fixed Internet access services, such as Wimax networks, wifi or, in the near future, fast broadband radio networks, which consists of more bandwidth from Wimax to LTE technology.
- There can be a delay between the delivery of an offer on the wholesale market (LLU or bitstream) and its inclusion in retail market figures. Data comparisons for these different markets may reflect this delay.
- VDSL2 is a technology used by operators since October 1st, 2013, whose access to the lines in indirect distribution opened October 27, 2014.

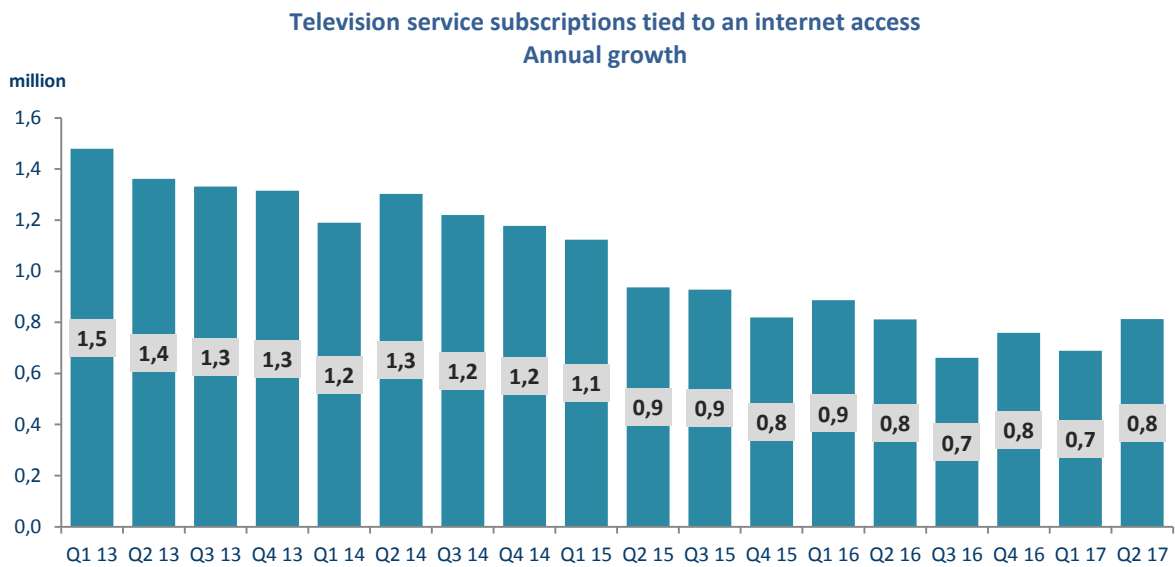
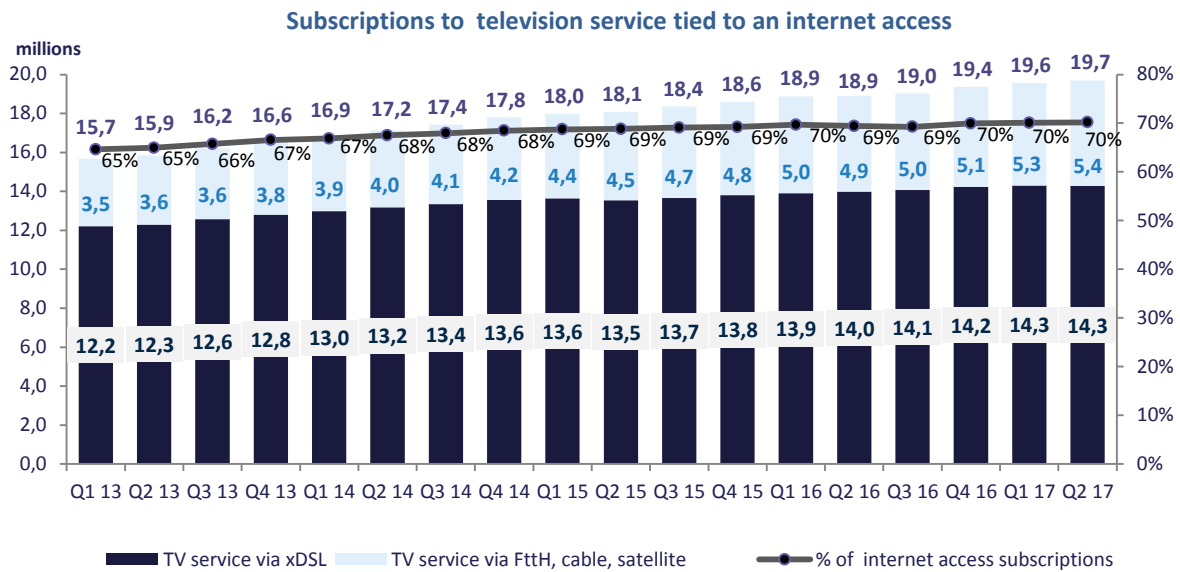
### 1.1.2 TV subscription tied to internet access

TV subscriptions tied to an internet access (millions)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>TV subscriptions tied to an internet access</b>	<b>18,902</b>	<b>19,020</b>	<b>19,360</b>	<b>19,564</b>	<b>19,688</b>	<b>4,2%</b>
of which ADSL TV subscriptions	13,983	14,069	14,242	14,303	14,284	2,2%
% of subscriptions to television services	69,4%	69,2%	69,9%	70,1%	70,2%	+0,8 pt

*adjusted figures are in italics*

*Note : are taken into account the subscriptions that have been subscribed separately or as part of a bundled offer that includes access to one or several other services aside from TV (internet, telephony).*

A subscription to TV can be provided by another technology than internet access: for example, a subscription to TV via satellite tied to DSL internet access.





## 1.2 Telephone services on fixed lines (public payphones and telephone cards excluded)

### 1.2.1 Number of fixed lines

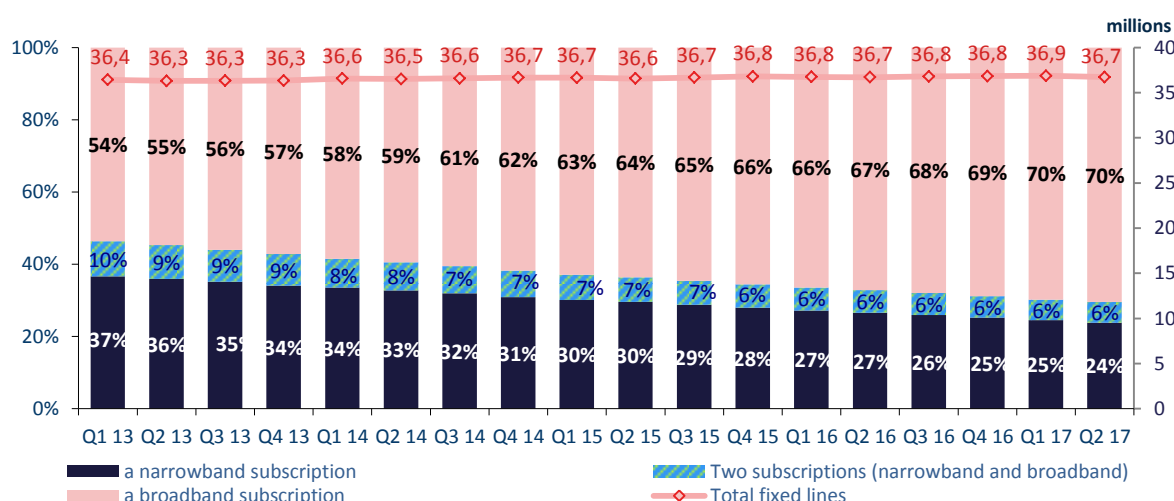
Number of fixed lines (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Number of fixed lines</b>	<b>36,716</b>	<b>36,791</b>	<b>36,826</b>	<b>36,867</b>	<b>36,749</b>	<b>0,1%</b>
of which lines on a broadband access	24,649	25,000	25,338	25,738	25,877	5,0%
of which lines on a narrowband access	9,745	9,539	9,298	9,035	8,758	-10,1%
of which lines with two accesses (narrowband & broadband)	2,322	2,252	2,190	2,094	2,096	-9,7%

*adjusted figures are in italics*

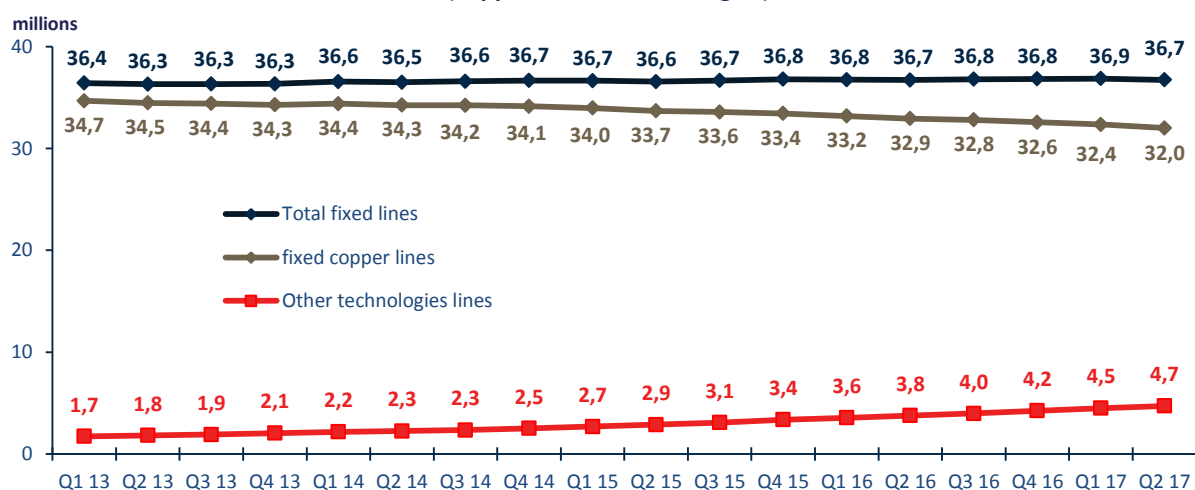
*When offers are based on shared unbundling or bitstream accesses, the subscribers possess two landlines telephone subscriptions on the same physical line. The concept of lines refers here to the number of subscriptions without these double subscriptions by counting only one line for customers having both a narrowband telephone subscription and a VOB subscription.*

***By convention, in the case of ISDN lines, are counted as many fixed lines as telephone subscriptions paid by the company, i.e. 2 lines for a basic access and up to 30 lines for a primary access.***

### Breakdown of fixed lines by subscriptions to telephony services



### Breakdown of fixed lines by technology (copper / other technologies)

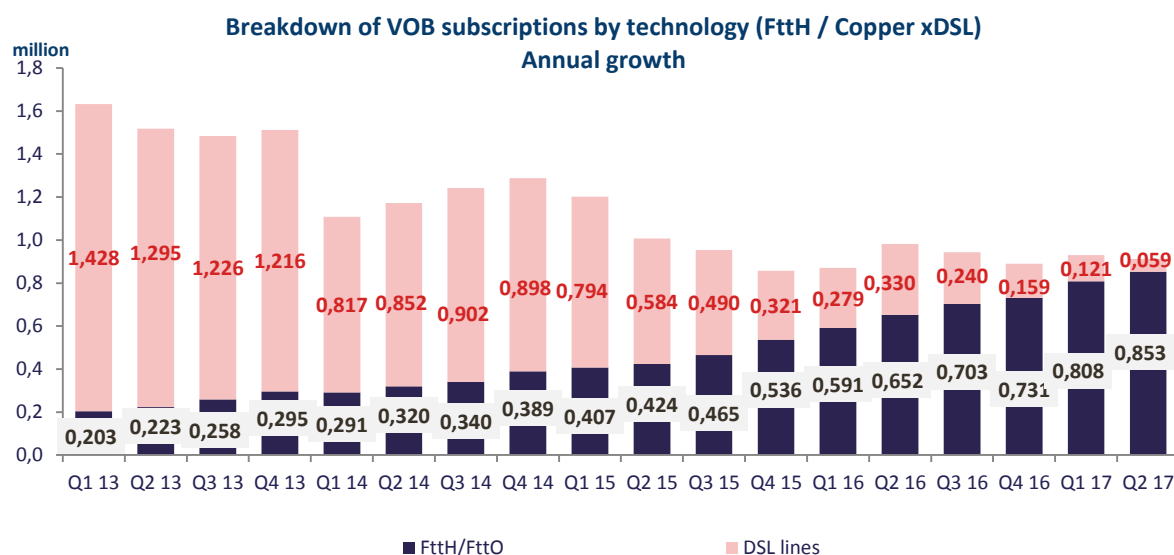
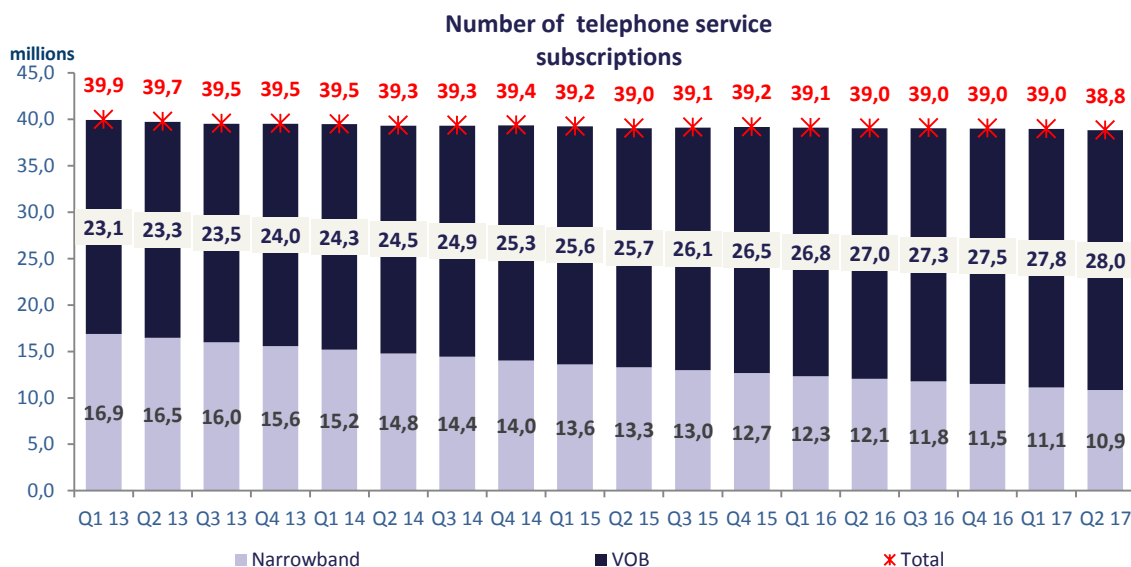


## 1.2.2 Number of subscriptions to a telephone service

Number of telephone service subscriptions (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Subscriptions on narrowband accesses	12,067	11,791	11,487	11,129	10,854	-10,1%
Access resales (VGAST)	1,550	1,523	1,499	1,456	1,433	-7,5%
Subscriptions on broadband accesses	26,971	27,252	27,528	27,832	27,973	3,7%
of which on DSL lines	23,190	23,271	23,282	23,325	23,250	0,3%
of which DSL lines not tied to a narrowband subscription	20,868	21,019	21,093	21,231	21,154	1,4%
of which on other technologies	3,781	3,981	4,246	4,507	4,723	24,9%
<b>Total number of telephone service subscriptions</b>	<b>39,038</b>	<b>39,043</b>	<b>39,015</b>	<b>38,961</b>	<b>38,826</b>	<b>-0,5%</b>

\*Optic fiber to the home, optic fiber with coaxial cable termination, wireless technologies

*Note : a VOB subscription on xDSL technology without a narrowband subscription is a subscription on lines where low frequencies are not used as a voice service support (neither Orange nor an alternative operator). This is the case of voice-over-broadband service issued from full unbundling and naked DSL.*



### 1.2.3 Portability of fixed phones numbers

Portability (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Number of fixed phone numbers ported during the quarter	602	632	731	600	540	-10,4%

### 1.2.4 Revenue and traffic of subscriptions and calls (narrowband internet, public payphones and calling cards excluded)

Narrowband access revenue (millions of euros excl. VAT)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Access fees, subscriptions and additional services	637	629	611	592	581	-8,7%

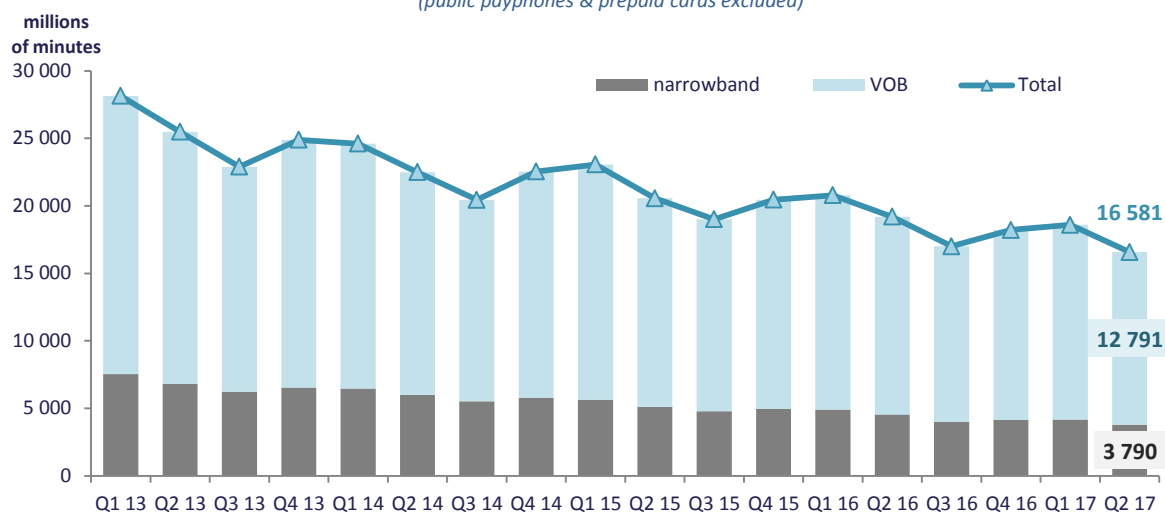
Note: in addition to income earned from providing access to a telephone service, access revenue includes income from IP telephony subscriptions and from additional services (caller ID, etc...).

Call Revenue from fixed lines (millions of euros excl.VAT)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
National calls	159	155	155	149	147	-7,1%
International calls	57	55	53	45	45	-21,4%
Calls to mobiles	106	98	102	95	92	-13,8%
<b>Total calls from fixed lines</b>	<b>322</b>	<b>308</b>	<b>309</b>	<b>289</b>	<b>284</b>	<b>-11,9%</b>
<i>Of which calls originating from narrowband networks</i>	208	195	197	188	181	-13,0%
<i>Of which calls originating from voice over broadband</i>	115	112	113	102	104	-9,2%

Note: although the volume of voice over broadband calls refers to all end-market traffic, the revenue covers only invoiced VOB traffic (e.g. over and above bundled service flat rates).

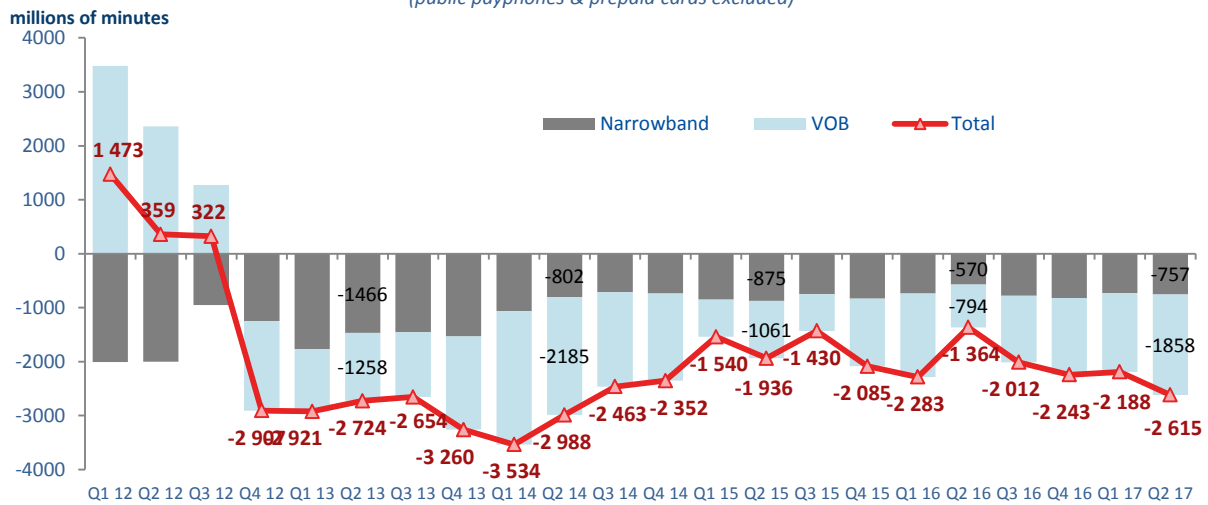
Call volumes from fixed lines (millions of minutes)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
National calls	12 782	11 211	12 260	12 613	10 997	-14,0%
International calls	2 148	1 911	1 946	1 887	1 731	-19,4%
Calls to mobiles	4 266	3 878	4 011	4 098	3 854	-9,7%
<b>Total calls from fixed lines</b>	<b>19 196</b>	<b>17 001</b>	<b>18 217</b>	<b>18 598</b>	<b>16 581</b>	<b>-13,6%</b>
<i>Of which calls originating from narrowband networks</i>	4 547	4 000	4 148	4 167	3 790	-16,7%
<i>Of which calls originating from voice over broadband</i>	14 649	13 001	14 070	14 431	12 791	-12,7%

**Call Volumes from fixed lines**  
(public payphones & prepaid cards excluded)



## Call volumes from fixed lines - Annual growth

(public payphones & prepaid cards excluded)



### 1.2.5 Public payphones and calling cards

#### Other fixed services - narrowband

	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Revenue of public payphone & calling cards (millions of € excl.VAT)	9	10	7	4	3	-68,8%
Number of public payphones (units)	31 232	24 123	17 301	11 821	6 826	-78,1%

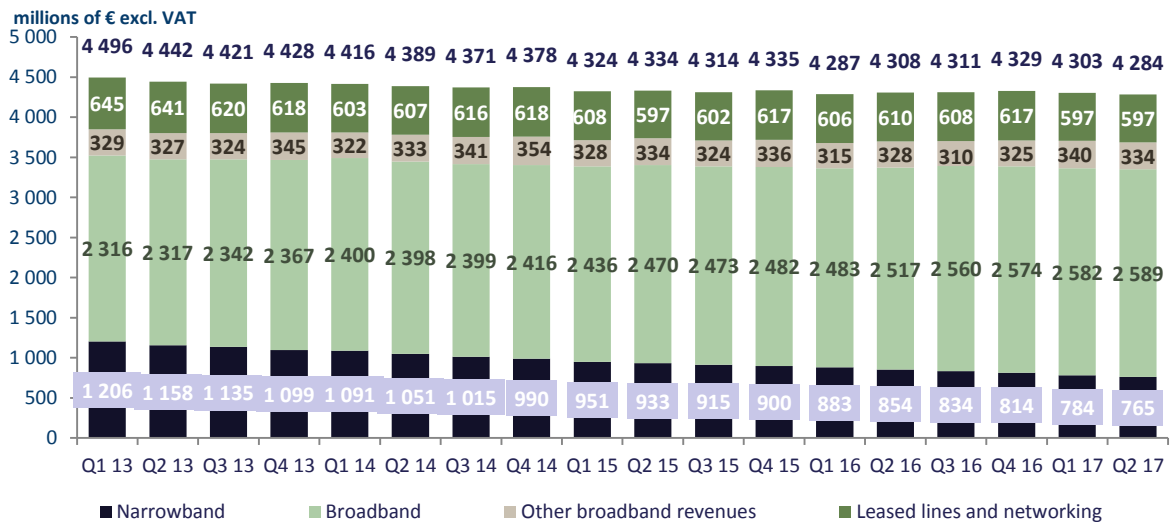
### 1.3 Revenue of fixed services (retail leased lines and data networking included)

Revenue of fixed networks services (millions of euros excl.VAT)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Narrowband Revenue</b>	854	834	814	784	765	-10,4%
<b>Broadband Revenue</b>	2 845	2 870	2 898	2 921	2 923	2,7%
Broadband Internet, VoB subs.and revenue from VoB calls	2 517	2 560	2 574	2 582	2 589	2,8%
Other Internet revenue	328	310	325	340	334	2,0%
<b>Retail leased lines and data transport networks</b>	610	608	617	597	597	-2,2%
<b>Total revenue</b>	<b>4 308</b>	<b>4 311</b>	<b>4 329</b>	<b>4 303</b>	<b>4 284</b>	<b>-0,6%</b>

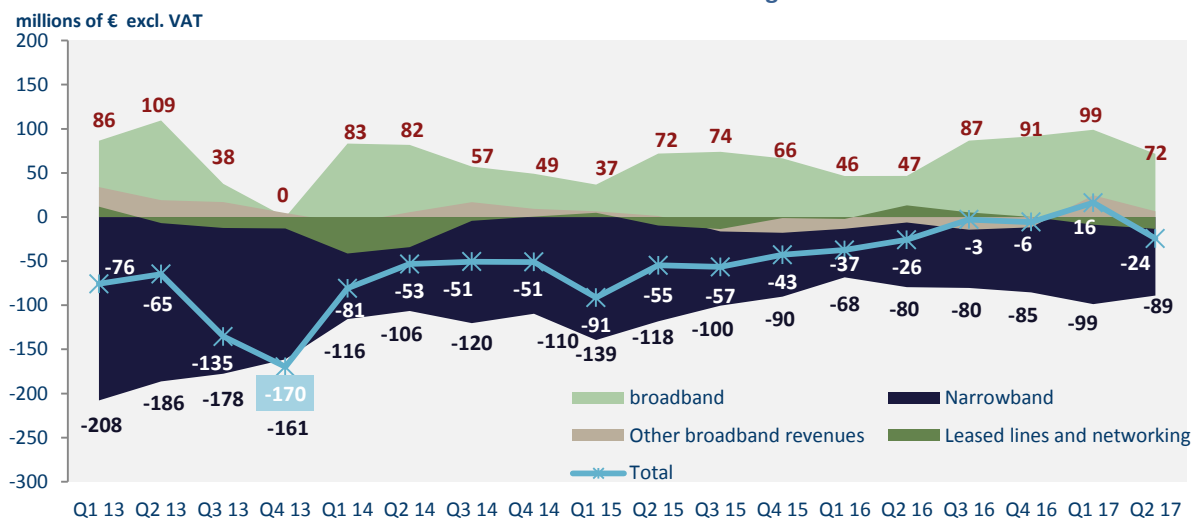
adjusted figures are in italics

Note: "Other internet revenue" refers to related income earned by ISPs on services such as hosting and online advertising revenue. From now on, this line also includes revenues connected to a broadband internet access and billed by operators (subscriptions to à TV service, video and music downloading...). Revenue generated by terminal sales and rental is included under "fixed operator and ISP terminal sales and rental".

Fixed services revenue



Fixed services revenue - Annual growth



## 1.4 Average bill and traffic per user

Note : several subscriptions to the telephony service may be subscribed on the same fixed line.

### 1.4.1 Per fixed line

Average monthly bill and telephone calls (value added and directory services excluded)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Per fixed line : telephone access, calls and Internet access (€ VAT excl.)	32,6	32,8	32,7	32,7	32,6	0,2%
Per fixed lines (in hours)	2h54	2h34	2h44	2h48	2h30	-13,7%

The average bill per fixed line now refers to what customers pay each month for their telephony and Internet services. It include therefore:

- Revenue generated by access to subscriptions and additional services;
- Revenue from calls originating on fixed lines, including IP traffic revenue billed over and above the bundled service flat rate;
- Narrowband and broadband Internet access revenue.

Revenues excluded are:

- Public payphone and prepaid card revenue;
- Revenue generated by other services tied to Internet access, e.g. ISPs' online ad revenue and commissions earned on e-commerce sales;
- VAS and directory assistance services revenue.

The average monthly volume of traffic per fixed line is calculated by dividing the volume of traffic (PSTN and IP) for quarter N by the estimated average number of fixed lines in existence for quarter N, and then by the number of months.

Average number of fixed lines for quarter N:  $[(\text{total fixed lines on quarter N} + \text{total fixed lines on quarter N-1})/2]$

### 1.4.2 Per subscription to fixed services

Average monthly bill per customer (in euros -VAT excluded)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Per fixed narrowband telephone subscription	23,1	23,0	23,1	23,0	22,7	-1,4%
Per fixed broadband access	33,7	34,0	33,9	34,0	34,0	0,7%

*adjusted figures are in italics*

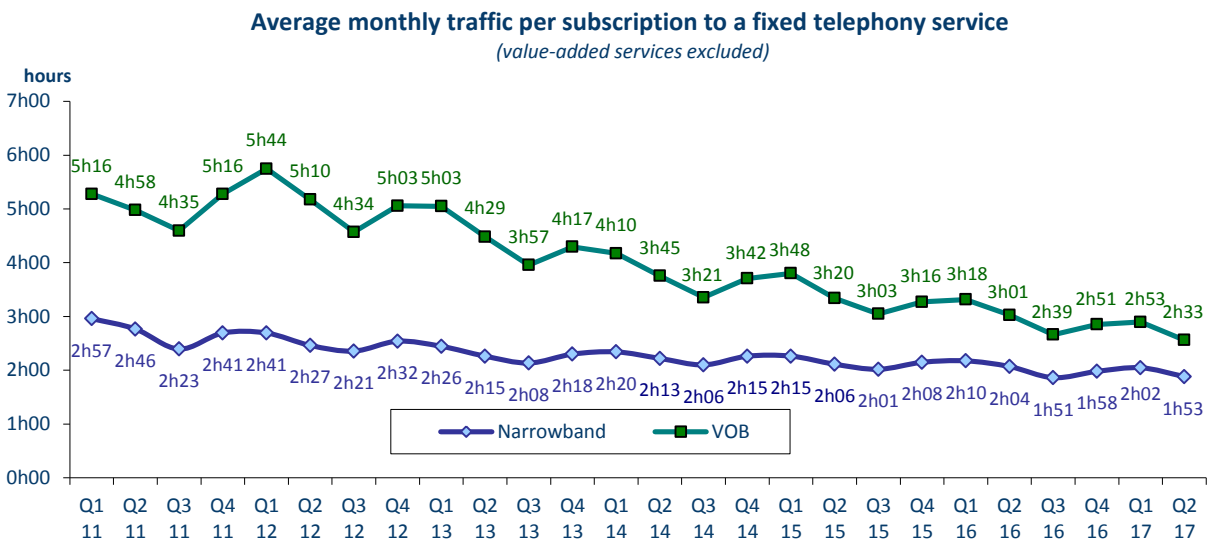
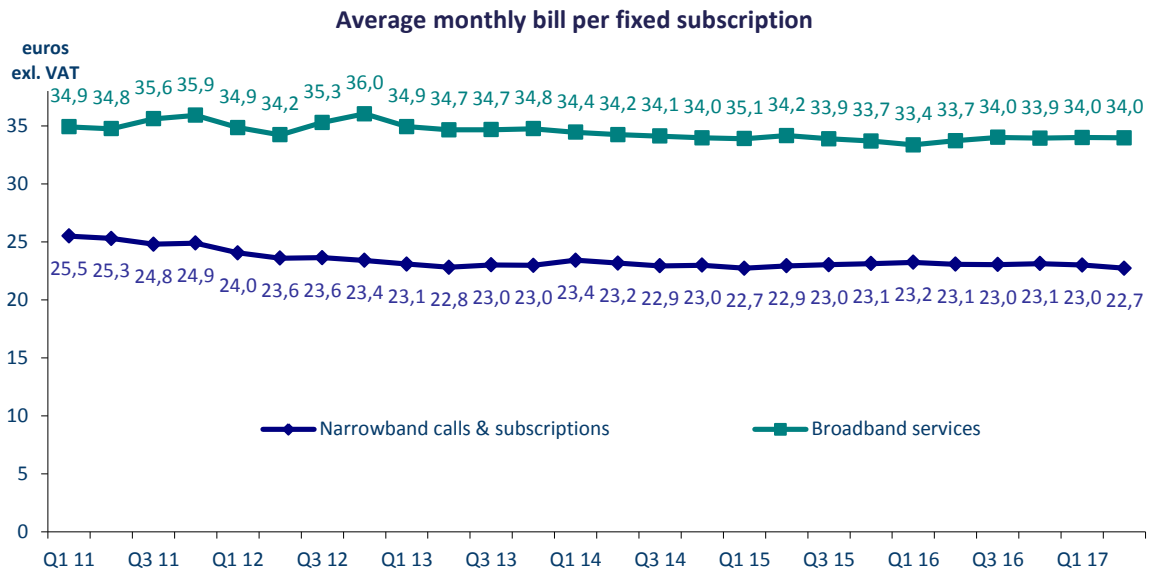
- The average monthly bill for a narrowband line is calculated by dividing the revenue earned on a PSTN based fixed line subscription and calls (i.e. excluding VOB) for Quarter Q by the estimated average customer base for Quarter Q, then dividing the result by three.

- The average monthly bill for a broadband or ultra-fast broadband access (Internet and telephony over broadband) is calculated by dividing the revenue earned on VOB calls made on a fixed line (billed over and above a service bundle flat rate) and the revenue earned on broadband subscription for Quarter Q by the estimated average customer base for Quarter Q, then dividing the result by three.

Average monthly volume per customer (in hours)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Per fixed narrowband telephone subscription	2h04	1h51	1h58	2h02	1h53	-9,0%
Per fixed VOB subscription	3h01	2h39	2h51	2h53	2h33	-15,5%

- The average monthly volume per fixed line is calculated by dividing the traffic earned on a PSTN or

VOB based fixed line subscription and calls for quarter Q by the estimated average customer base for quarter Q, then dividing the result by three.





## 2 Services on mobiles networks - retail market

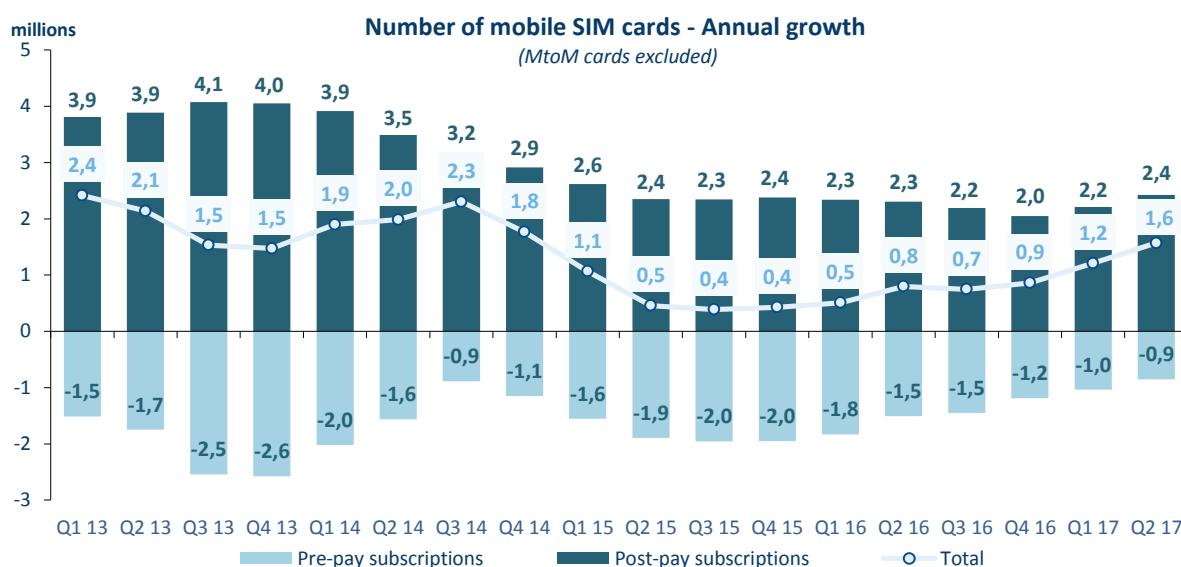
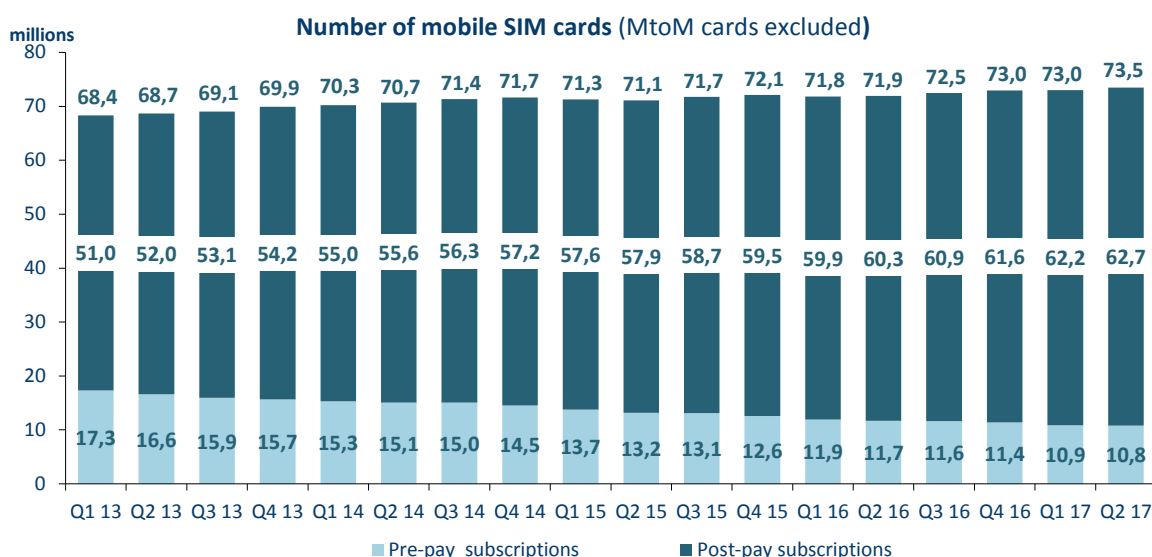
### 2.1 Mobiles phone services

#### 2.1.1 Number of SIM cards

Number of mobile lines (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Post-pay subscriptions	60,251	60,855	61,587	62,161	62,677	4,0%
Pre-pay subscriptions	11,675	11,640	11,378	10,877	10,821	-7,3%
of which active prepaid cards *	9,463	9,424	9,060	8,368	8,263	-12,7%
<b>Total number of SIM cards</b>	<b>71,927</b>	<b>72,495</b>	<b>72,965</b>	<b>73,039</b>	<b>73,498</b>	<b>2,2%</b>

- A prepaid card is considered active if the customer has made or received at least one call during the past three month. Incoming SMS are not included in the calculation.

- Are excluded dedicated active 4G cards for a fixed use (they cannot be use in mobility). These cards are included with fixed internet access.



## 2.1.2 Dedicated data cards

Dedicated data cards (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Post-pay subscriptions</b>	2,771	2,773	2,786	2,775	2,776	0,2%
<b>Pre-pay subscriptions</b>	0,904	0,917	0,841	0,840	0,791	-12,5%
of which active prepaid cards *	0,280	0,337	0,287	0,235	0,235	-16,0%
<b>Number of dedicated data cards</b>	<b>3,674</b>	<b>3,690</b>	<b>3,627</b>	<b>3,615</b>	<b>3,567</b>	<b>-2,9%</b>
% in total number of SIM cards	5,1%	5,1%	5,0%	4,9%	4,9%	-0,2 Point

Note: the number of dedicated data cards is defined as the number of SIM cards sold by mobile operators (in the form of subscriptions, flat rates or prepaid cards), used exclusively for accessing the Internet (PCMCIA cards, 3G/4G USB keys). These cards cannot be used to make voice calls.

## 2.1.3 The fixed-mobile convergence

Bundles : mobile subscription tied to fixed services (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Number of mobile subscriptions tied to at least one fixed service</b>	<b>18,924</b>	<b>19,407</b>	<b>19,898</b>	<b>20,459</b>	<b>20,585</b>	<b>8,8%</b>
% in total number of post-pay subscriptions	31%	32%	32%	33%	33%	+ 2 Points
% in total number of SIM cards	26%	27%	27%	28%	28%	+ 2 Points

Notes :

- Fixed-mobile convergence offers are commercialized by the operators by a package of services (several mobile contracts can be included) or by some price cutting applied to one or the others of the services. Several SIM cards can be tied to a fixed service subscription.

## 2.1.4 3G and 4G active cards

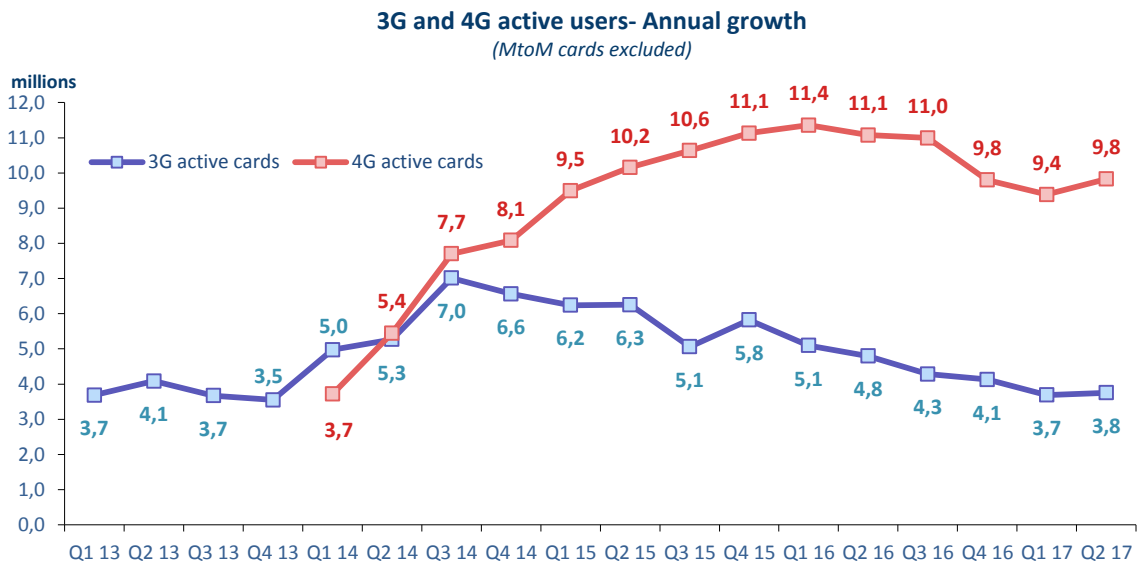
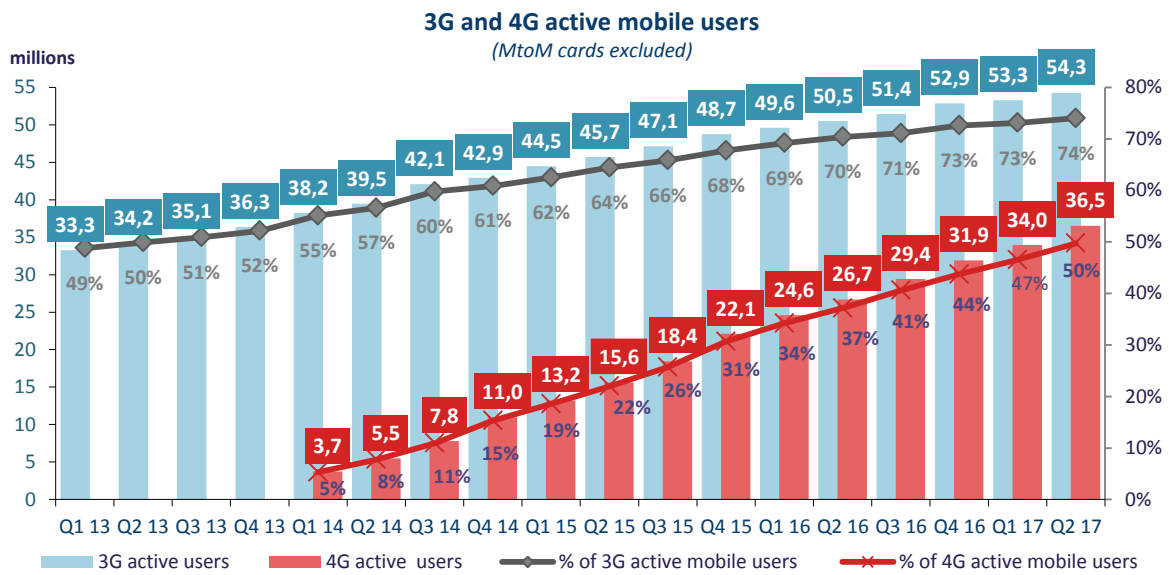
3G and 4G active users (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>3G active users</b>	<b>50,514</b>	<b>51,418</b>	<b>52,863</b>	<b>53,275</b>	<b>54,268</b>	<b>7,4%</b>
<b>4G active users</b>	<b>26,704</b>	<b>29,419</b>	<b>31,901</b>	<b>33,966</b>	<b>36,531</b>	<b>36,8%</b>

*adjusted figures are in italics*

- The active 3G base is defined as the number of customers who have accessed a mobile service (voice, videophony, mobile TV, data transfer, etc.) that uses 3G radio access technology, sometime in the past three months (either transmission or reception). An active 3G card can also be active in 4G or in 2G.

- The 4G active users are defined as the number of customers who have accessed a mobile service (data transfer) that uses 4G radio access technology, at least once in the past three months (either transmission or reception). Only active customers are counted here, which therefore have both a 4G offer and a compatible terminal. This definition may differ from those of operator's financial publications, which can account, for example, some offers "4G marketed". A client can have such an offer, but not the suitable terminal, nor 4G coverage. A 4G active user may also use 2G or 3G technologies.

- Are excluded 4G active dedicated data cards for a fixed use (they cannot be use in mobility). These cards are included in fixed internet indicators.

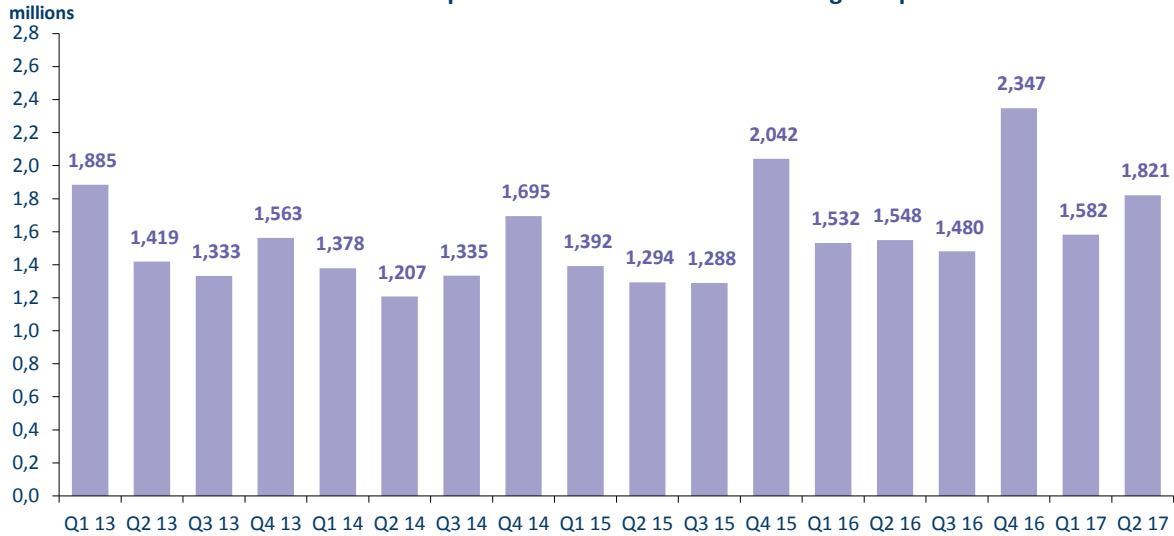


## 2.1.5 Portability of mobile phone numbers

Number Portability (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Number of transactions during the quarter	1,548	1,480	2,347	1,582	1,821	17,6%

Note: the figures for ported phone numbers refer to the number of at the finalised porting procedures (ported numbers activated by the recipient operator) during the year in question.

Amount of phone numbers transactions during the quarter

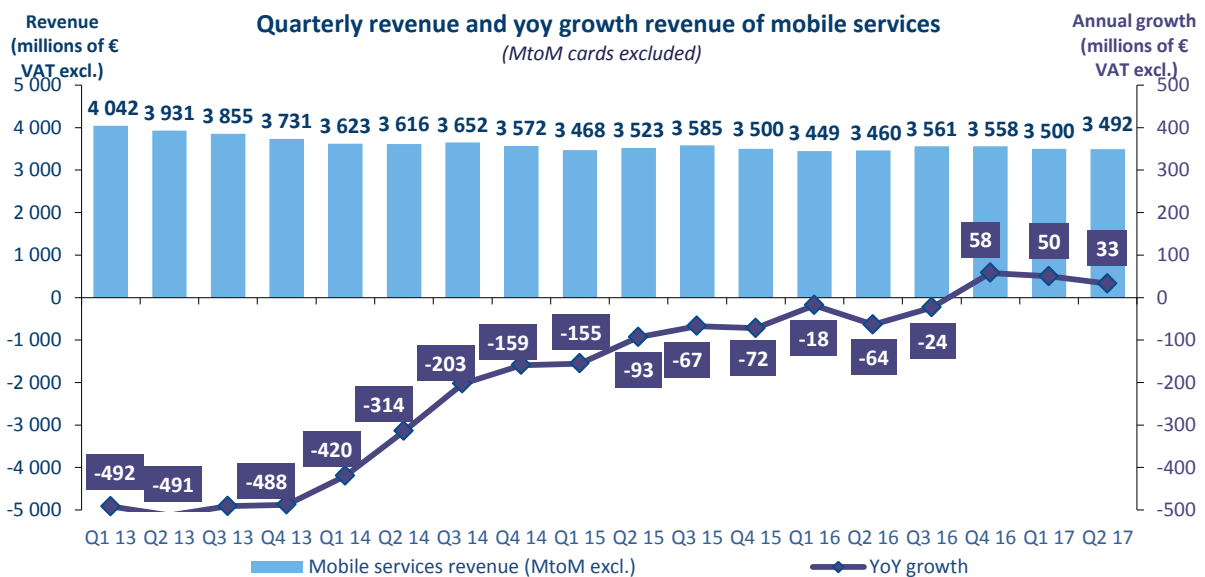


### 2.1.6 Revenue on retail market (Value-added services excluded)

Revenue (millions of euros VAT excluded)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Post-pay subscriptions	3 262	3 365	3 361	3 318	3 319	1,7%
Pre-pay subscriptions	198	196	197	182	174	-12,2%
<b>Total mobile services revenue (excluding MtoM revenue)</b>	<b>3 460</b>	<b>3 561</b>	<b>3 558</b>	<b>3 500</b>	<b>3 492</b>	<b>0,9%</b>

adjusted figures are in italics

Note: this is about retail market revenue. Revenues from the market between operators (interconnection, wholesale) are not included. Also excluded is revenue from value-added retail services. In addition, with the development of contract subscribers without a contractual commitment and without the joint purchase of a mobile terminal, part of the revenue previously allocated to mobile services was de facto shifted to sales revenue and terminal leasing Mobile operators (see section 4.2 of this publication) or specialized vendors (outside the scope of the study).

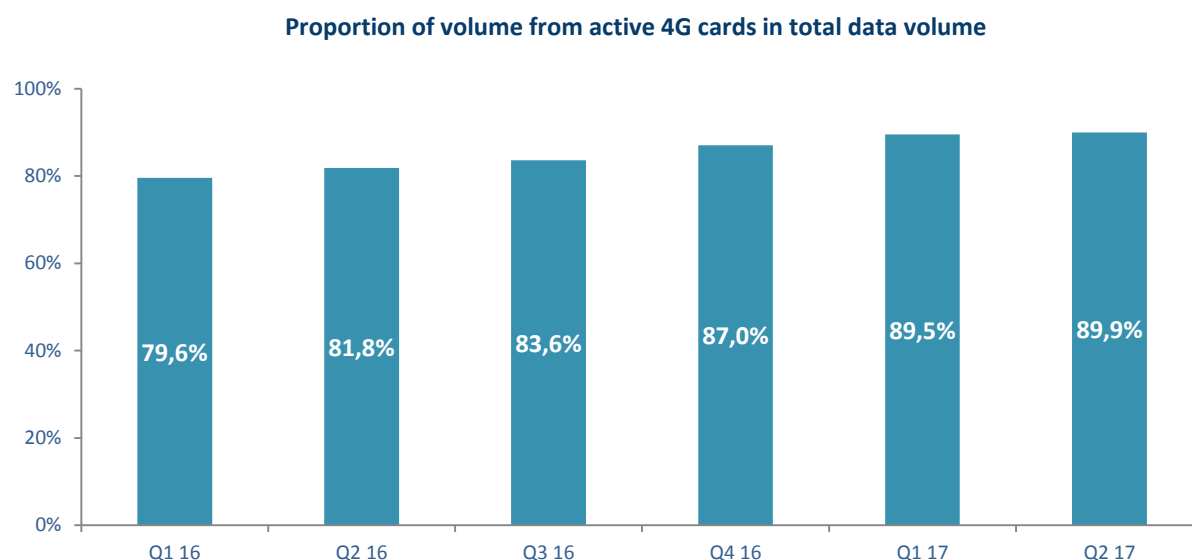
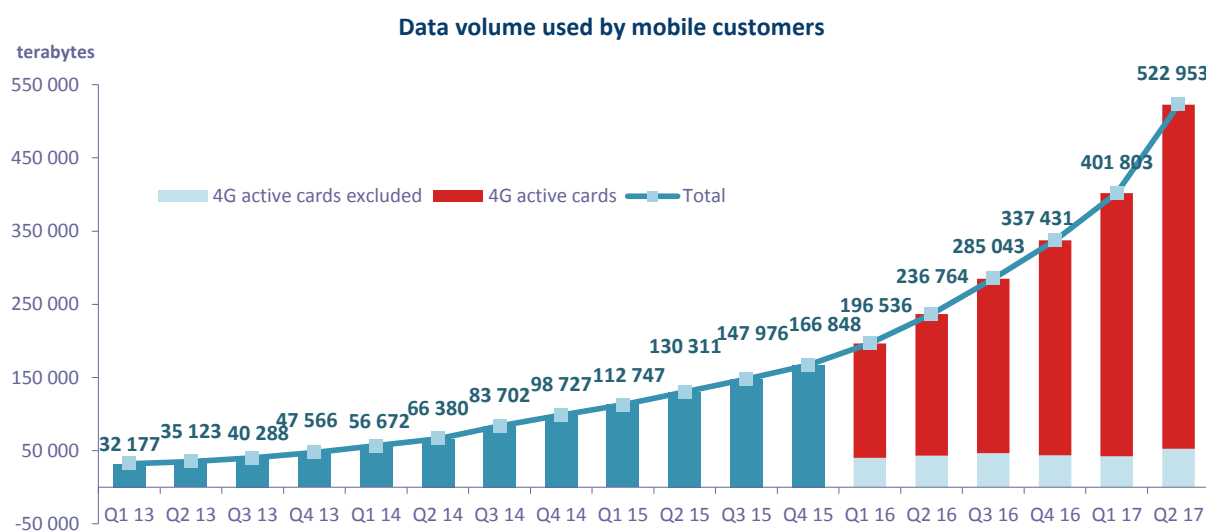


## 2.1.7 Volume of data consumed by mobile customers

Data volumes used by customers (in terabytes)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Post-pay subscriptions	233 482	280 528	331 984	396 891	516 923	121,4%
Pre-pay subscriptions	3 282	4 515	5 447	4 912	6 030	83,8%
<b>Total data volumes</b>	<b>236 764</b>	<b>285 043</b>	<b>337 431</b>	<b>401 803</b>	<b>522 953</b>	<b>120,9%</b>
of which dedicated data SIM cards	11 768	13 641	13 969	12 520	13 490	14,6%
of which active 4G customers	193 729	238 278	293 701	359 679	470 315	142,8%

*adjusted figures are in italics*

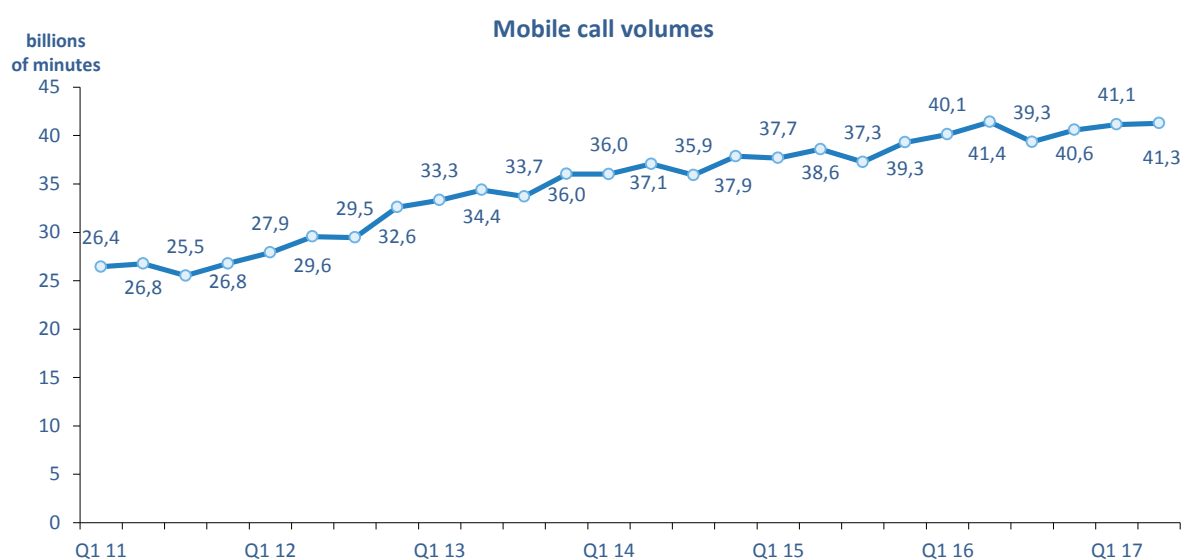
Note: the volume of data on mobile networks includes vocal communications and exchange of interpersonal messages via applications (wifi traffic excluded). It does not include the volume of 4G fixed boxes of the mobiles operators.



## 2.1.8 Mobile call volumes

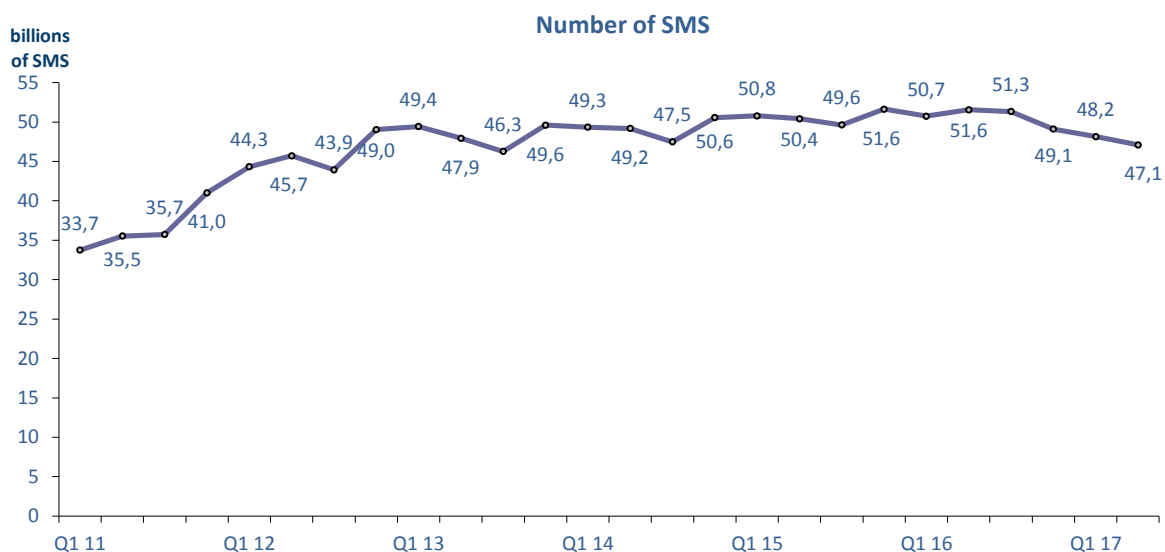
Mobile call volumes (millions of minutes)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Post-pay subscriptions	38 960	36 954	38 287	38 962	39 143	0,5%
Pre-pay subscriptions	2 441	2 387	2 298	2 180	2 130	-12,7%
<b>Total mobile call volumes</b>	<b>41 402</b>	<b>39 341</b>	<b>40 585</b>	<b>41 142</b>	<b>41 273</b>	<b>-0,3%</b>

Mobile call volumes (millions of minutes)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Calls to national fixed lines	6 935	6 514	6 734	7 005	6 753	-2,6%
Calls to national mobile lines	32 170	30 404	31 902	32 281	32 485	1,0%
Outgoing international calls	1 694	1 553	1 344	1 270	1 316	-22,3%
Roaming out	603	869	604	587	720	19,3%
<b>Total mobile call volumes</b>	<b>41 402</b>	<b>39 341</b>	<b>40 585</b>	<b>41 142</b>	<b>41 273</b>	<b>-0,3%</b>



## 2.1.9 Interpersonal messages (SMS, MMS)

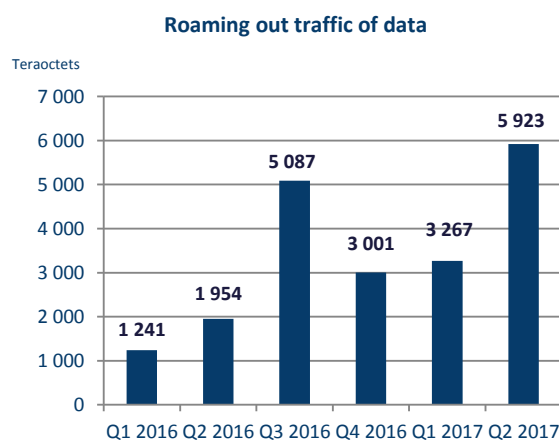
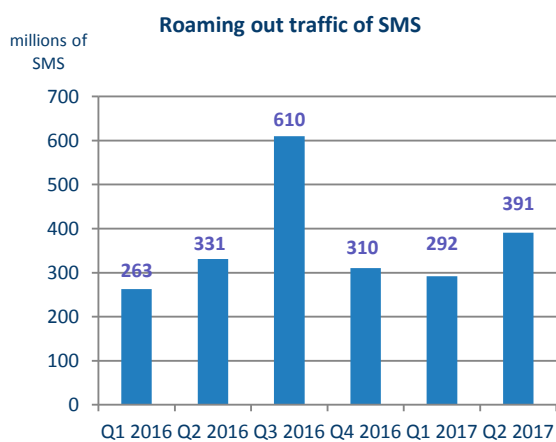
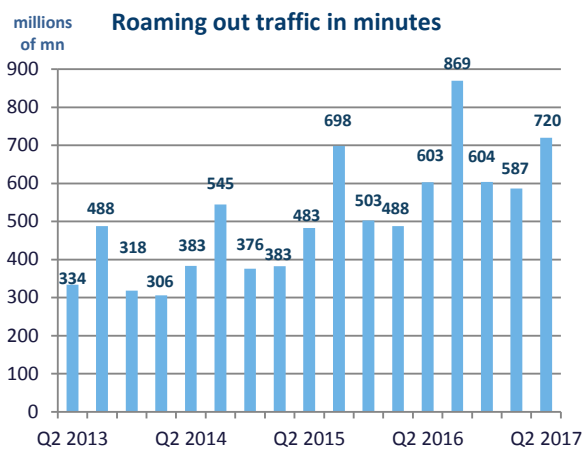
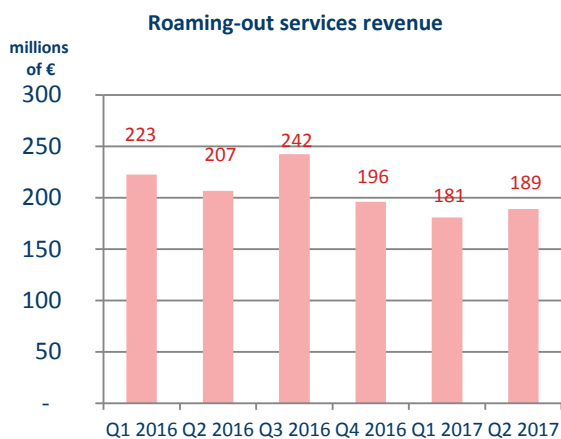
Volumes of interpersonal messages (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Number of SMS</b>	<b>51 558</b>	<b>51 339</b>	<b>49 103</b>	<b>48 151</b>	<b>47 101</b>	<b>-8,6%</b>
of which from post-pay subscriptions	49 687	49 470	47 277	46 453	45 503	-8,4%
of which from pre-pay subscriptions	1 871	1 871	1 828	1 697	1 597	-14,6%
<b>Number of MMS</b>	<b>1 171</b>	<b>1 256</b>	<b>1 169</b>	<b>1 134</b>	<b>1 260</b>	<b>7,7%</b>
<b>Total number of messages sent</b>	<b>52 729</b>	<b>52 595</b>	<b>50 273</b>	<b>49 284</b>	<b>48 361</b>	<b>-8,3%</b>



### 2.1.10 Roaming-out

Roaming-out	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Revenue (millions of euros)	207	242	196	181	189	-8,6%
Call volumes (millions of minutes)	603	869	604	587	720	19,3%
SMS volumes (millions)	331	610	310	292	391	18,2%
Data volumes (terabytes)	1 954	5 087	3 001	3 267	5 923	203,2%

*Note: roaming out corresponds to mobile services made abroad by customers of French mobile operators. For the revenue, only the services invoiced, specifically or above the fixed price, are counted to the operator's customers for the roaming services, whatever the service (incoming and outgoing voice calls, messaging services, the Internet). Since 15 June 2017, operators have been obliged to offer the national tariffs to their customers traveling within the European Union for calls made or received from a mobile phone. For more information on the evolution of retail tariffs, see the Eurotariff note (section [5.2](#) of this publication).*



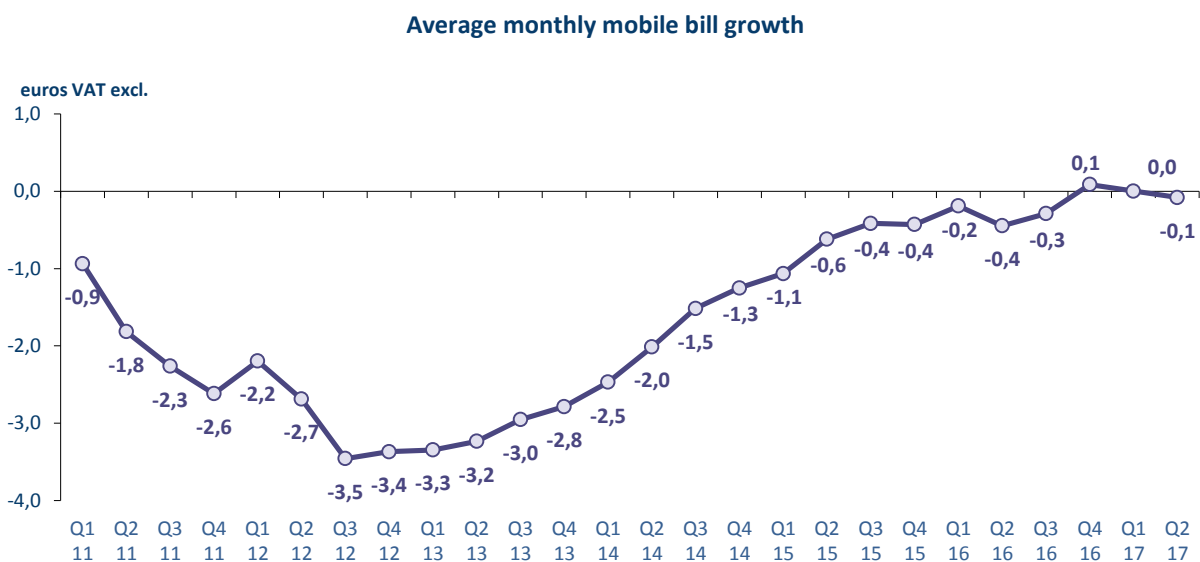
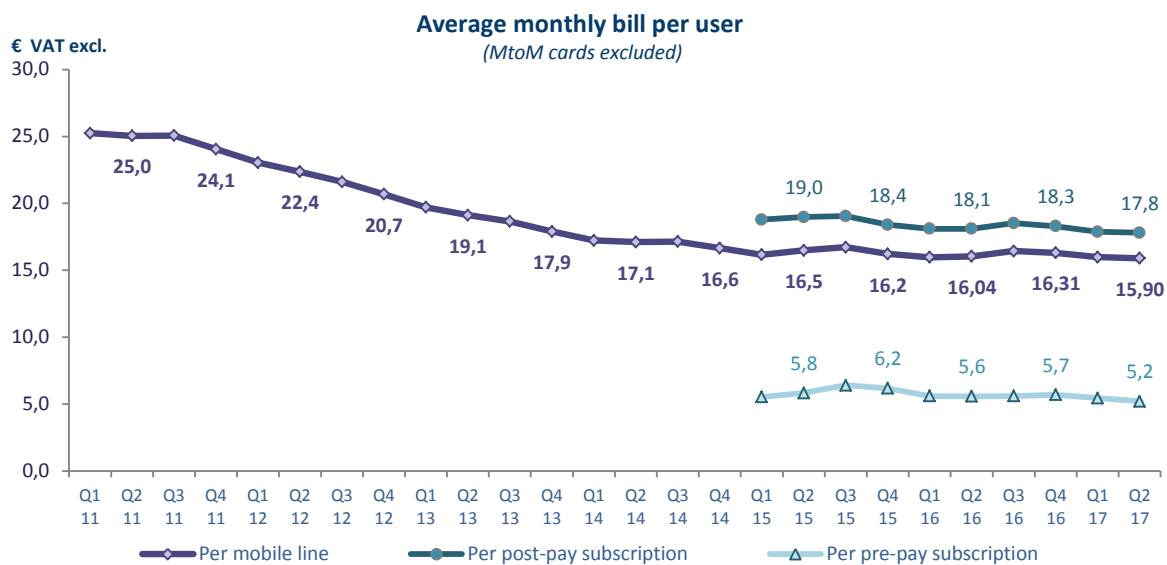
### 2.1.11 Average monthly bill and traffic per user (MtoM cards excluded)

**Average monthly bill (value added services excluded)**  
(in euros - VAT excluded)

	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Mobile telephony user</b>	<b>16,0</b>	<b>16,4</b>	<b>16,3</b>	<b>16,0</b>	<b>15,9</b>	<b>-0,9%</b>
Post-pay subscriptions	18,1	18,5	18,3	17,9	17,8	-1,6%
Pre-pay subscriptions	5,6	5,6	5,7	5,5	5,2	-6,7%

*adjusted figures are in italics*





- The average monthly bill per mobile card customer is calculated by dividing the income from mobile telephony (voice and data revenue, including roaming-out, excluding revenue from incoming calls and MtoM SIM cards) for quarter N by the estimated average number of mobile cards for quarter N, and then by the number of months. This indicator, which does not include interconnection revenue, or those from value-added services, is not the same as the traditional Average Revenue Per User (ARPU) indicator.

- Average number of mobile cards for quarter N:  $[(\text{number of mobile cards (MtoM cards excluded) for quarter N}) + (\text{number of mobile cards for quarter N-1 (MtoM cards excluded)})] / 2$ .

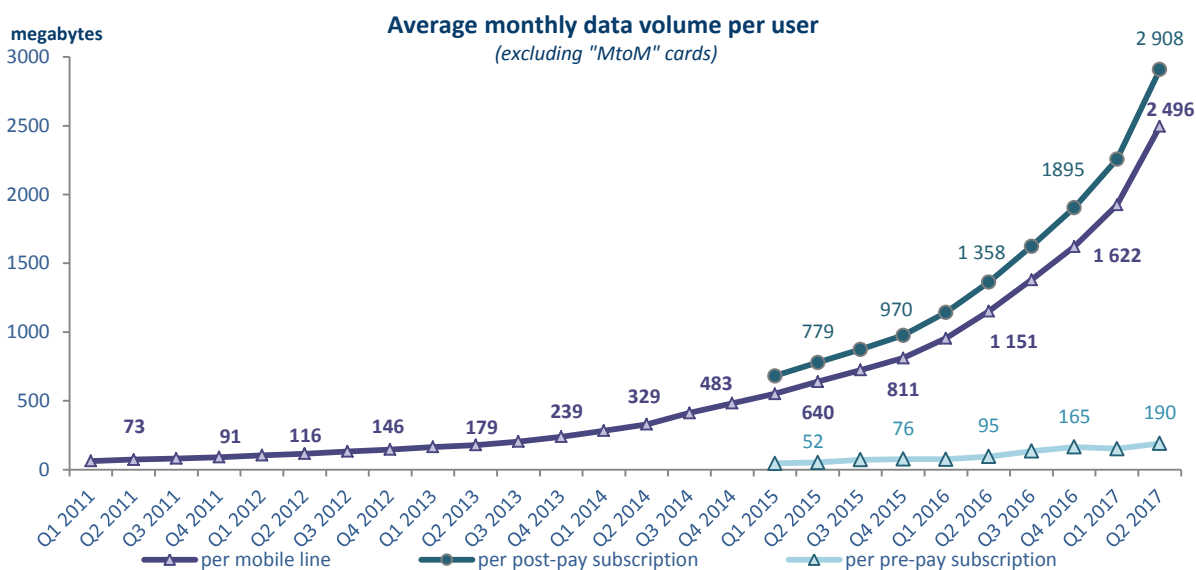
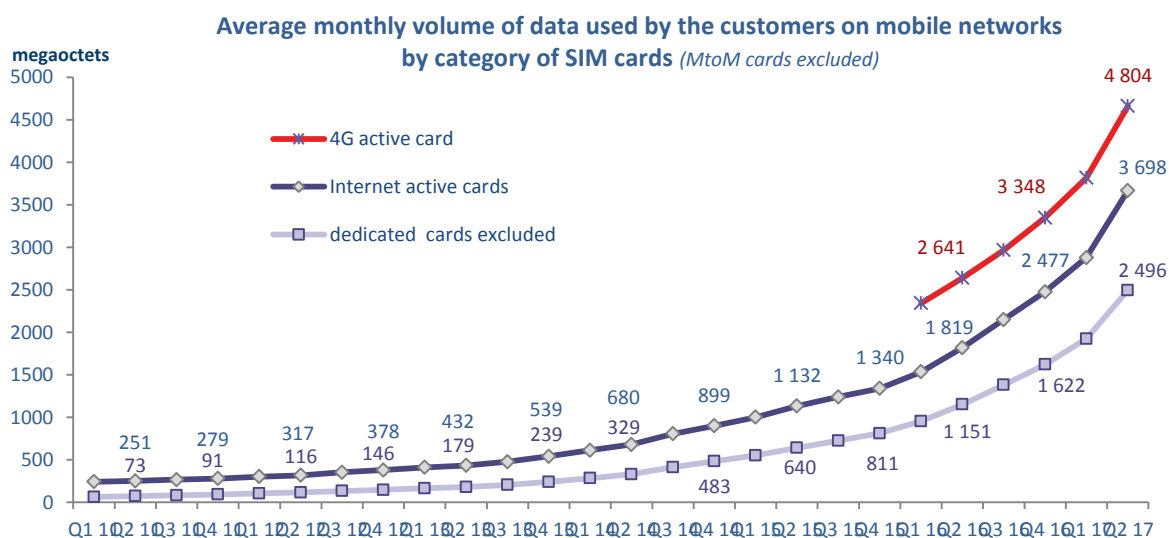
Average monthly traffics of data consumed on mobile networks (in megabytes)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
of which post-pay subscriptions	1 358	1 619	1 895	2 242	2 908	114,1%
of which pre-pay subscriptions	97	135	165	154	190	95,3%
<b>per mobile operator customer</b>	<b>1 151</b>	<b>1 380</b>	<b>1 622</b>	<b>1 924</b>	<b>2 496</b>	<b>116,8%</b>
<b>Per active internet user</b>	<b>1 819</b>	<b>2 149</b>	<b>2 477</b>	<b>2 879</b>	<b>3 698</b>	<b>103,3%</b>
<b>Per 4G active user</b>	<b>2 641</b>	<b>2 968</b>	<b>3 348</b>	<b>3 822</b>	<b>4 804</b>	<b>81,9%</b>

*adjusted figures are in italics*

- The average monthly data volume used by mobile customer is calculated by dividing the volume of mobile telephony traffic of data for quarter N by the estimated average number of mobile cards for quarter N, and then by the number of months. SIM cards that can be used only for data (MtoM and data only cards) are not included in the calculations.

- Average number of active internet cards : Active internet cards that used a data service in the last three months via 3G or 4G networks.

- Active 4G cards: use of a 4G mobile network during the last three months.

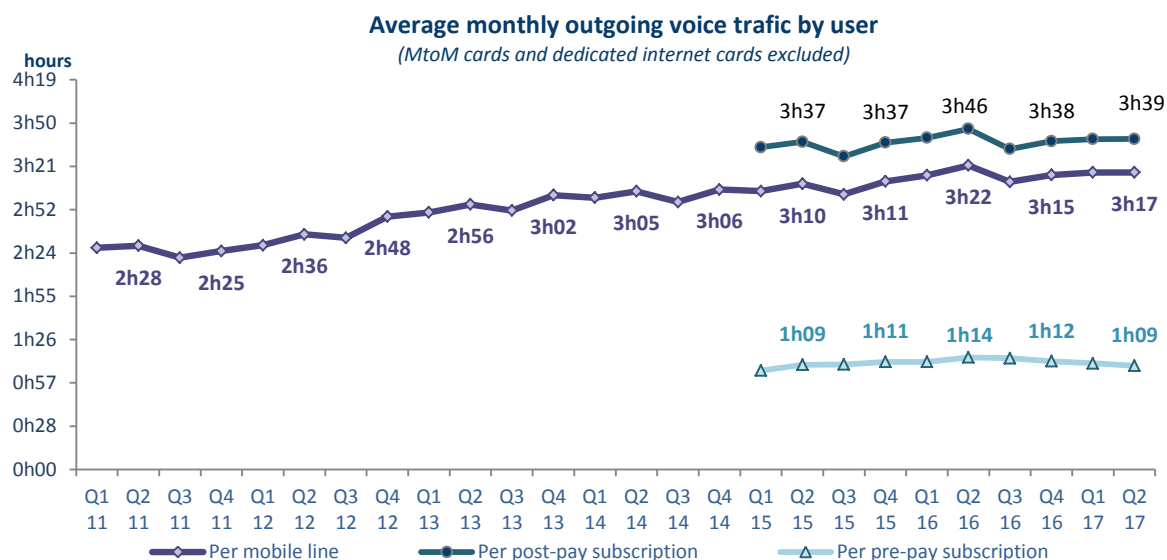


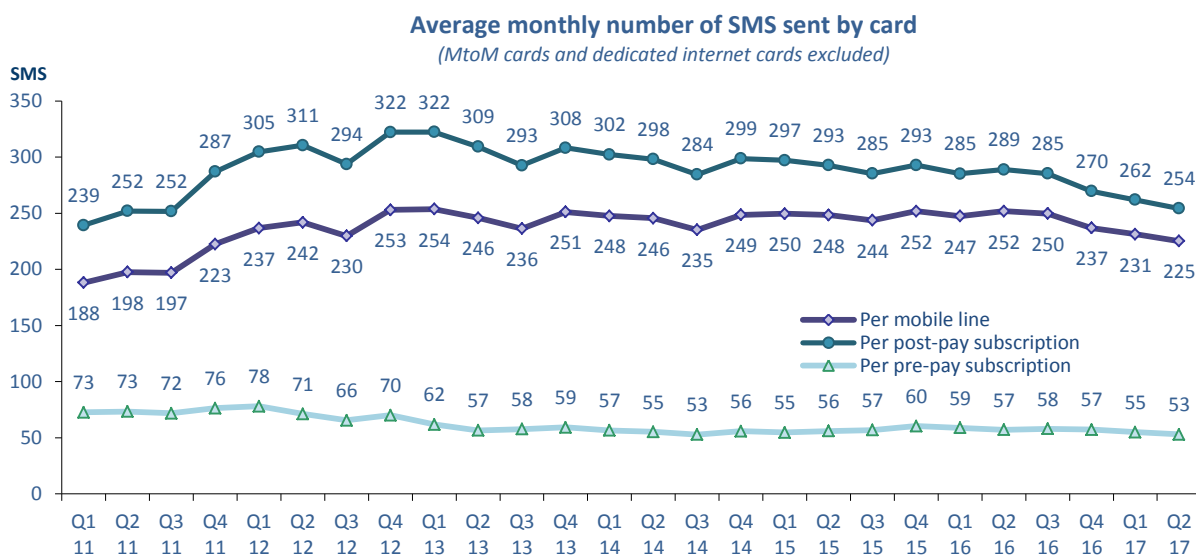
Average monthly outgoing volume (in hours)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Mobile telephony user</b>	<b>3h22</b>	<b>3h11</b>	<b>3h15</b>	<b>3h17</b>	<b>3h17</b>	<b>-2,3%</b>
Post-pay subscriptions	3h46	3h33	3h38	3h39	3h39	-3,0%
Pre-pay subscriptions	1h14	1h14	1h12	1h10	1h09	-7,3%

*Note: The average monthly volume of traffic per mobile card is calculated by dividing the volume of mobile telephony traffic (including roaming-out) for quarter N by the estimated average number of mobile cards for quarter N, and then by the number of months. SIM cards that can be used only for data (MtoM and data only cards) are not included in the calculations.*

Number of interpersonal SMS sent per user (units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Number of SMS sent per user during the quarter</b>	<b>252</b>	<b>250</b>	<b>237</b>	<b>231</b>	<b>225</b>	<b>-10,5%</b>
Post-pay subscriptions	289	285	270	262	254	-12,0%
Pre-pay subscriptions	57	58	57	55	53	-7,1%
Number of MMS sent per user during the quarter	7	7	7	7	7	11,0%
<b>Number of messages sent per user during the quarter</b>	<b>258</b>	<b>256</b>	<b>243</b>	<b>237</b>	<b>231</b>	<b>-10,2%</b>

*Note: The average number of SMS messages per card is calculated by dividing the number of SMS messages for quarter N by the estimated average number of cards for quarter N, and then by the number of months. MtoM and exclusive data cards are not taken into account. The number of messages does not include surcharged mini-messages (e.g. sent during a TV program), of which customers send an average of one a month.*

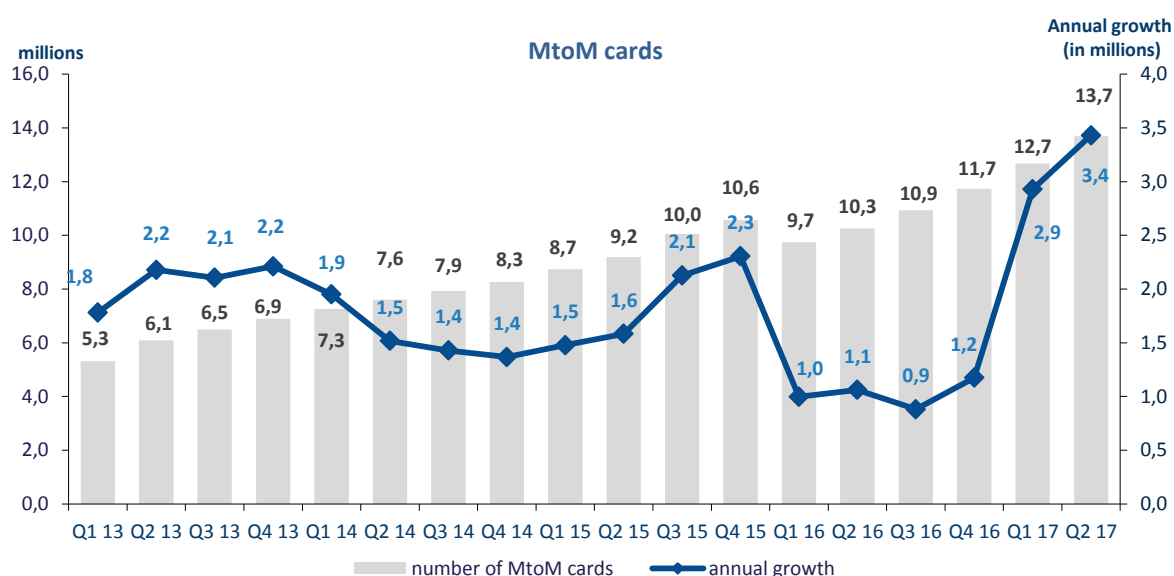




## 2.2 Internet of things: MtoM cards

MtoM cards	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Revenue of MtoM SIM cards (millions of € VAT excl.)	27	25	27	28	27	1,2%
Number of MtoM SIM cards (units)	10,254	10,929	11,737	12,669	13,684	33,5%

Note: the number of dedicated machine-to-machine cards (MtoM cards) is defined as the number of SIM cards employed solely for remote machine-to-machine communications (remote management of equipment, terminals and servers, fixed or mobile). These cards are used mainly on the business sector.



### 3 Value-added services

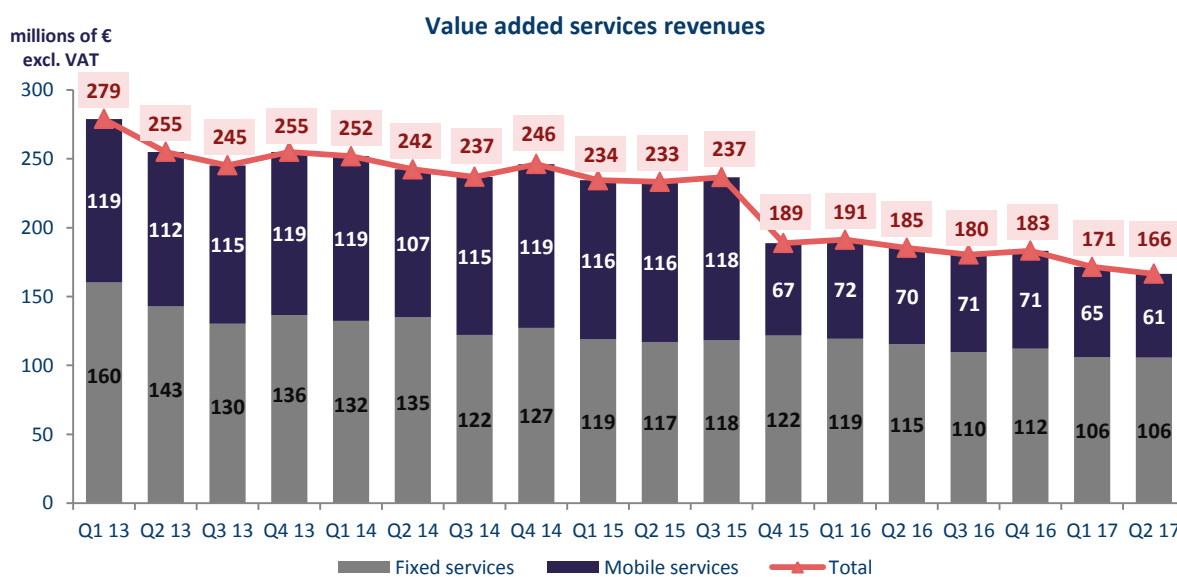
Value-added services revenue (millions of euros excl. VAT)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Value-added voice services</b>	185	180	183	171	166	-10,1%
From fixed networks	115	110	112	106	106	-8,4%
From mobile networks	70	71	71	65	61	-12,9%
<b>Value-added data services</b>	82	80	73	80	76	-6,2%
<b>Directory services</b>	24	25	26	23	21	-14,5%
<b>Value-added services</b>	291	285	282	274	264	-9,4%

#### Notes :

- This corresponds to all amounts billed to customers by operators, including out payments from operators to service providers. "Data" value-added services include premium-rate services such as push services, chat rooms, weather forecasts, TV game shows, horoscopes, ringtone downloads, etc.

- The pricing reform of calls to value added services, since 1st October 2015, led to distinguish the price of communication (paying the operator) from the price of service (paying the service provider). As a result of this reform, the price of many calls to the SVA is now "unmarked" and the communications part of these calls, previously charged and included in the SVA's revenue, is now directly taken from mobile packages.

- This reform led to a decrease of the revenue since the fourth quarter (approximately -40% in annual evolution between the fourth quarter of 2015 and the third quarter of 2016).



Value-added voice services volumes (millions of minutes)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Calls from fixed network	990	943	928	935	863	-12,8%
Calls from mobile network	436	443	463	417	411	-5,9%
<b>Total call volumes</b>	<b>1 426</b>	<b>1 386</b>	<b>1 392</b>	<b>1 352</b>	<b>1 274</b>	<b>-10,7%</b>

Number of calls from directory services (millions)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Number of calls (millions of units)	4	4	4	4	4	-9,5%

Note: are considered as directory services numbers: 118xyz numbers and short numbers giving access to directory services (3288, 3217, 3200, 3212).

## 4 Other operators revenue

### 4.1 Hosting and call center management services

Revenue (millions of euros excl.VAT)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Hosting and call center management	84	83	89	87	88	4,6%

### 4.2 Terminals and equipments

Revenue from terminals and equipment (millions of euros excl.VAT)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
linked to fixed telephony & Internet services	169	162	179	173	173	1,9%
linked to mobile services	484	555	709	486	489	1,1%
<b>Terminals and equipment</b>	<b>654</b>	<b>717</b>	<b>888</b>	<b>659</b>	<b>662</b>	<b>1,3%</b>

*adjusted figures are in italics*

Note: the revenue includes commissions paid to distributors.

## 5 The intermediate market: interconnection and wholesale market

### 5.1 The overall market

Interconnection services Revenue (millions of euros)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
<b>Fixed operators</b>	<b>1 326</b>	<b>1 326</b>	<b>1 328</b>	<b>1 284</b>	<b>1 316</b>	<b>-0,7%</b>
of which telephony services (incl VGA) *	551	555	541	490	517	-6,1%
of which broadband services	644	636	652	656	666	3,4%
of which wholesale leased lines products	131	135	135	139	133	1,6%
<b>Mobile operators</b>	<b>667</b>	<b>675</b>	<b>648</b>	<b>637</b>	<b>659</b>	<b>-1,3%</b>
of which voice termination (national and international)	203	179	189	189	189	-6,9%
of which SMS/MMS termination	383	381	381	372	378	-1,2%
Roaming in	81	115	78	75	91	12,8%
<b>Revenue (millions of euros)</b>	<b>1 993</b>	<b>2 001</b>	<b>1 977</b>	<b>1 921</b>	<b>1 975</b>	<b>-0,9%</b>

*adjusted figures are in italics*

Interconnection services volumes (millions of minutes)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Fixed operators	25 218	22 916	23 960	23 677	22 446	-11,0%
Mobile operators	25 239	23 613	24 710	25 093	25 431	0,8%
<b>Traffic</b>	<b>50 457</b>	<b>46 529</b>	<b>48 671</b>	<b>48 770</b>	<b>47 877</b>	<b>-5,1%</b>
<b>Incoming SMS (in millions)</b>	<b>31 650</b>	<b>36 427</b>	<b>37 173</b>	<b>30 659</b>	<b>30 491</b>	<b>-3,7%</b>

*adjusted figures are in italics*

## Definitions and tariffs evolutions on the wholesale market

- *Interconnection covers all the services provided by one carrier to another under the terms of an interconnection agreement. In cases of mergers or takeovers, some of the revenue streams between the telcos disappear, which might account for decreases in revenue from one quarter to the next.*

- *Interconnection income and traffic volumes are not calculated on the basis of the same criteria, making a comparison between the two indicators unsuitable for estimating average prices (interconnection income includes fixed income such as charges for connection links and intercarrier services).*

- *Note that the interconnection figures shown above might be counted twice, particularly in the case of fixed operators.*

- *From January 1st 2017, the price for call termination on fixed networks is set to 0.077c€/minute against 0.078c€/min since January 1st 2016.*

- *Broadband wholesale services include income from unbundling and bitstream or bitstream equivalent services. The tariff for total unbundling is set at €9.45 since March 1st 2017 against previously at €9.10 since March 1<sup>st</sup> 2016 (and 9.05€ in 2015, €9.02 in 2014). The tariff for partial unbundling is set to €1.77.*

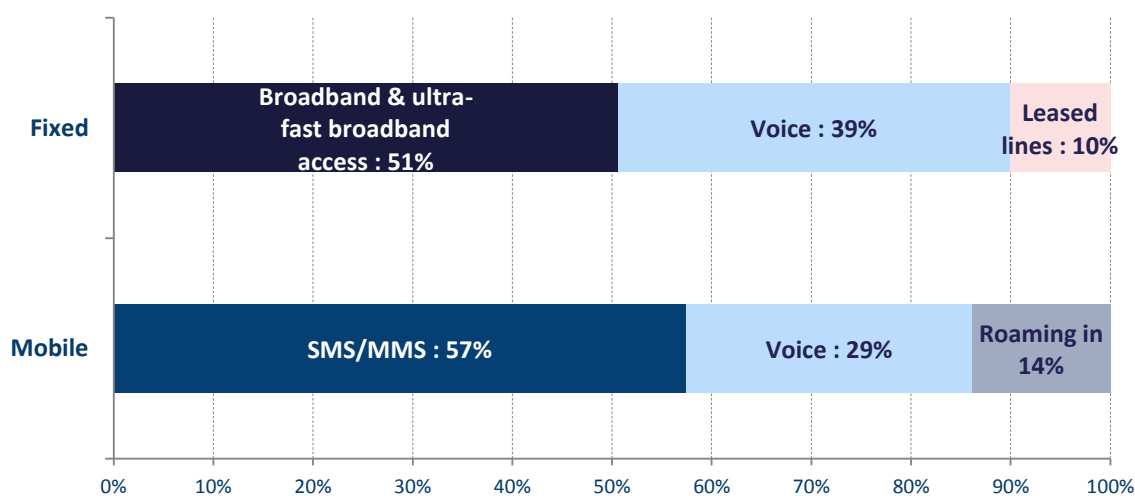
- *Mobile operator's interconnection services include income from call termination (voice and SMS) and the roaming in. Are not included revenue from services to MVNO/full MVNO or operators in national roaming (about 1.1billion of euros for the overall of year 2016).*

- *From January 1st 2017, the price for call termination on mobile networks is set to 0.074c€/minute for all the operators against 0.076c€/min since January 1st 2016.*

- *From July 1st 2013, the price for SMS termination is set to 1c€/SMS for all the operators (metropolitan and overseas operators).*

For price details, see: <https://www.arcep.fr/index.php?id=8080>

### Interconnection services revenue - Second quarter 2017



Unbundling (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Shared unbundled lines	0,578	0,561	0,540	0,517	0,499	-13,6%
Fully unbundled lines	11,543	11,583	11,594	11,588	11,536	-0,1%
<b>Total number of unbundled lines</b>	<b>12,121</b>	<b>12,144</b>	<b>12,134</b>	<b>12,105</b>	<b>12,036</b>	<b>-0,7%</b>

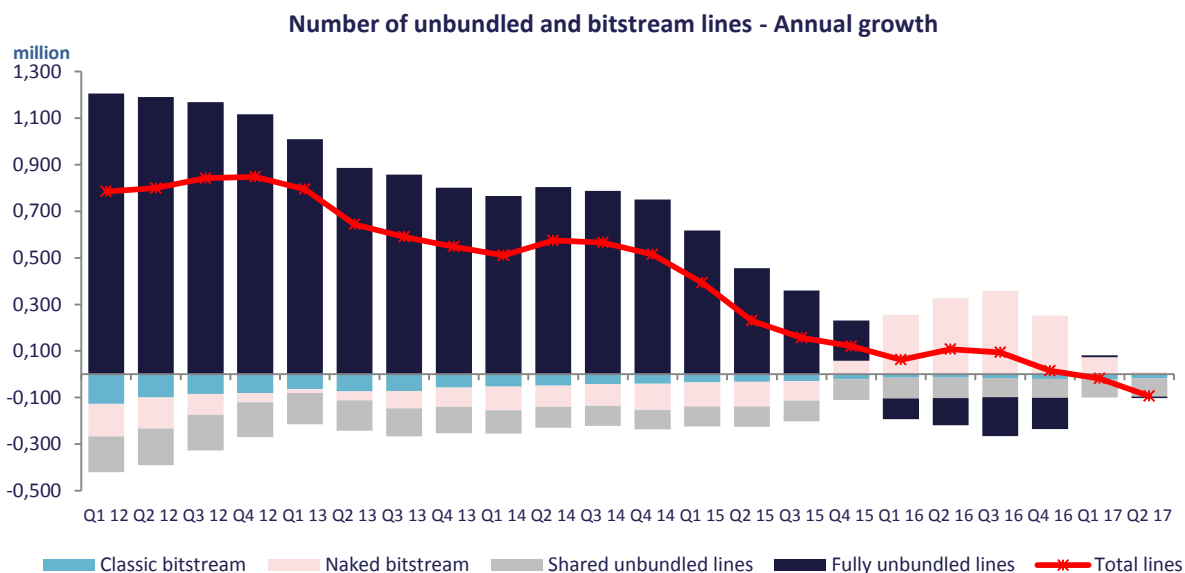
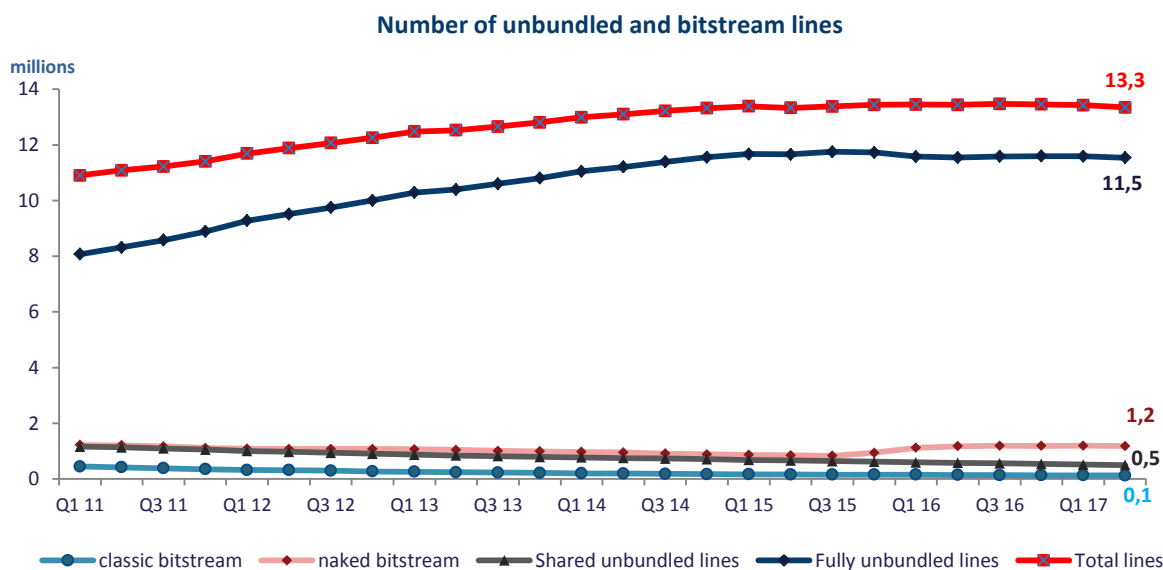
Bitstream lines (DSLE excluded) (millions of units)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Naked bistream	1,173	1,190	1,189	1,194	1,182	0,8%
Classic bitstream	0,145	0,138	0,133	0,130	0,128	-11,9%
<b>Total number of bitstream lines</b>	<b>1,318</b>	<b>1,328</b>	<b>1,322</b>	<b>1,324</b>	<b>1,310</b>	<b>-0,6%</b>

Note: Bitstream is a wholesale solution marketed by the incumbent carrier that allows alternative operators to provide broadband access services to their customers who are located in areas where unbundling is not available, by connecting to one of the incumbent carrier's regional or national connection points.

Number of FttH subscriptions via a wholesale offer (in millions)	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Subscriptions via a passive sharing offer	0,584	0,672	0,785	0,894	0,966	65,4%
Subscriptions via an active wholesale access product	0,037	0,043	0,049	0,054	0,058	56,8%
<b>Total number of subscriptions via a wholesale offer</b>	<b>0,621</b>	<b>0,715</b>	<b>0,834</b>	<b>0,948</b>	<b>1,024</b>	<b>64,9%</b>

For more information see: [https://www.arcep.fr/fileadmin/reprise/observatoire/hd-thd-gros/t2-2017/obs-HD-THD-T2\\_2017-deploiements-070917.pdf](https://www.arcep.fr/fileadmin/reprise/observatoire/hd-thd-gros/t2-2017/obs-HD-THD-T2_2017-deploiements-070917.pdf)





## 5.2 Mobile operators « Roaming-in »

Roaming in	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	change 2Q17/2Q16
Call volumes (millions of minutes)	844	1 039	812	850	1 039	23,1%
SMS volumes (millions)	213	317	161	169	207	-2,7%
Data volumes (terabytes)	2 042	3 715	2 252	2 874	5 058	147,7%

Notes: this market segment is part of the overall market (cf. section 5.1).

- Roaming-in refers to French mobile operators' handling of the incoming and outgoing calls made in France by customers of a foreign mobile operator. The revenue corresponds to the remuneration between the two operators. The relationship between call revenue/volume does not correspond to any set price, nor to any price that is billed to customers.

- Mobile operators have been subject to a ceiling on international roaming tariffs inside the EU since June 2007.
- As a result, from 1st July 2014 to 30<sup>th</sup> April 2016, these Euro tariffs are settled on the retail market to 0.19€ excl. VAT per minute for calls made from abroad, 0.05€ excl. VAT for calls received when abroad, 0.06 € excl.VAT per SMS and 20c€ per mega octets for mobile internet (see table).
- From April 30, 2016, the ceiling of the retail price for roaming is done by comparison with the national rate, that is, the additional costs compared to national rates cannot exceed the thresholds fixed by the regulation. The maximum amounts of additional costs compared to national rates are: +5 c€ per minute for the calls made from abroad, +1,14 c€ per minute for calls received abroad, +2 c€ HT for SMS and +5 c€ /Mo for mobile internet.
  - After June 15, 2017, prices of roaming in Europe will be aligned with national prices.

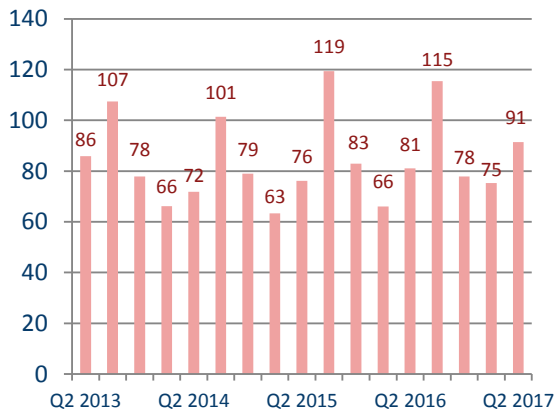
(hors TVA)	Au 1 <sup>er</sup> juillet 2014	Au 30 avril 2016	Au 15 juin 2017
	(eurotarifs )	(montant maximal des frais supplémentaires)	
<b>Appels passés (min)</b>	19 c€	Tarif national (+5c€)	Tarif national (pas de frais supplémentaires pour l'itinérance), dans la limite d'un usage raisonnable
<b>Appels reçus (min)</b>	5 c€	Tarif national (+1,14c€)	
<b>M essages envoyés (SM S)</b>	6 c€	Tarif national (+2c€)	
<b>I nternet (M o)</b>	20 c€	Tarif national (+5c€)	

- On the wholesale market the tariffs have been set since 15 July 2017 to 1ct€ per message for SMS and to 3,2c€ per minute for voice calls (against 2ct€ per message for SMS and to 5ct€ per minute for voice calls for the period from 1<sup>st</sup> July 2014 to 14 June 2017). The tariff is set to 7,7ct€ per Go for mobile internet from 15 July 2017 (against 5ct€/Mo for the period from 1<sup>st</sup> July 2014 to 14 June 2017).

More information at <http://www.arcep.fr/index.php?id=8710>.

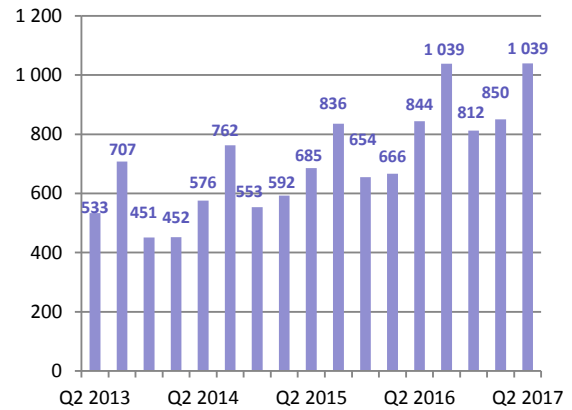
**Roaming in services revenue**

millions of €



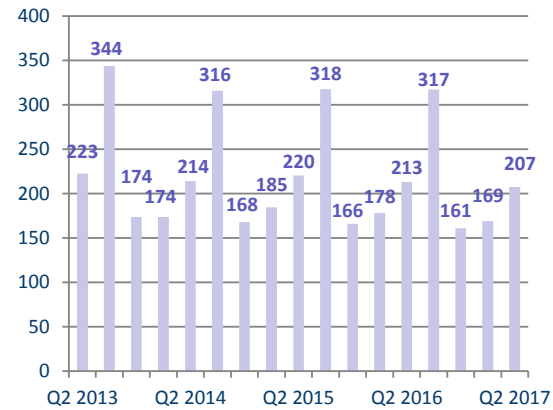
**Roaming in traffic in minutes**

millions of mn



**Roaming in traffic of SMS**

millions of SMS



**Roaming in traffic of data**

Terabytes

