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ELECTRONIC COMMUNICATIONS SERVICES IN FRANCE

3RD QUARTER 2017

ELECTRONIC COMMUNICATIONS MARKET OBSERVATORY

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Synthesis

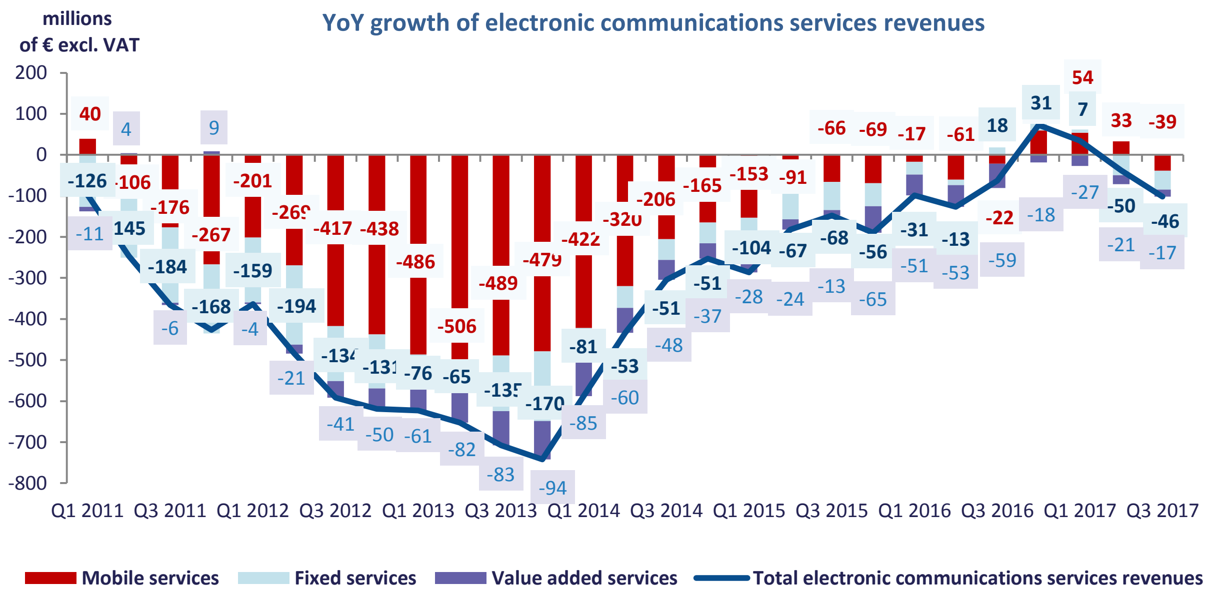
Revenue on the retail market (millions of euros excl.VAT)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
fixed services (including leased lines and data transport networ	*4 321*	*4 353*	*4 288*	*4 260*	4 275	-1,1%
Mobile services (MtoM included)	3 586	3 585	3 528	3 520	3 547	-1,1%
Value-added services and directory services	288	285	277	270	271	-5,9%
Electronic communications services	***8 195***	***8 222***	***8 093***	***8 049***	**8 093**	**-1,2%**
Others revenues	*891*	*1 069*	*832*	*847*	919	3,2%
Overall market	**9 085**	**9 292**	**8 925**	**8 896**	**9 012**	**-0,8%**

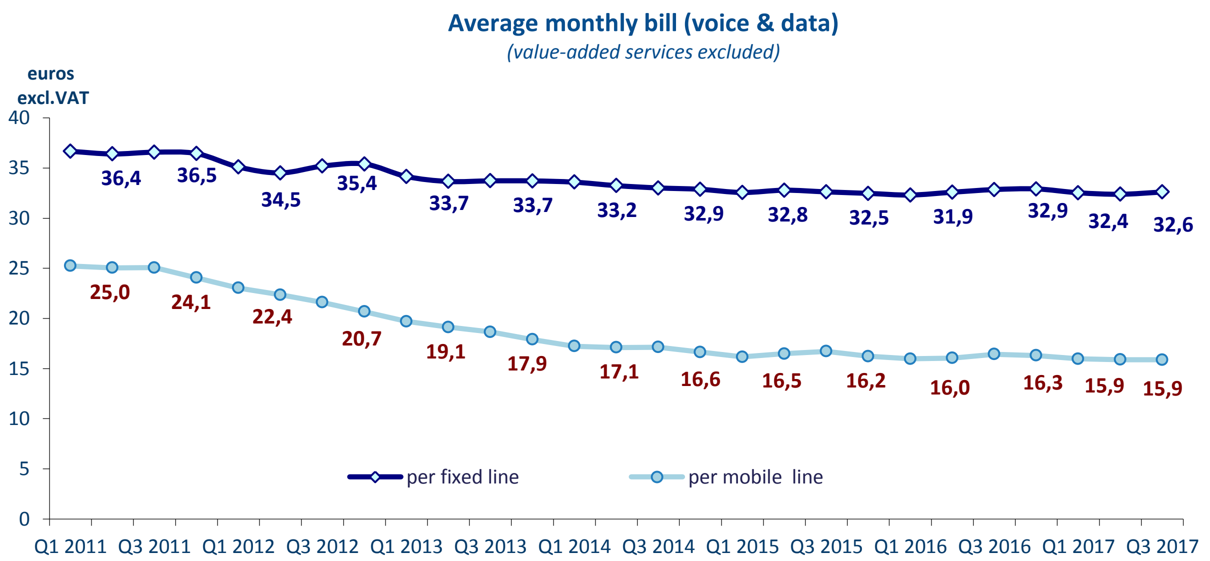
adjusted figures are in italics

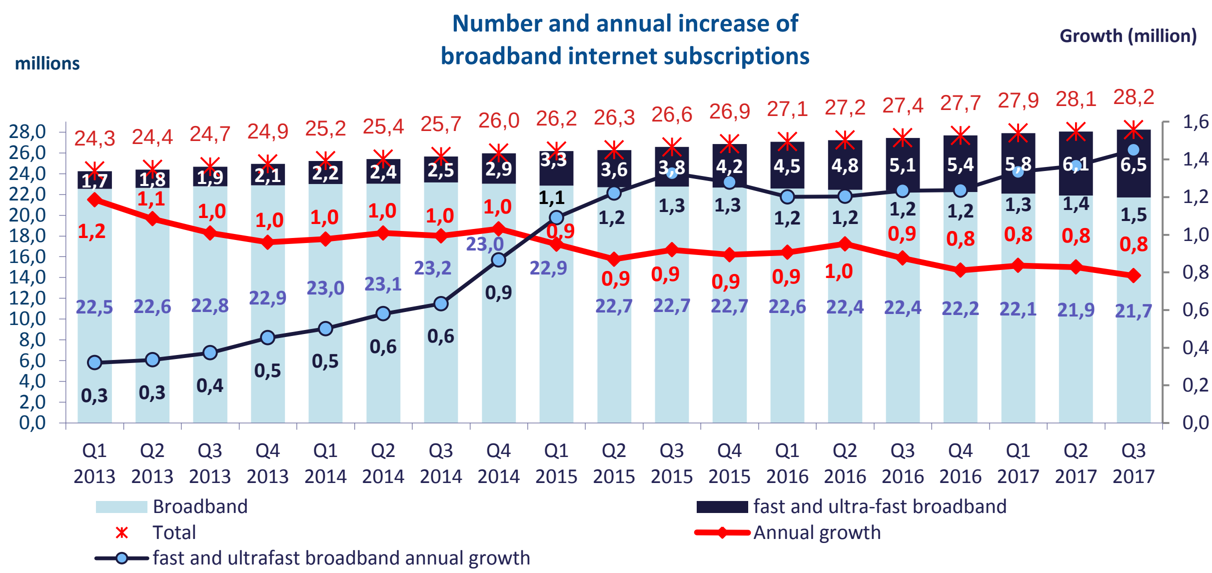
Note: "Others revenues" are not, strictly speaking, part of the electronic communications services market. The contribution reported by the operators gives only a partial view of these market segments. This topic covers the income related to sale and rental of terminals and equipment (fixed, mobile and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

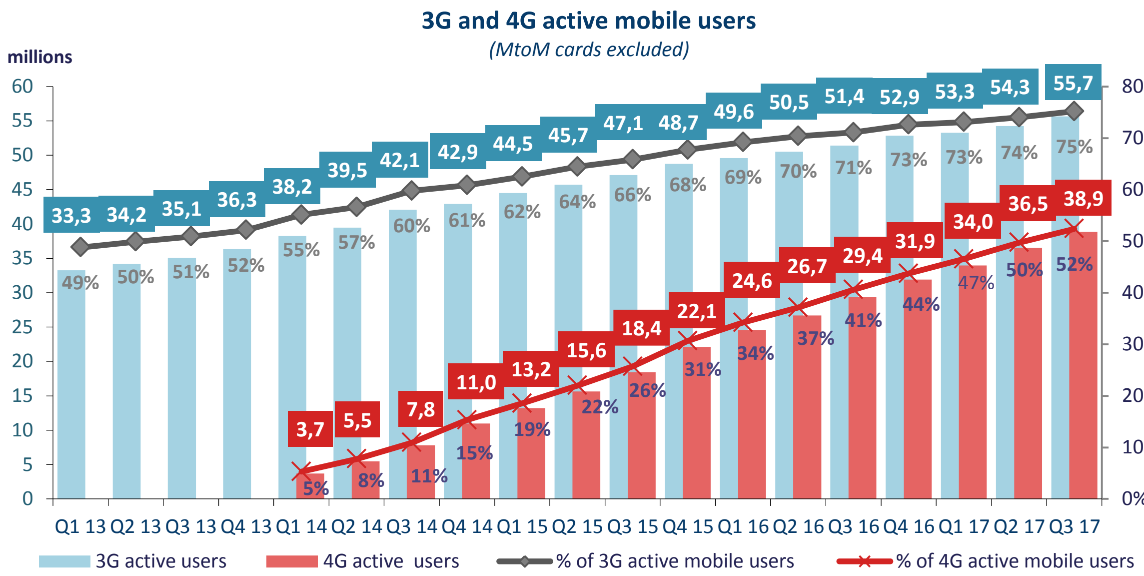
Notes :

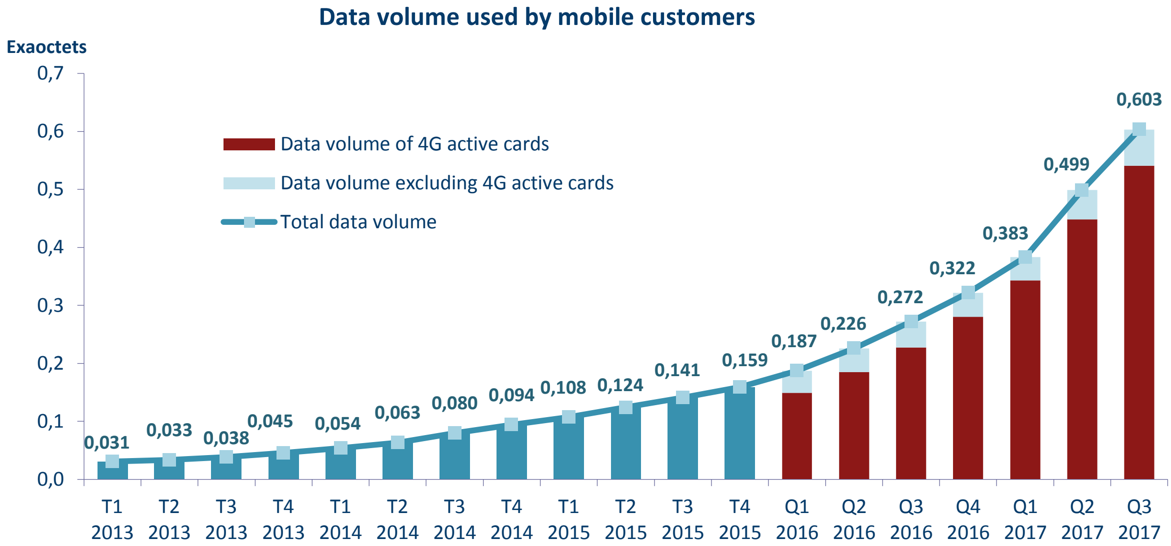
- *Potential data revisions for one quarter from one publication to another are explained by corrections made by the operators in their declaration. The discrepancies that may exist between the annual growth in % and the posted levels are related to rounding.*
- *All revenues are exclusive of taxes.*
- *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*

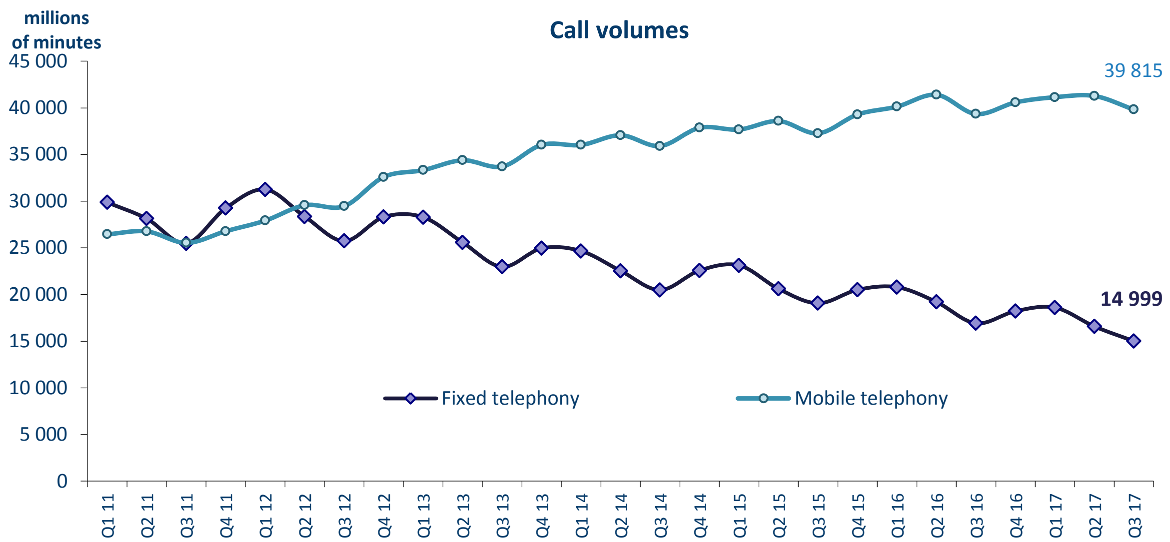

YoY growth of electronic communications services revenues
millions of € excl. VAT
Q1 2011 Q3 2011 Q1 2012 Q3 2012 Q1 2013 Q3 2013 Q1 2014 Q3 2014 Q1 2015 Q3 2015 Q1 2016 Q3 2016 Q1 2017 Q3 2017
Mobile services
Fixed services
Value added services
Total electronic communications services revenues


Average monthly bill (voice & data)
(value-added services excluded)
euros excl.VAT
per fixed line
per mobile line
Q1 2011 Q3 2011 Q1 2012 Q3 2012 Q1 2013 Q3 2013 Q1 2014 Q3 2014 Q1 2015 Q3 2015 Q1 2016 Q3 2016 Q1 2017 Q3 2017


Number and annual increase of broadband internet subscriptions
millions
Growth (million)
Broadband
fast and ultra-fast broadband
Total
Annual growth
fast and ultrafast broadband annual growth


3G and 4G active mobile users
(MtoM cards excluded)
millions
3G active users
4G active users
% of 3G active mobile users
% of 4G active mobile users


Data volume used by mobile customers
Exaoctets
Data volume of 4G active cards
Data volume excluding 4G active cards
Total data volume


Call volumes
millions of minutes
39 815
14 999
Fixed telephony
Mobile telephony

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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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Broadband	**22,391**	**22,231**	**22,077**	**21,910**	**21,723**	**-3,0%**
of which xDSL	21,878	21,705	21,553	21,376	21,201	-3,1%
of which other broadband accesses	0,513	0,526	0,524	0,533	0,522	1,8%
Fast and ultra-fast broadband	**5,058**	**5,448**	**5,843**	**6,146**	**6,508**	**28,7%**
of which with a speed equal or greater than 100 Mbit/s	**3,181**	**3,448**	**3,716**	**3,972**	**4,259**	**33,9%**
of which fiber to the home and fiber to the office	1,926	2,164	2,437	2,653	2,914	51,2%
of which fiber with coaxial cable termination	1,254	1,284	1,279	1,320	1,345	7,3%
of which with a speed ≥30 and < 100 Mbit/s (VDSL2 & coaxial cable, fixed 4G)	**1,877**	**2,001**	**2,127**	**2,174**	**2,250**	**19,8%**
Total number of broadband internet subscriptions	**27,449**	**27,679**	**27,920**	**28,056**	**28,231**	**2,8%**

adjusted figures are in italics

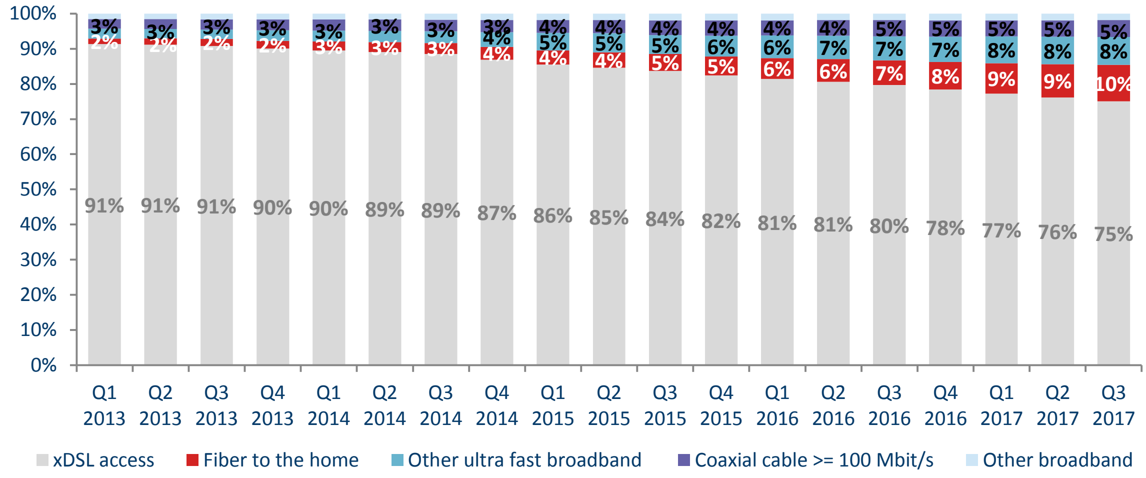
Overseas broadband internet subscriptions *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Total number of subcriptions	**624**	**628**	**633**	**641**	**640**	**2,5%**

Notes :

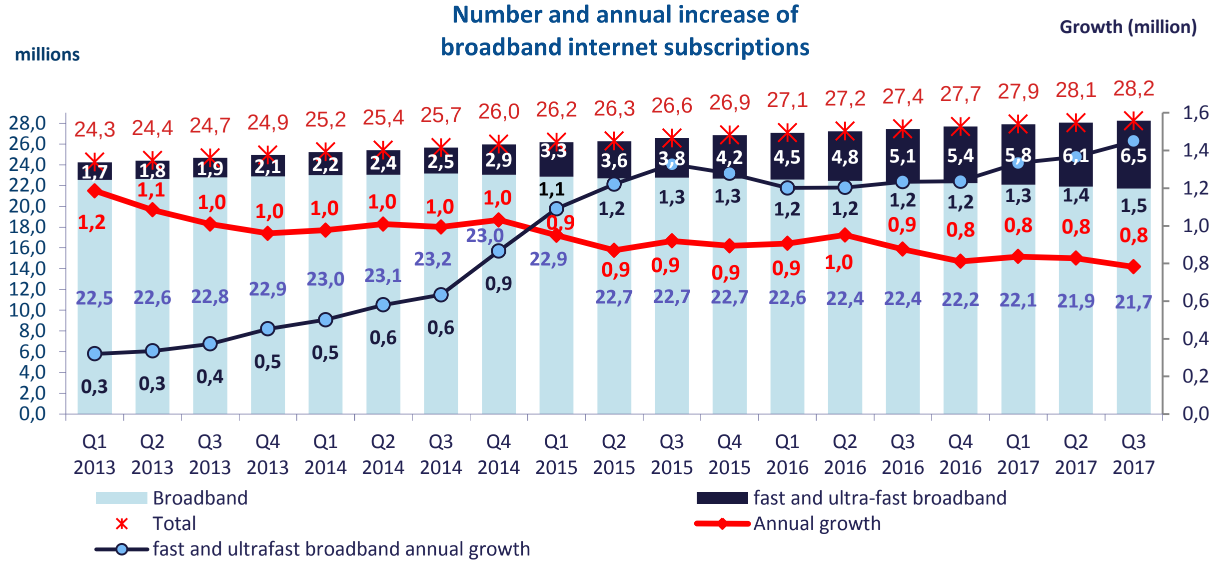
- *Broadband subscriptions are counted as fast broadband internet subscriptions when the download speed is greater than or equal to 30 Mbit/s. This category includes fiber to the home or to the office (FttH, FttO) subscriptions, "hybrid fiber coaxial cable" (HFC) subscriptions, fiber with coaxial cable 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 bandwith 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.*

Overseas broadband internet subscriptions *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Total number of subcriptions	**624**	**628**	**633**	**641**	**640**	**2,5%**

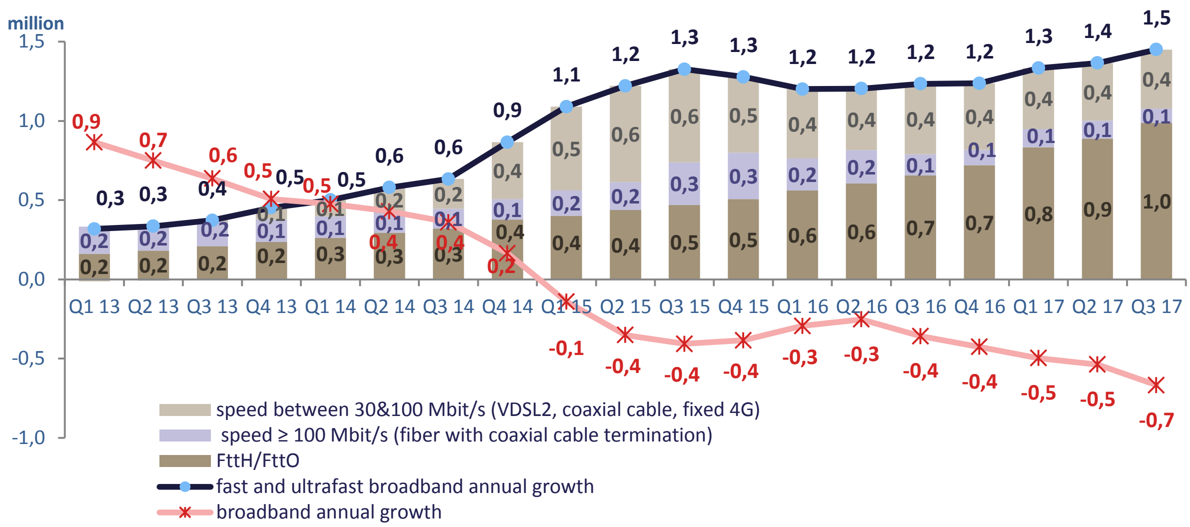
Breakdown of internet broadband subscriptions par flow rate and technology

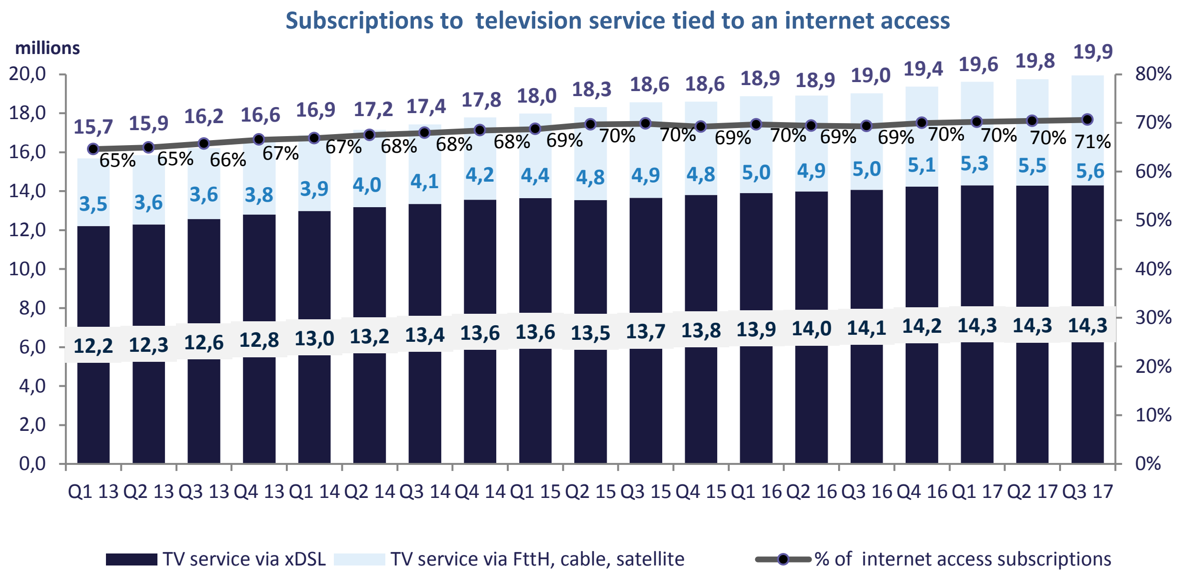


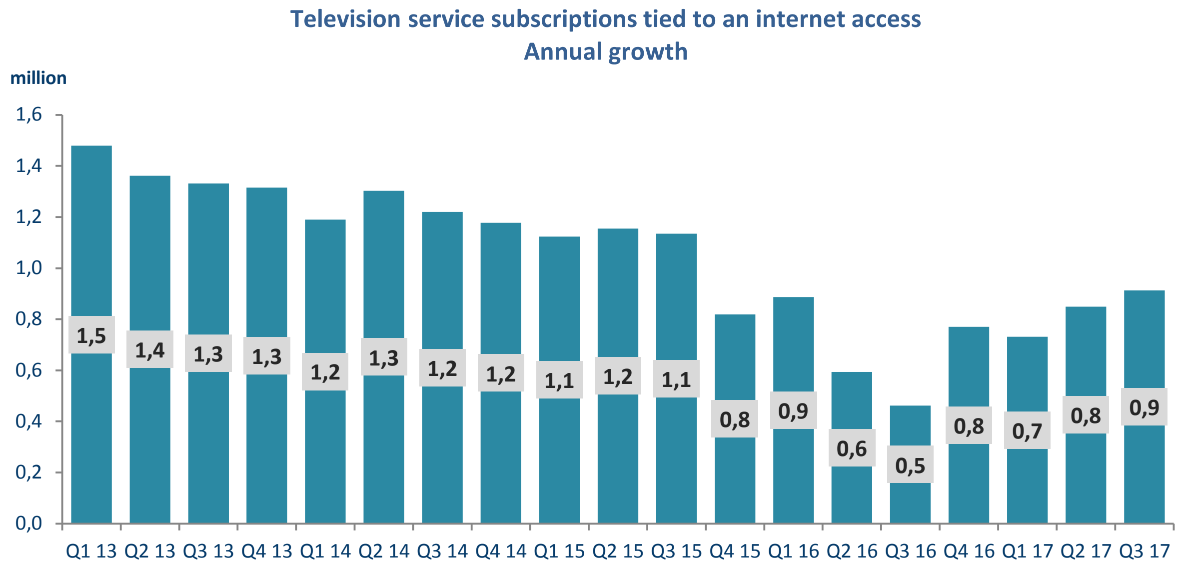
Number and annual increase of broadband internet subscriptions



Annual increase of fast and ultra-fast broadband internet subscription




Subscriptions to television service tied to an internet access
millions
TV service via xDSL
TV service via FttH, cable, satellite
% of internet access subscriptions
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
15,7 15,9 16,2 16,6 16,9 17,2 17,4 17,8 18,0 18,3 18,6 18,6 18,9 18,9 19,0 19,4 19,6 19,8 19,9
65% 65% 66% 67% 67% 68% 68% 68% 69% 70% 70% 69% 70% 69% 69% 70% 70% 70% 71%
3,5 3,6 3,6 3,8 3,9 4,0 4,1 4,2 4,4 4,8 4,9 4,8 5,0 4,9 5,0 5,1 5,3 5,5 5,6
12,2 12,3 12,6 12,8 13,0 13,2 13,4 13,6 13,6 13,5 13,7 13,8 13,9 14,0 14,1 14,2 14,3 14,3 14,3


Television service subscriptions tied to an internet access
Annual growth
million
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
1,5 1,4 1,3 1,3 1,2 1,3 1,2 1,2 1,1 1,2 1,1 0,8 0,9 0,6 0,5 0,8 0,7 0,8 0,9

1.1.1 TV subscription tied to internet access

TV subscriptions tied to an internet access *(millions)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
TV subscriptions tied to an internet access	**19,027**	**19,370**	**19,607**	**19,752**	**19,940**	**4,8%**
of which xDSL TV subscriptions	14,069	14,242	14,303	14,286	14,304	1,7%
% of subscriptions to television services	69,3%	70,0%	70,2%	70,4%	70,6%	+1,3 pt

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)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Number of fixed lines	***36,806***	***36,861***	***36,882***	***36,740***	**36,704**	**-0,3%**
of which lines on a broadband access	*25,014*	*25,373*	*25,753*	*25,888*	26,072	4,2%
of which lines on a narrowband access	*9,552*	9,298	*9,015*	*8,731*	8,605	-9,9%
of which lines with two accesses (narrowband & broadband)	*2,239*	2,190	*2,114*	*2,121*	2,027	-9,5%

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.*

1.2.2 Number of subscriptions to a telephone service

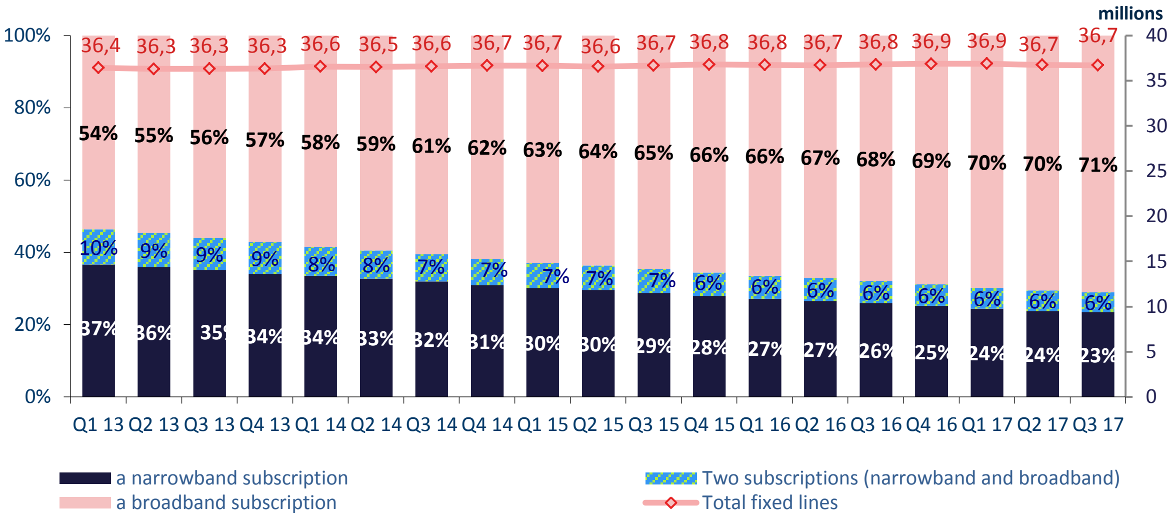
Number of telephone service subscriptions *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Subscriptions on narrowband accesses	11,791	11,487	11,129	10,852	10,632	-9,8%
Access resales (VGAST)	1,523	1,499	1,456	1,433	1,418	-6,9%
Subscriptions on broadband accesses	27,253	*27,563*	*27,867*	*28,009*	28,099	3,1%
of which on DSL lines	*23,258*	*23,298*	*23,341*	*23,266*	23,106	-0,7%
of which DSL lines not tied to a narrowband subscription	21,019	*21,109*	21,227	21,145	21,078	0,3%
of which on other technologies	3,996	*4,264*	*4,526*	*4,743*	4,994	25,0%
Total number of telephone service subscriptions	**39,045**	***39,050***	***38,996***	***38,861***	**38,732**	**-0,8%**

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

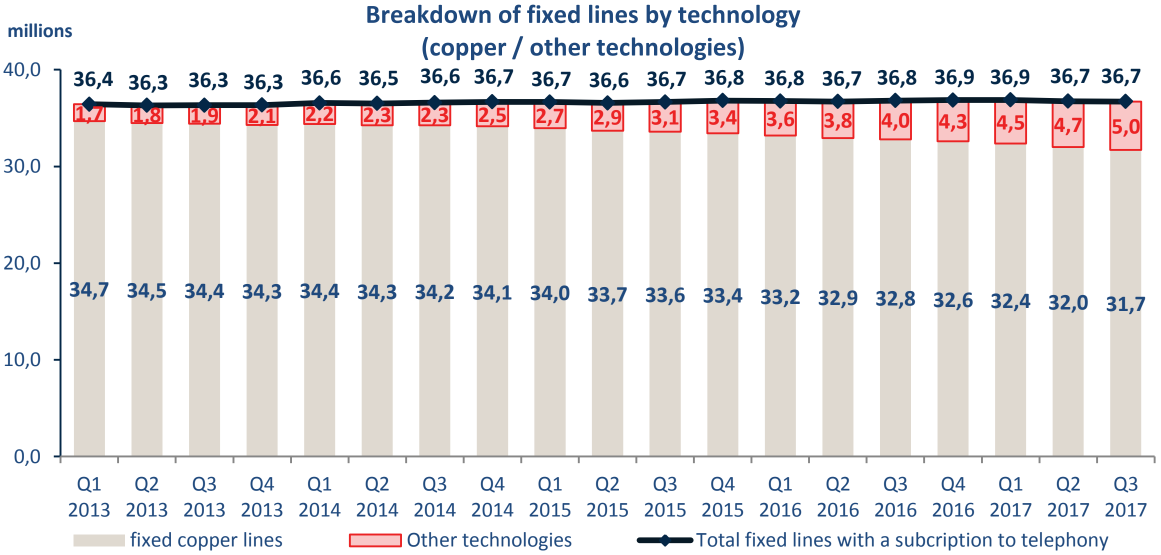
adjusted figures are in italics

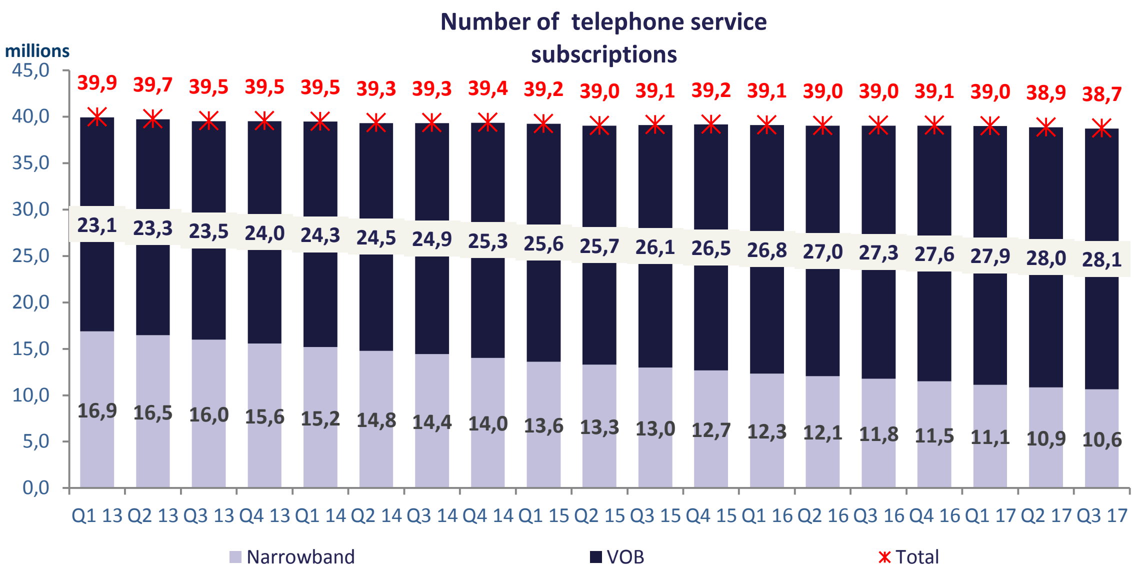
Note : a VOB subscription on xDSL technology without a narrowband subscription is a subscription on lines where low frequencies are not used as a voice service support (neither Orange nor an alternative operator). This is the case of voice-over-broadband service issued from full unbundling and naked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

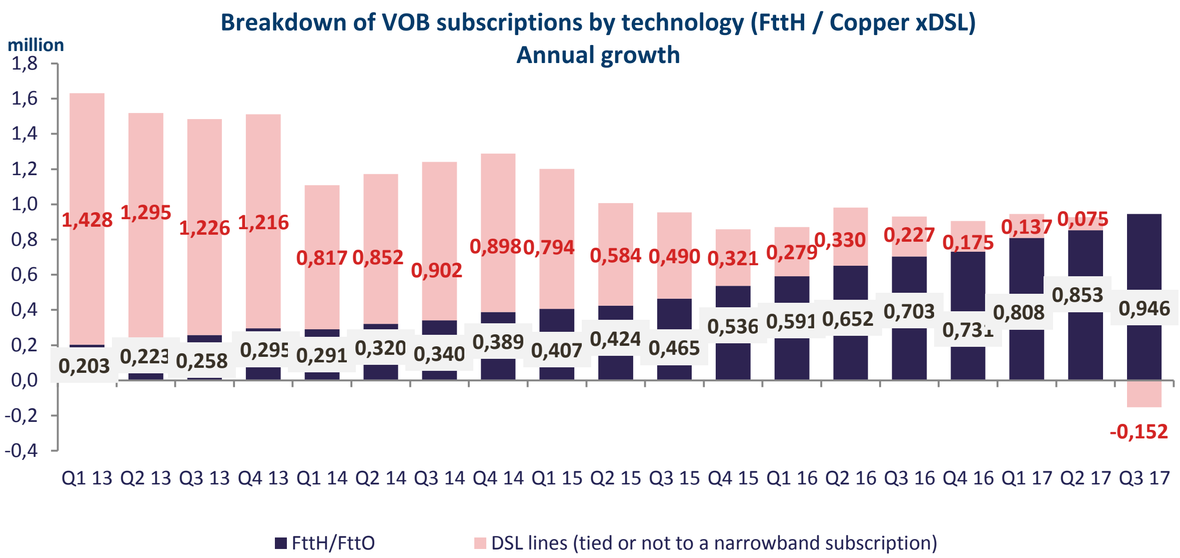
Breakdown of fixed lines by subscriptions to telephony services



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




Number of telephone service subscriptions
millions
Narrowband
VOB
Total
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
39,9 39,7 39,5 39,5 39,5 39,3 39,3 39,4 39,2 39,0 39,1 39,2 39,1 39,0 39,0 39,1 39,0 38,9 38,7
23,1 23,3 23,5 24,0 24,3 24,5 24,9 25,3 25,6 25,7 26,1 26,5 26,8 27,0 27,3 27,6 27,9 28,0 28,1
16,9 16,5 16,0 15,6 15,2 14,8 14,4 14,0 13,6 13,3 13,0 12,7 12,3 12,1 11,8 11,5 11,1 10,9 10,6


Breakdown of VOB subscriptions by technology (FttH / Copper xDSL)
Annual growth
million
FttH/FttO
DSL lines (tied or not to a narrowband subscription)
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
1,428 1,295 1,226 1,216 0,817 0,852 0,902 0,898 0,794 0,584 0,490 0,321 0,279 0,330 0,227 0,175 0,137 0,075 -0,152
0,203 0,223 0,258 0,295 0,291 0,320 0,340 0,389 0,407 0,424 0,465 0,536 0,591 0,652 0,703 0,731 0,808 0,853 0,946

1.2.3 Portability of fixed phones numbers

Portability *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Number of fixed phone numbers ported during the quarter	*616*	*710*	600	540	604	-2,0%

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)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Access fees, subscriptions and additional services	629	611	593	582	574	-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…).

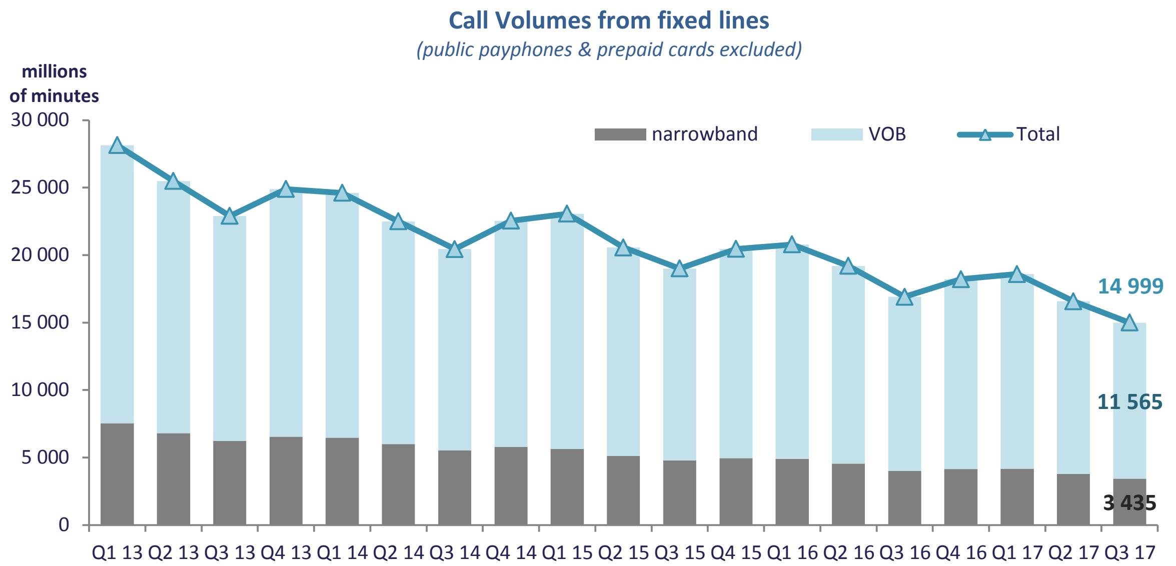
Call Revenue from fixed lines (millions of euros excl.VAT)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
National calls	155	155	149	147	145	-6,1%
International calls	56	53	45	45	41	-26,0%
Calls to mobiles	98	102	95	92	82	-16,5%
Total calls from fixed lines	**308**	**309**	**289**	**284**	**268**	**-13,0%**
Of which calls originating from narrowband networks	195	197	188	181	170	-12,7%
Of which calls originating from voice over broadband	113	113	102	104	99	-12,6%

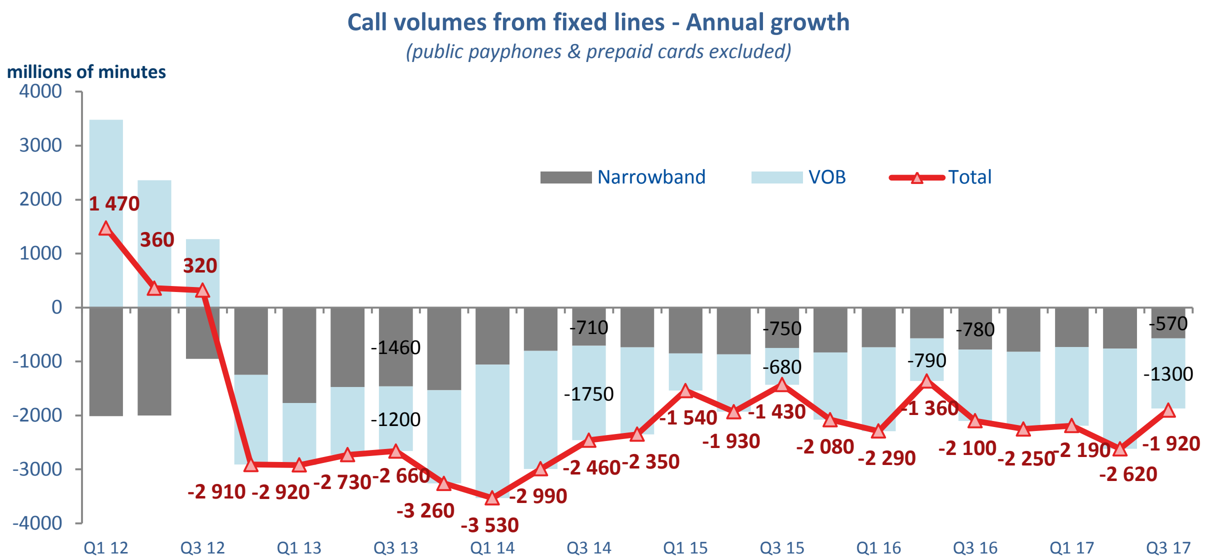
Note: although the volume of voice over broadband calls refers to all end-market traffic, the revenue covers only invoiced VOB traffic (e.g. over and above bundled service flat rates).

Call volumes from fixed lines (millions of minutes)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
National calls	11 098	12 260	12 613	10 994	9 836	-11,4%
International calls	1 935	1 946	1 887	1 731	1 579	-18,4%
Calls to mobiles	3 880	4 011	4 098	3 854	3 584	-7,6%
Total calls from fixed lines	**16 912**	**18 217**	**18 598**	**16 578**	**14 999**	**-11,3%**
Of which calls originating from narrowband networks	4 000	4 148	4 167	3 787	3 435	-14,1%
Of which calls originating from voice over broadband	12 912	14 070	14 431	12 791	11 565	-10,4%

1.2.5 Public payphones and calling cards

Other fixed services - narrowband	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Revenue of public payphone & calling cards (millions of € excl.VAT)	10	7	4	3	1	-85,7%
Number of public payphones (units)	24 123	17 301	11 821	6 826	4 337	-82,0%


Call Volumes from fixed lines
(public payphones & prepaid cards excluded)
millions of minutes
narrowband
VOB
Total
14 999
11 565
3 435
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17

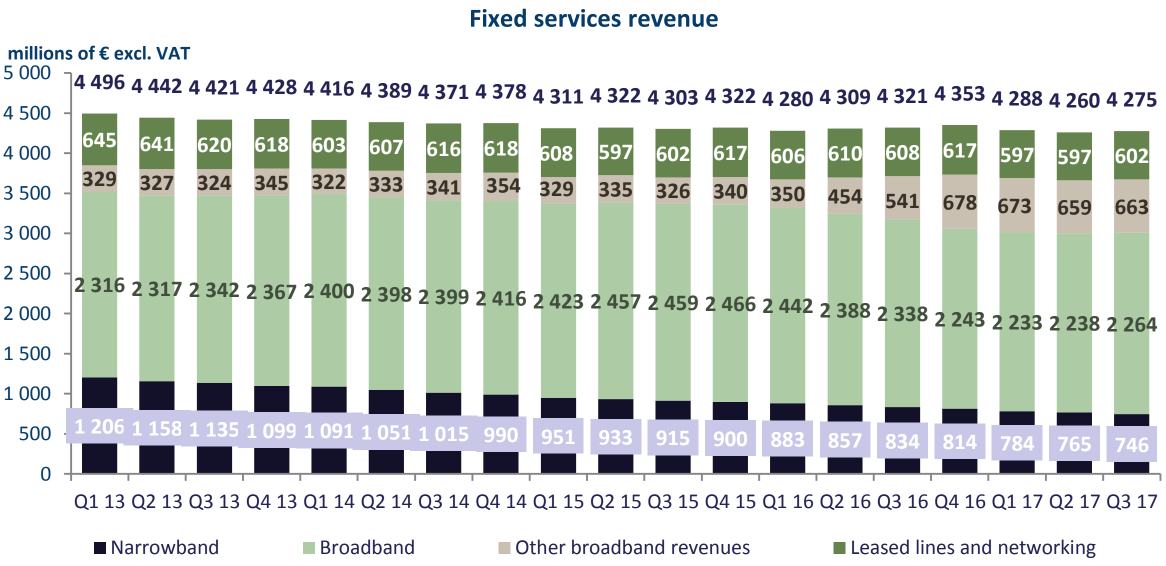

Call volumes from fixed lines - Annual growth
(public payphones & prepaid cards excluded)
millions of minutes
Narrowband
VOB
Total
1 470
360
320
-2 910 -2 920 -2 730 -2 660 -3 260 -3 530 -2 990 -2 460 -2 350 -1 540 -1 930 -1 430 -2 080 -2 290 -1 360 -2 100 -2 250 -2 190 -2 620 -1 920
-1460
-1200
-710
-1750
-750
-680
-790
-780
-570
-1300
Q1 12 Q3 12 Q1 13 Q3 13 Q1 14 Q3 14 Q1 15 Q3 15 Q1 16 Q3 16 Q1 17 Q3 17

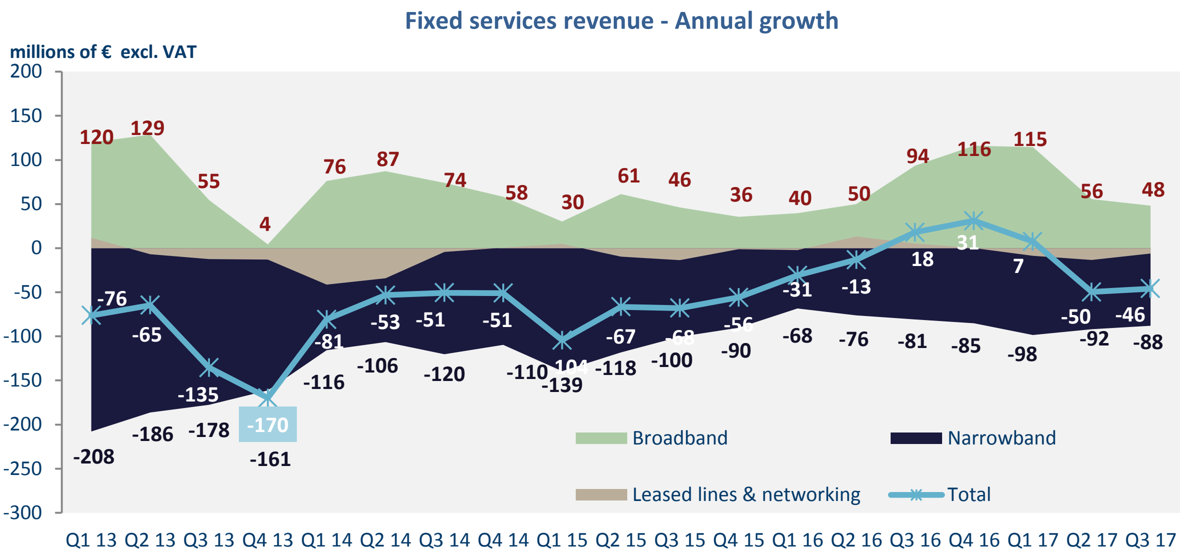
1.3 Revenue of fixed services (retail leased lines and data networking included)

Revenue of fixed networks services (millions of euros excl.VAT)	**Q3 2016**	**Q4 2016**	**Q1 2017**	**Q2 2017**	**Q3 2017**	**change Q317/Q316**
Narrowband Revenue	**834**	**814**	**784**	**765**	**746**	**-10,6%**
Broadband Revenue	***2 879***	***2 921***	***2 906***	***2 898***	**2 928**	**1,7%**
Broadband Internet, VoB subs.and revenue from VoB calls	*2 338*	*2 243*	*2 233*	*2 238*	2 264	-3,2%
Other Internet revenue	*541*	*678*	*673*	*659*	663	22,5%
Retail leased lines and data transport networks	**608**	**617**	**597**	**597**	**602**	**-1,0%**
Total revenue	**4 321**	**4 353**	**4 288**	**4 260**	**4 275**	**-1,1%**

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
millions of € excl. VAT
4 496 4 442 4 421 4 428 4 416 4 389 4 371 4 378 4 311 4 322 4 303 4 322 4 280 4 309 4 321 4 353 4 288 4 260 4 275
645 641 620 618 603 607 616 618 608 597 602 617 606 610 608 617 597 597 602
329 327 324 345 322 333 341 354 329 335 326 340 350 454 541 678 673 659 663
2 316 2 317 2 342 2 367 2 400 2 398 2 399 2 416 2 423 2 457 2 459 2 466 2 442 2 388 2 338 2 243 2 233 2 238 2 264
1 206 1 158 1 135 1 099 1 091 1 051 1 015 990 951 933 915 900 883 857 834 814 784 765 746
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
Narrowband
Broadband
Other broadband revenues
Leased lines and networking


Fixed services revenue - Annual growth
millions of € excl. VAT
120 129 55 4 76 87 74 58 30 61 46 36 40 50 94 116 115 56 48
-76 -65 -135 -170 -81 -53 -51 -51 -104 -67 -68 -56 -31 -13 18 31 7 -50 -46
-208 -186 -178 -161 -116 -106 -120 -110 -139 -118 -100 -90 -68 -76 -81 -85 -98 -92 -88
Broadband
Narrowband
Leased lines & networking
Total
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17

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)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Per fixed line : telephone access, calls and Internet access (€ VAT excl.)	32,9	32,9	32,5	32,4	32,6	-0,8%
Per fixed lines (in hours)	2h33	2h44	2h48	2h30	2h16	-11,2%

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: [(total fixed lines on quarter N + 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)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Per fixed narrowband telephone subscription	23,0	23,1	23,0	*23,1*	23,1	0,3%
Per fixed broadband access	34,1	34,2	33,8	*33,5*	33,7	-1,2%

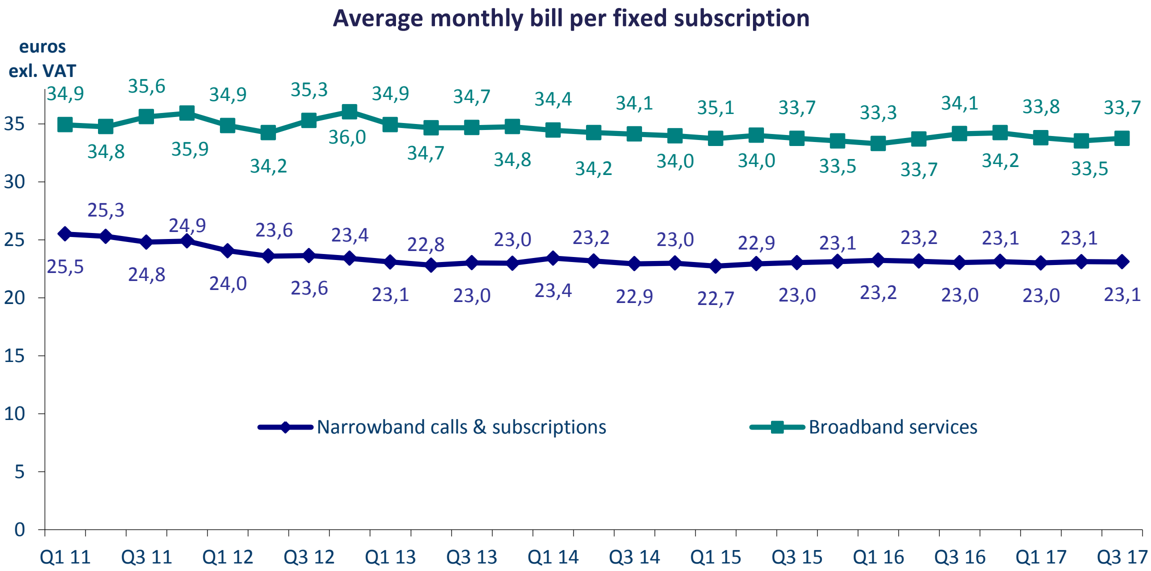
adjusted figures are in italics

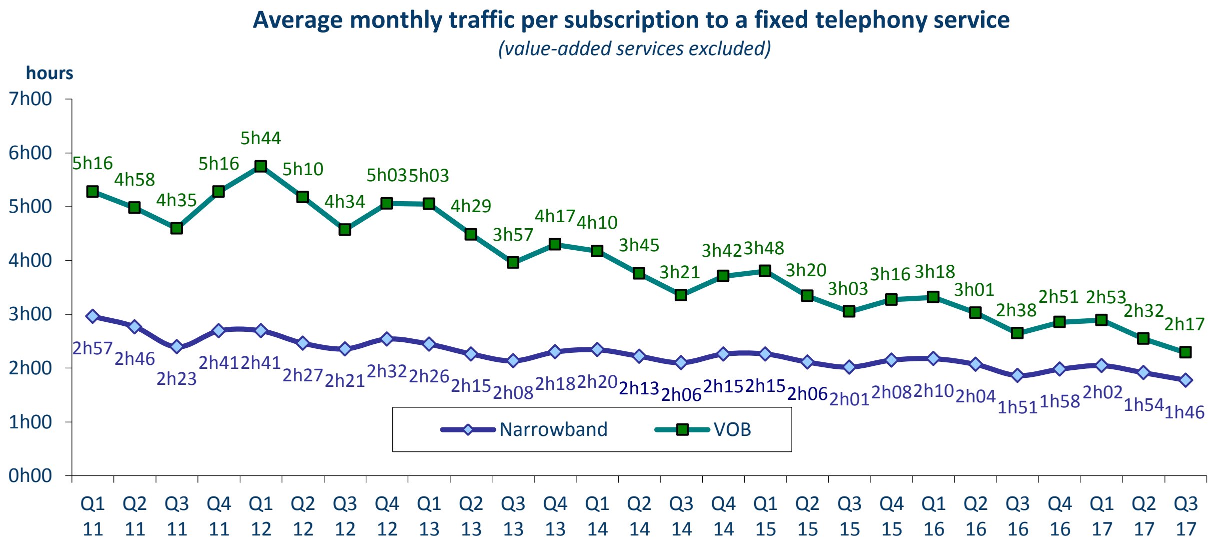
- The average monthly bill for a narrowband line is calculated by dividing the revenue earned on a PSTN based fixed line subscription and calls (i.e. excluding VOB) for Quarter Q by the estimated average customer base for Quarter Q, then dividing the result by three.

- 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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Per fixed narrowband telephone subscription	1h51	1h58	2h02	1h54	1h46	-4,7%
Per fixed VOB subscription	2h38	2h51	2h53	2h32	2h17	-13,4%

- 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.


Average monthly bill per fixed subscription
euros exl. VAT
Narrowband calls & subscriptions
Broadband services
Q1 11
Q3 11
Q1 12
Q3 12
Q1 13
Q3 13
Q1 14
Q3 14
Q1 15
Q3 15
Q1 16
Q3 16
Q1 17
Q3 17


Average monthly traffic per subscription to a fixed telephony service
(value-added services excluded)
hours
Narrowband
VOB

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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Post-pay subscriptions	**60,855**	**61,587**	**62,161**	**62,674**	**63,462**	**4,3%**
Pre-pay subscriptions	**11,640**	**11,378**	**10,878**	***10,823***	**10,728**	**-7,8%**
of which active prepaid cards	9,423	9,062	8,366	*8,254*	8,237	-12,6%
Total number of SIM cards	**72,495**	**72,965**	**73,039**	***73,497***	**74,190**	**2,3%**

- 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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Post-pay subscriptions	**2,773**	**2,786**	**2,775**	***2,778***	**2,782**	**0,3%**
Pre-pay subscriptions	**0,917**	**0,841**	**0,840**	***0,792***	**0,734**	**-20,0%**
of which active prepaid cards *	0,337	0,287	0,235	0,235	0,293	-13,1%
Number of dedicated data cards	**3,690**	**3,627**	**3,615**	***3,570***	**3,516**	**-4,7%**
% in total number of SIM cards	5,1%	5,0%	4,9%	4,9%	4,7%	-0,4 Point

adjusted figures are in italics

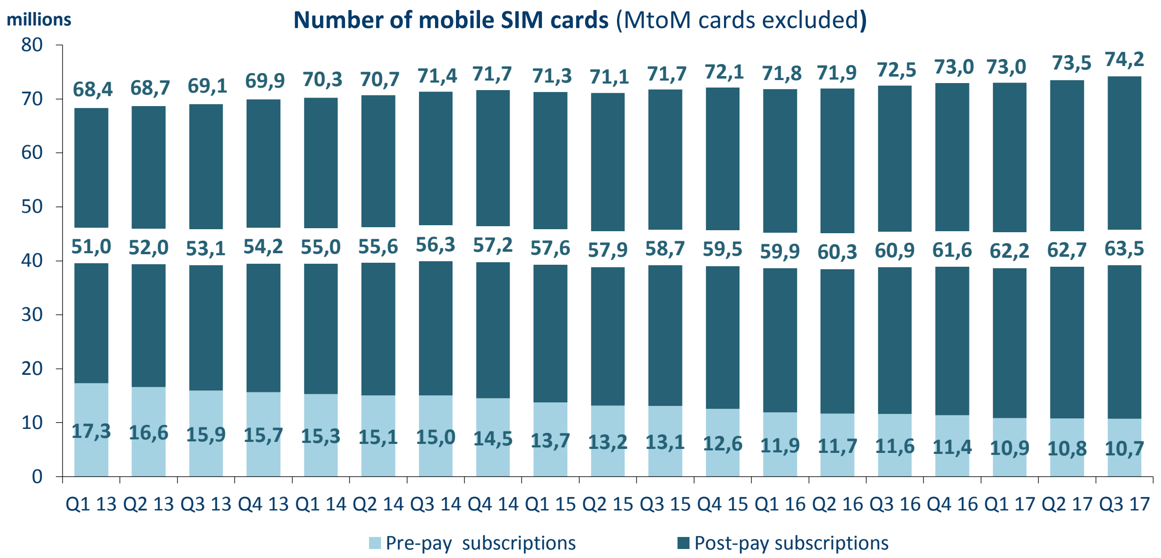
Note: the number of dedicated data cards is defined as the number of SIM cards sold by mobile operators (in the form of subscriptions, flat rates or prepaid cards), used exclusively for accessing the Internet (PCMCIA cards, 3G/4G USB keys). These cards cannot be used to make voice calls. Dedicated active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

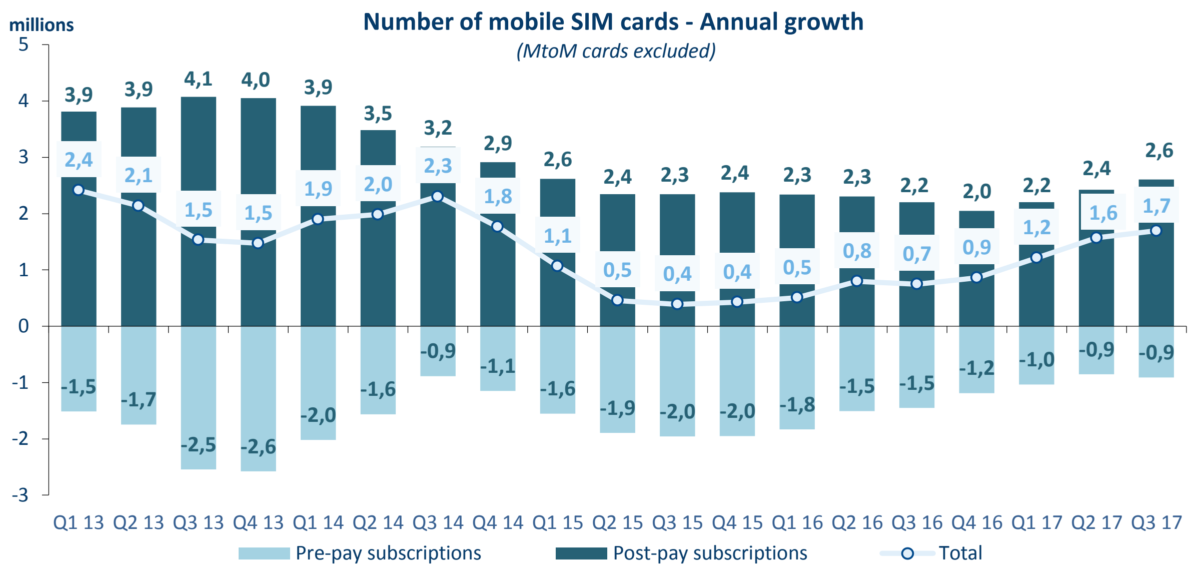
2.1.3 The fixed-mobile convergence

Bundles : mobile subscription tied to fixed services (millions of units)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Number of mobile subscriptions tied to at least one fixed service	**19,407**	**19,898**	**20,459**	**20,585**	**19,647**	**1,2%**
% in total number of post-pay subscriptions	32%	32%	33%	33%	31%	-0,9 Point
% in total number of SIM cards	27%	27%	28%	28%	26%	-0,3 Point

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.


Number of mobile SIM cards (MtoM cards excluded)
millions
80
70
60
50
40
30
20
10
0
68,4 68,7 69,1 69,9 70,3 70,7 71,4 71,7 71,3 71,1 71,7 72,1 71,8 71,9 72,5 73,0 73,0 73,5 74,2
51,0 52,0 53,1 54,2 55,0 55,6 56,3 57,2 57,6 57,9 58,7 59,5 59,9 60,3 60,9 61,6 62,2 62,7 63,5
17,3 16,6 15,9 15,7 15,3 15,1 15,0 14,5 13,7 13,2 13,1 12,6 11,9 11,7 11,6 11,4 10,9 10,8 10,7
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
Pre-pay subscriptions
Post-pay subscriptions


Number of mobile SIM cards - Annual growth
(MtoM cards excluded)
millions
5
4
3
2
1
0
-1
-2
-3
3,9 3,9 4,1 4,0 3,9 3,5 3,2 2,9 2,6 2,4 2,3 2,4 2,3 2,3 2,2 2,0 2,2 2,4 2,6
2,4 2,1 1,5 1,5 1,9 2,0 2,3 1,8 1,1 0,5 0,4 0,4 0,5 0,8 0,7 0,9 1,2 1,6 1,7
-1,5 -1,7 -2,5 -2,6 -2,0 -1,6 -0,9 -1,1 -1,6 -1,9 -2,0 -2,0 -1,8 -1,5 -1,5 -1,2 -1,0 -0,9 -0,9
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
Pre-pay subscriptions
Post-pay subscriptions
Total

2.1.4 3G and 4G active cards

3G and 4G active users *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
3G active users	51,418	52,863	53,274	54,268	55,654	8,2%
4G active users	29,419	31,901	*33,966*	36,531	38,865	32,1%

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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Number of transactions during the quarter	1,480	2,347	1,582	1,821	1,796	21,3%

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

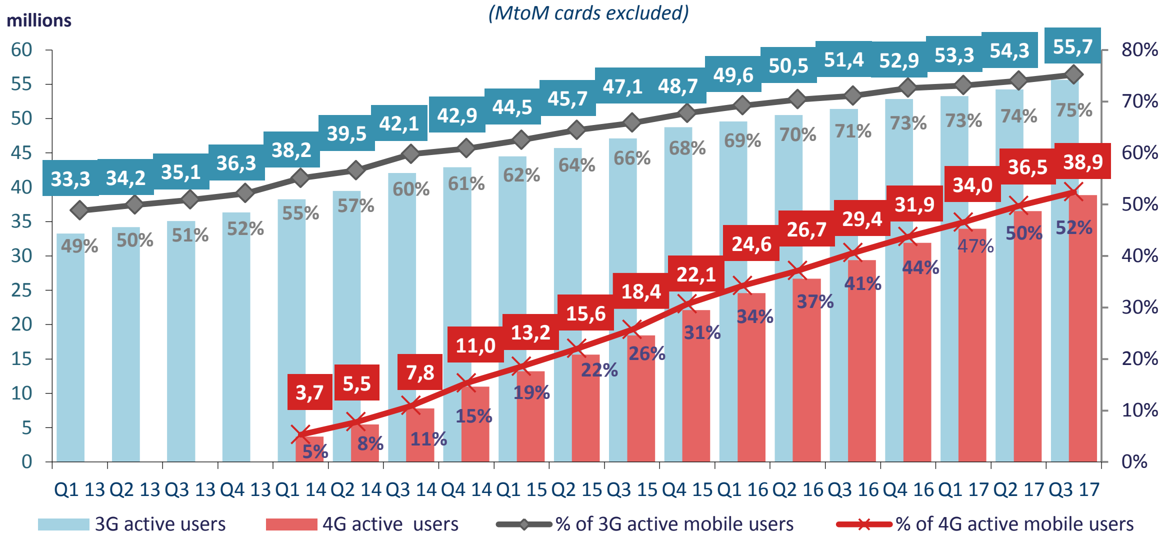
2.1.6 Mobile revenue on the retail market (value-added services excluded)

Revenue *(millions of euros VAT excluded)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Post-pay subscriptions	3 365	3 361	3 318	3 319	3 337	-0,8%
Pre-pay subscriptions	196	197	182	174	179	-8,6%
Total mobile services revenue (excluding MtoM revenue)	3 561	3 558	3 500	3 492	3 516	-1,3%

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).*

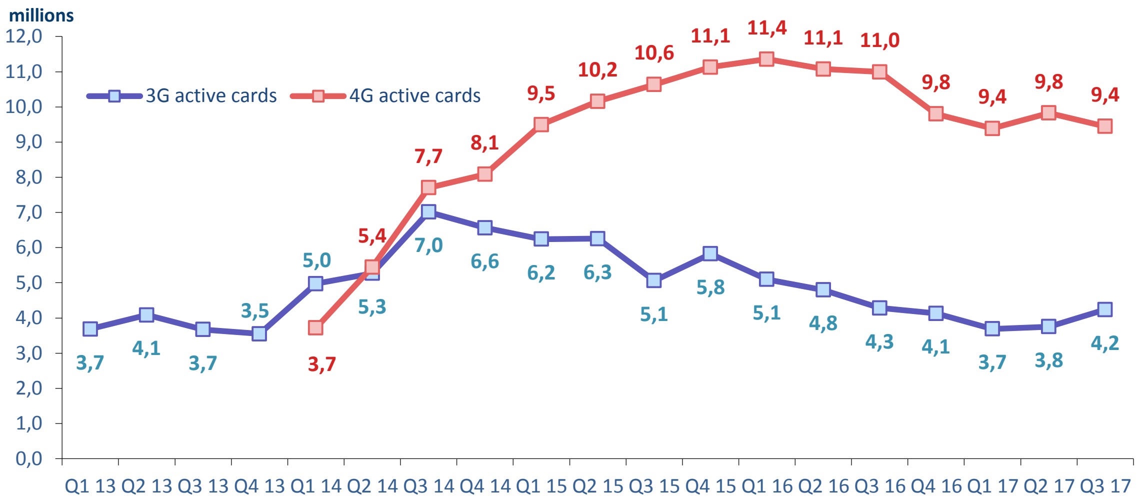
3G and 4G active mobile users

(MtoM cards excluded)

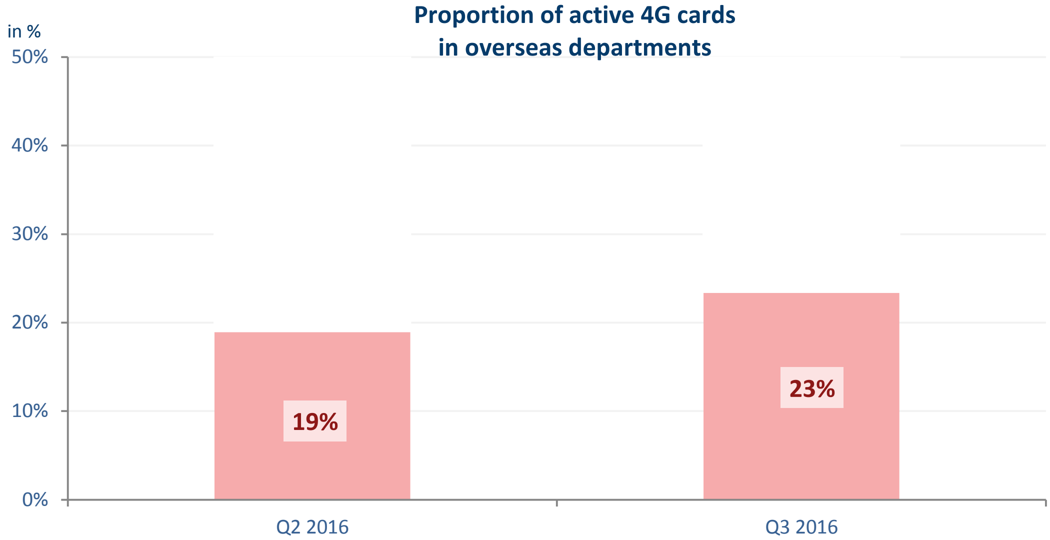


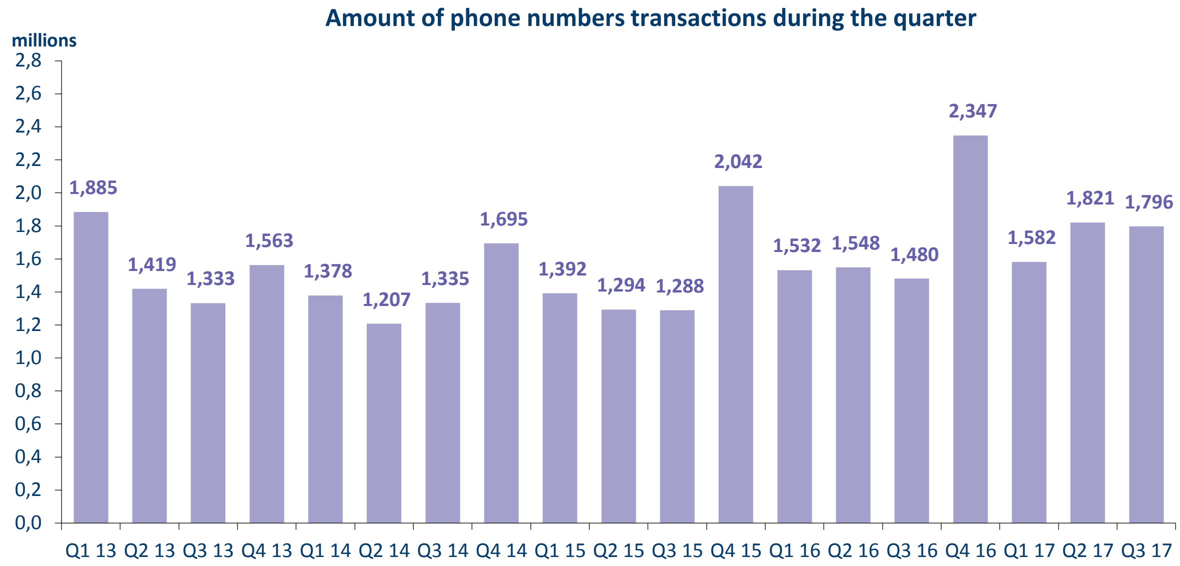
3G and 4G active users- Annual growth

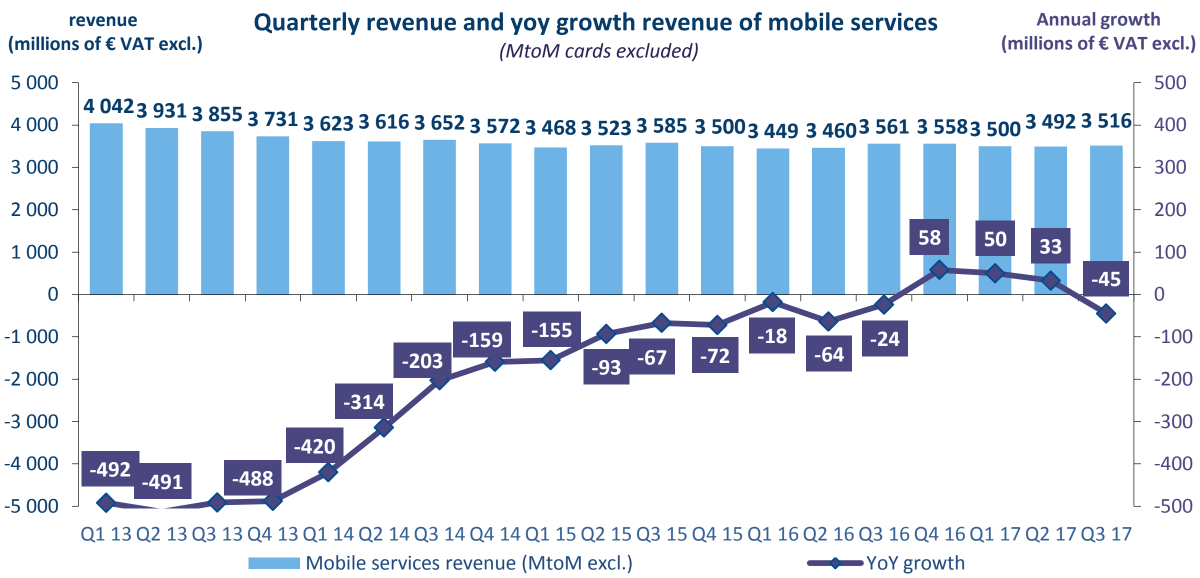
(MtoM cards excluded)



Proportion of active 4G cards in overseas departments




Amount of phone numbers transactions during the quarter
millions
2,8
2,6
2,4
2,2
2,0
1,8
1,6
1,4
1,2
1,0
0,8
0,6
0,4
0,2
0,0
1,885
1,419
1,333
1,563
1,378
1,207
1,335
1,695
1,392
1,294
1,288
2,042
1,532
1,548
1,480
2,347
1,582
1,821
1,796
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17


revenue
(millions of € VAT excl.)
Quarterly revenue and yoy growth revenue of mobile services
(MtoM cards excluded)
Annual growth
(millions of € VAT excl.)
5 000
4 000
3 000
2 000
1 000
0
-1 000
-2 000
-3 000
-4 000
-5 000
500
400
300
200
100
0
-100
-200
-300
-400
-500
4 042
3 931
3 855
3 731
3 623
3 616
3 652
3 572
3 468
3 523
3 585
3 500
3 449
3 460
3 561
3 558
3 500
3 492
3 516
-492
-491
-488
-420
-314
-203
-159
-155
-93
-67
-72
-18
-64
-24
58
50
33
-45
Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
Mobile services revenue (MtoM excl.)
YoY growth

2.1.7 Volume of data consumed by mobile customers

Data volumes used by customers (in Exabytes)	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Post-pay subscriptions	**0,268**	**0,317**	**0,379**	**0,493**	**0,596**	**122,8%**
Pre-pay subscriptions	**0,004**	**0,005**	**0,005**	**0,006**	**0,007**	**64,5%**
Total data volumes	**0,272**	**0,322**	**0,383**	**0,499**	**0,603**	**121,9%**
of which dedicated data SIM cards	0,013	0,013	0,012	0,013	0,015	18,8%
of which active 4G customers	0,227	0,280	0,343	0,449	0,541	138,0%

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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Post-pay subscriptions	**36 954**	**38 287**	**38 962**	**39 143**	**37 708**	**2,0%**
Pre-pay subscriptions	**2 387**	**2 298**	**2 180**	**2 130**	**2 107**	**-11,7%**
Total mobile call volumes	**39 341**	**40 584**	**41 142**	**41 273**	**39 815**	**1,2%**

2.1.9 Interpersonal messages (SMS, MMS)

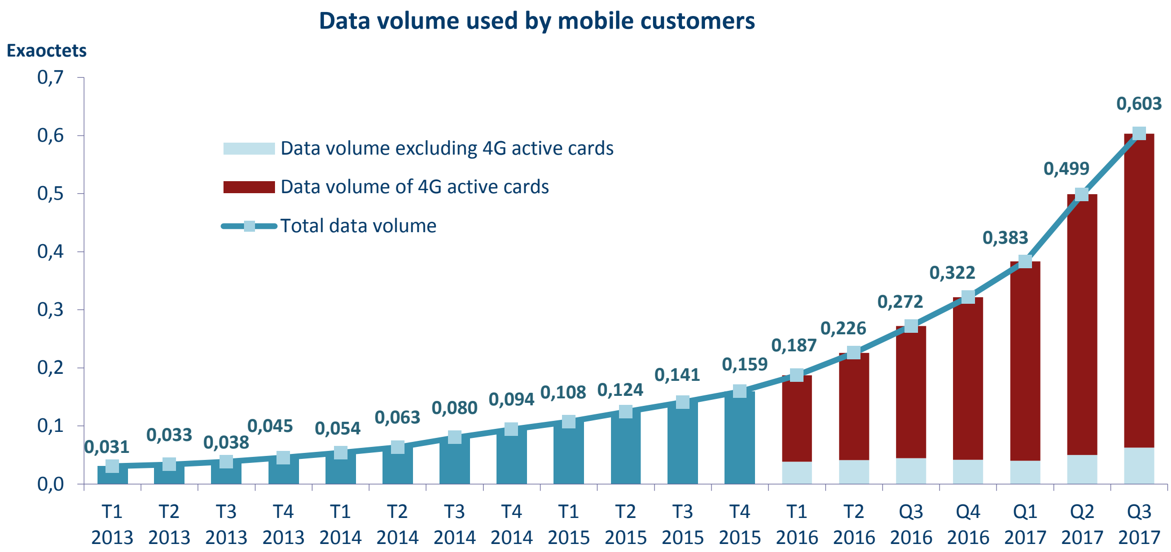
Volumes of interpersonal messages *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Number of SMS	**51 339**	**49 092**	**48 151**	**47 101**	**44 878**	**-12,6%**
of which from post-pay subscriptions	49 470	47 265	46 453	45 503	43 374	-12,3%
of which from pre-pay subscriptions	1 871	1 828	1 697	1 597	1 502	-19,7%
Number of MMS	***1 213***	***1 165***	**1 134**	**1 260**	**1 307**	**7,8%**
Total number of messages sent	***52 552***	***50 258***	**49 284**	**48 361**	**46 185**	**-12,1%**

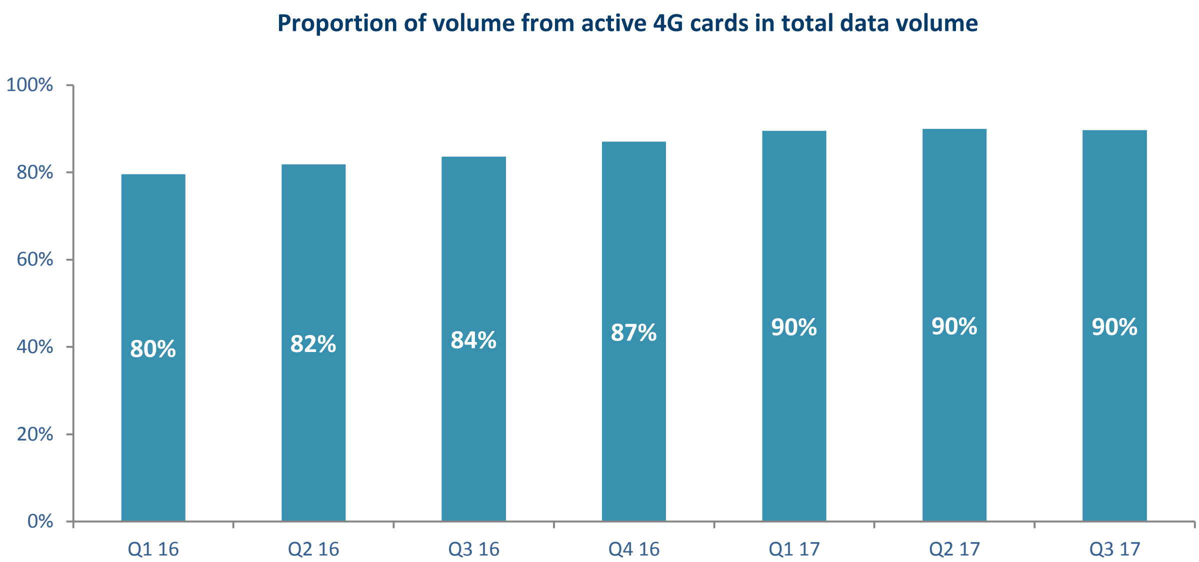
adjusted figures are in italics

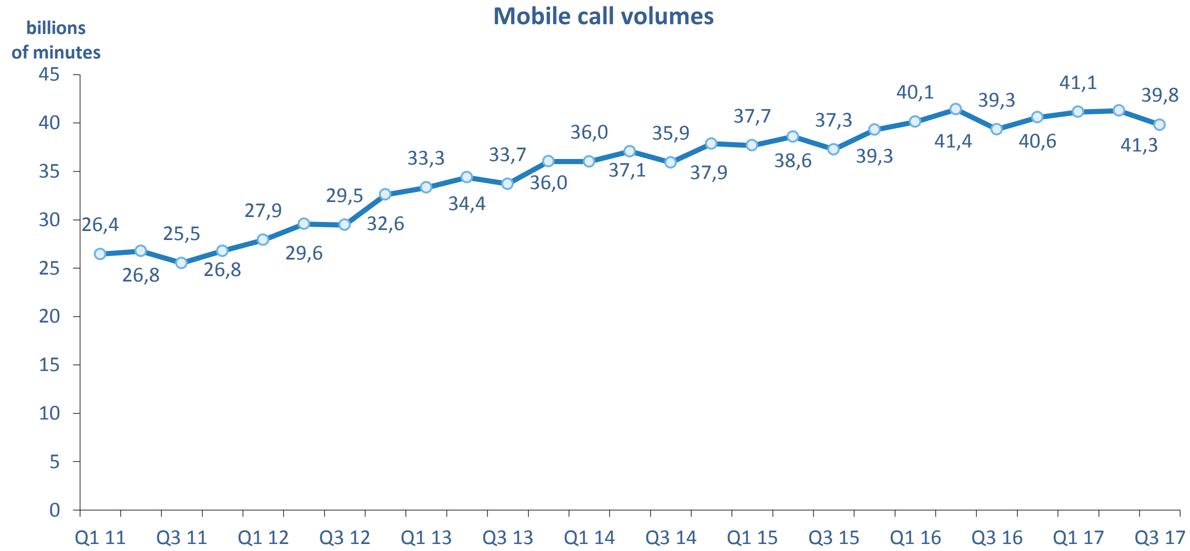
2.1.10 Roaming-out

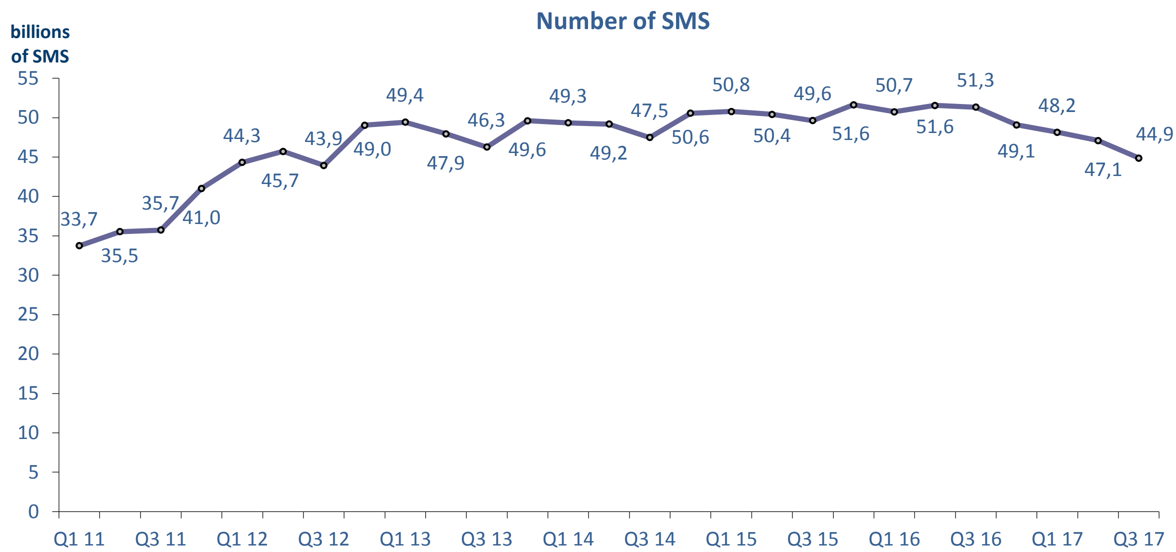
Roaming-out	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Revenue (calls, SMS, data) (millions of euros)	243	196	181	189	181	-25,5%
Call volumes (millions of minutes)	869	604	587	720	1 240	42,6%
SMS volumes (millions)	610	310	292	391	810	32,9%
Data volumes (terabytes)	5 087	3 001	3 267	5 923	19 888	291,0%

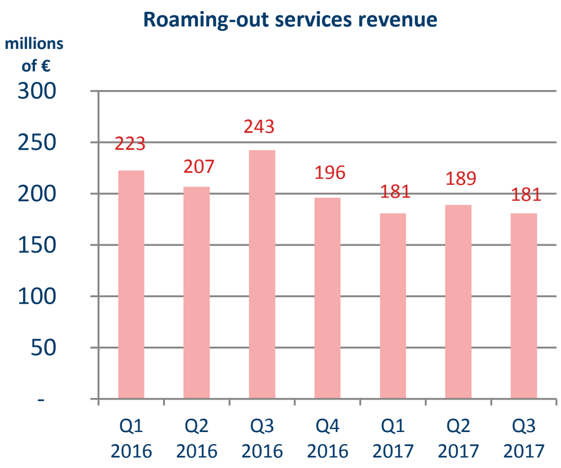
Note: roaming out corresponds to mobile services made abroad by customers of French mobile operators. For the revenue, only the services invoiced, specifically or above the fixed price, are counted to the operator's customers for the roaming services, whatever the service (incoming and outgoing voice 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).

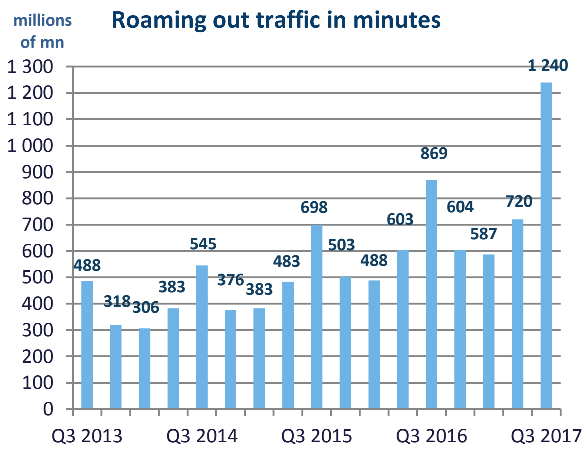

Data volume used by mobile customers
Exaoctets
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0,0
Data volume excluding 4G active cards
Data volume of 4G active cards
Total data volume
0,031
0,033
0,038
0,045
0,054
0,063
0,080
0,094
0,108
0,124
0,141
0,159
0,187
0,226
0,272
0,322
0,383
0,499
0,603
T1 2013
T2 2013
T3 2013
T4 2013
T1 2014
T2 2014
T3 2014
T4 2014
T1 2015
T2 2015
T3 2015
T4 2015
T1 2016
T2 2016
Q3 2016
Q4 2016
Q1 2017
Q2 2017
Q3 2017

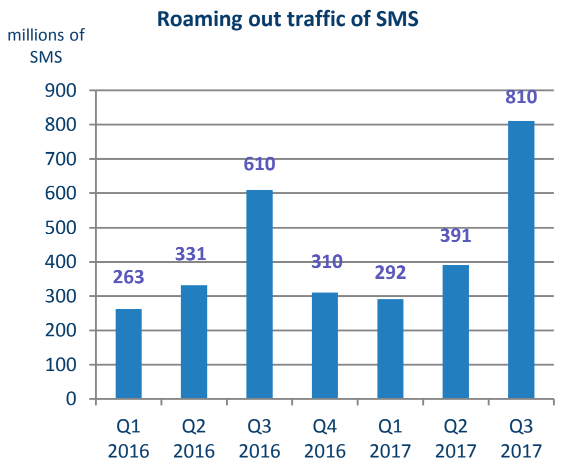

Proportion of volume from active 4G cards in total data volume
100%
80%
60%
40%
20%
0%
80%
82%
84%
87%
90%
90%
90%
Q1 16
Q2 16
Q3 16
Q4 16
Q1 17
Q2 17
Q3 17

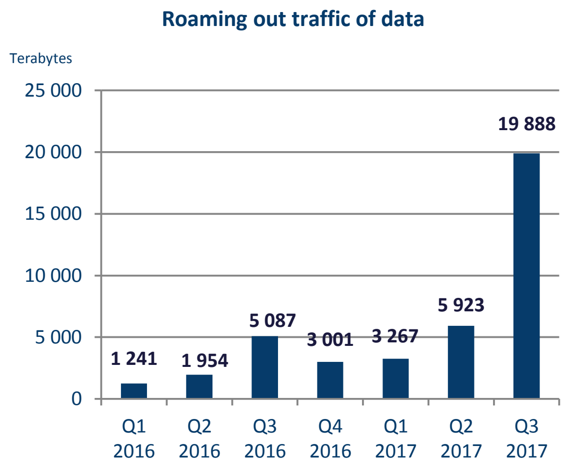

Mobile call volumes
billions
of minutes
45
40
35
30
25
20
15
10
5
0
26,4
26,8
25,5
26,8
27,9
29,6
29,5
32,6
33,3
34,4
33,7
36,0
36,0
37,1
35,9
37,9
37,7
38,6
37,3
39,3
40,1
41,4
39,3
40,6
41,1
41,3
39,8
Q1 11
Q3 11
Q1 12
Q3 12
Q1 13
Q3 13
Q1 14
Q3 14
Q1 15
Q3 15
Q1 16
Q3 16
Q1 17
Q3 17

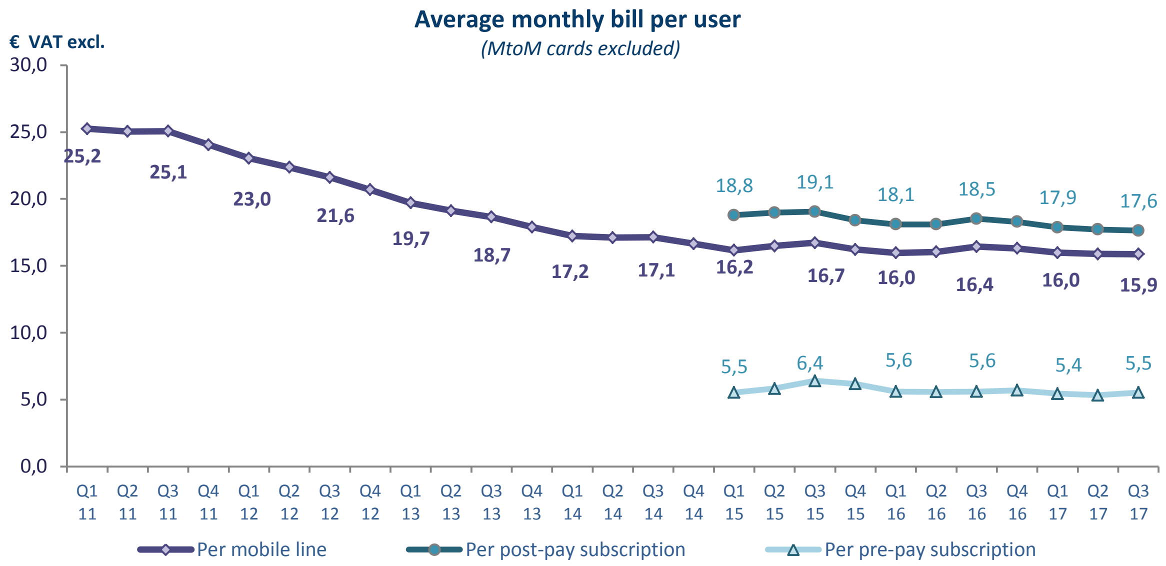

Number of SMS
billions
of SMS
55
50
45
40
35
30
25
20
15
10
5
0
33,7
35,5
35,7
41,0
44,3
45,7
43,9
49,0
49,4
47,9
46,3
49,6
49,3
49,2
47,5
50,6
50,8
50,4
49,6
51,6
50,7
51,6
51,3
49,1
48,2
47,1
44,9
Q1 11
Q3 11
Q1 12
Q3 12
Q1 13
Q3 13
Q1 14
Q3 14
Q1 15
Q3 15
Q1 16
Q3 16
Q1 17
Q3 17


Roaming-out services revenue
millions of €
300
250
200
150
100
50
-
223
207
243
196
181
189
181
Q1 2016
Q2 2016
Q3 2016
Q4 2016
Q1 2017
Q2 2017
Q3 2017


millions of mn
Roaming out traffic in minutes
1 300
1 200
1 100
1 000
900
800
700
600
500
400
300
200
100
0
488
318
306
383
545
376
383
483
698
503
488
603
869
604
587
720
1 240
Q3 2013
Q3 2014
Q3 2015
Q3 2016
Q3 2017


Roaming out traffic of SMS
millions of SMS
900
800
700
600
500
400
300
200
100
0
263
331
610
310
292
391
810
Q1 2016
Q2 2016
Q3 2016
Q4 2016
Q1 2017
Q2 2017
Q3 2017


Roaming out traffic of data
Terabytes
25 000
20 000
15 000
10 000
5 000
0
1 241
1 954
5 087
3 001
3 267
5 923
19 888
Q1 2016
Q2 2016
Q3 2016
Q4 2016
Q1 2017
Q2 2017
Q3 2017


Average monthly bill per user
(MtoM cards excluded)
€ VAT excl.
30,0
25,0
20,0
15,0
10,0
5,0
0,0
25,2
25,1
23,0
21,6
19,7
18,7
17,2
17,1
16,2
16,7
16,0
16,4
16,0
15,9
18,8
19,1
18,1
18,5
17,9
17,6
5,5
6,4
5,6
5,6
5,4
5,5
Q1 11
Q2 11
Q3 11
Q4 11
Q1 12
Q2 12
Q3 12
Q4 12
Q1 13
Q2 13
Q3 13
Q4 13
Q1 14
Q2 14
Q3 14
Q4 14
Q1 15
Q2 15
Q3 15
Q4 15
Q1 16
Q2 16
Q3 16
Q4 16
Q1 17
Q2 17
Q3 17
Per mobile line
Per post-pay subscription
Per pre-pay subscription

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

Average monthly bill (value added services excluded) *(in euros -VAT excluded)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Mobile telephony user	**16,4**	**16,3**	**16,0**	**15,9**	**15,9**	**-3,4%**
Post-pay subscriptions	18,5	18,3	17,9	17,7	17,6	-4,8%
Pre-pay subscriptions	5,6	5,7	5,4	5,3	5,5	-1,1%

- <u>The average monthly bill per mobile card</u> 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.

- <u>Average number of mobile cards</u> for quarter N: [(number of mobile cards (MtoM cards excluded) for quarter N) + (number of mobile cards for quarter N-1(MtoM cards excluded)] / 2.

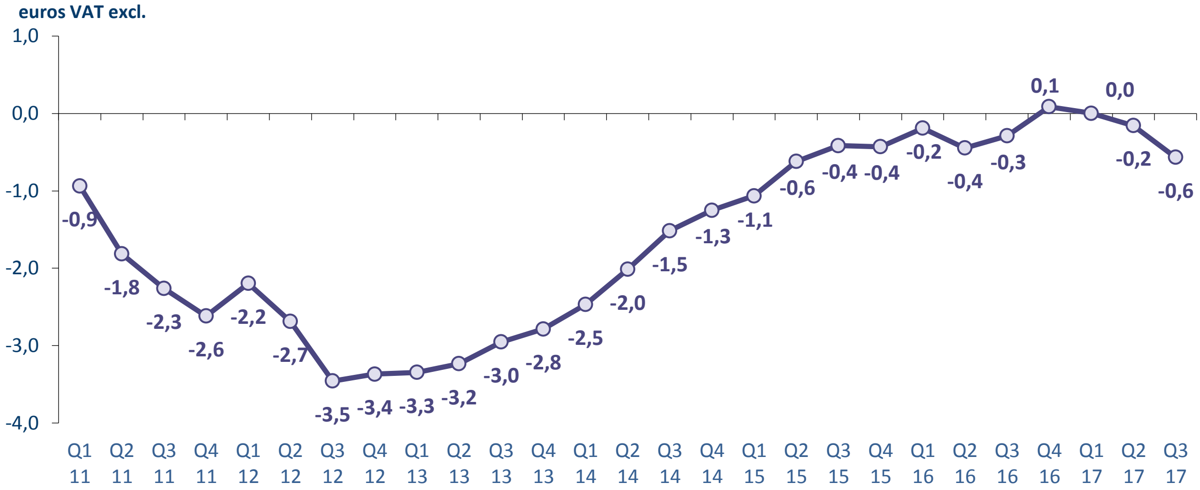
Average monthly traffics of data consumed on mobile networks *(in gigabytes)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
of which post-pay subscriptions	1,6	1,9	2,2	2,8	3,4	114,2%
of which pre-pay subscriptions	0,1	0,2	0,1	0,2	0,2	95,3%
per mobile operator customer	**1,3**	**1,6**	**1,9**	**2,4**	**2,9**	**116,8%**
Per active internet user	**2,1**	**2,4**	**2,8**	**3,6**	**4,2**	**101,0%**
Per 4G active user	**2,9**	**3,3**	**3,7**	**4,6**	**5,1**	**77,1%**

- <u>The average monthly data volume</u> 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.

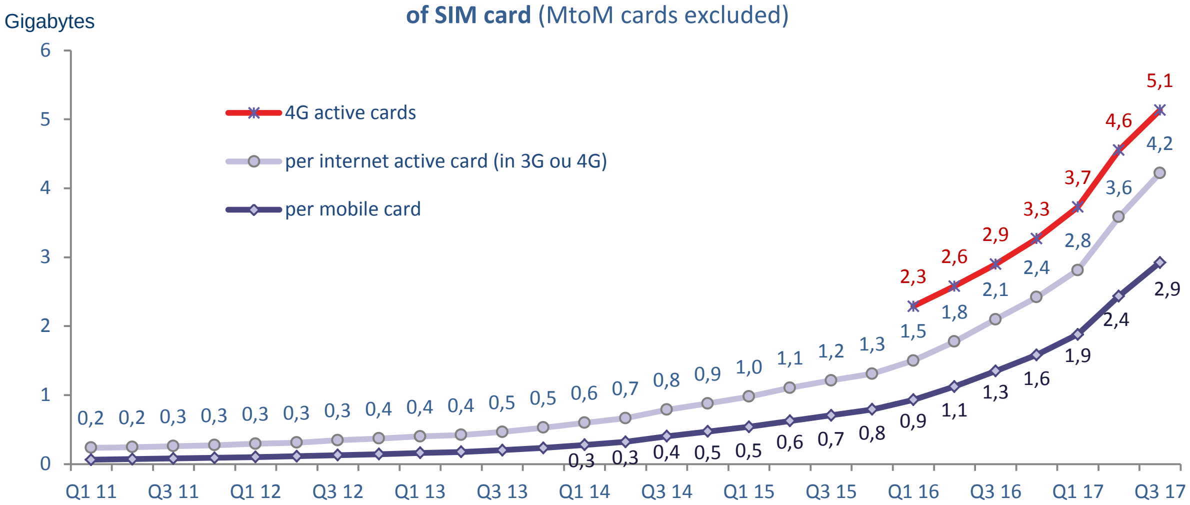
- <u>Average number of active internet cards</u> : Active internet cards that used a data service in the last three months via 3G or 4G networks.

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

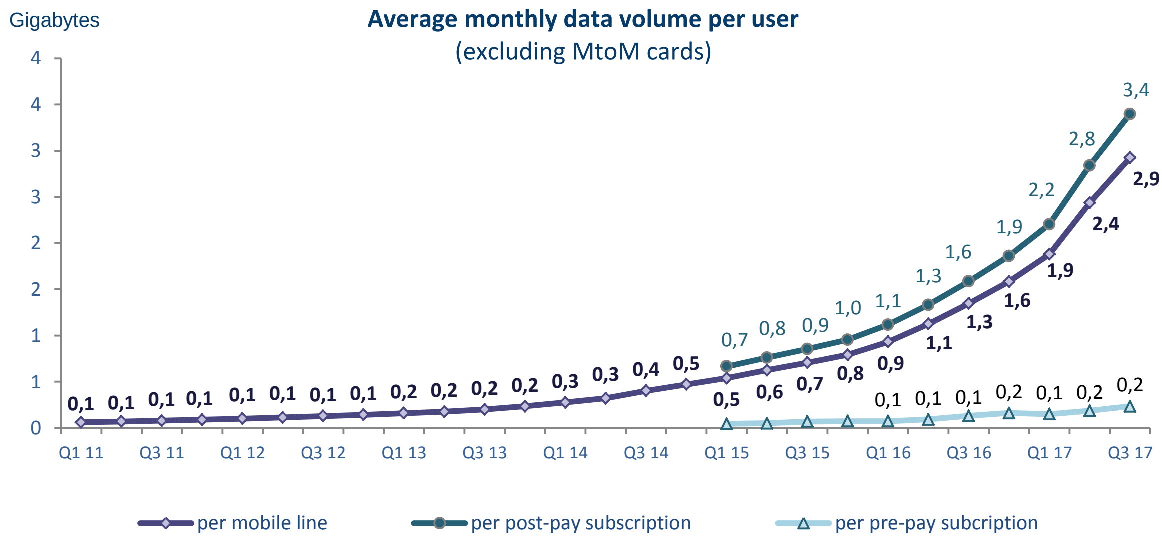
Average monthly mobile bill growth



Average monthly volume of data used by customers on mobile networks by category of SIM card (MtoM cards excluded)



Average monthly data volume per user
(excluding MtoM cards)

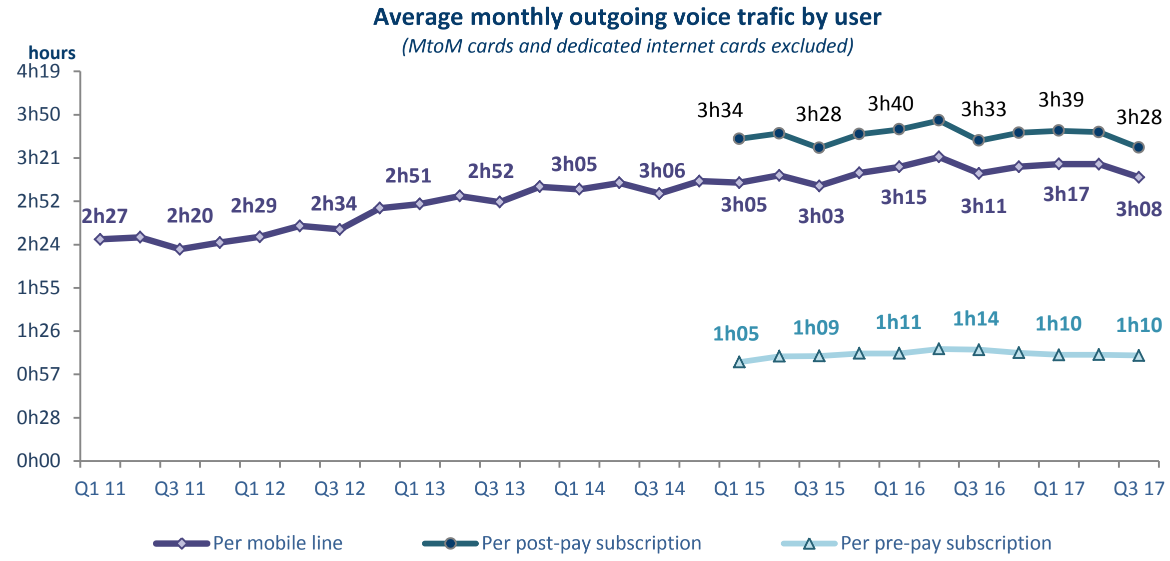


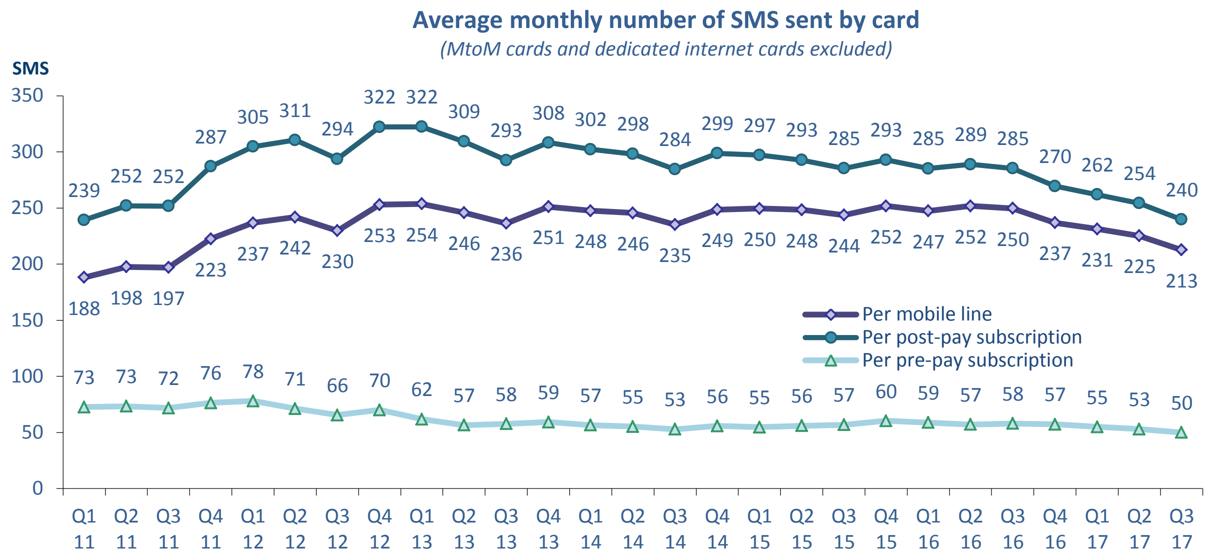
Average monthly outgoing volume *(in hours)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Mobile telephony user	**3h11**	**3h15**	**3h17**	**3h17**	**3h08**	**-1,3%**
Post-pay subscriptions	3h33	3h38	3h39	3h38	3h28	-2,2%
Pre-pay subscriptions	1h14	1h12	1h10	1h10	1h10	-5,2%

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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Number of SMS sent per user during the quarter	**250**	**237**	**231**	**225**	**213**	**-14,8%**
Post-pay subscriptions	285	270	262	254	240	-16,0%
Pre-pay subscriptions	58	57	55	53	50	-13,8%
Number of MMS sent per user during the quarter	**7**	**7**	**7**	**7**	**8**	**10,9%**
Number of messages sent per user during the quarter	**256**	**243**	**237**	**231**	**219**	**-14,3%**

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.

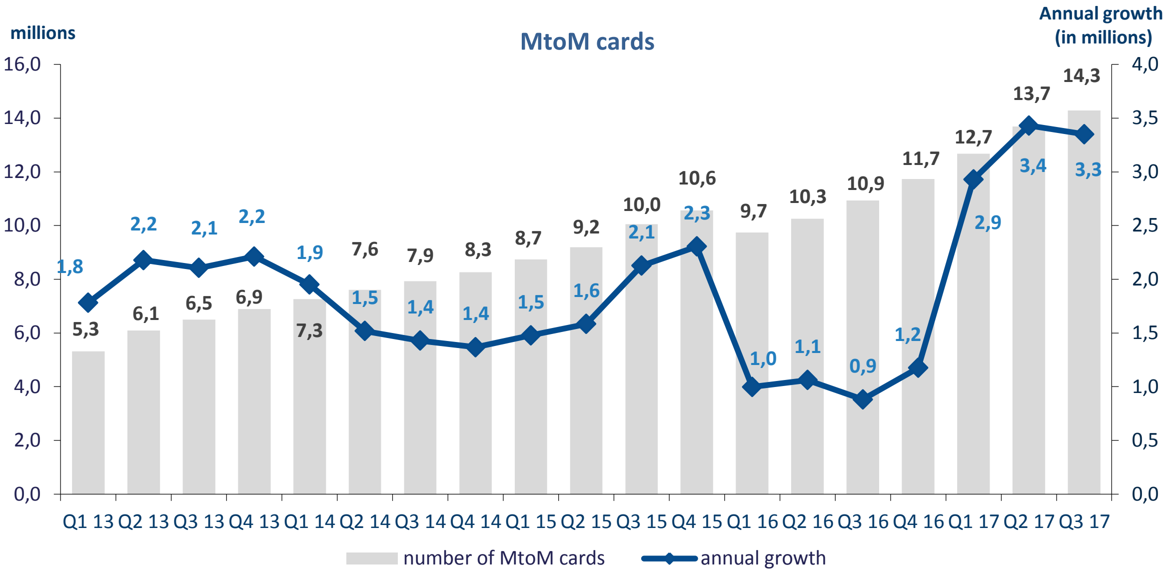

Average monthly outgoing voice trafic by user
(MtoM cards and dedicated internet cards excluded)
hours
4h19
3h50
3h21
2h52
2h24
1h55
1h26
0h57
0h28
0h00
2h27
2h20
2h29
2h34
2h51
2h52
3h05
3h06
3h05
3h03
3h15
3h11
3h17
3h08
3h34
3h28
3h40
3h33
3h39
3h28
1h05
1h09
1h11
1h14
1h10
1h10
Q1 11
Q3 11
Q1 12
Q3 12
Q1 13
Q3 13
Q1 14
Q3 14
Q1 15
Q3 15
Q1 16
Q3 16
Q1 17
Q3 17
Per mobile line
Per post-pay subscription
Per pre-pay subscription

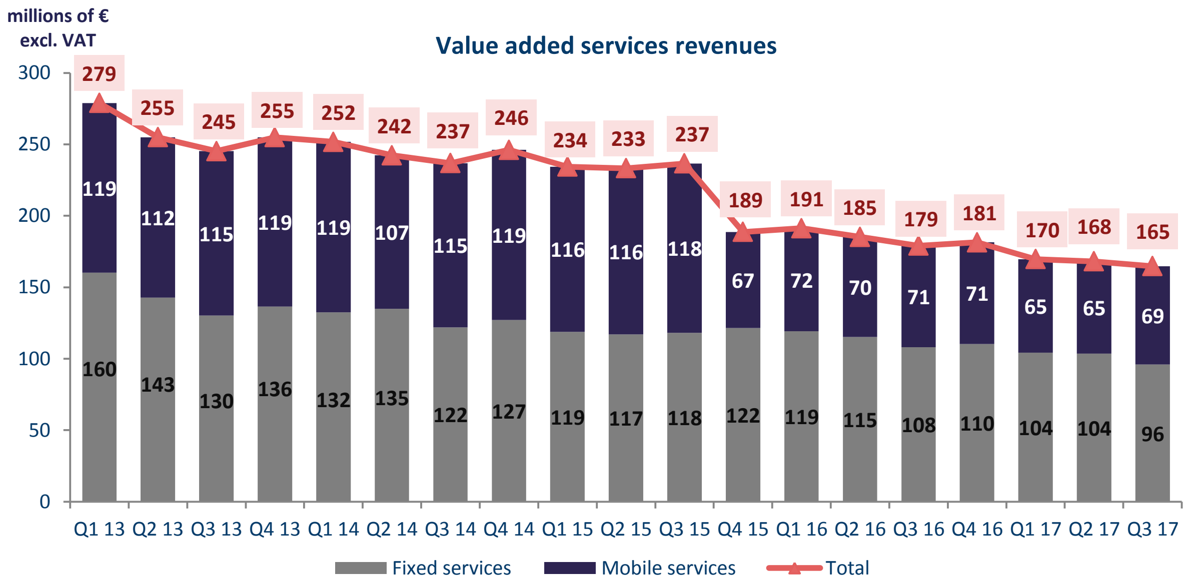

Average monthly number of SMS sent by card
(MtoM cards and dedicated internet cards excluded)
SMS
350
300
250
200
150
100
50
0
239 252 252 287 305 311 294 322 322 309 293 308 302 298 284 299 297 293 285 293 285 289 285 270 262 254 240
188 198 197 223 237 242 230 253 254 246 236 251 248 246 235 249 250 248 244 252 247 252 250 237 231 225 213
73 73 72 76 78 71 66 70 62 57 58 59 57 55 53 56 55 56 57 60 59 57 58 57 55 53 50
Per mobile line
Per post-pay subscription
Per pre-pay subscription
Q1 11
Q2 11
Q3 11
Q4 11
Q1 12
Q2 12
Q3 12
Q4 12
Q1 13
Q2 13
Q3 13
Q4 13
Q1 14
Q2 14
Q3 14
Q4 14
Q1 15
Q2 15
Q3 15
Q4 15
Q1 16
Q2 16
Q3 16
Q4 16
Q1 17
Q2 17
Q3 17

2.2 Internet of things: MtoM cards

MtoM cards	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Revenue of MtoM SIM cards *(millions of € VAT excl.)*	25	27	28	27	31	23,5%
Number of MtoM SIM cards *(units)*	10,929	11,737	12,669	13,684	14,278	30,6%

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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Value-added voice services	**179**	**181**	**170**	**168**	**165**	**-8,0%**
From fixed networks	108	110	104	104	96	-11,2%
From mobile networks	71	71	65	*65*	69	-3,2%
Value-added data services	**80**	**73**	**80**	**76**	**77**	**-3,0%**
Directory services	**29**	**30**	**28**	**25**	**29**	**-0,4%**
Value-added services	**288**	**285**	**277**	***270***	**271**	**-5,9%**

adjusted figures are in italics

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 (approximatively -40% in annual evolution between the fourth quarter of 2015 and the third quarter of 2016).

Value-added voice services volumes *(millions of minutes)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Calls from fixed network	*934*	*920*	*929*	*850*	840	-10,1%
Calls from mobile network	443	463	417	411	445	0,6%
Total call volumes	***1 377***	***1 384***	***1 346***	***1 260***	**1 285**	**-6,7%**

adjusted figures are in italics

Number of calls from directory services *(millions)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Number of calls (millions of units)	5	5	5	4	5	**2,0%**

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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Hosting and call center management	**83**	**89**	**87**	**88**	**85**	**2,6%**

4.2 Terminals and equipments

Revenue from terminals and equipment *(millions of euros excl.VAT)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
linked to fixed telephony & Internet services	*213*	*233*	*235*	*235*	240	12,4%
linked to mobile services	555	709	486	489	567	2,1%
Terminals and equipment	**769**	**942**	**720**	**724**	**807**	**4,9%**

adjusted figures are in italics

Notes:
Income related to fixed telephony and internet activities has been revised upward on several quarters as a result of a better accounting of this income by an operator.
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)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Fixed operators	***1 348***	***1 354***	***1 309***	***1 317***	**1 279**	**-5,2%**
of which telephony services (incl VGA) *	*565*	*551*	*500*	*501*	486	-14,0%
of which broadband services	*650*	*669*	*671*	*684*	658	1,2%
of which wholesale leased lines products	133	134	139	133	136	1,7%
Mobile operators	**675**	**648**	**637**	***657***	**708**	**4,8%**
of which voice termination (national and international)	179	189	189	*187*	183	2,2%
of which SMS/MMS termination	381	381	372	378	369	-3,1%
Roaming in	115	78	75	92	156	35,0%
Revenue (millions of euros)	***2 024***	***2 002***	***1 946***	***1 975***	**1 987**	**-1,8%**

adjusted figures are in italics

Interconnection services volumes *(millions of minutes)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Fixed operators	*23 327*	*24 371*	*24 088*	*23 266*	21 325	-8,6%
Mobile operators	23 613	24 711	25 093	25 432	25 095	6,3%
Traffic	***46 940***	***49 082***	***49 181***	***48 698***	**46 419**	**-1,1%**
Incoming SMS (in millions)	***30 684***	***31 486***	***30 659***	***30 491***	**33 686**	**9,8%**

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 1st 2016 (and 9.05€ in 2015, €9.02 in 2014). The tariff for partial unbundling is set to €1.77.

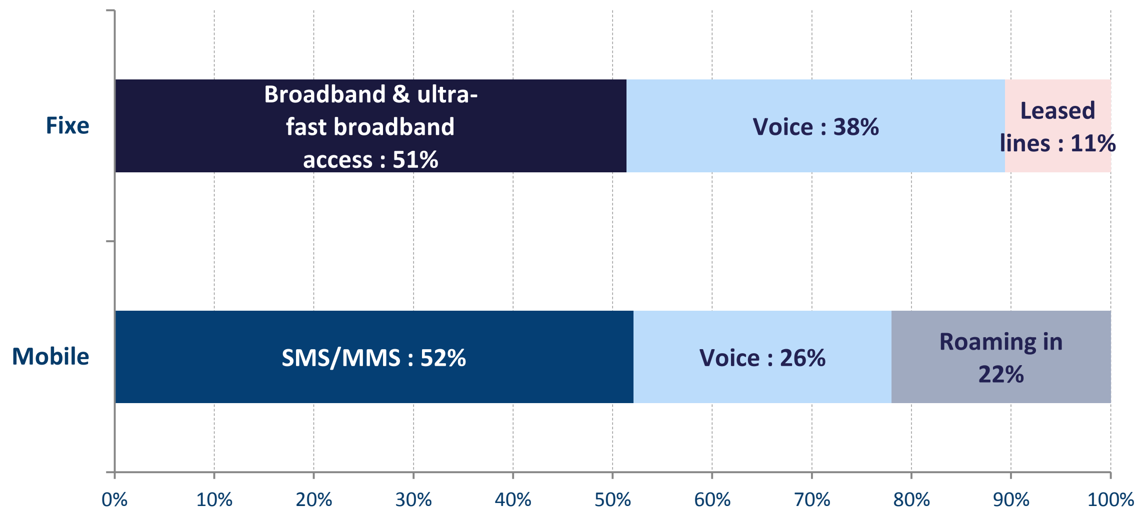
- Mobile operator's interconnection services include income from call termination (voice and SMS) and the roaming in. Are not included revenue from services to MVNO/full MVNO or operators in national roaming (about 1.1billion of euros for the overall of year 2016).

- 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 - *Third quarter 2017*



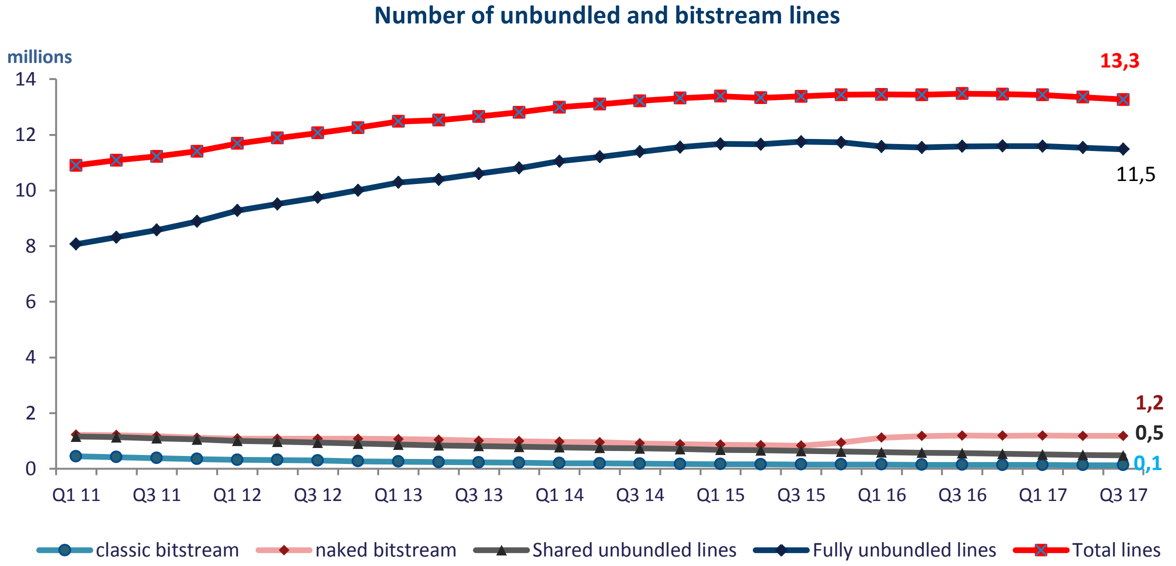
Unbundling *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Shared unbundled lines	0,561	0,540	0,517	0,499	0,480	-14,4%
Fully unbundled lines	11,583	11,594	11,588	11,536	11,481	-0,9%
Total number of unbundled lines	**12,144**	**12,134**	**12,105**	**12,036**	**11,961**	**-1,5%**

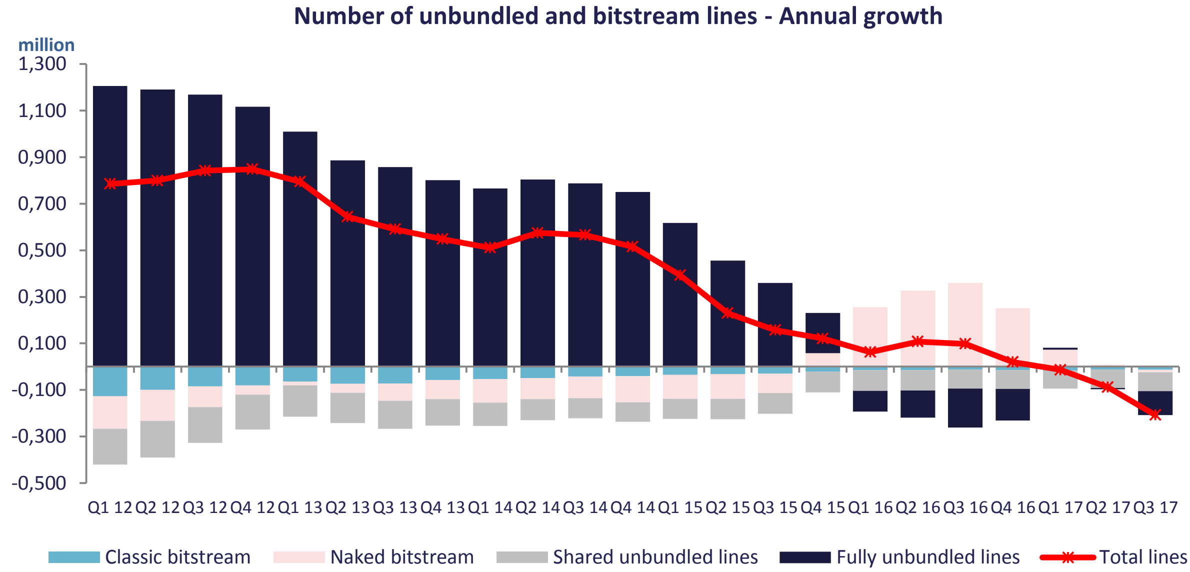
Bitstream lines (DSLE excluded) *(millions of units)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Naked bistream	1,190	1,189	1,194	1,182	1,179	-1,0%
Classic bitstream	0,142	0,137	0,135	0,133	0,129	-9,2%
Total number of bitstream lines	**1,332**	**1,326**	**1,329**	**1,315**	**1,307**	**-1,8%**

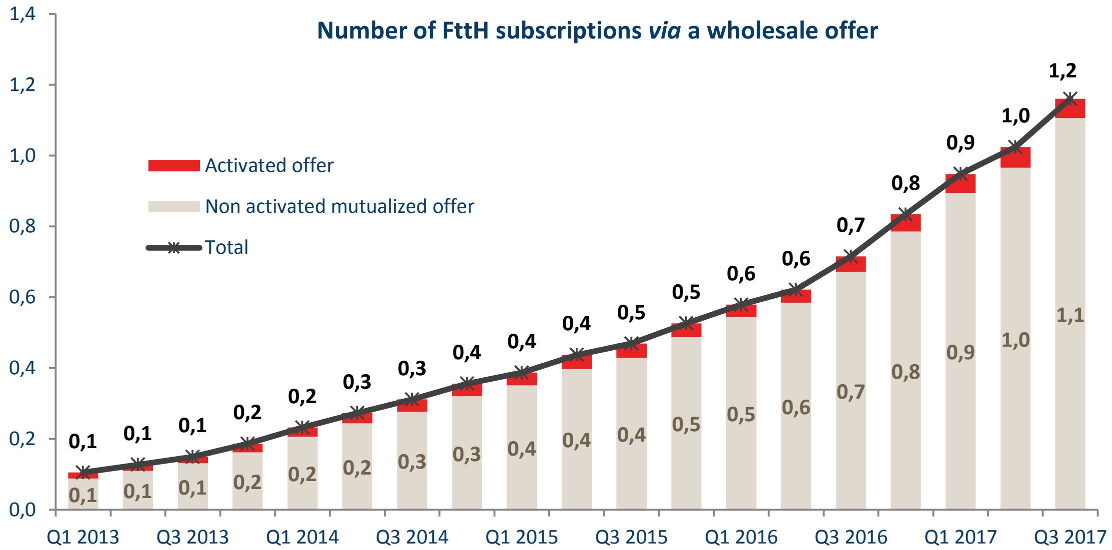
Note: Bitstream is a wholesale solution marketed by the incumbent carrier that allows alternative operators to provide broadband access services to their customers who are located in areas where unbundling is not available, by connecting to one of the incumbent carrier's regional or national connection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

Number of FttH subscriptions *via* a wholesale offer *(in millions)*	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Subscriptions via a passive sharing offer	0,672	0,785	0,894	0,966	1,106	64,6%
Subscriptions via an active wholesale access product	0,043	0,049	0,054	0,058	0,054	25,6%
Total number of subscriptions via a wholesale offer	**0,715**	**0,834**	**0,948**	**1,024**	**1,160**	**62,2%**

For more information see: https://www.arcep.fr/index.php?id=13785


Number of unbundled and bitstream lines
millions
14
12
10
8
6
4
2
0
13,3
11,5
1,2
0,5
0,1
Q1 11
Q3 11
Q1 12
Q3 12
Q1 13
Q3 13
Q1 14
Q3 14
Q1 15
Q3 15
Q1 16
Q3 16
Q1 17
Q3 17
classic bitstream
naked bitstream
Shared unbundled lines
Fully unbundled lines
Total lines


Number of unbundled and bitstream lines - Annual growth
million
1,300
1,100
0,900
0,700
0,500
0,300
0,100
-0,100
-0,300
-0,500
Q1 12 Q2 12 Q3 12 Q4 12 Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17
Classic bitstream
Naked bitstream
Shared unbundled lines
Fully unbundled lines
Total lines


Number of FttH subscriptions *via* a wholesale offer
1,4
1,2
1,0
0,8
0,6
0,4
0,2
0,0
Activated offer
Non activated mutualized offer
Total
0,1 0,1 0,1 0,2 0,2 0,3 0,3 0,4 0,4 0,4 0,5 0,5 0,6 0,6 0,7 0,8 0,9 1,0 1,2
0,1 0,1 0,1 0,2 0,2 0,2 0,3 0,3 0,4 0,4 0,4 0,5 0,5 0,6 0,7 0,8 0,9 1,0 1,1
Q1 2013
Q3 2013
Q1 2014
Q3 2014
Q1 2015
Q3 2015
Q1 2016
Q3 2016
Q1 2017
Q3 2017

5.2 Mobile operators « Roaming-in »

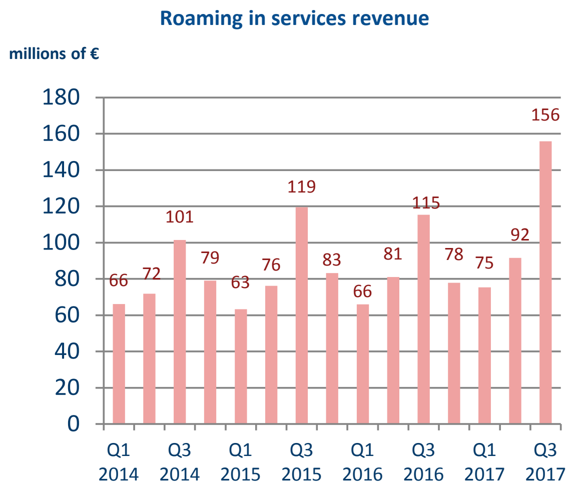
Roaming in	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	change Q317/Q316
Call volumes (millions of minutes)	1 039	813	851	1 039	1 509	45,3%
SMS volumes (millions)	317	161	169	207	392	23,5%
Data volumes (terabytes)	3 715	2 252	2 874	*5 159*	13 719	269,3%

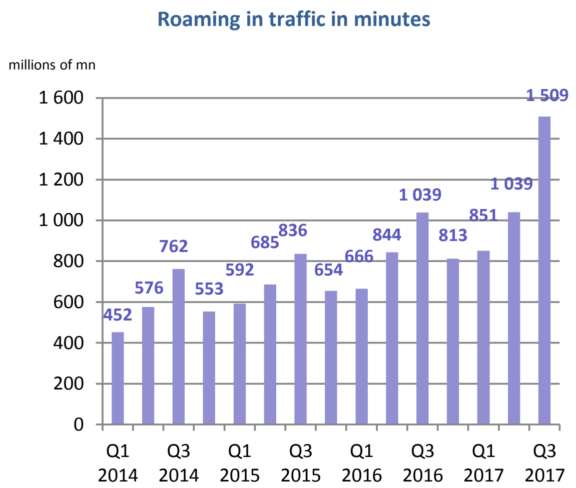
*Notes: this market segment is part of the overall market (cf. section **5.1**).*

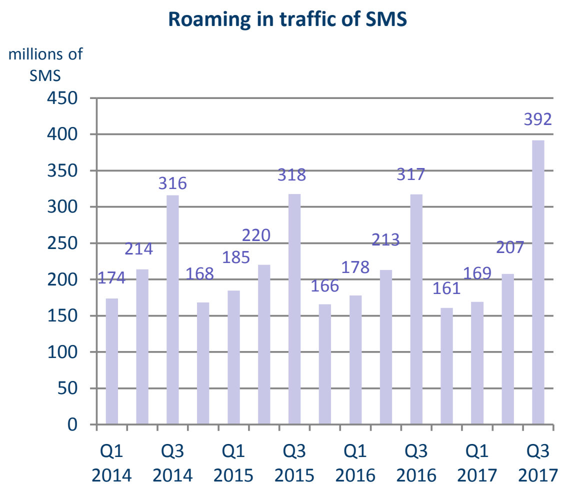
- *Roaming-in refers to French mobile operators' handling of the incoming and outgoing calls made in France by customers of a foreign mobile operator. The revenue corresponds to the remuneration between the two operators. The relationship between call revenue/volume does not correspond to any set price, 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 30th 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.*

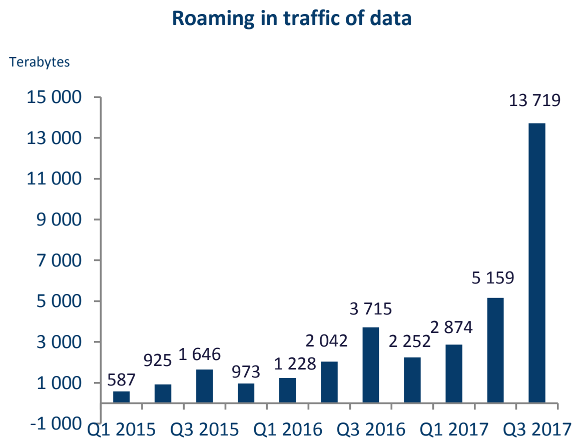
(hors TVA)	Au 1er juillet 2014 (eurotarifs)	Au 30 avril 2016 (montant maximal des frais supplémentaires)	Au 15 juin 2017
Appels passés (min)	19 c€	Tarif national (+5c€)	Tarif national (pas de frais supplémentaires pour l'itinérance), dans la limite d'un usage raisonnable
Appels reçus (min)	5 c€	Tarif national (+1,14c€)	
Messages envoyés (SMS)	6 c€	Tarif national (+2c€)	
Internet (Mo)	20 c€	Tarif national (+5c€)	

- *On the wholesale market the tariffs have been set since 15 July 2017 to 1ct€ per message for SMS (against 2ct€ per message for the period from 1st July 2014 to 14 June 2017) ; to 3,2c€ per minute for voice calls (against 5ct€ per minute for the period from 1st 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 1st July 2014 to 14 June 2017).*
- More information at http://www.arcep.fr/index.php?id=8710.


Roaming in services revenue
millions of €
180
160
140
120
100
80
60
40
20
0
66
72
101
79
63
76
119
83
66
81
115
78
75
92
156
Q1 2014
Q3 2014
Q1 2015
Q3 2015
Q1 2016
Q3 2016
Q1 2017
Q3 2017


Roaming in traffic in minutes
millions of mn
1 600
1 400
1 200
1 000
800
600
400
200
0
452
576
762
553
592
685
836
654
666
844
1 039
813
851
1 039
1 509
Q1 2014
Q3 2014
Q1 2015
Q3 2015
Q1 2016
Q3 2016
Q1 2017
Q3 2017


Roaming in traffic of SMS
millions of SMS
450
400
350
300
250
200
150
100
50
0
174
214
316
168
185
220
318
166
178
213
317
161
169
207
392
Q1 2014
Q3 2014
Q1 2015
Q3 2015
Q1 2016
Q3 2016
Q1 2017
Q3 2017


Roaming in traffic of data
Terabytes
15 000
13 000
11 000
9 000
7 000
5 000
3 000
1 000
-1 000
587
925
1 646
973
1 228
2 042
3 715
2 252
2 874
5 159
13 719
Q1 2015
Q3 2015
Q1 2016
Q3 2016
Q1 2017
Q3 2017