arcep autorité de régulation des communications électroniques et des postes

RÉPUBLIQUE FRANCAISE

ELECTRONIC COMMUNICATIONS SERVICES IN FRANCE

4TH QUARTER 2016

ELECTRONIC COMMUNICATIONS MARKET OBSERVATORY

30 MARCH 2017

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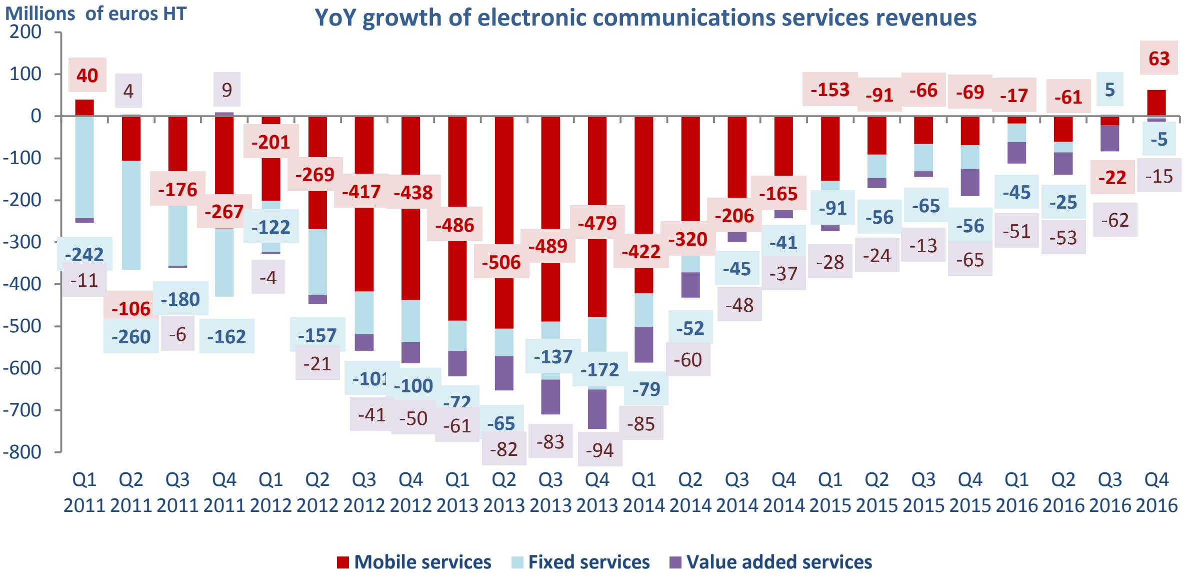
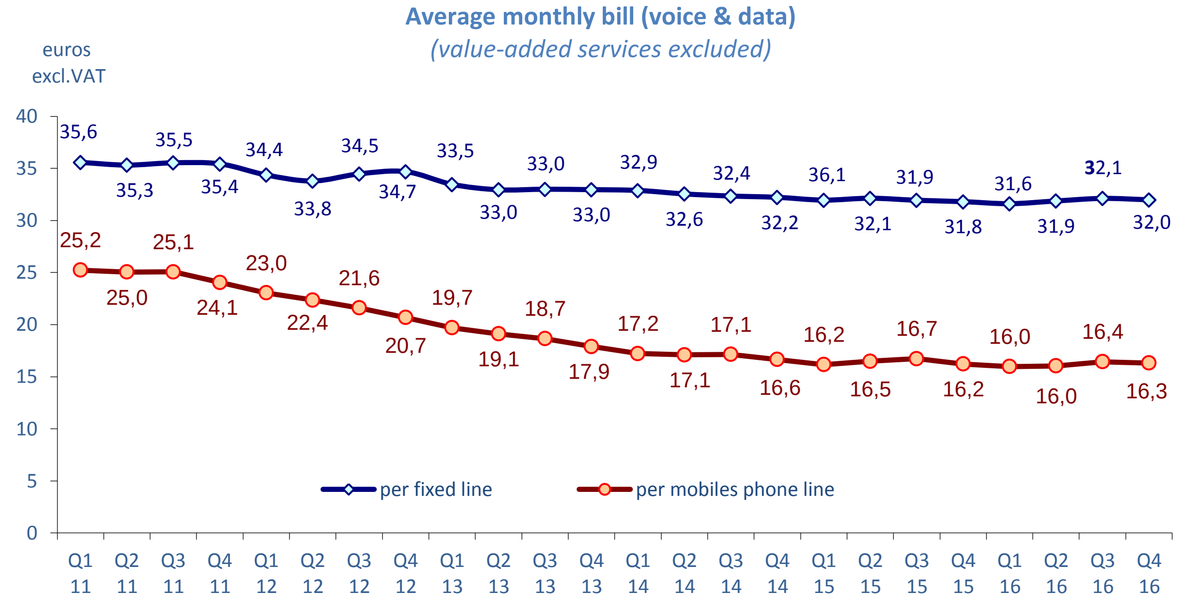
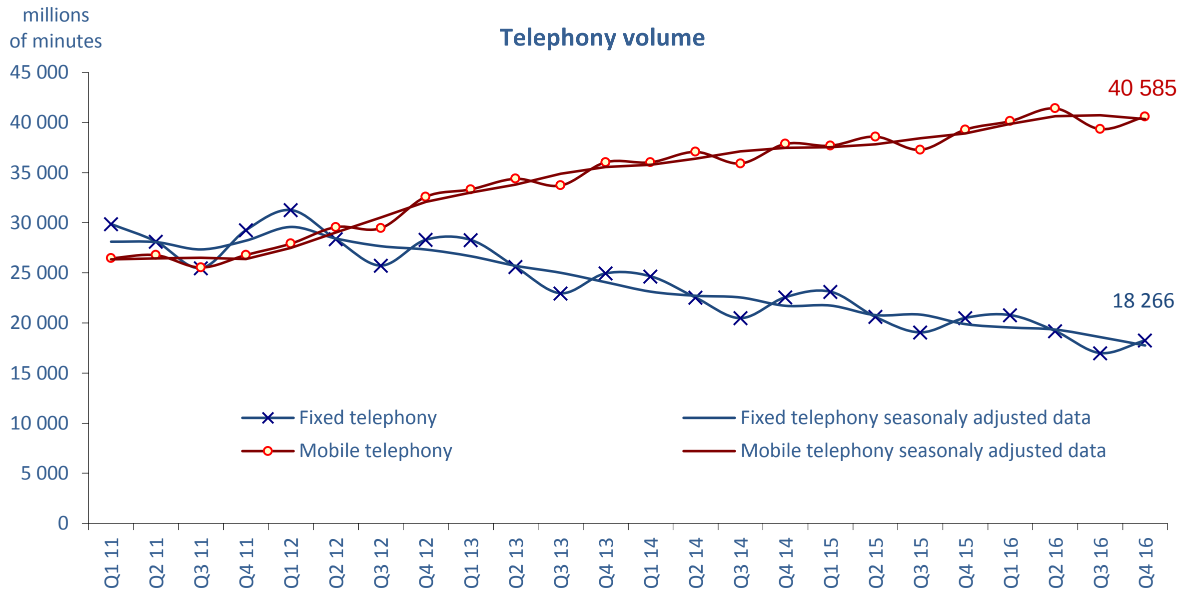
Synthesis

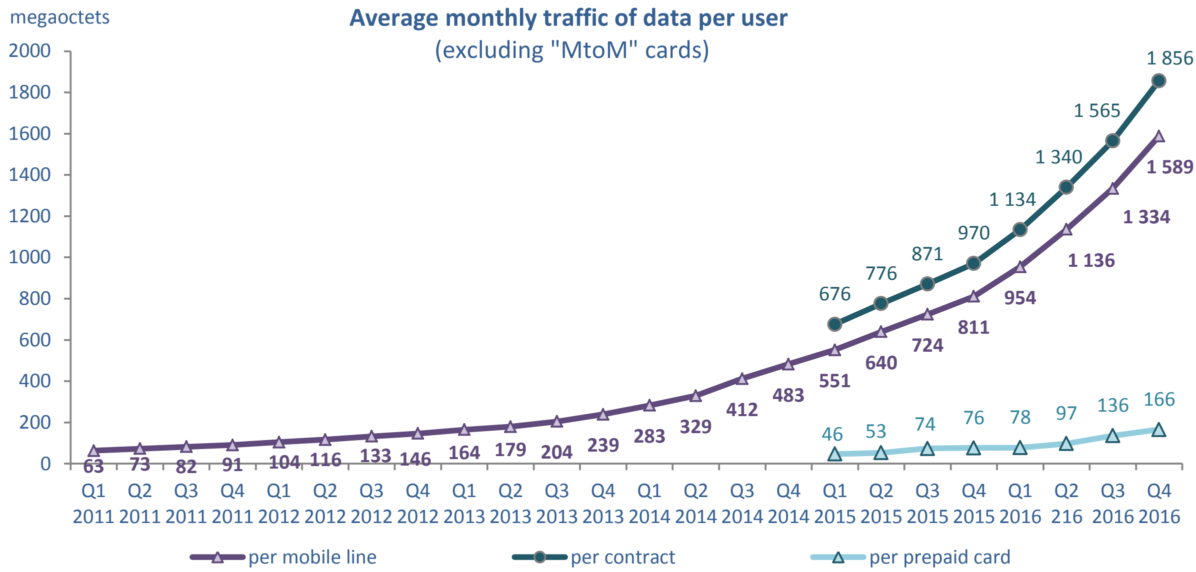
Revenue on the retail market (millions of euros excl.VAT)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Fixed services (including leased lines and networking)	4 252	4 206	4 231	4 238	4 247	-0,1%
Mobile services (MtoM included)	3 525	3 474	3 486	3 585	3 588	1,8%
Advanced services and directory services	303	304	291	285	288	-5,0%
Electronic communications services	**8 080**	**7 984**	**8 009**	**8 108**	**8 122**	**0,5%**
Others revenues	1 023	789	787	839	1 026	0,4%
Overall market	**9 102**	**8 774**	**8 796**	**8 948**	**9 149**	**0,5%**

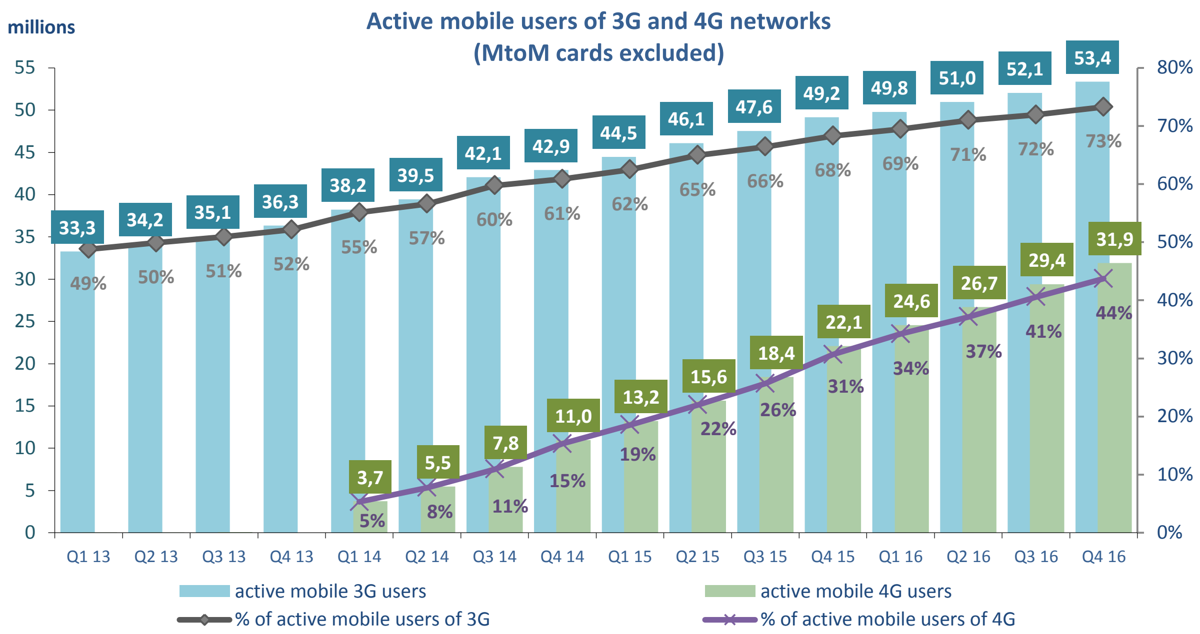
Note: "Others revenues" are not, strictly speaking, part of the market of electronic communications services. The contribution reported by the operators gives only a partial view of these market segments. This topic covers the income related to the sale and rental of terminals and equipment (fixed, mobile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



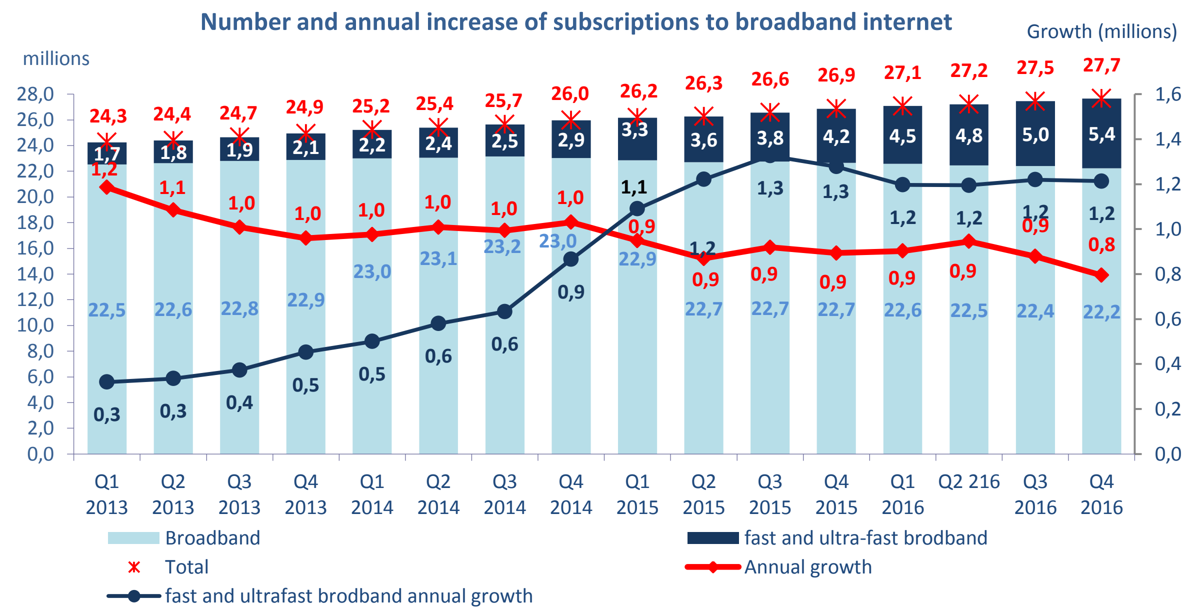



millions of minutes
Telephony volume
40 585
18 266
Fixed telephony
Mobile telephony
Fixed telephony seasonaly adjusted data
Mobile telephony seasonaly adjusted data
Q1 11 Q2 11 Q3 11 Q4 11 Q1 12 Q2 12 Q3 12 Q4 12 Q1 13 Q2 13 Q3 13 Q4 13 Q1 14 Q2 14 Q3 14 Q4 14 Q1 15 Q2 15 Q3 15 Q4 15 Q1 16 Q2 16 Q3 16 Q4 16


megaoctets
Average monthly traffic of data per user
(excluding "MtoM" cards)
1 856
1 565
1 340
1 134
970
871
776
676
1 589
1 334
1 136
954
811
724
640
551
483
412
329
283
239
204
179
164
146
133
116
104
91
82
73
63
166
136
97
78
76
74
53
46
per mobile line
per contract
per prepaid card



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



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

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1 Fixed networks services – retail services

1.1 Internet access and telephony services

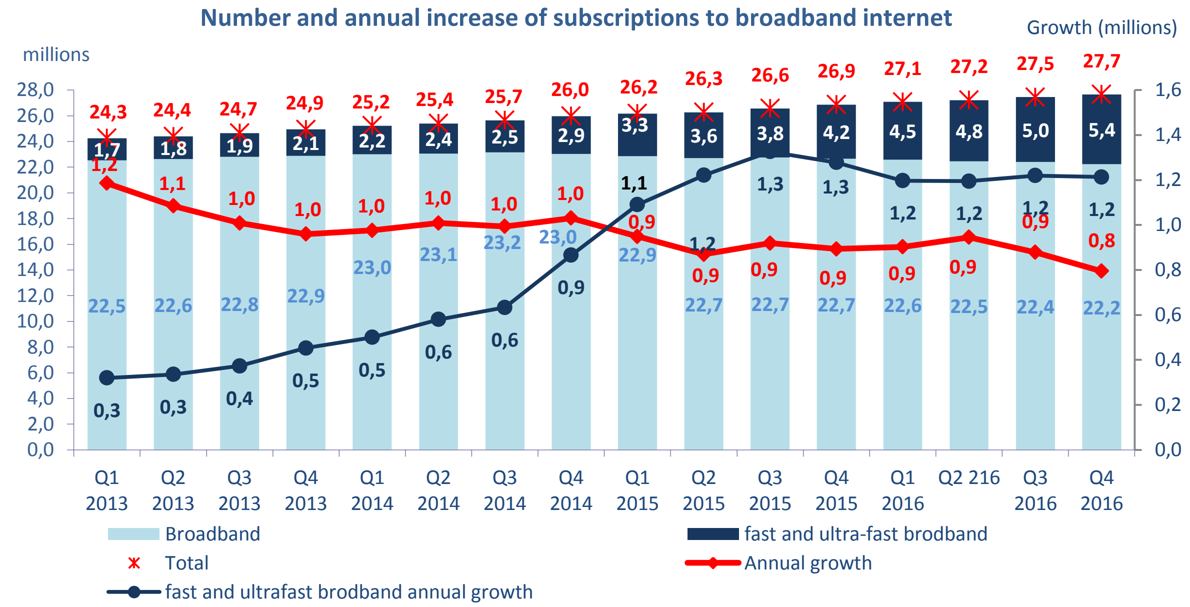
1.1.1 Internet access (broadband and ultra-fast broadband)

Broadband internet subscriptions (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Broadband	**22,657**	**22,574**	**22,451**	**22,409**	**22,238**	**-1,8%**
of which xDSL	22,146	22,064	21,940	21,891	21,705	-2,0%
of which other broadband access	0,510	0,510	0,510	0,518	0,533	4,4%
Fast and ultra-fast broadband	**4,211**	**4,506**	**4,772**	**5,044**	**5,427**	**28,9%**
of which with a speed equal or greater than 100 Mbit/s	**2,630**	**2,764**	**2,962**	**3,167**	**3,429**	**30,4%**
of which fiber to the home and fiber to the office	1,443	1,603	1,764	1,927	2,184	51,4%
of which fiber with coaxial cable termination	1,187	1,161	1,198	1,240	1,245	4,8%
of which with a speed between 30 & 100 Mbit/s (VDSL2 and coaxial cable)	**1,582**	**1,742**	**1,810**	**1,877**	**1,998**	**26,3%**
Broadband internet subscriptions	**26,868**	**27,080**	**27,223**	**27,453**	**27,664**	**3,0%**

Notes:

- *Broadband and ultra-fast broadband: are counted as very high-speed subscriptions access to the internet with a speed greater than or equal to 30 Mbit/s. These categories include subscriptions on fiber to the home or to the office networks (FttH, FttO), on "hybrid fiber coaxial cable" networks (HFC), on optical fiber with coaxial cable termination networks (FttLA), and VDSL2 subscriptions with a flow-rate 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 dedicated only to fixed internet use are also counted within the very high-speed access These cards are used to power routers for the business market or for the general public (4G box) and cannot be used in situation of mobility.*
- *There can be a delay between the delivery of an offer in 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.*

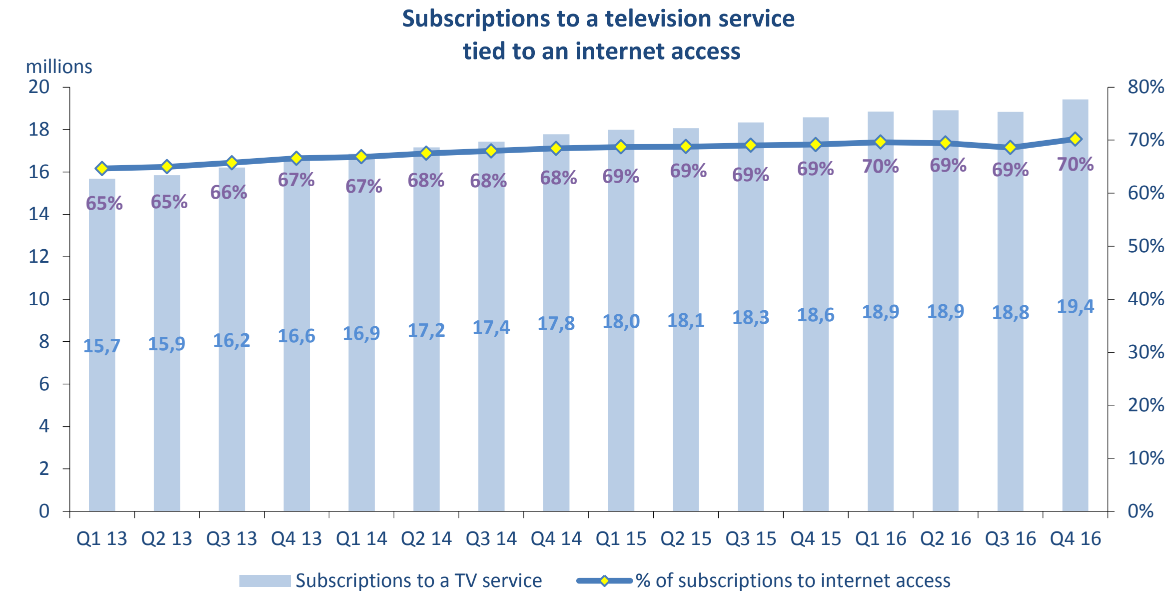
Overseas broadband internet subscriptions (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Total number of subcriptions	607	612	618	624	628	3,5%



1.1.2 TV subscription tied to internet access

TV subscriptions tied to internet access (millions)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
TV subscriptions tied to internet access	18,579	18,854	18,902	18,832	19,415	4,5%
of which subscriptions to TV on DSL	13,803	13,907	13,983	14,069	14,242	3,2%
% of subscriptions to television services	69,2%	69,6%	69,4%	68,6%	70,2%	+1 pt

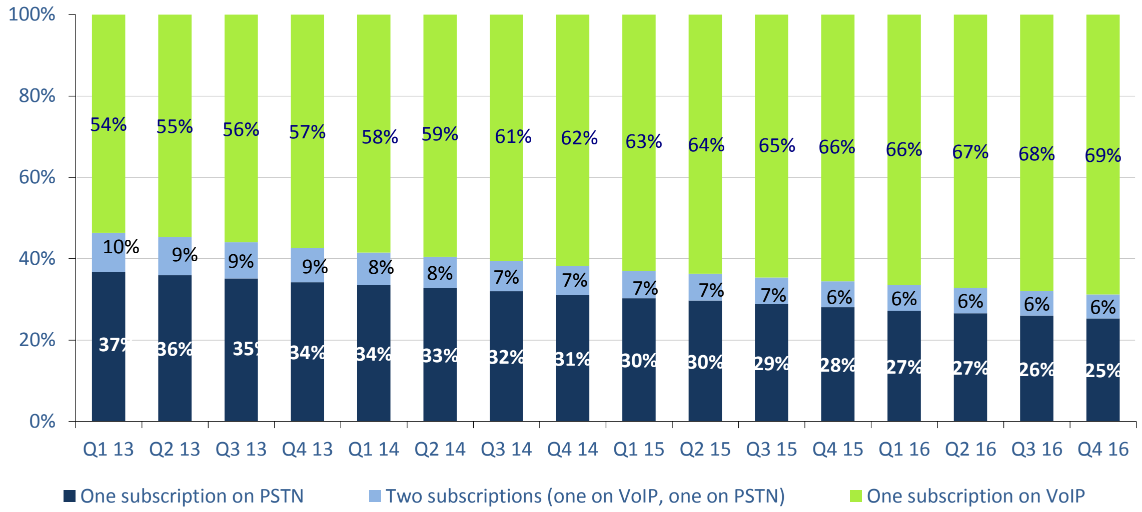
Note : are taken into account the subscriptions that has been subscribed separately or as part of a bundled offer that includes access to one or several other services aside from TV (Internet, telephony).



1.1.3 Number of fixed lines

Number of fixed lines (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Number of fixed lines	36,838	36,778	36,713	36,761	36,846	0,0%

Breakdown of fixed lines by subscriptions to telephony services



1.1.4 Portability of fixed phone numbers

Portability (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Number of fixed phone numbers ported during the quarter	573	633	602	632	731	27,6%

1.1.5 Number of subscriptions to a telephone service

Number of subscriptions to telephone service (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Subscription on narrowband access	12,678	12,336	12,067	11,791	11,491	-9,4%
Access resales	1,580	1,555	1,550	1,523	1,499	-5,1%
Subscription on broadband access	26,494	26,760	26,962	27,200	27,515	3,9%
DSL lines witch are not tied to a narrowband subscription	20,790	20,885	20,875	21,041	21,129	1,6%
Number of subscriptions to telephone service	**39,172**	**39,096**	**39,029**	**38,991**	**39,006**	**-0,4%**

Note: a subscription to telephone service in VoIP on xDSL without narrowband subscriptions 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".

Carrier selection (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Number of indirect connections	*0,750*	0,733	0,703	0,679	0,649	-13,5%

adjusted figures are in italics

Note: the call-by-call selection base includes only active subscriptions; the pre-selection base includes only subscriptions that are in service, minus cancellations. The call-by-call and pre-selection customer bases do not include wholesale line rental (VGAST) subscriptions.

1.1.6 Revenue and traffic of subscriptions and calls (dial-up internet, public payphones and calling cards excluded)

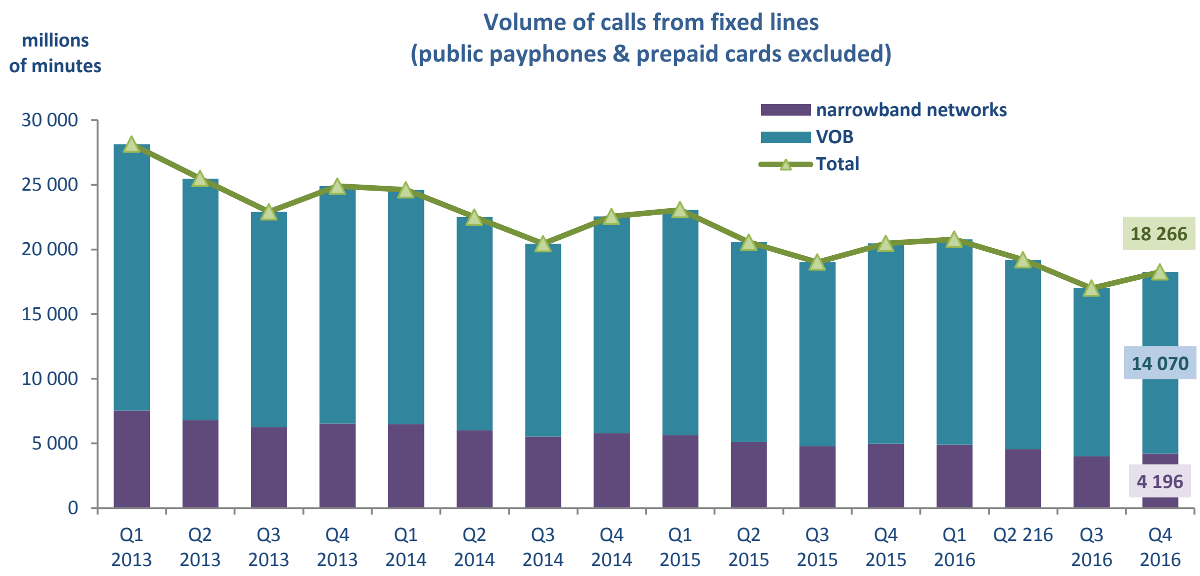
Narrowband access revenue (millions of euros excl. VAT)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Access fees, subscriptions and additional services	671	650	634	627	608	-9,4%

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…).

Revenue of calls (millions of euros excl.VAT)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
National calls	163	170	159	155	155	-4,5%
International calls	59	57	57	55	53	-10,2%
Calls to mobiles	113	108	112	98	102	-9,9%
All calls from fixed lines	**334**	**335**	**328**	**308**	**309**	**-7,3%**
Of which calls originating from narrowband networks	218	220	208	195	197	-9,6%
Of which calls originating from voice over broadband traffic	116	116	120	112	113	-3,1%

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).

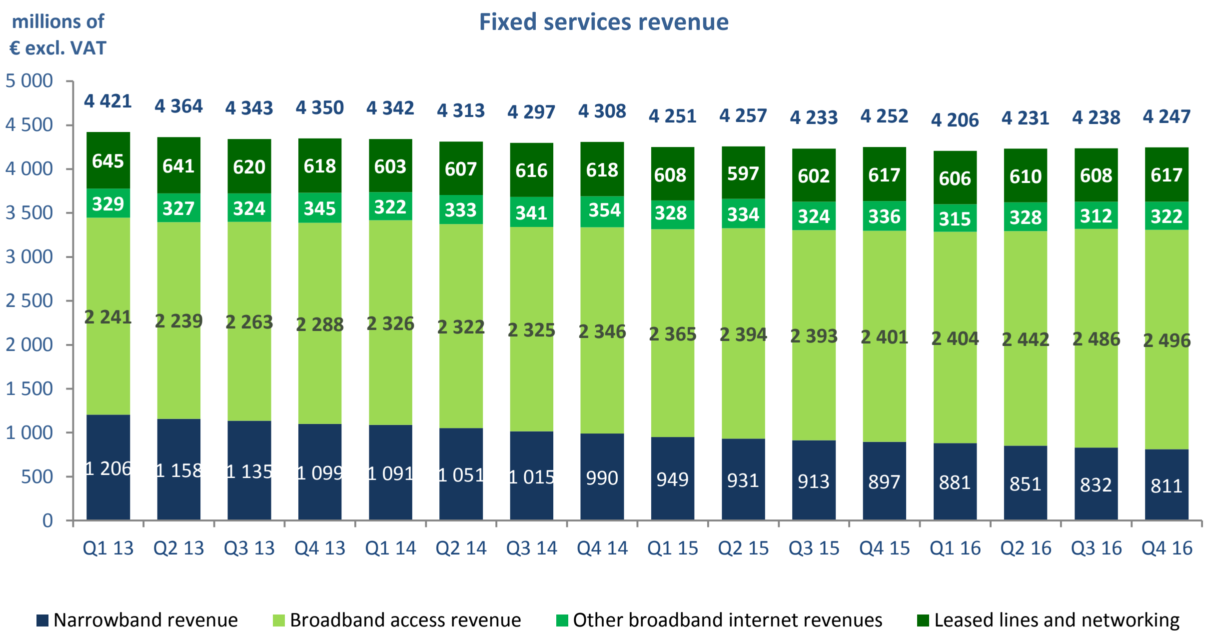
Traffics (millions of minutes)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
National calls	13 936	14 125	12 782	11 211	12 309	-11,7%
International calls	2 221	2 260	2 148	1 911	1 946	-12,4%
Calls to mobiles	4 304	4 400	4 266	3 878	4 011	-6,8%
All calls from fixed lines	**20 461**	**20 786**	**19 196**	**17 001**	**18 266**	**-10,7%**
Of which calls originating from narrowband networks	4 966	4 897	4 547	4 000	4 196	-15,5%
Of which calls originating from voice over broadband traffic	15 495	15 889	14 649	13 001	14 070	-9,2%



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

Revenue of fixed networks services (millions of euros excl.VAT)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Narrowband Revenue	**897**	**881**	**851**	**832**	**811**	**-9,6%**
Broadband Revenue	**2 737**	**2 719**	**2 770**	**2 798**	**2 818**	**3,0%**
Broadband Internet and VoB subscriptions	2 401	2 404	2 442	2 486	2 496	4,0%
Other Internet revenue	336	315	328	312	322	-4,3%
Retail leased lines and data networking	**617**	**606**	**610**	**608**	**617**	**0,0%**
Total	**4 252**	**4 206**	**4 231**	**4 238**	**4 247**	**-0,1%**

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".



1.3 Average bill and traffic per user

Note : more than one subsciption to telephony service can exist on a fixed line. For more detail, see the annex at the end of this document.

1.3.1 Per fixed line

Average monthly bill and telephony calls *(value added and directory services excluded)*	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Per fixed line : access, communications and Internet *(€ VAT excl.)*	31,8	31,6	31,9	32,1	32,0	0,6%
Per fixed lines *(in hours)*	3h05	3h08	2h54	2h34	2h45	-10,8%

Notes:
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.
Revenue 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.

1.3.2 By subscription to fixed services

Average monthly bill per customer (in euros -VAT excluded)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Per fixed narrowband telephony user	23,1	23,2	23,0	23,0	23,0	-0,1%
Per fixed broadband access	32,7	32,4	32,8	33,2	33,0	1,0%

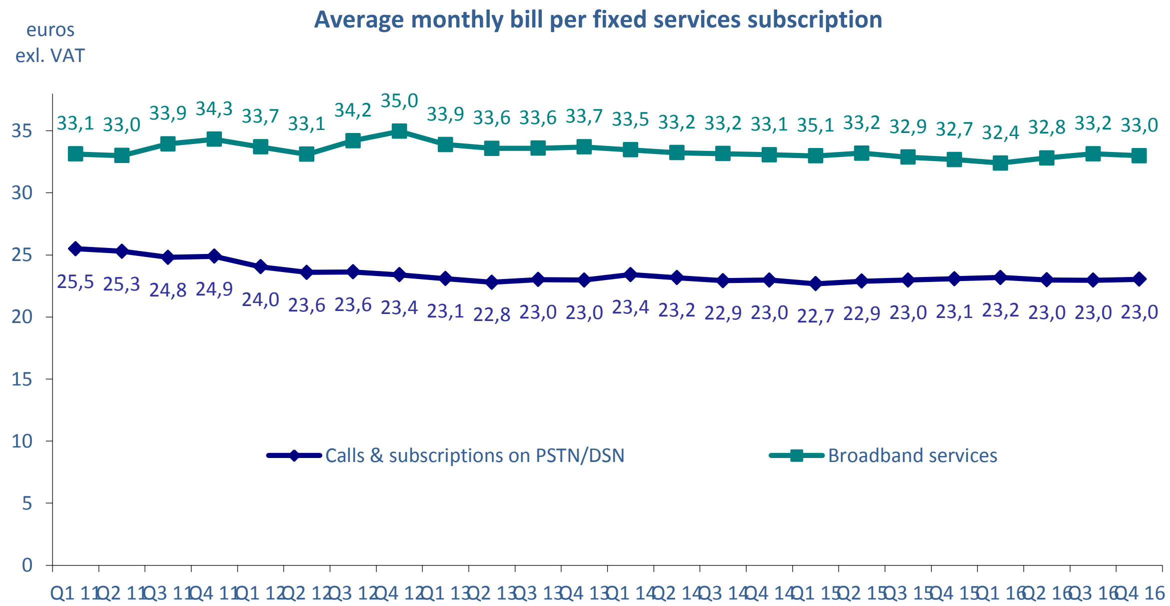
Notes:

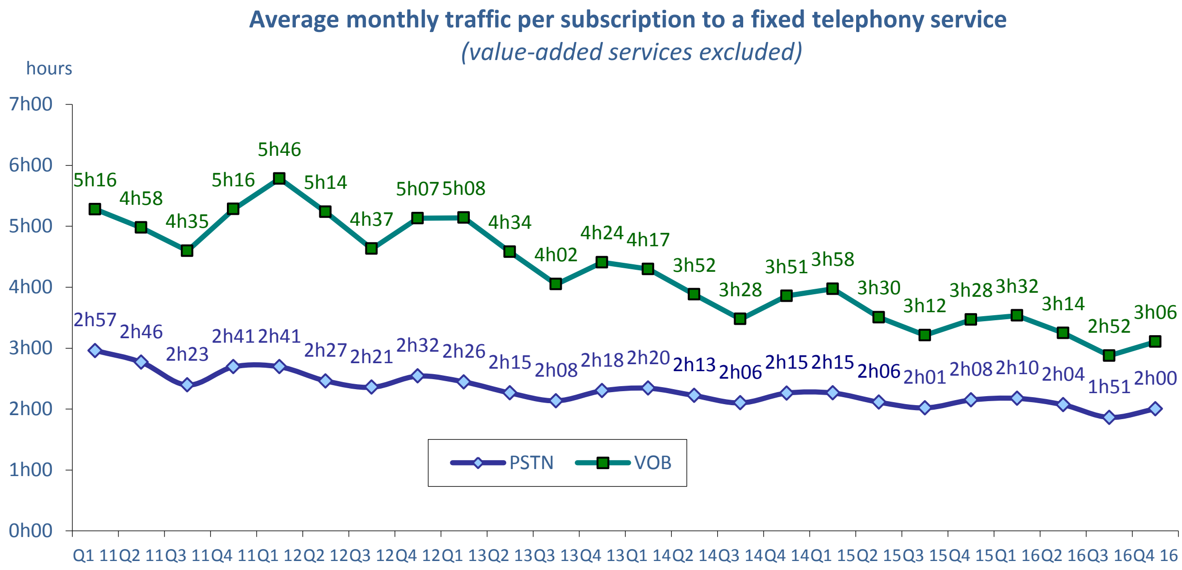
- <u>The average monthly bill for a PSTN line</u> is calculated by dividing the revenue earned on a PSTN based fixed line subscription and calls (i.e. excluding VOB) for Quarter Q by the estimated average customer base for Quarter Q, then dividing the result by three.

- <u>The average monthly bill for a broadband or ultra-fast broadband</u> 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 traffic per customer (in hours)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Per fixed narrowband telephony user	2h08	2h10	2h04	1h51	2h00	-6,8%
per fixed VOB telephony user	3h28	3h32	3h14	2h52	3h06	-10,5%

- 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.





1.4 Dial-up internet, public payphones and calling cards

Other fixed services - narrowband	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Revenue (internet dial-up, public payphone, cards) *(millions of euros excl.VAT)*	9	11	9	10	7	-23,1%
Number of public payphones (units)	45 730	38 500	31 232	24 123	17 301	-62,2%

2 Services on mobiles networks – retail market

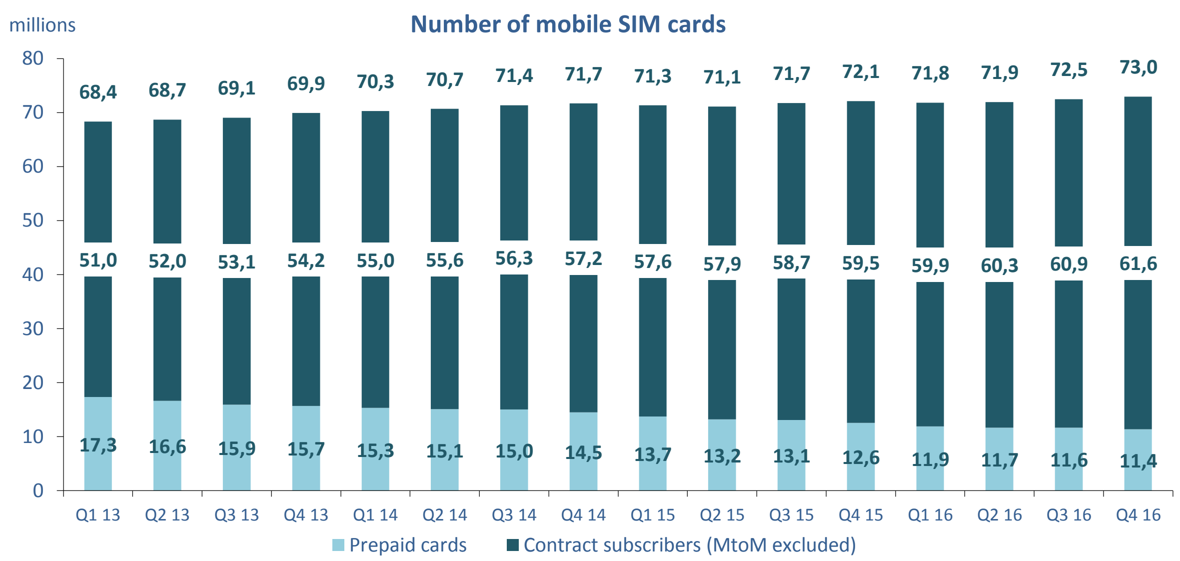
2.1 Mobile phone services

2.1.1 Number of SIM cards

Number of mobile lines (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Post-paid cards subscriptions	59,538	59,912	60,251	*60,855*	61,588	3,4%
Prepaid cards	12,566	11,914	11,675	11,640	11,378	-9,5%
*of which active prepaid cards **	10,230	9,683	9,463	9,424	9,057	-11,5%
Total number of SIM cards	**72,104**	**71,826**	**71,927**	***72,495***	**72,966**	**1,2%**

adjusted figures are in italics

*A prepaid card is considered active if the customer has made or received at least one call during the past three months. Only telephone calls are considered, whether free or payable. SMS are not included in the calculation.



2.1.2 Dedicated data cards

Dedicated data cards (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Post-paid cards subscriptions	2,810	2,768	2,771	2,773	2,787	-0,8%
Prepaid cards	0,816	0,849	0,904	0,917	0,841	3,1%
of which active prepaid cards *	0,283	0,253	0,280	0,337	0,287	1,4%
Number of dedicated data cards	**3,626**	**3,617**	**3,674**	**3,690**	**3,628**	**0,1%**
% in total number of SIM cards	5,0%	5,0%	5,1%	5,1%	5,0%	+0,0 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 service (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Number of mobile subscription tied to at least one fixed service	17,412	17,948	18,230	18,656	19,218	10,4%
% in total number of SIM cards	24%	25%	25%	26%	26%	+2 Points

Note: several SIM cards can be tied to a fixed service subscription.

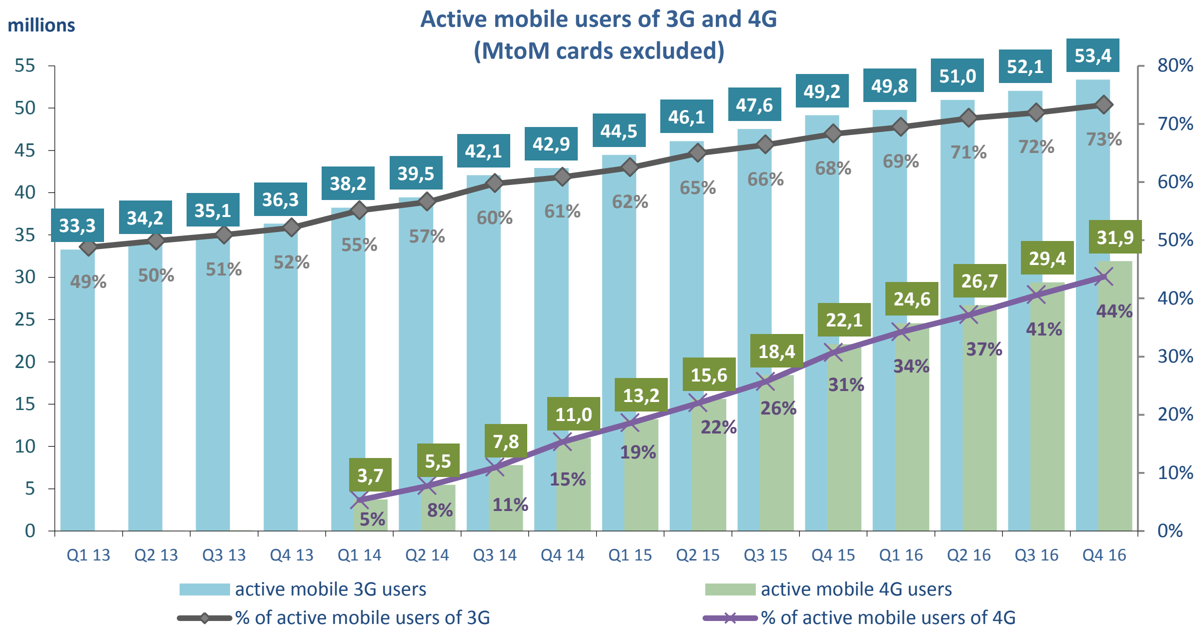
2.1.4 3G et 4G actives cards

Active 3G and 4G users (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Active 3G users	49,151	*49,788*	*50,966*	52,054	53,361	8,6%
Active 4G users	22,102	*24,577*	*26,704*	*29,419*	31,901	44,3%

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).

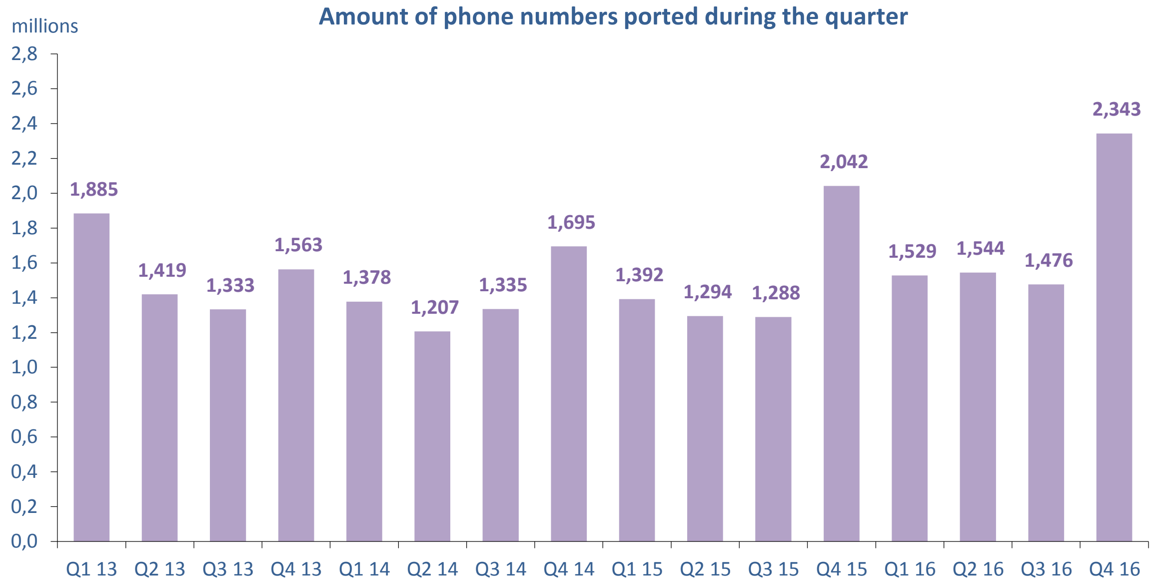
- The active 4G base is defined as the number of customers who have accessed a mobile service (data transfer) that uses 4G radio access technology, sometime in the past three months (either transmission or reception). ARCEP posts here only active customers who have access to 4G networks and a compatible terminal. ARCEP attracts the attention of the reader to the fact that 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.



2.1.5 Portability of mobile phone numbers

Portability (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Amount of phone numbers ported during the quarter	2,042	1,529	1,544	1,476	2,343	14,7%

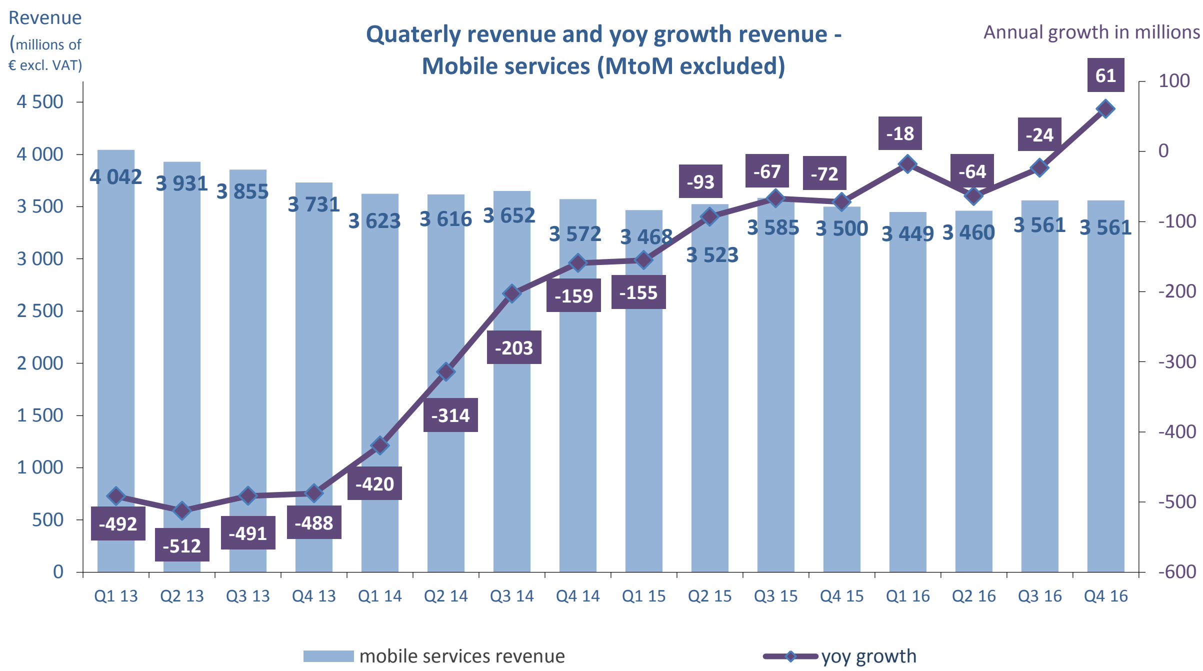
Note: the figures for ported phone numbers refer to the number of at the finalised porting procedures (ported numbers activated by the recipient operator) during the year in question. Scope: Metropolitan France and the overseas French "départements".



2.1.6 Revenue on retail market (value-added services excluded)

Revenue *(millions of euros VAT excluded)*	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Contract subscribers	3 262	3 244	3 262	3 365	3 361	3,0%
Prepaid cards	238	206	198	196	200	-16,0%
Total mobile telephony and data transport	3 500	3 449	3 460	3 561	3 561	1,7%

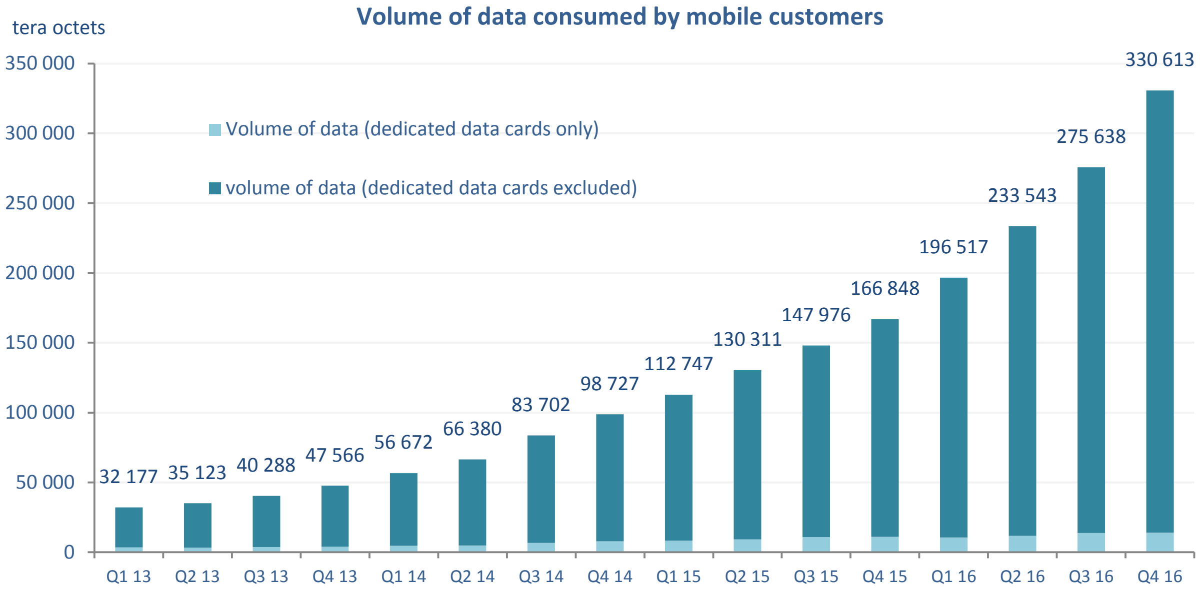
Note: this is about retail market revenue. Revenues from the market between operators (interconnection, wholesale) are not included. Also excluded is revenue from value-added retail services. For more details, see annex.



2.1.7 Volume of data consumed by mobile customers

Traffics of data consumed by the customers (in Teraoctets)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Contract subscribers	164 043	193 800	230 257	271 113	325 158	98,2%
Prepaid cards	2 805	2 718	3 286	4 525	5 454	94,5%
Traffics of data	**166 848**	**196 517**	**233 543**	**275 638**	**330 613**	**98,2%**
of which dedicated data SIM cards	11 042	10 656	11 768	*13 641*	13 969	26,5%
of which active 4G customers		156 417	193 729	*235 726*	293 701	-

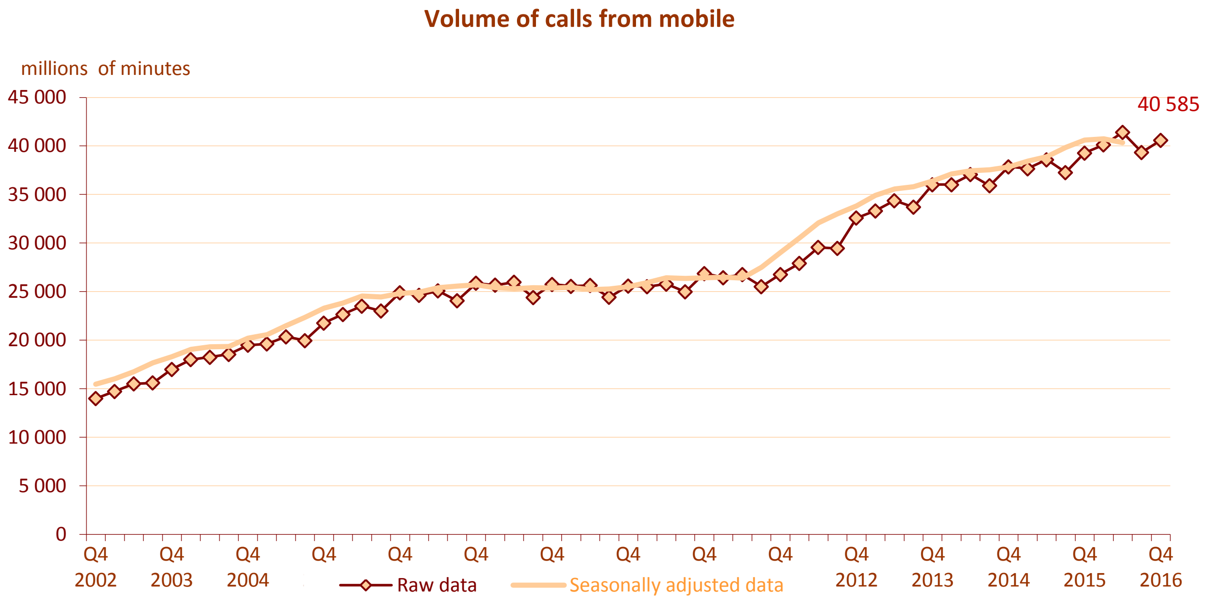
Note: the volume of data on mobiles networks include vocal communications and exchange of interpersonal messages via applications (wifi traffic excluded).



2.1.8 Traffic of mobile telephony

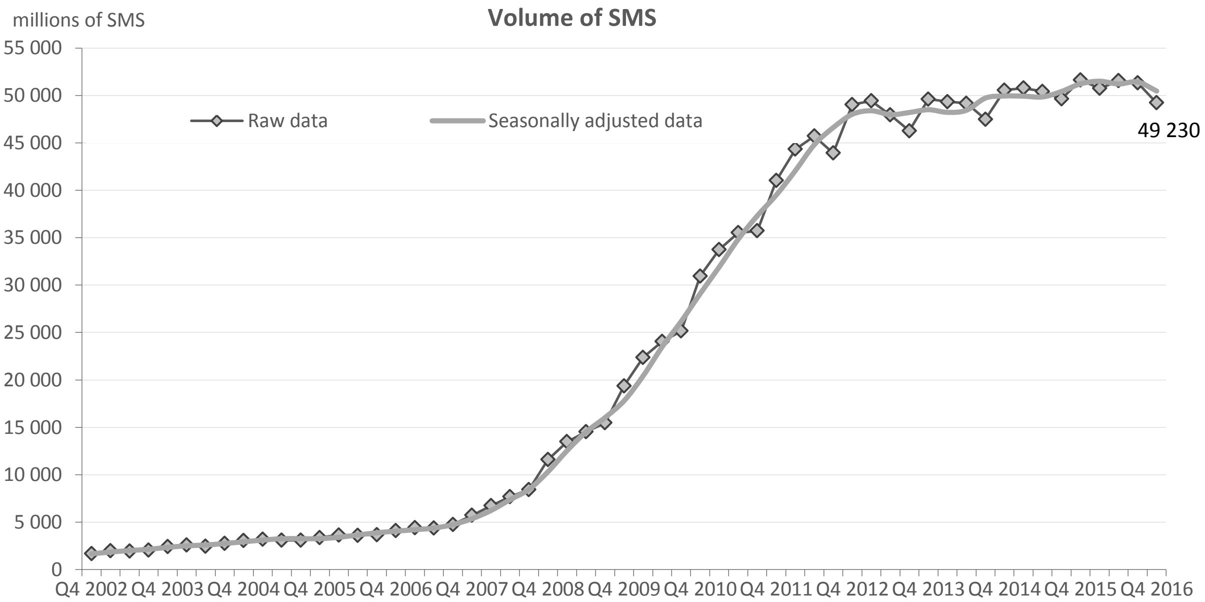
Traffics (millions of minutes)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Contract subscribers	36 706	37 678	38 960	36 954	38 287	4,3%
Prepaid cards	2 583	2 451	2 441	2 387	2 298	-11,1%
Total mobile telephony	**39 289**	**40 129**	**41 402**	**39 341**	**40 585**	**3,3%**

Traffics (millions of minutes)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Calls to national fixed lines	6 744	6 970	6 935	6 514	6 734	-0,1%
Calls to national mobile lines	30 568	31 086	32 170	30 404	31 902	4,4%
Outgoing internationals calls	1 475	1 588	1 694	1 553	1 344	-8,9%
Roaming out	503	488	603	869	604	20,1%
Total mobile telephony	**39 289**	**40 129**	**41 402**	**39 341**	**40 585**	**3,3%**



2.1.9 Interpersonal messages (SMS, MMS)

Traffics of interpersonal messages (millions of units)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Number of interpersonal SMS	51 641	50 738	51 557	51 339	49 230	-4,7%
of which from contract subscribers	49 461	48 723	49 687	49 470	47 278	-4,4%
of which from prepaid cards	2 180	2 015	1 871	1 870	1 953	-10,4%
Number of interpersonal MMS	1 051	1 049	1 171	1 256	1 169	11,3%
Number of messages sent	**52 692**	**51 788**	**52 729**	**52 595**	**50 399**	**-4,4%**

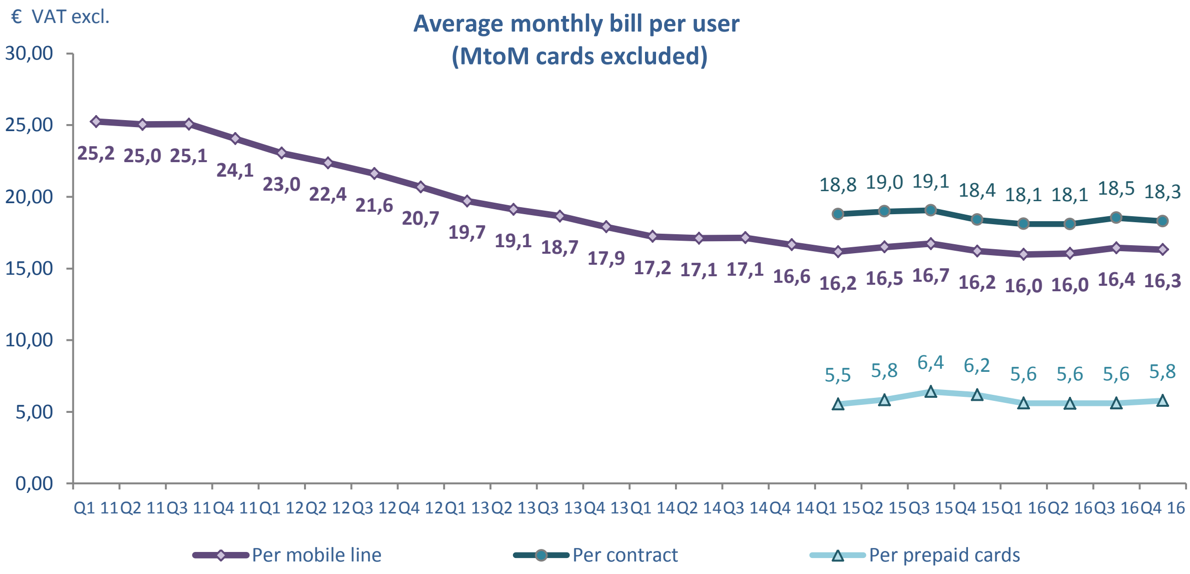


2.1.10 Roaming-out

Roaming-out	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Revenue (millions of euros)		223	207	242	196	-
Traffic of minutes (millions of minutes)	503	488	603	869	604	20,1%
Traffic of SMS (millions)		263	331	610	311	-
Traffic of data (teraoctets)		1 241	1 954	5 087	3 001	-

2.1.11 Average monthly bill and traffic per user

Average monthly bill (value added services excluded) (in euros -VAT excluded)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Mobile telephony user	**16,2**	**16,0**	**16,0**	**16,4**	**16,3**	**0,6%**
Contract subscribers	18,4	18,1	18,1	18,5	18,3	-0,5%
Prepaid cards	6,2	5,6	5,6	5,6	5,8	-6,4%



Notes:

- The average monthly bill per mobile 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 customers 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 customers for quarter N: (number of mobile customers (MtoM cards excluded) for quarter N + number of mobile customers for quarter N-1(MtoM cards excluded)) / 2.

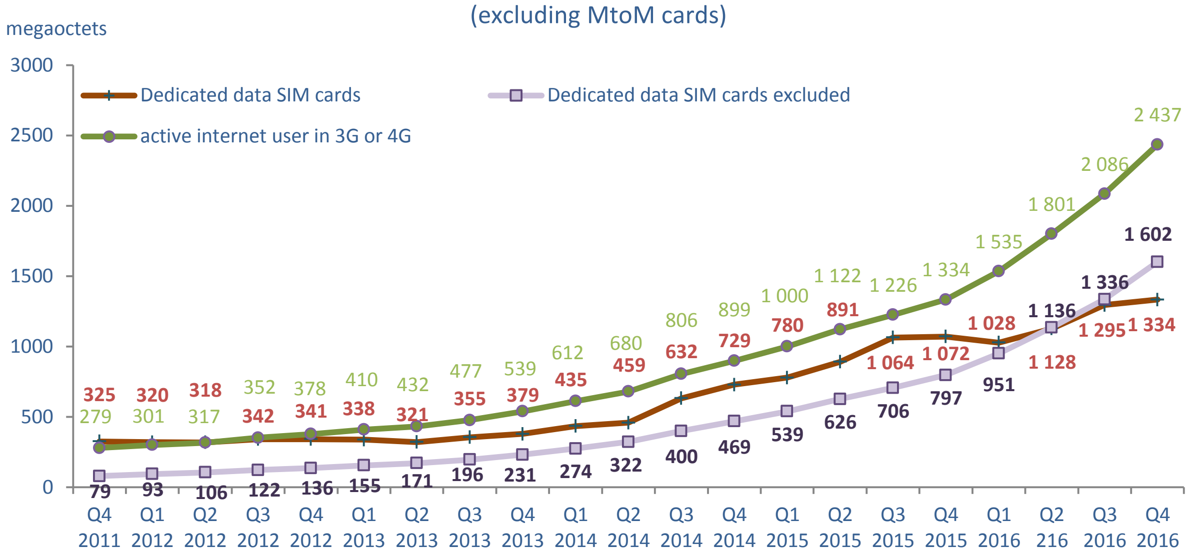
Average monthly traffics of data consumed on mobile networks (en mega octets)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
per mobile operator customer	**811**	**954**	**1 136**	**1 334**	**1 589**	**96,0%**
of which dedicated data SIM cards	1 072	1 028	1 128	*1 295*	1 334	24,5%
of which from other SIM cards	797	951	1 136	*1 336*	1 602	101,0%
Contract subscribers	970	1 134	1 340	1 565	1 856	91%
Prepaid cards	76	78	97	136	166	116,8%
Active 3G and 4G users	1 334	1 535	1 801	2 086	2 437	83%

Note:

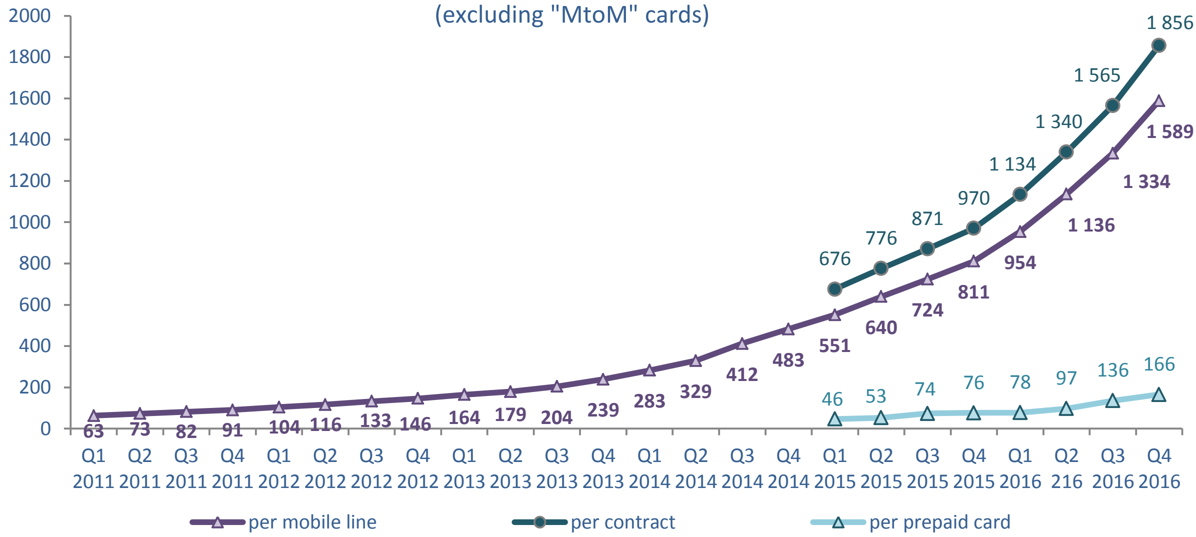
- The average monthly volume of data consumed per mobile operator customer is calculated by dividing the volume of mobile telephony traffic of data for quarter N by the estimated average number of mobile customers for quarter N, and then by the number of months. SIM cards that can be used only for data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

- Average number of mobile customers for quarter N: (number of mobile customers (MtoM cards excluded) for quarter N + number of mobile customers for quarter N-1(MtoM cards excluded)) / 2.

Average monthly volume of data used by the customers on mobile networks
(excluding MtoM cards)

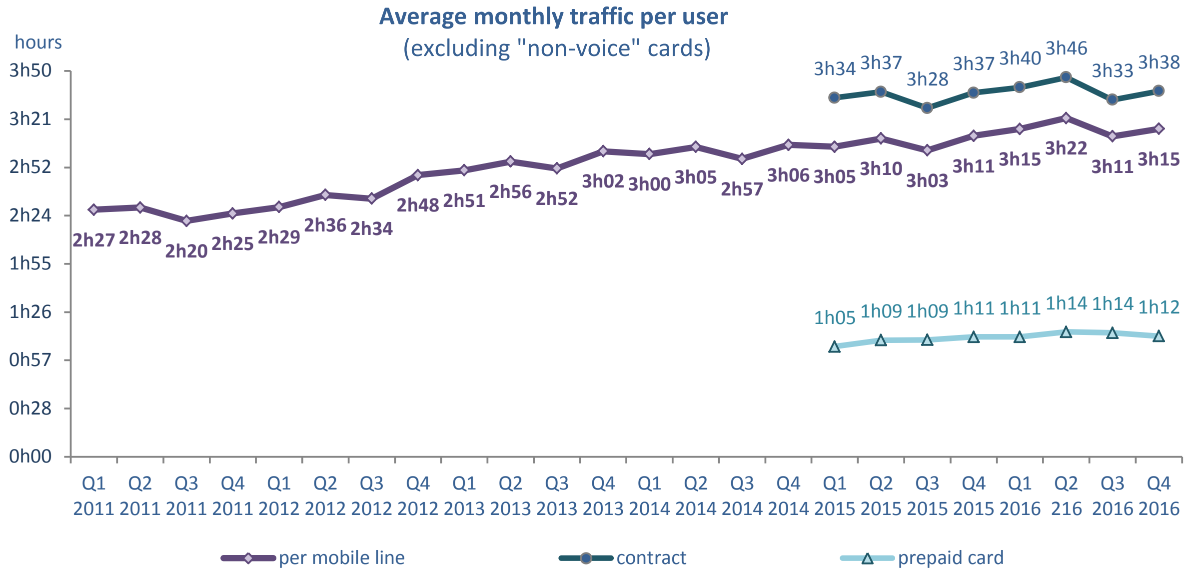


Average monthly traffic of data per user
(excluding "MtoM" cards)

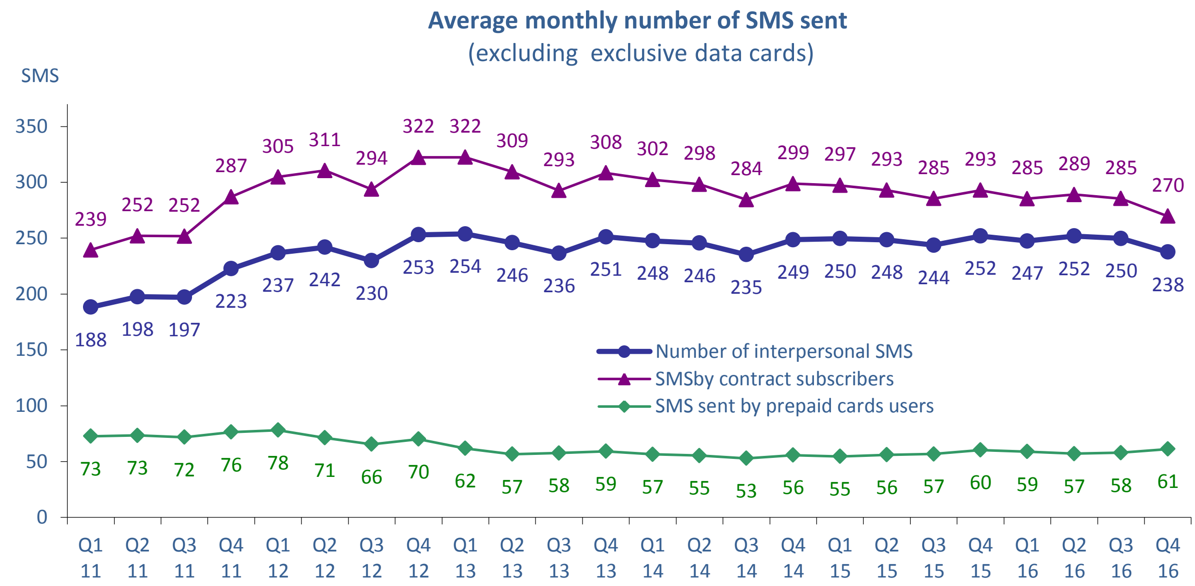


Average monthly outgoing traffic (in hours)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Mobile telephony user	**3h11**	**3h15**	**3h22**	**3h11**	**3h15**	**2,1%**
Contract subscribers	3h37	3h40	3h46	3h33	3h38	0,4%
Prepaid cards	1h11	1h11	1h14	1h14	1h12	0,7%

Note: The average monthly volume of traffic per mobile operator customer is calculated by dividing the volume of mobile telephony traffic (including roaming-out) for quarter N by the estimated average number of mobile customers 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)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Number of SMS sent per user during the quarter	251,9	247	252	250	238	-5,7%
of which for contract subscribers	293	285	289	285	270	-7,9%
of which for prepaid cards	60	59	57	58	61	1,4%

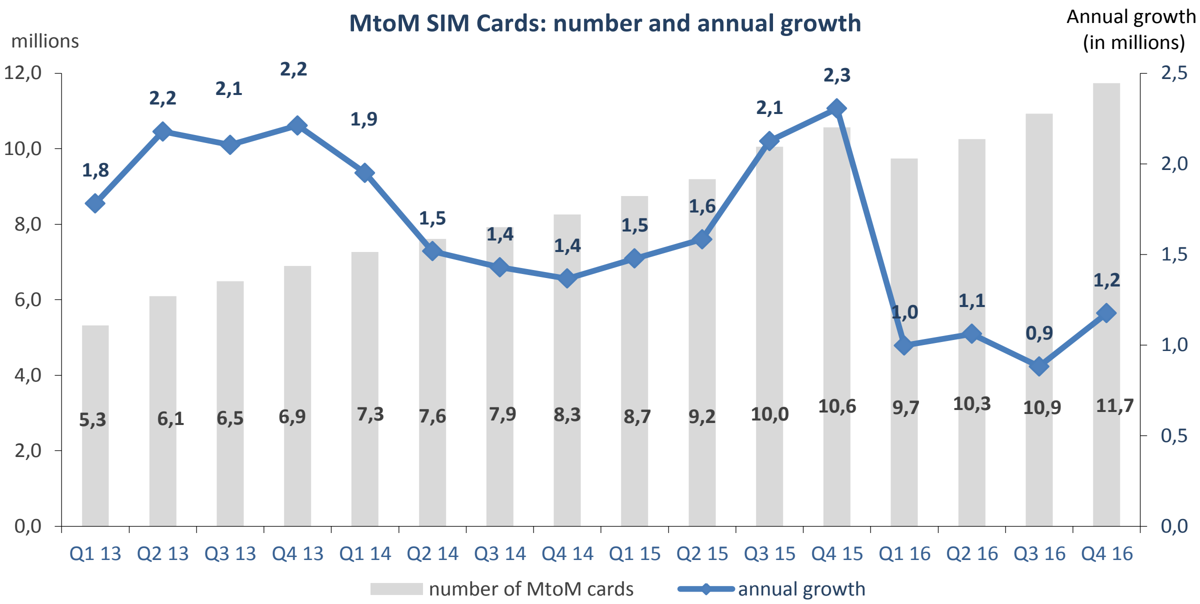


Note: The average number of SMS messages per customer is calculated by dividing the number of SMS messages for quarter N by the estimated average number of customers for quarter N, and then by the number of months. MtoM and exclusive data SIM cards are not taken into account. The number of messages does 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 (millions of euros/ units)	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	change 4Q16/4Q15
Revenue of MtoM cards	25	24	27	24	27	6,8%
Number of MtoM cards	10,562	9,740	10,254	10,929	11,737	11,1%

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). Are taken into account the SIM cards on "machines", the communication been done only in reception, only upstream or both. The cards used for interpersonal communication and exclusive internet cards must not be included here.



3 Value-added services

Value-added services revenue* (millions of euros excl.VAT)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Value-added voice services	189	191	185	180	183	-2,9%
From fixed telephony network	122	119	115	110	112	-7,7%
From mobile telephony network	67	72	70	71	71	5,7%
Value-added data services	89	90	82	80	73	-17,7%
Directory services	25	23	24	25	31	24,6%
Value-added services	**303**	**304**	**291**	**285**	**288**	**-5,0%**

**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.*

Note: 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.

Value-added voice services traffics (millions of minutes)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Calls from fixed network	869	949	990	943	928	6,8%
Calls from mobile network	459	*442*	436	443	463	1,0%
Total of traffics	**1 328**	***1 390***	**1 426**	**1 386**	**1 391**	**4,8%**

Traffic from directory services (millions)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Number of calls (millions of units)	4	4	4	4	5	15,8%

Note: 118xyz numbers and short numbers giving access to directory services.

4 Other operators revenue

4.1 Hosting and call center management services

Revenue (millions of euros excl.VAT)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Hosting and call centre management	85	86	84	83	89	5,1%

4.2 Terminals and equipments

Revenue from terminals and equipment (millions of euros excl.VAT)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
linked to fixed telephony & Internet services	170	167	169	162	179	5,5%
linked to mobile services	719	505	484	555	720	0,1%
Terminals and equipment	**889**	**673**	**654**	**717**	**899**	**1,1%**

Note: the revenue includes commissions paid to distributors.

5 The intermediate market (interconnection and wholesale market

5.1 The overall market

Interconnection services (millions of euros excl. VAT)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Fixed operators	**1 353**	***1 310***	***1 322***	***1 322***	**1 341**	**-0,9%**
*of which telephony services (incl VGA) **	578	*540*	*551*	*555*	546	-5,5%
of which broadband services	663	650	640	632	660	-0,4%
of which Wholesales leased lined product	113	120	131	135	135	19,9%
Mobile operators	**682**	**667**	**671**	**682**	**659**	**-3,5%**
of which voice termination (national and international)	203	206	207	186	201	-0,6%
of which SMS/MMS termination	397	394	383	381	379	-4,4%
Roaming in	83	66	81	115	78	-6,1%
Revenue (millions of euros)	**2 036**	***1 977***	***1 993***	***2 004***	**2 000**	**-1,8%**

adjusted figures are in italics

Interconnection services (millions of minutes)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Fixed operators	26 555	*26 250*	*25 218*	*22 916*	24 185	-8,9%
Mobile operators	24 481	24 710	25 239	23 591	24 710	0,9%
Traffic	**51 035**	**50 960**	**50 457**	**46 508**	**48 896**	**-4,2%**
Incoming SMS	**33 647**	**32 954**	**31 650**	**36 429**	**37 173**	**10,5%**

Notes:

- 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 2016, the price for call termination on fixed networks is set to 0.078c€/minute against 0.079c€/min since July 1st 2015.

- Broadband wholesale services include income from unbundling and bitstream or bitstream equivalent services. The tariff for total unbundling is set at €9.10 since March 1st 2016 against previously at €9.05 in 2015 (and 9.02€ since February1st 2014 and €8.90 in 2013). 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.

- From January 1st 2016, the price for call termination on mobile networks is set to 0.076c€/minute for all the operators against 0.078c€/min since July 1st 2015.

- From July 1st 2013, the price for SMS termination is set to 1c€/SMS for all the operators.

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

Unbundling (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Shared unbundled lines	0,621	0,595	0,578	0,561	0,540	-13,0%
Fully unbundled lines	11,730	11,580	11,543	11,583	11,594	-1,2%
Total number of unbundled lines	**12,350**	**12,175**	**12,121**	**12,144**	**12,134**	**-1,7%**

"Bitstream" lines (millions of units)	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
"Naked bistream"	0,938	1,121	1,173	1,190	1,189	26,8%
"Classic bitstream"	0,152	0,151	0,145	0,138	0,132	-13,1%
Total number of "bitstream" lines	**1,090**	**1,272**	**1,318**	**1,328**	**1,322**	**21,2%**

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)*	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Total of FttH subscriptions *via* a wholesale offer	**0,547**	**0,600**	**0,642**	**0,727**	**0,862**	**57,6%**
of which subscriptions via a passive sharing offer	0,487	0,544	0,584	0,672	0,785	61,2%
of which subscriptions via an active wholesale access product	0,060	0,056	0,058	0,055	0,077	28,3%

For more information, see: http://www.arcep.fr/fileadmin/reprise/observatoire/hd-thd-gros/t4-2016/Obs_HD-THD_T4-2016-deploiements.pdf

5.2 Mobiles operators « Roaming-in »

Roaming in	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Q3 2016**	**Q4 2016**	**change 4Q16/4Q15**
Traffic (millions of minutes)	654	666	844	1 020	812	24,1%
Traffic of SMS (millions)	158	171	213	309	158	-0,1%
Traffic of data (teraoctets)	988	1 247	2 091	3 781	2 306	133,3%

Notes:

- *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.*

- *On the wholesale market the tariffs have been set since 1st July 2014 to 2cts€ per message for SMS and to 5c€ per minute for voice calls (against 3cts€ per message for SMS and to 10cts€ per minute for voice calls for the period from 1rst July 2013 to 30 June 2014). The tariff is set to 5cts€ per Mo for mobile internet from 1st July 2014 (against 15 cts€ for the period from 1rst July 2013 to 30 June 2014).*

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