

STATISTICAL INFORMATION

INTERNET ACCESS SERVICE

2ND QUARTER 2015

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HIGHLIGHTS

- At the end of 2nd quarter 2015 (2Q15), penetration of the Internet access service at a fixed location in Portugal was reported at 28.9 per 100 inhabitants in the case of fixed access and 46 per 100 inhabitants in the case of mobile access with actual use. Penetration of the fixed broadband service (residential customers) was reported at 61.5 percent of private households and 42.1 per 100 conventional dwellings.

In January 2015, EU28 broadband penetration was reported at 31.1 per 100 inhabitants, versus 27.4 in Portugal (20th in the EU28 ranking).

- At the end of 2Q15, there were 3 million fixed Internet accesses in Portugal (+2.3 percent versus the previous quarter). Compared to the same quarter of 2014, the number of fixed Internet accesses has increased by 11.6 percent.

ADSL remains the main Internet access technology used in fixed broadband Internet access (35.6% of the total), although it was the only technology which saw a decrease in the number of subscribers (-1.5 percent versus the previous quarter). Cable modem is the second most used technology (34.5 percent), followed by Internet over optical fibre - FTTH/FTTB (24.1 percent).

The biggest contribution to the growth reported in the number of accesses comes from optical fibre - FTTH/FTTB (+7.5 percent this quarter and +35.3 percent versus 2Q14). In absolute terms, the increases reported in the number of FTTH/FTTB accesses in the last two quarters were the largest on record, with about 50 thousand new accesses each quarter.

In this quarter, emphasis should also be given to the growth (10.2 percent) recorded in "other forms" of access (leased lines, satellite, LTE at a fixed location); although these technologies have a low relative weight (5.9 percent), they provided the second largest contribution to growth in the number of accesses.

- There were 4.8 million users who actually accessed the Internet using mobile broadband (an increase of 3.8 percent over the previous quarter and an increase of 22 percent over 2Q14). The growth in mobile broadband has mainly been driven by an increase in the number of smartphone users, who already represent 62.2 percent of all mobile users (an increase of 16.3 percentage points over 2Q14).
- It is estimated that at the end of 2Q15, about 93.9 percent of customers of the internet access service using fixed broadband had acquired the service as part of a bundle of services.

- Grupo Altice's share of fixed accesses, following the acquisition of PT Portugal¹, was reported at 51 percent in 2Q15. Grupo NOS reported a share of 35.5 percent (+0.8 percentage points versus 2Q14) and Vodafone a share of 13.2 percent in 2Q15, (+3.8 points percentage versus 2Q14).

As regards provider shares of active mobile broadband customers, MEO² reports a share of 48.3 percent, followed by NOS and Vodafone with 29 and 22.4 percent respectively. In year-on-year terms, NOS and MEO increased their shares by 6.2 and 0.1 percentage points respectively, while Vodafone's share fell 6.3 percentage points.

- Broadband Internet access traffic increased by 2.9 percent in 2Q15. This is mainly explained by trends seen in fixed broadband traffic (+2.8 percent), representing approximately 96.1 percent of the total.

Internet access traffic from mobile accesses increased by 6.1 percent this quarter, whereas traffic generated by cards/modem increased by 4.1 percent and traffic generated over mobile phones increased by 10.6 percent.

Average monthly traffic per broadband Internet access at a fixed location was 47.9 GB. Traffic generated per mobile broadband customer with actual use was 1.2 GB per month (6.9 GB per month in the case of cards/modem).

- As regards contracted theoretical maximum speeds for fixed Internet access, 9 out of 10 users had accesses of over 20 Mbps at the end of 2Q15. More than half (56.7 percent) had access above 30 Mbps and about 25.5 percent had accesses exceeding 100 Mbps.
- Revenues from the fixed Internet access service (stand-alone and bundles of services which include fixed Internet access) were reported at around 736.5 million euros in the first six months of the year. Meanwhile, revenues from the mobile Internet access service reached 150.3 million euros in the first six months of 2015, reflecting a year-on-year decline of 12.2 percent over the same period of 2014.

¹ On 2 June 2015, Altice completed acquisition of 100 percent of the share capital of PT Portugal, SGPS, owners of MEO - Serviços de Comunicações e Multimédia S.A.

² On 29 December 2014, MEO - Serviços de Comunicações e Multimédia, S.A was acquired by PT Comunicações, S.A. - PT Comunicações, S.A. then changed its name to MEO - Serviços de Comunicações e Multimédia, S.A.

1. Number of authorized providers³

As at the end of the 2nd quarter 2015 (2Q15), there were 56 undertakings in Portugal authorised to provide the fixed Internet access service⁴. 39 of these undertakings were in operation⁵ (Table 1).

Table 1 - Trend in fixed Internet access service providers

	1Q14	2Q14	3Q14	4Q14	1Q15	2Q15
Number of Registered Providers - Fixed Technologies	60	59	57	57	56	56
Number of Operational Providers - Fixed Technologies	41	40	41	41	40	39

Unit: Number of providers

Source: ANACOM

All operational providers of fixed Internet access services offered broadband Internet access: ADSL is provided by 15 undertakings, while cable TV networks are provided by 11 undertakings and optical fibre (FTTH/B) by 21 undertakings. A further 25 undertakings provide the service through other means (e.g. leased lines, satellite, LTE). As such, there are several companies which provide the service using more than one physical support technology.

At the same time, 5 of the operators of the mobile telephone service provide the mobile broadband Internet access service^{6,7}.

³ Information available as of 30/07/2015. The information provided herein was collected from the providers of this service and may be subject to change in the event that the information is revised or updated. The quarterly data presented refer to the end of the period (last day or last month), except for revenues and traffic.

⁴ Also known as Internet Service Providers (ISP).

⁵ Companies which, according to available statistical data, recorded traffic during the reporting period.

⁶ See ICP-ANACOM's position on virtual mobile operators (<http://www.anacom.pt/render.jsp?contentId=457465>).

⁷ CTT, which has an MVNO operation, markets a MBB offer of MEO under its own brand.

2. Broadband penetration rate

As at the end of 2Q15, the broadband Internet access penetration rate^{8,9} was reported at 28.9 accesses per 100 inhabitants in the case of fixed accesses and 46 accesses per 100 inhabitants for mobile accesses with actual use (Table 2). Penetration of fixed Internet offers supported over FTTH/B was reported at 7 accesses per 100 inhabitants.

In the case of fixed accesses, the penetration rate increased 0.6 percentage points compared to the previous quarter and by 3.1 percentage points versus 2Q14.

Table 2 - Evolution in broadband Internet access service (IAS) penetration rates: no. of accesses per 100 inhabitants.

	2Q14	3Q14	4Q14	1Q15	2Q15
1. No. of Fixed Broadband IAS Accesses / 100 inhabitants	25.8	26.5	27.5	28.3	28.9
1.1. No. of ADSL accesses/100 inhabitants	10.4	10.4	10.5	10.5	10.3
1.2. No. of Cable Modem accesses/100 inhabitants	9.5	9.6	9.7	9.8	10.0
1.3. No. of Optical Fibre accesses (FTTH/B)/100 inhabitants	5.1	5.5	6.0	6.5	7.0
1.4. No. of other types of access/100 inhabitants	0.8	1.0	1.3	1.5	1.7
2. No. of IAS Mobile Broadband Customers with actual use/ 100 inhabitants	37.5	42.8	45.8	44.3	46.0
2.1 No. of active (mobile) Broadband Customers using cards/modems/100 inhabitants	6.6	6.5	6.1	5.6	5.4

Unit: No. of accesses per 100 inhabitants
Source: ANACOM

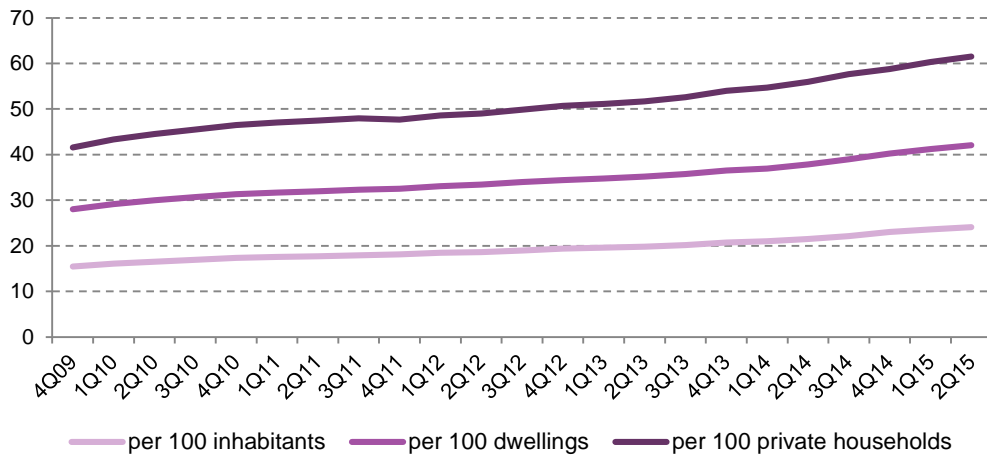
Note: The historical series reported for FBB (residential and non-residential) has been altered following updates to data made by one provider.

⁸ Calculation: (Total number of accesses) / (Total population). Includes residential and non-residential accesses and all forms of access at a fixed location, including wireless (FWA, satellite and LTE at a fixed location).

⁹ In the present report, and in order to calculate penetration rates, use is made of the most recent population estimates following the 2011 Census and published by INE (Statistics Portugal). As such, the values now reported are not comparable with the values given in previous reports.

Penetration of residential fixed broadband customers is reported at 61.5 per 100 private households¹⁰ and 42.1 per 100 conventional dwellings¹¹.

Graph 1 - Penetration rates of fixed broadband service (Residential Customers)



Unit: No. of residential customers per 100 inhabitants, per 100 dwellings, per 100 private households

Source: ANACOM

Note 1: The historical series reported for FBB has been altered following updates to data made by one provider, which now includes fixed broadband using mobile technology with reduced mobility.

Note 2: The historical series reported for FBB (residential and non-residential) has been altered following updates to data made by one provider.

The penetration rate of the mobile broadband Internet access service with actual use was reported at 46 customers per 100 inhabitants, increasing 8.5 percentage points over 2Q14 and by 1.7 percentage points over 1Q15.

The penetration rates of mobile broadband services, not used exclusively for Internet access, are shown below:

¹⁰ Source: INE (Statistics Portugal) - Private households (Series 1998 - No) up to 2011. From 2011 to 3Q13: Private households (No.) on date of 2011 Census. From 2Q14: Private households (No.), INE (Statistics Portugal) - Labour Survey.

¹¹ Source: INE (Statistics Portugal) - Conventional dwellings (Housing stock - No) - Estimates following 2011 Census.

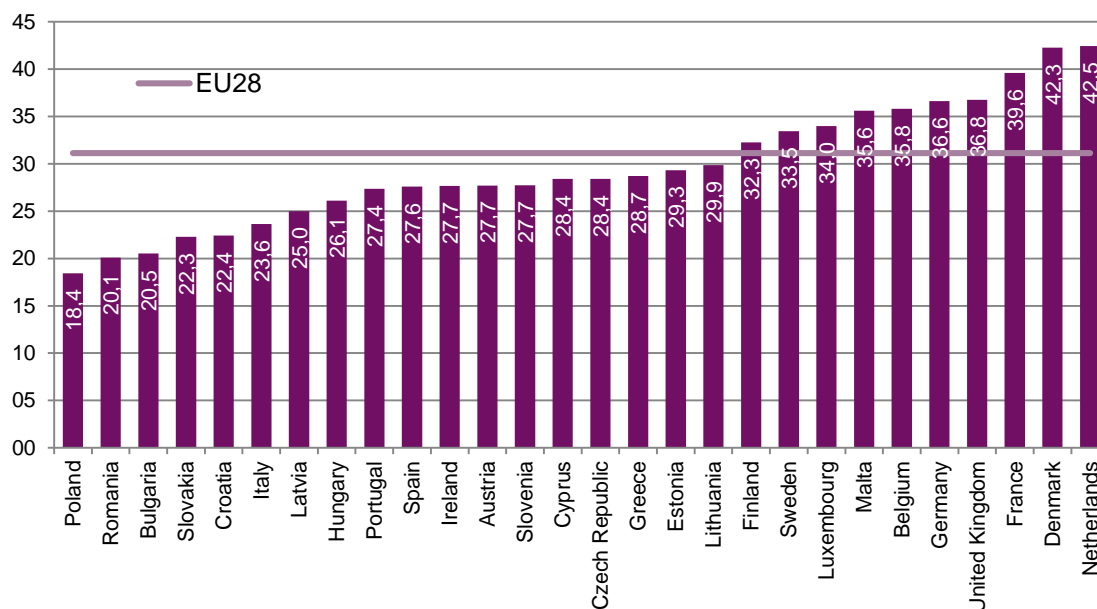
Table 3 - Trend in mobile broadband service penetration rates: no. of customers per 100 inhabitants

	2Q14	3Q14	4Q14	1Q15	2Q15
No. of mobile stations eligible for use of broadband services	111.3	114.4	120.8	121.1	121.7
of which users of 3G services, equivalent upgrades and standards	41.9	46.3	49.7	47.8	50.3

Unit: No. of mobile stations per 100 inhabitants
Source: ANACOM

Penetration¹² of the fixed broadband Internet access service in Portugal, as at the end of December 2014, was below the EU28 average (Graph 2). In January 2015, broadband penetration was 31.1 per 100 inhabitants in the EU28, and 27.4 per 100 inhabitants in Portugal (20th place in the EU28 rankings).

Graph 2 - Fixed broadband penetration in EU28 - January 2015



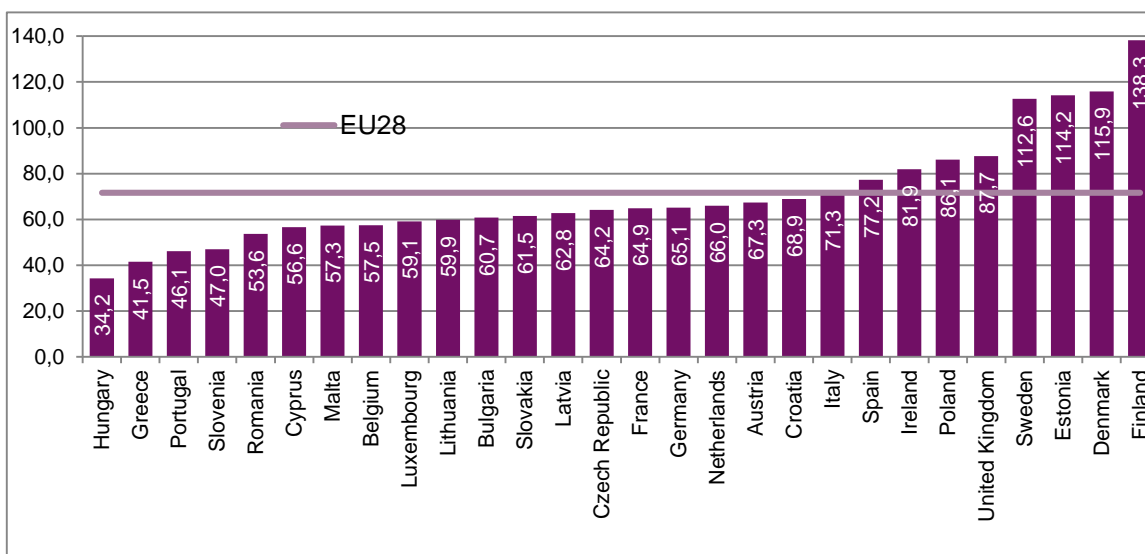
Unit: Accesses per 100 inhabitants

Source: EC, Digital Agenda Scoreboard, January 2015.

¹² Calculation: (Total broadband accesses) / (Total population). Excludes mobile accesses.

In the case of mobile broadband (MBB), and according to the EC, Portugal was ranked 26th among the EU28 - a penetration rate of 46.1 per 100 inhabitants in Portugal versus 71.6 per 100 inhabitants in EU28.

Graph 3 - Broadband penetration in EU28, January 2015



Unit: Users per 100 inhabitants.

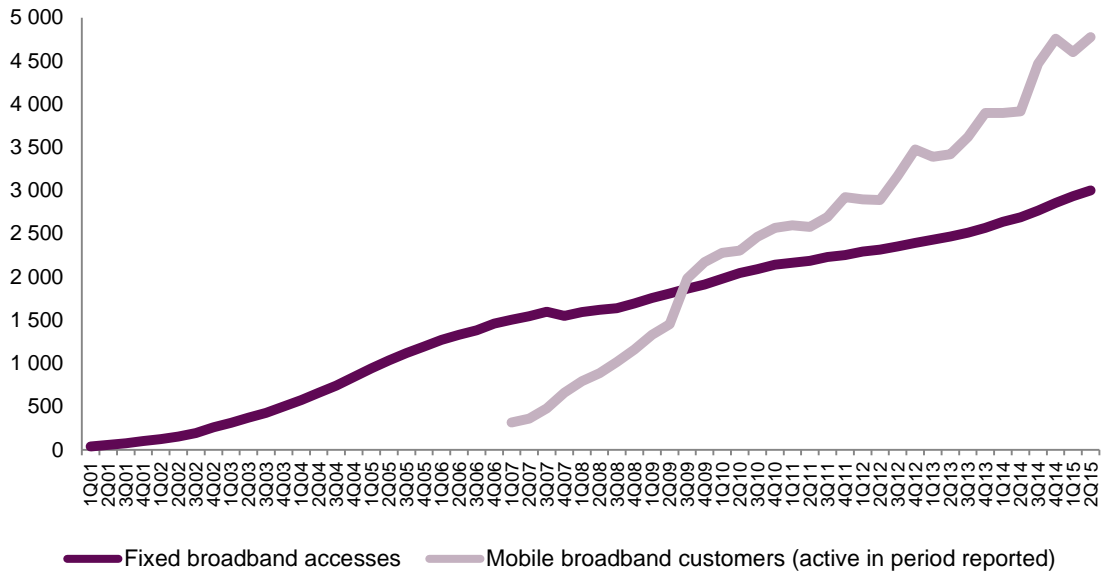
Source: EC, Digital Agenda Scoreboard, January 2015.

3. Number of Accesses

As at the end of 2Q15, there were 3 million physical internet accesses in Portugal and around 4.8 million users actually using mobile broadband to access the Internet¹³.

¹³ Mobile operator customers able to access mobile broadband Internet and who established at least one IP session to access broadband Internet during this period, i.e. recorded traffic during the last month of the quarter. Corresponds to indicator 2.5.1.1 of the Mobile services quarterly questionnaire. See definition of this indicator on ANACOM's website <http://www.anacom.pt/render.jsp?contentId=963861>.

Graph 4 - Trend in number of broadband accesses



Unit: Thousands of accesses

Source: ANACOM

Note: The historical series reported for FBB has been altered following updates to data made by one provider, which now includes fixed broadband using mobile technology with reduced mobility.

Internet access at a fixed location

Most customers of the Internet access service at a fixed location use broadband; accounting for around 99.2 percent of total customers. It is estimated that 93.9 percent of fixed broadband Internet access customers obtained the service as part of a bundle of services.

There were 3 million broadband accesses at a fixed location in Portugal, increasing by 2.3 percent over the previous quarter and by 11.6 percent over 2Q14.

Table 4 - Trend in number of broadband accesses (fixed access)

	2Q14	1Q15	2Q15	Variation %	
				2Q15/1Q15	2Q15/2Q14
Total accesses, of which:	2 690	2 934	3 001	2.3%	11.6%
ADSL accesses	1 081	1 085	1 069	-1.5%	-1.1%
% of total fixed broadband	40.2%	37.0%	35.6%		
Cable modem accesses	994	1 018	1 034	1.6%	4.0%
% of total fixed broadband	37.0%	34.7%	34.5%		
FTTH/B accesses	534	672	722	7.5%	35.3%
% of total fixed broadband	19.8%	22.9%	24.1%		
Others¹⁴	81	159	176	10.2%	>100%
% of total fixed broadband	3.0%	5.4%	5.9%		

Unit: Thousands of accesses, %

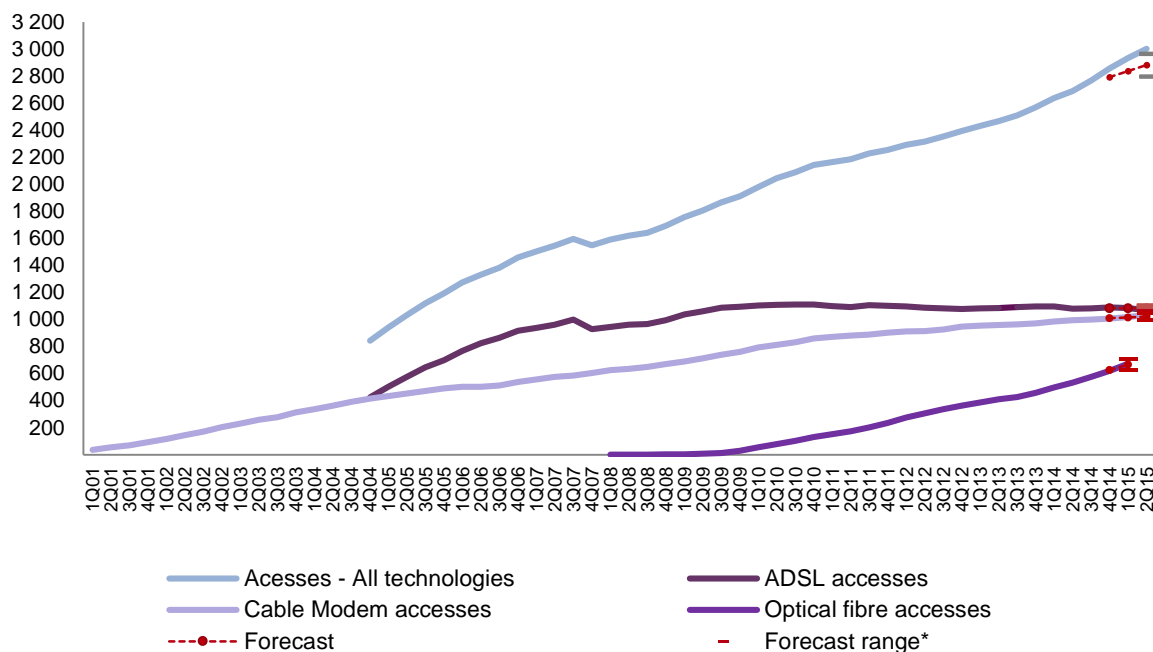
Source: ANACOM

Note: The historical series reported for FBB has been altered following updates to data made by one provider, which now includes fixed broadband using mobile technology with reduced mobility.

The trend reported in the total number of broadband accesses in 2Q15 is slightly above the forecast range resulting from the historical trend, given the increased growth in accesses supported over FTTH/B in previous quarters.

¹⁴ The "Others" category includes broadband Internet accesses using LTE technology, as reported this quarter by one operator.

Graph 5 - Trend in number of fixed broadband accesses



Unit: Thousands of accesses

Source: ANACOM

Notes: *Forecast range at a significance level of 95 percent.

Accesses - all technologies: A multiple linear regression model was used with the following significant independent variables at a confidence level of 95 percent: trend (t) and linear dummy relative to the structure change up to 3rd quarter 2007. $Y = 974660,6 + 43955,8t - 145411,5est + 23677,5est.t$. Adjusted R^2 of 0.997.

ADSL accesses: A multiple linear regression model was used with the following significant independent variables at a confidence level of 95 percent: quadratic trend (t and t^2), dummy relative to the structure change up to 3rd quarter 2007 with quadratic trend, and dummy associated with competition from another technology (OF) as of 3rd quarter 2010 with quadratic trend. $Y = 1082464,96 - 39247,76t + 1919,99t^2 - 777909,48est + 127905,62est.t - 4732,68est.t^2 + 38802,66 OF.t - 1926,89FO.t^2$. Adjusted R^2 of 0.998.

Cable modem accesses: Stationary series modelling was used - first consecutive difference subsequent to logarithmisation - with significant misalignment of the dependent variable in periods 1 and 2: $DlnY_t = 0,00312 + 0,366DlnY_{t-1} + 0,429DlnY_{t-2}$ com Adjusted R^2 of 0.933.

Optical fibre accesses: a linear regression model was used with quadratic trend: $Y_t = -34536,3 + 6557,3t + 608,7 t^2$. Adjusted R^2 of 0.994.

Internet accesses supported over optical fibre (FTTH/B) made up 24.1 percent of all accesses. In 2Q15 there were around 722 thousand Internet accesses based on optical fibre (FTTH/B) - a 7.5 percent increase over the previous quarter and an increase of 35.3 percent versus 2Q14. In net terms, and in line with the trend seen in recent quarters, optical fibre accesses (FTTH/B) continue to be the preferred means of access for new customers

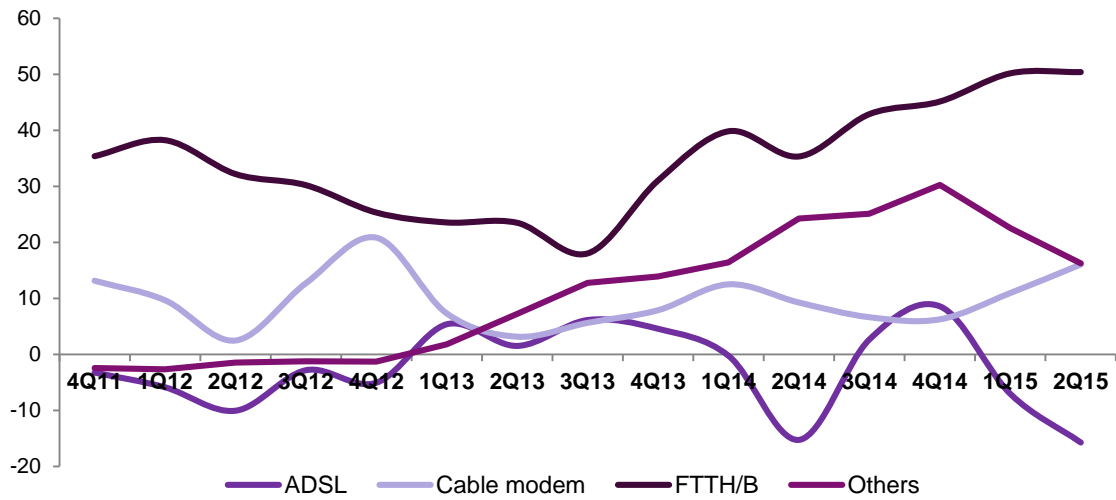
and the main driver of overall growth in accesses. In absolute terms, the increases reported in the number of FTTH/B accesses in the two last quarters (around 50 thousand new accesses each quarter) were the biggest on record.

The “others” category, which includes, for example, offers based on leased lines, satellite and LTE at a fixed location, represents just 5.9 percent of all accesses. However it was the second biggest contributor to the growth seen in the number of accesses. This growth is due, above all, to accesses supported by LTE at a fixed location whose number increased by around 10.3 percent over the quarter. This growth may be related to the launch, in 2Q14, of offers converging satellite TV and Internet and voice services using 4G technology.

Cable modem now makes up 34.5 percent of fixed broadband accesses - the number of cable modem accesses has increased by 1.6 percent over the last year - the largest increase since the end of 2012. The evolution reported in cable modem accesses during 2Q15 is in line with the historical trend.

Meanwhile, despite being the only technology to report a decline in the number of subscribers (-1.5 percent versus the previous quarter), ADSL remains the leading fixed broadband Internet access technology, representing 35.6 percent of total accesses (27 percentage points below the peak of 4Q06). The decline in the relative weight of xDSL stems from the strong growth seen in other forms of access, especially those which enable faster download speeds.

Graph 6 - Net additions of broadband Internet accesses by technology



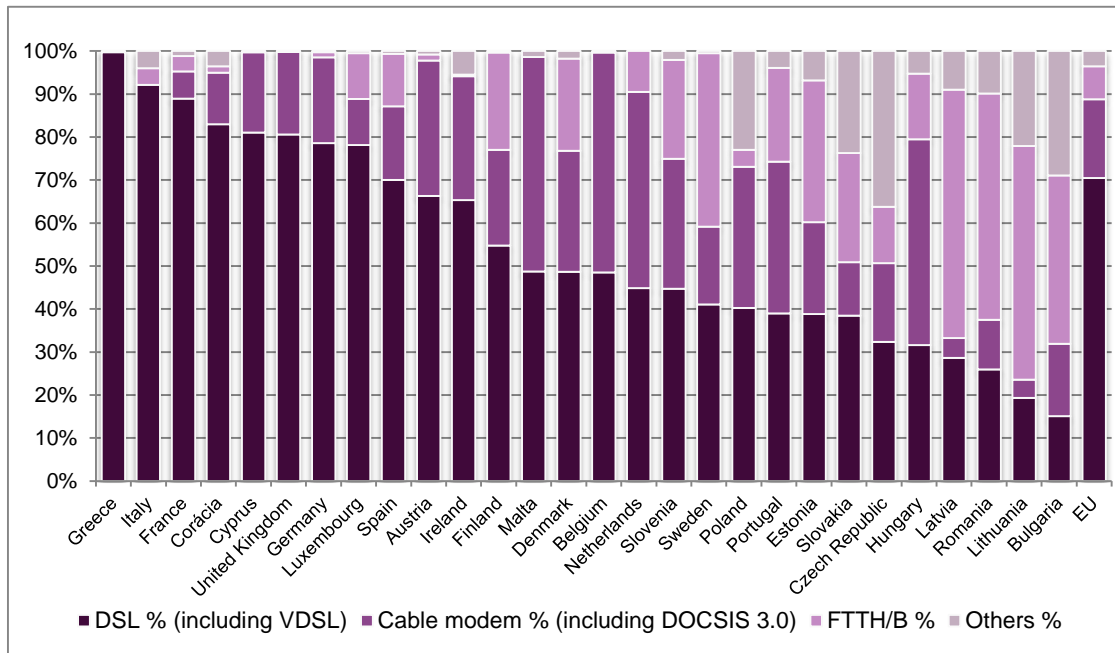
Unit: Thousands of accesses

Source: ANACOM

Note: The historical series reported for FBB has been altered following updates to data made by one provider, which now includes fixed broadband using mobile technology with reduced mobility.

In EU28, on average terms at the end of 2014, 70 percent of fixed broadband accesses were supported over DSL - a much higher level than in Portugal (39 percent). Cable modem was the second most used technology in EU28, while broadband accesses based on FTTH/B in EU28 made up 8 percent versus 22 percent in Portugal.

Graph 7 - FBB access in EU28 by technology, January 2015



Unit: %

Source: EC, Digital Agenda Scoreboard, January 2015.

Following its acquisition of PT Portugal¹⁵, Grupo Altice reported a 51 percent share of accesses in 2Q15. Grupo NOS reports a 35.5 percent share of accesses (+0.8 percentage points versus 2Q14) and Vodafone a 13.2 percent share (+3.8 percentage points versus 2Q14).

¹⁵ On 2 June 2015, Altice completed acquisition of 100 percent of the share capital of PT Portugal, SGPS, owners of MEO - Serviços de Comunicações e Multimédia S.A.

Table 5 - Trend in shares of broadband accesses (fixed access)

	2014			2015	
	2Q14	3Q14	4Q14	1Q15	2Q15
Grupo Altice^{16,17}	6.0%	5.7%	5.5%	5.2%	51.0%
MEO	-	-	-	-	46.0%
Cabovisão	5.7%	5.5%	5.2%	5.0%	4.7%
ONITELECOM	0.3%	0.3%	0.3%	0.3%	0.2%
Grupo PT	49.6%	48.9%	48.1%	47.2%	-
PT Comunicações / MEO	49.6%	48.9%	48.1%	47.2%	-
TMN / MEO ¹⁸	0.0%	0.0%	0.0%	-	-
Grupo NOS¹⁹	34.7%	34.6%	34.7%	35.0%	35.5%
NOS Comunicações	32.3%	32.2%	32.4%	32.7%	33.3%
NOS Madeira	1.6%	1.6%	1.5%	1.5%	1.5%
NOS Açores	0.8%	0.8%	0.8%	0.8%	0.8%
Vodafone	9.4%	10.4%	11.3%	12.3%	13.2%
Other Alternative Providers	0.3%	0.3%	0.3%	0.3%	0.3%

Unit: %

Source: ANACOM

Note 1: Certain operators are active in specific market segments. The relative position of the operators in this table should not be taken as an indicator of the quality of the services provided or of the performance of these operators in the segments where they operate.

Note 2: The historical series reported for FBB has been altered following updates to data made by one provider, which now includes fixed broadband using mobile technology with reduced mobility.

Mobile Broadband Internet access service

There were 4.8 million users reported as actually accessing the Internet using mobile broadband, with 556 thousand users accessing the Internet with cards/modem²⁰.

The number of users actually accessing the Internet using mobile broadband in the period being reporting increased by 3.8 percent over the previous quarter. Meanwhile, compared to 2Q14, the number of users increased by 22 percent.

¹⁶ In August 2013, Altice Holdings S.a.r.l. ("Altice"), shareholder of Cabovisão, acquired exclusive control of Winreason, S.A. ("Winreason"), controller of Onitecom, by acquiring all shares representing the social capital and subsidiaries.

¹⁷ On 2 June 2015, Altice completed acquisition of 100 percent of the share capital of PT Portugal, SGPS, owners of MEO - Serviços de Comunicações e Multimédia S.A.

¹⁸ On 29 December 2014, MEO - Serviços de Comunicações e Multimédia, S.A. was acquired by PT Comunicações, S.A. - PT Comunicações, S.A. then changed its name to MEO - Serviços de Comunicações e Multimédia, S.A.

¹⁹ On 16 May 2014, Zon TV Cabo Portugal, S.A. was acquired by Optimus - Comunicações, S.A., and on the same date, Optimus - Comunicações, S.A. changed its name to NOS Comunicações, S.A. On 24 June 2014, ZON TV Cabo Madeirense changed its name to NOS Madeira - Comunicações, S.A. and ZON TV Cabo Açoreana changed its name to NOS Açores - Comunicações, S.A., making up Grupo NOS.

²⁰ Mobile operator customers who are able to access mobile broadband Internet by connecting through cards/modem (i.e. excluding the subscribers that use mobile terminals, mobile phones *smartphones*, PDA-*Personal digital assistants*, etc...), and who did so at least once in the previous quarter. Corresponds to indicator 2.5.1.1 of the Mobile services quarterly questionnaire.

Table 6 - Trend in mobile broadband and mobile Internet accesses with actual use

	2Q14	1Q15	2Q15	Variation %	
				2Q15/1Q15	2Q15/2Q14
No. of mobile stations eligible for use of broadband services	11 603	12 563	12 631	0.5%	8.9%
of which					
users of 3G services, upgrades and equivalent standards	4 367	4 960	5 216	5.2%	19.4%
of which					
Users with mobile broadband internet access (with actual use)	3 915	4 601	4 775	3.8%	22.0%
of which					
users with mobile broadband internet access via mobile phone	3 230	4 021	4 219	4.9%	30.6%
of which					
Users with mobile broadband internet access via cards/modem	685	579	556	-4.1%	-18.8%

Unit: Thousands of mobile stations, Thousands of users, %

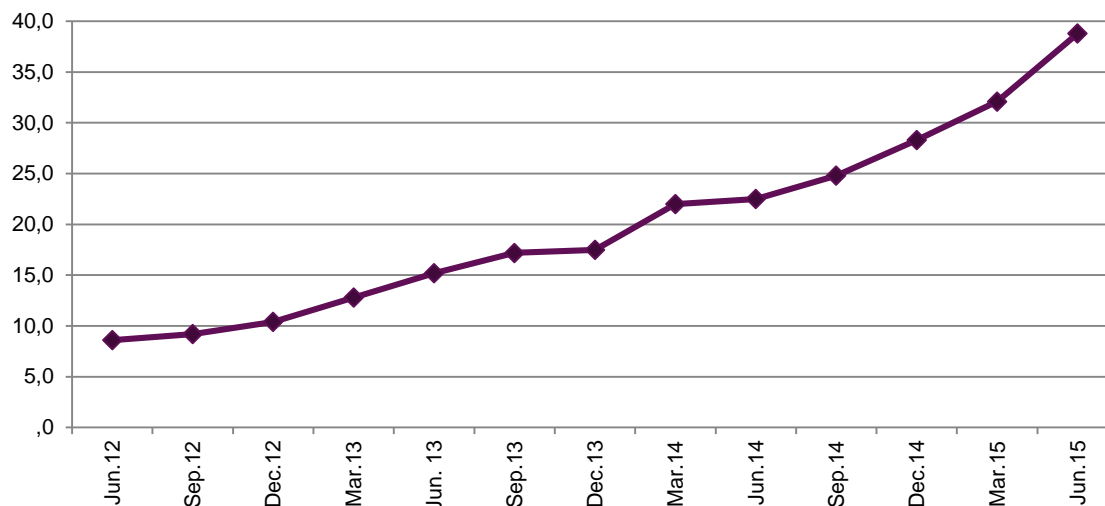
Source: ANACOM

Note: see indicator definitions at [Serviços Móveis - Deliberação de 08.07.2009, alterada pelas deliberações de 17.06.2010, de 19.08.2010 e de 30.08.2012.](#)

This trend has been driven by growth in mobile phone Internet access, with over 4.2 million users in 2Q15 (an increase of 30.6 percent versus 2Q14).

According to Marktest's Barómetro de Telecomunicações (Telecommunications Barometer), mobile phone Internet penetration grew by 6.7 percentage points over the last quarter. In 2Q15, around 38.8 percent of people surveyed had Internet access through their mobile phone, with the growth over this period driven most of all by people aged 45/54 and 55/64 years, from among the highest social class (A and B).

Graph 8 - Mobile phone Internet penetration (excluding Wi-fi) (Marktest)



Unit: %

Note: Mobile phone MBB customers exclude cases of individuals which access the Internet by mobile phone using Wi-Fi only. In this respect, the results differ from those of previous quarterly reports.

Base: Individuals aged 15+ years (Total)

Source: Barómetro Telecomunicações (Telecommunications Barometer) - Marktest

In terms of equipment used, the number of mobile Internet users with card/modem has been falling. Meanwhile, an increase has been reported in smartphone penetration. According to Marktest's Barómetro de Telecomunicações (Telecommunications Barometer), 62.2 percent of mobile phone users were using smartphones in June 2015, and smartphone penetration has grown by 16.3 percentage points since 2Q14²¹.

Meanwhile, in terms of provider shares of customers, MEO's share of mobile broadband customers is reported at 48.3 percent, followed by NOS and Vodafone, with 29 and 22.4 percent, respectively. Compared to the same period of 2014, Grupo NOS increased its customer share by 6.2 percentage points and MEO by 0.1 percentage points, while Vodafone has seen its share of customers shrink by 6.3 percentage points.

²¹ See MARKTEST - Barómetro de Telecomunicações, March 2015 [Base: People in possession of a mobile phone (excludes non-responses)].

Table 7 - Trend in provider shares of active mobile broadband customers

	2Q14	3Q14	4Q14	1Q15	2Q15
TMN / MEO ²²	48.2%	47.8%	47.9%	48.6%	48.3%
NOS Comunicações ^{23,24}	22.9%	23.7%	25.1%	27.0%	29.0%
Vodafone	28.7%	28.3%	26.8%	24.1%	22.4%
Lycamobile	0.2%	0.2%	0.2%	0.2%	0.2%

Unit: %

Source: ANACOM

Note: Certain operators are active in specific market segments. The relative position of the operators in this table should not be taken as an indicator of the quality of the services provided or of the performance of these operators in the segments where they operate.

In terms of active mobile broadband customers with card/modem access, MEO reports a share of 42.1 percent and NOS 35.2 percent, followed by Vodafone with 22.6 percent.

²² On 29 December 2014, MEO - Serviços de Comunicações e Multimédia, S.A was acquired by PT Comunicações, S.A. - PT Comunicações, S.A. then changed its name to MEO - Serviços de Comunicações e Multimédia, S.A.

²³ On 16 May 2014, Zon TV Cabo Portugal, S.A. was acquired by Optimus - Comunicações, S.A., and on the same date, Optimus - Comunicações, S.A changed its name to NOS Comunicações, S.A.

²⁴ On 27 August 2013, ZON Multimédia - Serviços de Telecomunicações e Multimédia, SGPS, S.A. acquired OPTIMUS - SGPS, S.A. (and changed its name to ZON OPTIMUS, SGPS, S.A.)

Table 8 - Trend in provider shares of active mobile broadband customers using cards/modem

	2Q14	3Q14	4Q14	1Q15	2Q15
TMN / MEO ²⁵	35.8%	38.6%	40.2%	41.9%	42.1%
NOS Comunicações ^{26,27}	35.8%	36.6%	36.5%	35.1%	35.2%
Vodafone	28.4%	24.8%	23.3%	23.0%	22.6%
Lycamobile	0.0%	0.0%	0.0%	0.0%	0.0%

Unit: %

Source: ANACOM

Note: Certain operators are active in specific market segments. The relative position of the operators in this table should not be taken as an indicator of the quality of the services provided or of the performance of these operators in the segments where they operate. Note that the indicators used for calculations are derived from the questionnaire on mobile services in force (available at [Serviços Móveis - Deliberação de 08.07.2009, alterada pelas deliberações de 17.06.2010, de 19.08.2010 e de 30.08.2012](#)). It should also be noted that the trend of this indicator has been strongly affected by the e-iniciativas programme; as such the shares of each provider may partly reflect the different commitments undertaken in the context of tenders to allocate UMTS licences for the purpose of promoting the information society by each provider.

4. Broadband Internet access traffic

Broadband Internet access traffic²⁸ increased by around 2.9 percent in 2Q15. This is mainly explained by the trend in fixed broadband traffic (+2.8 percent), which makes up about 96.1 percent of total traffic. Mobile broadband traffic (4.1 percent of the total) increased by 6.1 percent over the quarter. Compared to 2Q14, strong growth is reported in both types of traffic: +23.5 percent growth in fixed broadband traffic and +30.2 percent growth in mobile broadband traffic.

²⁵ On 29 December 2014, MEO - Serviços de Comunicações e Multimédia, S.A was acquired by PT Comunicações, S.A. - PT Comunicações, S.A. then changed its name to MEO - Serviços de Comunicações e Multimédia, S.A.

²⁶ On 16 May 2014, Zon TV Cabo Portugal, S.A. was acquired by Optimus - Comunicações, S.A., and on the same date, Optimus - Comunicações, S.A changed its name to NOS Comunicações, S.A.

²⁷ On 27 August 2013, ZON Multimédia - Serviços de Telecomunicações e Multimédia, SGPS, S.A. acquired OPTIMUS - SGPS, S.A. (and changed its name to ZON OPTIMUS, SGPS, S.A.)

²⁸ Mobile Internet access traffic refers to the traffic associated with APN sessions. Fixed broadband traffic excludes IPTV traffic.

Table 9 - Broadband Internet access traffic (in GB)

	2Q14	1Q15	2Q15	Variation %	
				2Q15/1Q15	2Q15/2Q14
Total traffic, of which:	358 673 530	431 290 573	443 849 758	2.9%	23.7%
Fixed broadband traffic	345 520 256	415 144 184	426 726 123	2.8%	23.5%
% of the total	96.3%	96.3%	96.1%		
Mobile broadband traffic	13 153 274	16 146 389	17 123 635	6.1%	30.2%
% of the total	3.7%	3.7%	4.1%		
<i>of which is traffic generated by card/modem access</i>	9 231 855	11 348 591	11 817 995	4.1%	28.0%
<i>of which is traffic generated by mobile phone access</i>	3 921 420	4 797 798	5 305 640	10.6%	35.3%

Unit: GB, %

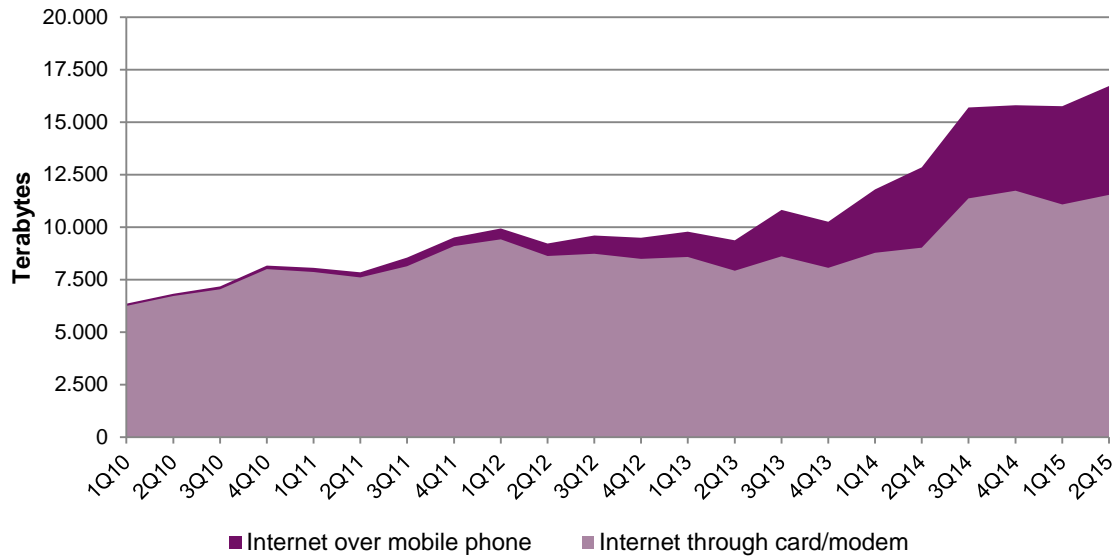
Source: ANACOM

Note: Includes roaming out mobile traffic.

Around 69 percent of total mobile broadband Internet access traffic is generated by mobile accesses using cards/modem. This type of traffic increased by around 4.1 percent over the quarter.

Mobile phone Internet access traffic increased by 10.6 percent over the previous quarter, representing around 31 percent of total mobile Internet traffic in 2Q15.

Graph 9 - Mobile broadband Internet access traffic



Unit: TB

Source: ANACOM

Grupo Altice reported the highest shares of fixed broadband traffic (47.7 percent), followed by Grupo NOS (43.1 percent) and Vodafone (8.1 percent).

Table 10 - Trend in shares of broadband traffic (fixed access)

	2014			2015	
	2Q14	3Q14	4Q14	1Q15	2Q15
Grupo Altice^{29,30}	4.6%	4.7%	5.2%	5.1%	47.7%
MEO	-	-	-	-	42.4%
Cabovisão	4.1%	4.2%	4.6%	4.4%	4.2%
ONITELECOM	0.5%	0.5%	0.6%	0.7%	1.2%
Grupo PT	41.9%	43.5%	43.0%	42.7%	-
PT Comunicações / MEO	41.9%	43.4%	42.9%	42.7%	-
TMN / MEO ³¹	0.0%	0.0%	0.0%	-	-
Grupo NOS³²	43.0%	41.4%	41.9%	43.2%	43.1%
NOS Comunicações	40.2%	39.1%	39.1%	40.6%	40.2%
NOS Madeira	1.8%	1.3%	1.8%	1.7%	1.9%
NOS Açores	0.9%	1.0%	1.0%	0.8%	1.0%
Vodafone	9.4%	9.3%	8.8%	8.1%	8.1%
Other Alternative Providers	1.2%	1.1%	1.0%	0.9%	1.1%

Unit: %

Source: ANACOM

Note: Certain operators are active in specific market segments. The relative position of the operators in this table should not be taken as an indicator of the quality of the services provided or of the performance of these operators in the segments where they operate.

NOS has the highest share of mobile Internet traffic (37.6 percent), with Vodafone and MEO reporting shares of 32.1 percent and 30.3 percent respectively.

²⁹ In August 2013, Altice Holdings S.a.r.l. ("Altice"), shareholder of Cabovisão, acquired exclusive control of Winreason, S.A. ("Winreason"), controller of Onitelecom, by acquiring all shares representing the social capital and subsidiaries.

³⁰ On 2 June 2015, Altice completed acquisition of 100 percent of the share capital of PT Portugal, SGPS, owners of MEO - Serviços de Comunicações e Multimédia S.A.

³¹ On 29 December 2014, MEO - Serviços de Comunicações e Multimédia, S.A. was acquired by PT Comunicações, S.A. - PT Comunicações, S.A. then changed its name to MEO - Serviços de Comunicações e Multimédia, S.A.

³² On 16 May 2014, Zon TV Cabo Portugal, S.A. was acquired by Optimus - Comunicações, S.A., and on the same date, Optimus - Comunicações, S.A. changed its name to NOS Comunicações, S.A. On 24 June 2014, ZON TV Cabo Madeirense changed its name to NOS Madeira - Comunicações, S.A. and ZON TV Cabo Açoreana changed its name to NOS Açores - Comunicações, S.A., making up Grupo NOS.

Table 11 - Trend in provider shares of mobile broadband Internet traffic

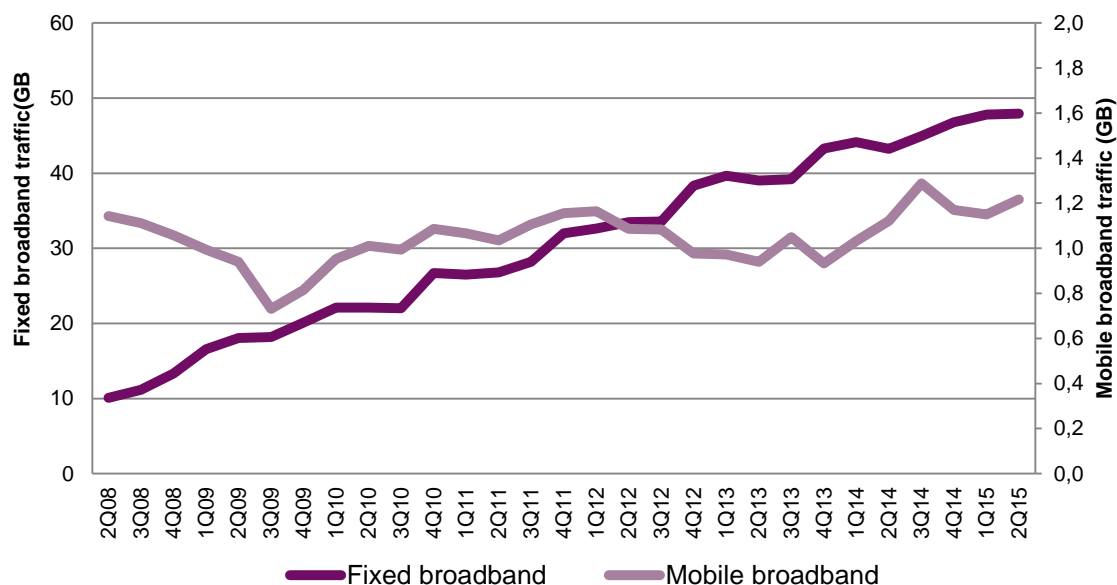
	2Q14	3Q14	4Q14	1Q15	2Q15
NOS Comunicações³³	42.6%	41.9%	43.8%	40.8%	37.6%
Vodafone	22.9%	25.3%	26.4%	29.3%	32.1%
TMN / MEO³⁴	34.4%	32.8%	29.8%	29.9%	30.3%
Lycamobile	0.0%	0.0%	0.0%	0.0%	0.1%

Unit: %

Source: ANACOM

In terms of average traffic per broadband access at a fixed location, in 2Q15, each access generated an average of 47.9 GB of traffic per month (increasing 0.3 percent over the previous quarter).

Graph 10 - Average monthly traffic per broadband Internet access (fixed and mobile), in GB



Unit: GB

Source: ANACOM

³³ On 16 May 2014, Zon TV Cabo Portugal, S.A. was acquired by Optimus - Comunicações, S.A., and on the same date, Optimus - Comunicações, S.A. changed its name to NOS Comunicações, S.A.

³⁴ On 29 December 2014, MEO - Serviços de Comunicações e Multimédia, S.A. was acquired by PT Comunicações, S.A. - PT Comunicações, S.A. then changed its name to MEO - Serviços de Comunicações e Multimédia, S.A.

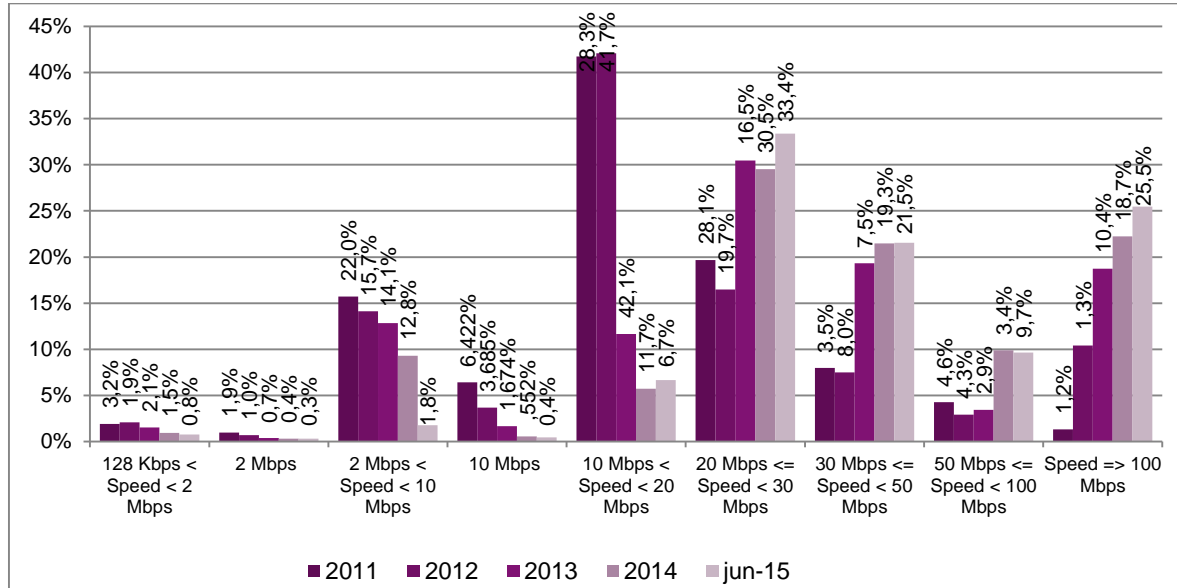
Average traffic generated per mobile broadband customer with actual use (1.2 GB per customer per month) is significantly lower than the average for fixed broadband traffic, while increasing by around 5.8 percent over the previous quarter. Average traffic generated by active mobile broadband Internet access customers using cards/modem was 6.9 GB per customer per month.

5. Fixed broadband Internet access speeds

In terms of theoretical maximum speeds of access to the Internet at a fixed location, at the end of 2Q15, 9 out of every 10 users were using accesses with speeds exceeding 20 Mbps. Over half of users (56.7 percent) had accesses above 30 Mbps and 25.5 percent had accesses above 100 Mbps.

Meanwhile around 1.8 percent had accesses with speeds between 2 Mbps and 10 Mbps.

Graph 11 - FBB accesses by download speed

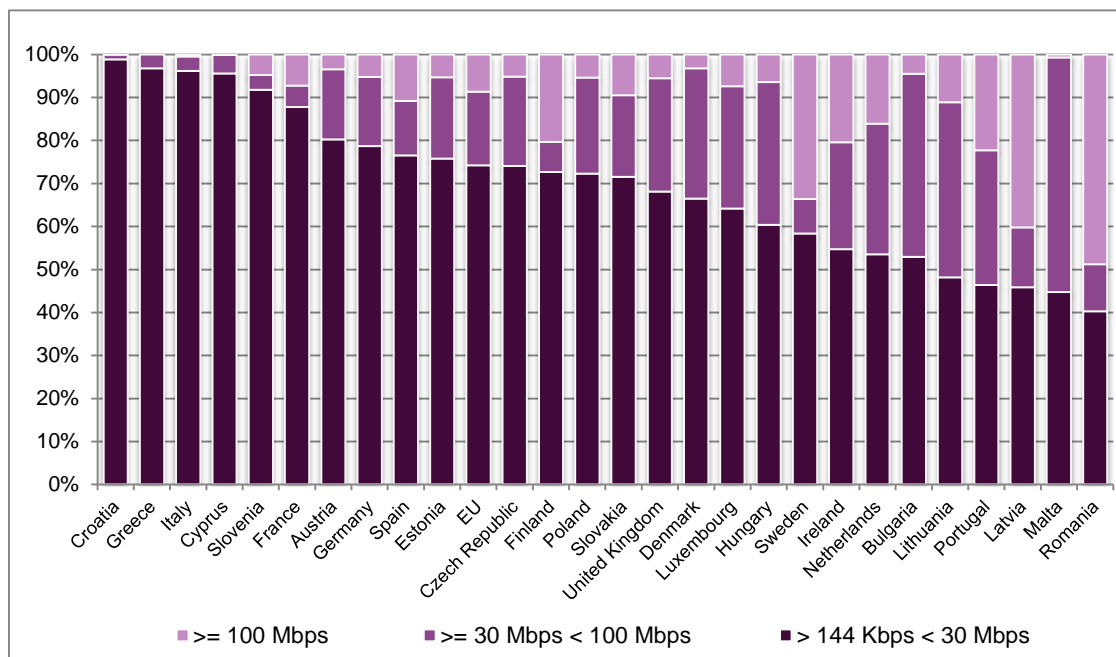


Unit: %

Source: ANACOM.

In the EU28, as at the end of 2014, FBB accesses with speeds exceeding 30 Mbps and 100 Mbps made up 26 percent and 9 percent of total accesses on average. Portugal is the country with the 4th highest percentage of 100 Mbps accesses (around 22 percent).

Graph 12 - FBB accesses by download speed in the EU28, January 2015



Unit: %

Source: EC, COCOM July 2014

6. Revenues from the service and monthly charge payable by residential customers

In the first six months of 2015, total revenues derived from the fixed Internet access service (as a stand-alone service and from bundles of services which include this service) totalled 736.5 million euros. Revenues from triple/quadruple/quintuple-play bundles made up 87.4 percent of total revenues.

In the following table, the variations reported in total and unit revenues, in particular for triple/quadruple/quintuple-play bundles, partly reflect the inclusion, as from the present

quarter, of revenues derived from the mobile component of bundles sold by MEO, following the merger occurring at the end of 2014³⁵.

Table 12 - Revenues from the fixed Internet access service (accumulated since the beginning of the year)

	January - June 2014		January - June 2015		YoY change
Fixed Internet only	72 942	12.9%	66 517	9.0%	-8.8%
Double-play bundles	30 219	5.3%	26 216	3.6%	-13.2%
Triple/quadruple/quintuple-play bundles	461 689	81.7%	643 776	87.4%	+39.4%
Total	564 850	100.0%	736 510	100.0%	+30.4%

Units: thousands of euros, %

Source: ANACOM

Note 1: During 2Q14, changes were made to the accounting criteria for bundles comprising mobile phone internet access. According to the new criteria, providers reporting bundles consider the "mobile phone internet" traffic plafond as an additional service. However, the numbers of bundles and revenues reported for prior periods have not been changed accordingly, so that 2Q14 revenues are not comparable with revenues reported in prior periods.

Note 2: Up until 4Q14, revenues derived from the mobile component of bundles sold by MEO were reported as revenues from Mobile Services. As from 1Q15, revenues derived from the mobile component of the monthly charges for "bundles of services" reported by MEO are reflected in the revenues indicator for bundles. As such the values reported for revenues from bundles are not comparable with previously reported values.

Nota 3: The historical series reported for receipts derived from the Internet access service (standalone) has been altered following updates to data made by one provider, which now includes fixed broadband using mobile technology with reduced mobility.

Revenues from the mobile Internet access service totalled 150.3 million euros in the first six months of 2015; 12.2 percent below the value reported for the same period of 2014.

³⁵ Up until 4Q14, revenues derived from the mobile component of bundles sold by MEO were reported as revenues from Mobile Services. As from 2Q15, revenues derived from the mobile component of the monthly charges for "bundles of services" reported by MEO are reflected in the revenues indicator for bundles. As such the values reported for revenues from bundles are not comparable with previously reported values.

Table 13 - Separable revenues from the mobile Internet access service (accumulated since the beginning of the year)

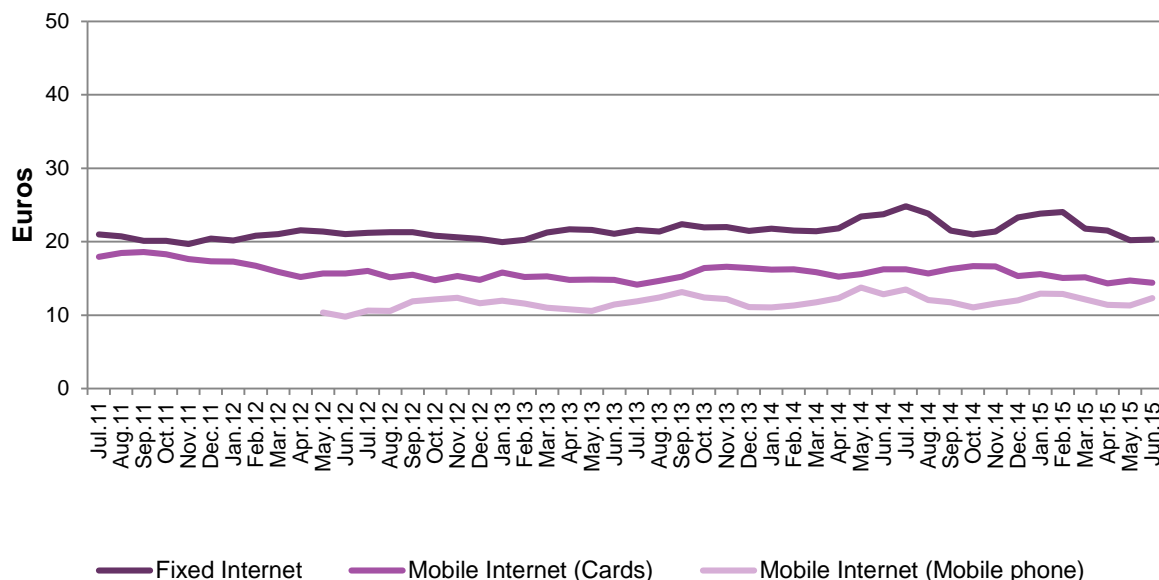
	January - June 2014	January - June 2015	YoY change
Revenues from mobile Internet access (Separable)	171 114	150 306	-12.2%
Of which			
Revenues from Internet access using roaming out	11 073	10 498	-5.2%

Units: thousands of euros, %

Source: ANACOM

In the case of residential customers, Marktest's Barómetro de Telecomunicações (Telecommunications Barometer) reports the average monthly charge payable for the standalone internet access service in 2Q15 as 20.3 euros in the case of fixed Internet (-6.8 percent compared to 1Q15) and 14.4 euros in the case of mobile Internet using cards/modem (-5 percent compared to 1Q15). The average monthly charge payable for mobile phone Internet access was 12.3 euros (+1.2 percent compared to 1Q15).

Graph 13 - Monthly bill of fixed or mobile Internet access service (stand-alone)



Unit: Euros

Source: MARKTEST - Barómetro de Telecomunicações (Telecommunications Barometer)

Fixed Internet Base: Homes with fixed Internet not included in bundle.

Mobile Internet Base: Individuals aged 15 or over who access the Internet using MBB (cards or mobile phone) where service not contracted as part of bundle.

Marktest's Barómetro de Telecomunicações (Telecommunications Barometer) also shows trends in average monthly household expenditure on multiple-play offers.

In 2Q15, average monthly expenditure by households on bundled offers comprising Internet access was 75.1 euros in the case of quintuple-play FTS+FBB+STVS+MTS+MBB (-1.3 percent versus 1Q15), 50.6 euros in the case of quadruple-play FTS+FBB+STVS+MBB (+7.5 percent versus 1Q15), 66.9 euros in the case of quadruple-play FTS+FBB+STVS+MTS (-0.5 percent versus 1Q15), 42.8 euros in the case of triple-play FTS+FBB+STVS (-6.5 percent versus 1Q15) and 25.2 euros in the case of double-play FTS+FBB (-16.2 percent versus 1Q15). The average monthly charge for the FBB+STVS bundle was 38.7 euros (-0.8 percent versus 1Q15).